

**Comment 1 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Ray  
Last Name: Galan  
Email Address: raygalan@ferrellgas.com  
Affiliation: WPGA

Subject: Zero-Emission Forklift - Proposed Regulation  
Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/7-zeforklifts-VzpRPAAsVjEBNQEx.pdf'

Original File Name: MK-42036-Zero-EmissionForklifts-ProposedRegulation (003).pdf

Date and Time Comment Was Submitted: 2023-12-18 11:11:13

No Duplicates.

**Comment 2 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Ted  
Last Name: Olsen  
Email Address: tedolsen@ferrellgas.com  
Affiliation:

Subject: ZEForklifts  
Comment:

See attached letter.

Attachment: 'www.arb.ca.gov/lists/com-attach/8-zeforklifts-AG0Ga1xwAmUGMgMz.pdf'

Original File Name: MK-42036-Zero-EmissionForklifts-ProposedRegulation.pdf

Date and Time Comment Was Submitted: 2023-12-18 11:26:29

No Duplicates.

**Comment 3 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: TODD  
Last Name: PEACHEY  
Email Address: toddpeachey@ferrellgas.com  
Affiliation: FERRELLGAS.INC.

Subject: ZERO -EMISSION FORKLIFT REGULATION  
Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/9-zeforklifts-VTkGZVYjWH8CYQI7.pdf'

Original File Name: LETTER.pdf

Date and Time Comment Was Submitted: 2023-12-18 11:34:46

No Duplicates.

**Comment 4 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jeff  
Last Name: STICLARU  
Email Address: jeffreysticlaru@ferrellgas.com  
Affiliation: Ferrellgas Propane

Subject: CARB  
Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/10-zeforklifts-UD1TPld7BWIANFdn.pdf'

Original File Name: MK-42036-Zero-EmissionForklifts-ProposedRegulation.pdf

Date and Time Comment Was Submitted: 2023-12-18 11:39:25

No Duplicates.

**Comment 5 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Drew

Last Name: Hensler

Email Address: drewhensler@ferrellgas.com

Affiliation:

Subject: Forklift Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/11-zeforklifts-BWhcMVR4BGMANAaw.docx'

Original File Name: MK-42036-Zero-EmissionForklifts-ProposedRegulation.docx

Date and Time Comment Was Submitted: 2023-12-18 11:46:29

No Duplicates.

**Comment 6 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Reginald  
Last Name: Caldwell  
Email Address: reginaldcaldwell@ferrellgas.com  
Affiliation:

Subject: Propane  
Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/12-zeforklifts-WzYHalZ6UTYANAg4.pdf'

Original File Name: MK-42036-Zero-EmissionForklifts-ProposedRegulation.pdf

Date and Time Comment Was Submitted: 2023-12-18 12:02:02

No Duplicates.

**Comment 7 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Robert  
Last Name: Lagge  
Email Address: robertlagge@ferrellgas.com  
Affiliation: Ferrellgas

Subject: Save ICE forklifts  
Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/13-zeforklifts-Am9RPFJ+UTZXYwAw.docx'

Original File Name: MK-42036-Zero-EmissionForklifts-ProposedRegulation.docx

Date and Time Comment Was Submitted: 2023-12-18 11:56:26

No Duplicates.

**Comment 8 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Julie

Last Name: Johnson

Email Address: juliejohnson@tedjohnsonpropane.com

Affiliation:

Subject: Public Comments RE: ZE Forklift Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/14-zeforklifts-UDwCYVUgUXYFZgl7.pdf'

Original File Name: Letter To CARB ZE Forklift Rulemaking.pdf

Date and Time Comment Was Submitted: 2023-12-18 12:22:20

No Duplicates.



**Comment 9 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Lora  
Last Name: Brazil  
Email Address: lorabrazil@ferrellgas.com  
Affiliation:

Subject: Zero Emission Forklift Regulation  
Comment:

Please see attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/15-zeforklifts-WjdUOVd7A2QBNQg4.pdf'

Original File Name: MK-42036-Zero-EmissionForklifts-ProposedRegulation.pdf

Date and Time Comment Was Submitted: 2023-12-18 12:42:19

No Duplicates.

**Comment 10 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Bryan  
Last Name: Heath  
Email Address: bryanheath@ferrellgas.com  
Affiliation:

Subject: Zero Emission Forklift  
Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/16-zeforklifts-Uz5UOVV5VzBXY1Vl.pdf'

Original File Name: MK-42036-Zero-EmissionForklifts-ProposedRegulation.pdf

Date and Time Comment Was Submitted: 2023-12-18 12:48:04

No Duplicates.

**Comment 11 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Craig  
Last Name: Rodgers  
Email Address: craigrodgers@ferrellgas.com  
Affiliation:

Subject: zero emission forklift  
Comment:

Attachment: "

Original File Name: MK-42036-Zero-EmissionForklifts-ProposedRegulation (003).docx

Date and Time Comment Was Submitted: 2023-12-18 12:58:36

No Duplicates.

**Comment 12 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Bob

Last Name: Shepherd

Email Address: bshepherd@quinncompany.com

Affiliation: The California Caterpillar Dealers

Subject: Proposed Zero-Emission Forklift (ZEF) Regulation – Many Unresolved Issues

Comment:

See attached letter explaining many unresolved issues and regulatory conflicts.

Attachment: 'www.arb.ca.gov/lists/com-attach/18-zeforklifts-Uy1QMwZ1V2sKIQFk.pdf'

Original File Name: Zero-Emission Forklift March 2023 Draft Comments Dec 18.pdf

Date and Time Comment Was Submitted: 2023-12-18 13:30:38

No Duplicates.

**Comment 13 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Tom

Last Name: Boerum

Email Address: tomboerum@mutualpropane.com

Affiliation: MUTUAL LIQUID GAS INC

Subject: Zero-Emission Forklifts – Proposed Regulation

Comment:

Please see attachment.

Attachment: '[www.arb.ca.gov/lists/com-attach/19-zeforklifts-AmFQN10uBzYHXgJu.pdf](http://www.arb.ca.gov/lists/com-attach/19-zeforklifts-AmFQN10uBzYHXgJu.pdf)'

Original File Name: carb Letter ZE Forklift FINAL.pdf

Date and Time Comment Was Submitted: 2023-12-18 14:07:22

No Duplicates.

**Comment 14 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Geoff  
Last Name: Moore  
Email Address: Geoff@mutualpropane.com  
Affiliation: MUTUAL LIQUID GAS INC

Subject: Zero-Emission Forklifts – Proposed Regulation  
Comment:

Please see attachment.

Attachment: '[www.arb.ca.gov/lists/com-attach/20-zeforklifts-UzBRNIYIUWBWDwNv.pdf](http://www.arb.ca.gov/lists/com-attach/20-zeforklifts-UzBRNIYIUWBWDwNv.pdf)'

Original File Name: carb Letter ZE Forklift FINAL geoff.pdf

Date and Time Comment Was Submitted: 2023-12-18 14:13:08

No Duplicates.

**Comment 15 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jennifer

Last Name: Bush

Email Address: jenibush@ferrellgas.com

Affiliation:

Subject: ZE Forklifts

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/21-zeforklifts-BWhSP1F9A2QBNQU1.docx'

Original File Name: MK-42036-Zero-EmissionForklifts-ProposedRegulation.docx

Date and Time Comment Was Submitted: 2023-12-18 14:38:07

No Duplicates.

**Comment 16 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Michael  
Last Name: Huber  
Email Address: michael.j.huber20.civ@us.navy.mil  
Affiliation: U.S. Department of Defense

Subject: DoD Zero Emission Forklift Comments 18Dec2023  
Comment:

ARB,

Attached are the DoD comments on the Zero Emission Forklift regulations.

V/R,

Michael Huber, P.E.  
DoD Regional Environmental Coordination (DoD REC 9) Program Manager

750 Pacific Highway, Box 81  
San Diego, CA 92132

Attachment: 'www.arb.ca.gov/lists/com-attach/22-zeforklifts-VDBWPwZjAg4He1I3.pdf'

Original File Name: DoD Zero Emission Forklift comments 18Dec2023.pdf

Date and Time Comment Was Submitted: 2023-12-18 17:35:06

No Duplicates.



**Comment 17 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jordan  
Last Name: Horn  
Email Address: jordanhorn@ferrellgas.com  
Affiliation: Ferrellgas LP

Subject: Zero Emission Forklift Policy  
Comment:

attached

Attachment: 'www.arb.ca.gov/lists/com-attach/23-zeforklifts-AWxdMFF9UDcHMwk5.docx'

Original File Name: MK-42036-Zero-EmissionForklifts-ProposedRegulation.docx

Date and Time Comment Was Submitted: 2023-12-19 07:32:51

No Duplicates.

**Comment 18 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Christopher  
Last Name: Kentzell  
Email Address: chriskentzell@ferrellgas.com  
Affiliation:

Subject: forklift regulation  
Comment:

against zero emission for forklifts

Attachment: 'www.arb.ca.gov/lists/com-attach/24-zeforklifts-VDIUOVV5WT4BNVBg.pdf'

Original File Name: MK-42036-Zero-EmissionForklifts-ProposedRegulation.pdf

Date and Time Comment Was Submitted: 2023-12-19 09:36:07

No Duplicates.

## **Comment 19 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jose  
Last Name: Rodriguez  
Email Address: jose@mutualpropane.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jose Rodriguez  
17117 S Broadway  
Gardena, CA 90248

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-19 15:21:27

No Duplicates.

## **Comment 20 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Steve  
Last Name: Maldonado  
Email Address: firestrm54@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Steve Maldonado  
31691 Leather Wood Dr  
Winchester, CA 92596

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-19 15:24:28

No Duplicates.

## **Comment 21 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Salvador

Last Name: Pena

Email Address: salvadorpena@ferrellgas.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Salvador Peña  
8088 Miramar Rd  
San Diego, CA 92126

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-19 16:03:53

No Duplicates.



## **Comment 22 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Chris

Last Name: Hall

Email Address: chrishall24jack@gmail.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Chris Hall  
12283 Elizabeth Way  
Grass Valley, CA 95949

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-19 16:08:06

No Duplicates.

## **Comment 23 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Cassie  
Last Name: Cesena  
Email Address: cassiecesena@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Cassie Cesena  
16 S 36th Pl  
Long Beach, CA 90803

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-19 16:10:11

No Duplicates.

## **Comment 24 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Skyler

Last Name: Castro

Email Address: s.lagreasesolutions@gmail.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Skyler Castro  
6711 McKinley Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-19 16:12:32

No Duplicates.

## **Comment 25 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Bryce  
Last Name: Wheatley  
Email Address: bryce@powertriprentals.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Bryce Wheatley  
2501 Orange Ave  
Signal Hill, CA 90755

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-19 16:14:27

No Duplicates.



## **Comment 26 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Eddie

Last Name: Chen

Email Address: eddie.chen@potentialindustries.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Eddie Chen  
720 East E Street  
Los Angeles, CA 90744

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-19 16:16:05

No Duplicates.

## **Comment 27 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Zuzel  
Last Name: Vasquez  
Email Address: zuzel@kingfiotrucking.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Zuzel Vasquez  
5059 Boxford Ave  
Commerce, CA 90040

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-19 16:19:09

No Duplicates.

## **Comment 28 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Sandro  
Last Name: Solorzano  
Email Address: sandro@mutualpropane.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Sandro Solorzano  
17117 S Broadway  
Gardena, CA 90248

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-19 16:20:56

No Duplicates.

## **Comment 29 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Scott  
Last Name: Carr  
Email Address: scott@mutualpropane.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Scott Carr  
2243 McNeil Cir  
Corona, CA 92882

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-19 16:22:35

No Duplicates.



## **Comment 30 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Ramon

Last Name: Diaz

Email Address: ramon@mutualpropane.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Ramon Diaz  
17117 S Broadway  
Gardena, CA 90248

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-19 16:23:58

No Duplicates.

## **Comment 31 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Laura  
Last Name: Sample  
Email Address: laurasample2@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Laura Sample  
557 E Cypress Ave  
Glendora, CA 91741

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-19 16:25:36

No Duplicates.

**Comment 32 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: David  
Last Name: Pedersen  
Email Address: djtpedersen@gmail.com  
Affiliation: Bay Area Clean Air Coalition (Unofficial

Subject: Comment on "Notice of Public Hearing to Consider Proposed Zero-Emission Forklift..."

**Comment:**

Thank you for the opportunity to submit a comment on this proposed regulation.

I am a Canadian clean-air activist and I work part-time at a facility where forklifts are used frequently and I am well aware of the air and noise pollution they create. I believe that this regulation, if implemented as proposed, will solve those two problems and help improve economic productivity as a co-benefit.

I urge the Board to adopt the regulation as proposed and do as much as possible to accelerate the transition to electric forklifts in all sectors in California.

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 01:44:04

No Duplicates.

## **Comment 33 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jose  
Last Name: Cardiel  
Email Address: j.cardiel@bestbaytrucking.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jose Cardiel  
620 E Anaheim St  
Los Angeles, CA 90744

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:07:12

No Duplicates.

## **Comment 34 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Michael  
Last Name: Biazevich  
Email Address: mbiazevich@pcmcus.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Michael Biazevich  
250 W Wardlow Rd  
Long Beach, CA 90807

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:08:19

No Duplicates.

## **Comment 35 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Kaz  
Last Name: Tsujimoto  
Email Address: kaz.tsujimoto@mercedes-benz.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Kaz Tsujimoto  
4031 Via Oro Ave  
Long Beach, CA 90810

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:10:10

No Duplicates.

## **Comment 36 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Carolina

Last Name: Chavez

Email Address: marketing@falconfuelsinc.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Carolina Chavez  
7300 Alondra Blvd  
Paramount, CA 90723

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:11:45

No Duplicates.

## **Comment 37 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Juan  
Last Name: Del Real  
Email Address: juan@refrigeranthandling.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Juan Del Real  
5016 Calmview Ave  
Baldwin Park, CA 91706

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:12:37

No Duplicates.

## **Comment 38 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Javier

Last Name: Alfaro

Email Address: jalfaro@decostonedesign.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Javier Alfaro  
227 E Bristol Ln  
Orange, CA 92865

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:13:32

No Duplicates.

## **Comment 39 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Brian  
Last Name: Harms  
Email Address: b.harms@lane-aire.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Brian Harms  
1121 California Ave  
Corona, CA 92881

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:14:56

No Duplicates.

## **Comment 40 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Authur  
Last Name: Distin  
Email Address: office@semblylinesales.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Arthur Distin  
12075 Clark St  
Santa Fe Springs, CA 90670

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:15:53

No Duplicates.

## **Comment 41 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Robert  
Last Name: Stevens  
Email Address: robert@gvsca.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Robert Stevens  
1545 W Roosevelt St  
Azusa, CA 91702

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:17:04

No Duplicates.

## **Comment 42 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Lisa  
Last Name: Harris  
Email Address: lisa@lsmh.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Lisa Harris  
12733 San Fernando Rd  
Los Angeles, CA 91342

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:18:25

No Duplicates.

## **Comment 43 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Gregg  
Last Name: Krekeler  
Email Address: gregg.krekeler@tubularsteel.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Gregg Krekeler  
2750 N Locust Ave  
Rialto, CA 92377

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:19:33

No Duplicates.

## **Comment 44 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Richard  
Last Name: Rice  
Email Address: rick@rrsigns.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Richard Rice  
400 W Foothill Blvd Ste 130  
Glendora, CA 91741

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:20:36

No Duplicates.

## **Comment 45 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Dan  
Last Name: Guerrero  
Email Address: dan@willick.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Dan Guerrero  
12516 Lakeland Rd  
Santa Fe Springs, CA 90670

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:22:25

No Duplicates.

## **Comment 46 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Donald

Last Name: Harms

Email Address: dharms@lane-aire.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Donald Harms  
1121 California Ave  
Buena Park, CA 90623

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:23:34

No Duplicates.

## **Comment 47 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: James  
Last Name: Probst  
Email Address: jprobst@profabtech.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
James Probst  
970 W Foothill Blvd  
Azusa, CA 91702

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:24:35

No Duplicates.

## **Comment 48 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Mark

Last Name: Miedema

Email Address: mmiedema@encorrsheets.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Mark Miedema  
5171 E Francis St  
Ontario, CA 91761

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:25:38

No Duplicates.

## **Comment 49 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Heidi  
Last Name: Strand  
Email Address: strandssf@aol.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Heidi Strand  
315 S Richman Ave  
Fullerton, CA 92832

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:26:40

No Duplicates.

## **Comment 50 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Edward

Last Name: Dart

Email Address: darthere@yahoo.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Edward Dart  
151 N Cielito Lindo  
Anaheim, CA 92807

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:27:43

No Duplicates.

## **Comment 51 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jim  
Last Name: Smaaladen  
Email Address: jim@bryantracing.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jim Smaaladen  
1600 E Winston Rd  
Anaheim, CA 92806

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:29:21

No Duplicates.

## **Comment 52 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Johnson

Last Name: Xu

Email Address: accounting@taskgloves.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Johnson Xu  
15265 Don Julian Rd  
City Of Industry, CA 91745

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:30:28

No Duplicates.

## **Comment 53 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Robert

Last Name: Mazawey

Email Address: bobmazawey@gmail.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Robert Mazawey  
754 Great Bend Dr  
Diamond Bar, CA 91765

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:31:38

No Duplicates.

## **Comment 54 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Phillip  
Last Name: Hernandez  
Email Address: phernandez@encorrsheets.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Phillip Hernandez  
5171 E Francis St  
Ontario, CA 91761

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:32:46

No Duplicates.

## **Comment 55 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Sissy  
Last Name: Funk  
Email Address: sissy@polishusa.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Sissy Funk  
1830 California Ave  
Monrovia, CA 91016

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:33:47

No Duplicates.

## **Comment 56 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Melissa

Last Name: Lomenzo

Email Address: socialmedia@heartofcompassionca.org

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Melissa Lomenzo  
600 S Maple Ave  
Montebello, CA 90640

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:35:02

No Duplicates.

## **Comment 57 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Louis  
Last Name: Smith  
Email Address: lxsmith@encorrsheets.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Louis Smith  
5171 E Francis St  
Ontario, CA 91761

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:36:04

No Duplicates.

## **Comment 58 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: David  
Last Name: Hwang  
Email Address: ductilic@yahoo.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
David Hwang  
13826 Struikman Rd  
Cerritos, CA 90703

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:37:02

No Duplicates.

## **Comment 59 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Bill

Last Name: Borden

Email Address: hopeplastics@la.twcbc.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Bill Borden  
5353 Strohm Ave  
Los Angeles, CA 91601

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:38:07

No Duplicates.

## **Comment 60 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Stephen

Last Name: Coonen

Email Address: surfaceconstructorsinc@yahoo.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Stephen Coonen  
2287 Ahuacate Rd  
La Habra Heights, CA 90631

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:39:10

No Duplicates.

## **Comment 61 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Eddie

Last Name: Wilson

Email Address: eddiewilson1987@gmail.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Eddie Wilson  
9522 Placer St  
Rancho Cucamonga, CA 91730

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:40:04

No Duplicates.

## **Comment 62 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Lydia  
Last Name: Rutherford  
Email Address: lydia@brandxmetals.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Lydia Rutherford  
1641 Sinclair St  
Anaheim, CA 92806

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:41:08

No Duplicates.

## **Comment 63 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Rene  
Last Name: Tsang  
Email Address: ap@landmannwire.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Rene Tsang  
430 E Trimble Rd  
San Jose, CA 95131

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:42:14

No Duplicates.

## **Comment 64 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Lisa  
Last Name: Van Den Berg  
Email Address: lisa@dfindustries.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Lisa Van Den Berg  
5071 Lindsay Ct  
Chino, CA 91710

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:43:07

No Duplicates.

## **Comment 65 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Todd  
Last Name: Greco  
Email Address: toddg@plasticmaterials.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Todd Greco  
4202 E Brickell St  
Ontario, CA 91761

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:44:13

No Duplicates.

## **Comment 66 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Vinod  
Last Name: Nanda  
Email Address: vinodnanda43@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Vinod Nanda  
132 Stagecoach Rd  
Bell Canyon, CA 91307

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:45:07

No Duplicates.

## **Comment 67 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Manuel  
Last Name: Gamboa  
Email Address: manuedelta@yahoo.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Manuel Gamboa  
1436 Packard Dr Apt A  
Pomona, CA 91766

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:47:39

No Duplicates.

## **Comment 68 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: John  
Last Name: Simpson  
Email Address: john@aaapropaneservice.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
John Simpson  
2954 Seahorse Ave  
Ventura, CA 93001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:48:57

No Duplicates.

## **Comment 69 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Dan  
Last Name: Chilson  
Email Address: danc@classicdist.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Dan Chilson  
120 Puente Ave  
City Of Industry, CA 91746

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:49:58

No Duplicates.

## **Comment 70 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Ian  
Last Name: Price  
Email Address: ian@carrhill.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Ian Price  
8420 Elder Creek Rd  
Sacramento, CA 95828

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:50:54

No Duplicates.

## **Comment 71 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jack  
Last Name: Rudolf  
Email Address: yvonne@jacksbutane.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jack Rudolf  
PO Box 248  
Biola, CA 93606

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:52:53

No Duplicates.

## **Comment 72 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Clayton  
Last Name: Manha  
Email Address: clayton@jacksbutane.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Clayton Manha  
15602 W San Joaquin Ave  
Kerman, CA 93630

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:53:55

No Duplicates.

## **Comment 73 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Yvonne  
Last Name: Rudolf  
Email Address: yrudolf59@hotmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Yvonne Rudolf  
486 S 3rd St  
Kerman, CA 93630

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:54:51

No Duplicates.

## **Comment 74 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Austin

Last Name: Davidson

Email Address: austin.davidson@midstreamenergy.us

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Austin Davidson  
9224 Tupman Rd  
Tupman, CA 93276

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:55:50

No Duplicates.

## **Comment 75 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Nancy  
Last Name: Coop  
Email Address: nancyjcoop@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Nancy Coop  
34311 Street of the Violet Lantern  
Dana Point, CA 92629

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:56:49

No Duplicates.

## **Comment 76 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: William

Last Name: Platz

Email Address: meamdle2@gmail.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
William Platz  
6515 Kathryn Dr  
Cambria, CA 93428

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:57:43

No Duplicates.

## **Comment 77 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Alexandria

Last Name: Wahaus

Email Address: alexandriawahaus@tedjohnsonpropane.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Alexandria Wahaus  
5140 Elton St  
Baldwin Park, CA 91706

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:58:35

No Duplicates.

## **Comment 78 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Armando

Last Name: Alfonso

Email Address: armando@southwestprocessors.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Armando Alfonso  
4120 Bandini Blvd  
Vernon, CA 90058

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 17:59:40

No Duplicates.

## **Comment 79 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Cynthia  
Last Name: Belmont  
Email Address: cindyb@deltaliquidenergy.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Cynthia Belmont  
2225 Iron Stone Loop  
Templeton, CA 93465

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 18:03:44

No Duplicates.

## **Comment 80 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Tim  
Last Name: Gately  
Email Address: tim.gately@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

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Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Tim Gately  
1574 Waller St  
San Francisco, CA 94117

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-20 18:05:19

No Duplicates.

**Comment 81 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Will  
Last Name: Barrett  
Email Address: william.barrett@lung.or  
Affiliation:

Subject: Comment  
Comment:

Please see attached file.

Attachment: 'www.arb.ca.gov/lists/com-attach/87-zeforklifts-UCdWOVE8Aj1WOVQ1.pdf'

Original File Name: williambarrett.pdf

Date and Time Comment Was Submitted: 2023-12-21 09:43:18

No Duplicates.

**Comment 82 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Ashley  
Last Name: Hong  
Email Address: ahong@cmta.net  
Affiliation: CMTA

Subject: CMTA Comments on the ZEF Regulation  
Comment:

CMTA's comment letter on the proposed Zero-emission Forklift (ZEF) regulation is attached for your review and submission. Please do not hesitate to reach out if you have any questions. We appreciate your consideration and look forward to discussing this further.

Happy Holidays!  
Best,

Ashley Hong  
Legislative Analyst

p: 916.498.3328 f: 916.441.5449  
a: 1121 L Street, Suite 700, Sacramento, CA 95814  
e: ahong@cmta.net w: www.cmta.net

Attachment: 'www.arb.ca.gov/lists/com-attach/88-zeforklifts-AWJQO1AIVmQBWFd6.pdf'

Original File Name: CMTA - ZEF Comments 12.21.23 (FINAL).pdf

Date and Time Comment Was Submitted: 2023-12-21 16:29:44

No Duplicates.

**Comment 83 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Michael

Last Name: Lewis

Email Address: mike@lewisandco.net

Affiliation: Construction Ind. Air Quality Coalition

Subject: Forklift rule 45 day comments

Comment:

Please post these comments from the Construction Industry Air Quality Coalition on the latest version of the zero emission forklift rule.

Attachment: 'www.arb.ca.gov/lists/com-attach/89-zeforklifts-UDNUOwdnVXdSNwhX.docx'

Original File Name: CIAQC Zero Emission Forklift Proposed Regulation Comments .docx

Date and Time Comment Was Submitted: 2023-12-21 17:16:55

No Duplicates.



**Comment 84 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Kristel

Last Name: Rietesel

Email Address: krietesel@hotmail.com

Affiliation: Bay Area Clean Air Coalition

Subject: Support of proposal

Comment:

We support this proposal and ask that the Board pushes for a complete transition to electric forklifts as soon as possible.

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-21 22:06:03

No Duplicates.

**Comment 85 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Paul

Last Name: Rozenberg

Email Address: prozenberg@suburbanpropane.com

Affiliation: Suburban Propane

Subject: Comments on the Proposed Zero-Emission Forklift Regulation

Comment:

Attachment: '[www.arb.ca.gov/lists/com-attach/91-zeforklifts-VCcHdFc0U3UDd1Ay.pdf](http://www.arb.ca.gov/lists/com-attach/91-zeforklifts-VCcHdFc0U3UDd1Ay.pdf)'

Original File Name: Suburban Propane - Zero-Emission Forklift Regulation Comments.pdf

Date and Time Comment Was Submitted: 2023-12-22 08:03:22

No Duplicates.

**Comment 86 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Manny

Last Name: Leon

Email Address: mleon@rebuildca.org

Affiliation: California Alliance for Jobs

Subject: Zero-Emission Forklift Rule

Comment:

Please see attached letter for CAJ's comments on the Zero-Emission forklift rule.

Attachment: 'www.arb.ca.gov/lists/com-attach/92-zeforklifts-UDNSNVEiU2IFXFMp.pdf'

Original File Name: CARB\_ZEV\_Forklift\_Letter\_12\_23.pdf

Date and Time Comment Was Submitted: 2023-12-22 09:02:23

No Duplicates.

**Comment 87 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: cotb@arb.ca.gov

Last Name: cotb@arb.ca.gov

Email Address: Non-web submitted comment

Affiliation:

Subject: Comment

Comment:

See attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/93-zeforklifts-UihWNVAyVGhQO1c6.pdf'

Original File Name: zecomment.pdf

Date and Time Comment Was Submitted: 2023-12-22 09:22:21

No Duplicates.

**Comment 88 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Gary

Last Name: Cross

Email Address: gcross27103@earthlink.net

Affiliation: Industrial Truck Association

Subject: Proposed Zero-Emission Forklift Regulation

Comment:

Please see the attached comments of the Industrial Truck Association

Attachment: 'www.arb.ca.gov/lists/com-attach/94-zeforklifts-AmEGbwZqU21XNAJs.docx'

Original File Name: COMMENTS OF THE INDUSTRIAL TRUCK ASSOCIATIO1.docx

Date and Time Comment Was Submitted: 2023-12-22 09:36:36

No Duplicates.

**Comment 89 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Roger

Last Name: Miksad

Email Address: rmiksad@batteryCouncil.org

Affiliation: Battery Council International (BCI)

Subject: BCI Comments on CA Air Resources Board's Proposed Zero Emission Forklift Regulation

Comment:

Good Morning -

Please see the attached comment letter from BCI on the California Air Resources Board's Proposed Zero Emission Forklift Regulation.  
Thank you

Attachment: 'www.arb.ca.gov/lists/com-attach/95-zeforklifts-UDIAZQFpU18FYFI9.pdf'

Original File Name: BCI Comments on CARB Forklift Rule 2023.12.21.pdf

Date and Time Comment Was Submitted: 2023-12-22 10:56:31

No Duplicates.

**Comment 90 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Tommy

Last Name: Goodwin

Email Address: [tommy.goodwin@exhibitionsconferencesalliance.org](mailto:tommy.goodwin@exhibitionsconferencesalliance.org)

Affiliation: Exhibitions & Conferences Alliance

Subject: Exhibitions & Conferences Alliance comments

Comment:

Attachment: '[www.arb.ca.gov/lists/com-attach/96-zeforklifts-W2kCNAAzVzcKIVRl.pdf](http://www.arb.ca.gov/lists/com-attach/96-zeforklifts-W2kCNAAzVzcKIVRl.pdf)'

Original File Name: 2023-12-22 -- ECA CARB ZEFR comments.pdf

Date and Time Comment Was Submitted: 2023-12-22 12:33:30

No Duplicates.

## **Comment 91 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jacquelyne  
Last Name: Torreyson  
Email Address: jackie@bayareapropane.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jacquelyne Torreyson  
5800 Webb St  
Riverbank, CA 95367

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 12:41:10

No Duplicates.

## **Comment 92 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Shannon  
Last Name: McWhorter  
Email Address: shannon@sequoigas.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Shannon McWhorter  
2750 Hillside Dr  
Fortuna, CA 95540

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 12:42:23

No Duplicates.

## **Comment 93 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Brendan

Last Name: Gately

Email Address: brendan@bayareapropane.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Brendan Gately  
8255 San Leandro St  
Oakland, CA 94621

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 12:43:54

No Duplicates.

## **Comment 94 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Alejandro  
Last Name: Rodriguez  
Email Address: alexcougar@hotmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Alejandro Rodriguez  
27901 Bunting St  
Hayward, CA 94545

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 12:44:55

No Duplicates.

## **Comment 95 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Allen

Last Name: Earhart

Email Address: tgsgasman@thorntonsgas.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Allen Earhart  
4931 Bear River Dr  
Rio Oso, CA 95674

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 12:51:06

No Duplicates.

## **Comment 96 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Brilynn

Last Name: Johnson

Email Address: brilynn.johnson@amerigas.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Brilynn Johnson  
508 Butterfield Ct  
Lincoln, CA 95648

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 12:52:10

No Duplicates.

**Comment 97 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Christine  
Last Name: Wolfe  
Email Address: christinew@cceb.org  
Affiliation: CCEEB

Subject: CCEEB Comments on Draft Zero-Emission Forklift Regulation  
Comment:

Please find CCEEB's comments on the Draft Zero-Emission Forklift Regulation attached. Thank you.

Attachment: 'www.arb.ca.gov/lists/com-attach/103-zeforklifts-UGIANldkWDgELAQ1.pdf'

Original File Name: 2023.12.22 CCEEB Comments on 45-Day ZEF Rule.pdf

Date and Time Comment Was Submitted: 2023-12-22 12:59:55

No Duplicates.

## **Comment 98 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Gary  
Last Name: Analian  
Email Address: petroilchevron@aol.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Gary Analian  
1200 E Mission Blvd  
Pomona, CA 91766

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 12:53:48

No Duplicates.

## **Comment 99 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Mark  
Last Name: Wolfe  
Email Address: markw@classicdist.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Mark Wolfe  
120 Puente Ave  
City Of Industry, CA 91746

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:08:49

No Duplicates.



## **Comment 100 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Greg  
Last Name: Billington  
Email Address: gregb@deltaliquidenergy.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Greg Billington  
600 Marylhurst St  
Bakersfield, CA 93314

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:09:40

No Duplicates.

## **Comment 101 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Mark

Last Name: Price

Email Address: mprice@campora.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Mark Price  
40087 CA-49  
Oakhurst, CA 93644

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:11:33

No Duplicates.

## **Comment 102 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Todd  
Last Name: Spicer  
Email Address: tspicer@campora.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Todd Spicer  
2525 E Mariposa Rd  
Stockton, CA 95205

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:14:41

No Duplicates.

## **Comment 103 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: James  
Last Name: Angulo  
Email Address: jangulo@dassels.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
James Angulo  
31 Wright Rd  
Hollister, CA 95023

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:15:50

No Duplicates.



## **Comment 104 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Danny  
Last Name: Martinez  
Email Address: dmartinez@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Danny Martinez  
6546 Ave 304  
Visalia, CA 93291

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:17:07

No Duplicates.

## **Comment 105 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Merle  
Last Name: Edington  
Email Address: medington@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Merle Edington  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:18:07

No Duplicates.

## **Comment 106 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Marty  
Last Name: Huerta  
Email Address: martyh@expopropane.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Marty Huerta  
12685 Foothill Blvd  
Los Angeles, CA 91342

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:19:07

No Duplicates.

## **Comment 107 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Sean  
Last Name: O'Hara  
Email Address: seano@expopropane.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Sean O'Hara  
1040 Price St  
Pomona, CA 91767

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:25:12

No Duplicates.



## **Comment 108 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Chris

Last Name: Everett

Email Address: ceverett@fallbrookpropanegas.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Chris Everett  
1561 S Mission Rd  
Fallbrook, CA 92028

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:26:06

No Duplicates.

## **Comment 109 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Dennis

Last Name: Runnels

Email Address: dennis@sierrapropane.net

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Dennis Runnels  
250 S West Ave  
Merced, CA 95341

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:27:39

No Duplicates.

## **Comment 110 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Michael

Last Name: Hart

Email Address: mikeh@deltaliquidenergy.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Michael Hart  
1960 Ramada Dr  
Paso Robles, CA 93446

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:28:33

No Duplicates.

## **Comment 111 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Porterville Citrus

Last Name: Inc.

Email Address: ngalusha@portervillecitrus.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Porterville Citrus Inc.  
9289 Clemens Rd  
Terra Bella, CA 93270

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:29:39

No Duplicates.



## **Comment 112 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jay  
Last Name: Stephens  
Email Address: jay@teecoproducts.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jay Stephens  
7471 Reese Rd  
Sacramento, CA 95828

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:31:55

No Duplicates.

## **Comment 113 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Dennis  
Last Name: Johnston  
Email Address: dennis.bluejay@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Dennis Johnston  
4300 Flintridge Dr  
Bakersfield, CA 93306

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:32:52

No Duplicates.

## **Comment 114 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Bailey  
Last Name: McQueary  
Email Address: bailey.mcqueary@amerigas.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Bailey McQueary  
798 Havenwood Dr  
Lincoln, CA 95648

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:33:50

No Duplicates.

## **Comment 115 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Ashley  
Last Name: Carucci  
Email Address: ashley.carucci@amerigas.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Ashley Carucci  
3200 Taylor Rd  
Loomis, CA 95650

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:34:56

No Duplicates.



## **Comment 116 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Ramon  
Last Name: Mejia  
Email Address: lift2@currently.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Ramon Mejia  
7979 San Fernando Rd  
Los Angeles, CA 91352

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:36:35

No Duplicates.

## **Comment 117 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: John  
Last Name: Ward  
Email Address: oakhurst@campora.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
John Ward  
40087 CA-49  
Oakhurst, CA 93644

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:38:06

No Duplicates.

## **Comment 118 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jose  
Last Name: Cardenas  
Email Address: jcardenas@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jose Cardenas  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:39:00

No Duplicates.

## **Comment 119 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jerry  
Last Name: Behlen  
Email Address: jerry@vmpropane.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jerry Behlen  
20504 99 Frontage Rd  
Ripon, CA 95366

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:39:56

No Duplicates.



## **Comment 120 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Rocky  
Last Name: Arguijo  
Email Address: rocky@windmillpropane.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Rocky Arguijo  
6546 Ave 304  
Visalia, CA 93291

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:42:14

No Duplicates.

## **Comment 121 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: William  
Last Name: Bryan  
Email Address: bbryan@pjsrebar.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
William Bryan  
45500 Fremont Blvd  
Fremont, CA 94539

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:43:04

No Duplicates.

## **Comment 122 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Travis  
Last Name: Myers  
Email Address: tmyers@campora.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Travis Myers  
424 N Main St  
Angels Camp, CA 95222

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:43:54

No Duplicates.

## **Comment 123 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jordan  
Last Name: Terlouw  
Email Address: jterlouw@campora.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jordan Terlouw  
20221 Paoli Ln  
Colfax, CA 95713

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:44:58

No Duplicates.



## **Comment 124 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Michael  
Last Name: Glasky  
Email Address: mikeg@pjsrebar.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Michael Glasky  
2770 Hidden Ln  
Hayward, CA 94541

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:46:01

No Duplicates.

## **Comment 125 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Ben  
Last Name: De Boer  
Email Address: bdeboer@campora.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Ben De Boer  
6151 Pony Express Trail  
Pollock Pines, CA 95726

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:46:51

No Duplicates.

## **Comment 126 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Anfy  
Last Name: Fellman  
Email Address: afellman@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Andy Fellman  
19330 Industrial Dr  
Sonora, CA 95370

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:47:53

No Duplicates.

## **Comment 127 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jesus  
Last Name: Esparza  
Email Address: [jesus@cabinet-solutions.us](mailto:jesus@cabinet-solutions.us)  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jesus Esparza  
897 Rosewood Ave  
Vallejo, CA 94591

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:48:48

No Duplicates.



## **Comment 128 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Danny  
Last Name: Justice  
Email Address: djustice@campora.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Denny Justice  
5562 Westside Rd  
Redding, CA 96001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:49:56

No Duplicates.

## **Comment 129 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Michael  
Last Name: Bauer  
Email Address: mbauer@pjsrebar.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Michael Bauer  
13600 Uvas Rd  
Morgan Hill, CA 95037

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:50:37

No Duplicates.

## **Comment 130 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Pat  
Last Name: Temples  
Email Address: ptemples@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Pat Temples  
19330 Industrial Dr  
Sonora, CA 95370

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:51:35

No Duplicates.

## **Comment 131 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Mike  
Last Name: MacLaren  
Email Address: mmaclaren@campora.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Mike MacLaren  
1766 Main Street  
Weaverville, CA 96093

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:52:24

No Duplicates.



## **Comment 132 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jordan  
Last Name: Leib  
Email Address: jordan@growcold.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jordan Leib  
2050 Galvez Ave  
San Francisco, CA 94124

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:53:22

No Duplicates.

## **Comment 133 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Todd  
Last Name: Wright  
Email Address: twright@campora.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Todd Wright  
41865 CA-299  
Willow Creek, CA 95573

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:54:16

No Duplicates.

## **Comment 134 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Fred  
Last Name: Ayala  
Email Address: cavalier1984@yahoo.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Fred Ayala  
8049 Langdon Ave  
Hesperia, CA 92345

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:56:28

No Duplicates.

## **Comment 135 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Adina

Last Name: Chapman

Email Address: adinachapman315@gmail.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Adina Chapman  
8300 San Marcos Rd  
Atascadero, CA 93422

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:57:21

No Duplicates.



## **Comment 136 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Wendy

Last Name: Britto

Email Address: wendy.britto@greentechrenewables.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Wendy Britto  
31260 Wiegman Rd  
Hayward, CA 94544

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 13:59:15

No Duplicates.

## **Comment 137 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Peifang  
Last Name: Chang  
Email Address: castalyesther@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Peifang Chang  
637 Vineland Ave  
La Puente, CA 91746

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:00:15

No Duplicates.

## **Comment 138 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: James  
Last Name: Yundt  
Email Address: jdy@roofmaster.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
James Yundt  
750 Monterey Pass Rd  
Monterey Park, CA 91754

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:01:46

No Duplicates.

## **Comment 139 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Paula  
Last Name: Laney  
Email Address: planey@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Paula Laney  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:02:49

No Duplicates.



## **Comment 140 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Scott  
Last Name: Graham  
Email Address: sgraham@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Scott Graham  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:03:41

No Duplicates.

## **Comment 141 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Travis  
Last Name: Dunham  
Email Address: tdunham@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Travis Dunham  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:04:39

No Duplicates.

## **Comment 142 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Laura  
Last Name: Hawkinson  
Email Address: lhawkinson@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Laura Hawkinson  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:05:25

No Duplicates.

## **Comment 143 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: David  
Last Name: Stroupe  
Email Address: dstroupe@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
David Stroupe  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:06:11

No Duplicates.



## **Comment 144 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Daniel  
Last Name: Dixon  
Email Address: ddixon@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Daniel Dixon  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:07:04

No Duplicates.

## **Comment 145 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Gena  
Last Name: Vasbinder  
Email Address: gvasbinder@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Gena Vasbinder  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:08:10

No Duplicates.

## **Comment 146 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Brenda  
Last Name: Griffe  
Email Address: bgriffe@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Brenda Griffe  
2525 E Mariposa Rd  
Stockton, CA 95205

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:09:01

No Duplicates.

## **Comment 147 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Cathy  
Last Name: Adams  
Email Address: cadams@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Cathy Adams  
20504 99 Frontage Rd  
Ripon, CA 95366

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:09:52

No Duplicates.



## **Comment 148 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Chris  
Last Name: Daly  
Email Address: cdaly@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Chris Daly  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:10:42

No Duplicates.

## **Comment 149 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Grant  
Last Name: Culpan  
Email Address: grant@maucksheetmetal.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Grant Culpan  
755 Independent Rd  
Oakland, CA 94621

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:11:43

No Duplicates.

## **Comment 150 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Boyd  
Last Name: McGathey  
Email Address: boyd@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Boyd McGathey  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:12:35

No Duplicates.

## **Comment 151 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Tom  
Last Name: Knauff  
Email Address: tknauff@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Tom Knauff  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:15:22

No Duplicates.



## **Comment 152 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Enrique

Last Name: Silva

Email Address: enriques@expopropane.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Enrique Silva  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:16:10

No Duplicates.

## **Comment 153 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jorge

Last Name: Rivas

Email Address: jorger@expopropane.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jorge Rivas  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:17:01

No Duplicates.

## **Comment 154 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Veronica

Last Name: Silva

Email Address: veronica@expopropane.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Veronica Silva  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:17:49

No Duplicates.

## **Comment 155 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Fernando  
Last Name: Gallegos  
Email Address: fernando.gallegos@emerson.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Fernando Gallegos  
3200 Emerson Way  
Mckinney, TX 75069

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:19:11

No Duplicates.



## **Comment 156 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Michael  
Last Name: Yates  
Email Address: mikeyates@highhillventures.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Michael Yates  
22292 Regnart Rd  
Cupertino, CA 95014

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:20:03

No Duplicates.

## **Comment 157 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Restaurant Van

Last Name: Inc.

Email Address: accountant@cookercooler.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Restaurant Van Inc.  
1584 Zephyr Ave  
Hayward, CA 94544

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:20:51

No Duplicates.

## **Comment 158 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Steve  
Last Name: Glovsky  
Email Address: steve@sierrapropane.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Steve Glovsky  
250 S West Ave  
Merced, CA 95341

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:25:41

No Duplicates.

## **Comment 159 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Ryan  
Last Name: Van Duyn  
Email Address: ryan@vmpropane.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Ryan Van Duyn  
20504 99 Frontage Rd  
Ripon, CA 95366

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:26:40

No Duplicates.



## **Comment 160 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Pierluigi  
Last Name: Giannini  
Email Address: pgiannini@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Pierluigi Giannini  
656 Telford Ave  
South San Francisco, CA 94080

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:27:51

No Duplicates.

## **Comment 161 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Kammui

Last Name: Ng

Email Address: pandacarpetusa@gmail.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Kammui Ng  
2958 Giovana Way  
Castro Valley, CA 94546

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:28:54

No Duplicates.

## **Comment 162 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Cassandra  
Last Name: Bae  
Email Address: cassandraba82@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Cassandra Bae  
3967 E St  
Sacramento, CA 95819

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:29:51

No Duplicates.

## **Comment 163 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: David  
Last Name: Vance  
Email Address: david.vance@amerigas.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
David Vance  
PO Box 90952  
San Bernardino, CA 92427

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:31:39

No Duplicates.



## **Comment 164 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Christina  
Last Name: Glasgow  
Email Address: christina.glasgow@amerigas.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Christina Glasgow  
65 Arizona St  
Bishop, CA 93514

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:32:29

No Duplicates.

## **Comment 165 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Michelle

Last Name: Mossman

Email Address: michelle.mossman@amerigas.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Michelle Mossman  
49499 Pierce Dr  
Oakhurst, CA 93644

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:33:18

No Duplicates.

## **Comment 166 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Rebecca

Last Name: Hernandez

Email Address: rebecca.hernandez@amerigas.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Rebecca Hernandez  
8480 Specialty Cir  
Sacramento, CA 95828

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:34:04

No Duplicates.

## **Comment 167 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: David

Last Name: Jones

Email Address: dave.jones@amerigas.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
David Jones  
30882 Anderson Cir  
Menifee, CA 92584

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:34:54

No Duplicates.



## **Comment 168 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: William  
Last Name: Wilt  
Email Address: william.wilt@amerigas.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
William Wilt  
2080 S Golden State Blvd  
Fowler, CA 93625

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:35:46

No Duplicates.

## **Comment 169 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Aaron

Last Name: Nelson

Email Address: aaron@bayareadieseldelivery.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Aaron Nelson  
4070 Castlewood Ct  
Concord, CA 94518

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:36:46

No Duplicates.

## **Comment 170 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: John  
Last Name: Nadolski  
Email Address: dandjecho@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
John Nadolski  
4921 N Brightview Dr  
Covina, CA 91722

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:37:50

No Duplicates.

## **Comment 171 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Dalila

Last Name: Parra

Email Address: dalila.parra@amerigas.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Dalila Parra  
126 Farland Pl  
Escondido, CA 92027

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:39:13

No Duplicates.



## **Comment 172 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Nicolas

Last Name: Rivera

Email Address: nrivera@advantagers.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Nicolas Rivera  
3201 Liberty Square Pkwy  
Turlock, CA 95380

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:40:24

No Duplicates.

## **Comment 173 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Koury  
Last Name: Ensley  
Email Address: kensley0126@yahoo.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Koury Ensley  
16874 Century St  
Moreno Valley, CA 92551

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:41:25

No Duplicates.

## **Comment 174 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Alex  
Last Name: Wu  
Email Address: alexwu@superlinkusa.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Alex Wu  
888 92nd Ave  
Oakland, CA 94603

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:42:18

No Duplicates.

## **Comment 175 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Daniel  
Last Name: Budd  
Email Address: dan.budd@amerigas.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Daniel Budd  
8316 52nd St Ct W  
Tacoma, WA 98467

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:43:39

No Duplicates.



## **Comment 176 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Thomas  
Last Name: Daniels  
Email Address: tom@aeenergy.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Thomas Daniels  
103 Via Robles  
Paso Robles, CA 93446

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 14:44:34

No Duplicates.

**Comment 177 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Alison  
Last Name: Hahm  
Email Address: ahahm@nrdc.org  
Affiliation: THE Impact Project

Subject: Comments on Proposed Zero-Emission Forklifts Regulation  
Comment:

Dear Mr. Roderick and Mr. Chen,

Please find attached a comment letter on the proposed Zero-Emission Forklifts regulation, submitted on behalf of the following organizations:

Center for Community Action and Environmental Justice  
Coalition for Clean Air  
Earthjustice  
East Yard Communities for Environmental Justice  
Natural Resources Defense Council  
Pacific Environment  
San Pedro & Peninsula Homeowners Coalition  
Sierra Club  
West Long Beach Association

Thank you for your consideration and please let us know if you have any questions.

Sincerely,  
Alison

Attachment: 'www.arb.ca.gov/lists/com-attach/183-zeforklifts-VWdcaQMsAmABNQcp.pdf'

Original File Name: 23.12.22 Impact Project Coalition\_ZE Forklifts Comments\_final.pdf

Date and Time Comment Was Submitted: 2023-12-22 18:40:10

No Duplicates.

## **Comment 178 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: John  
Last Name: Casper  
Email Address: jcasper@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
John Casper  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:11:20

No Duplicates.

## **Comment 179 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Kathy  
Last Name: Johnson  
Email Address: kjohnson@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Kathy Johnson  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:13:03

No Duplicates.

## **Comment 180 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jim  
Last Name: Rushing  
Email Address: jrushing@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jim Rushing  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:14:05

No Duplicates.

## **Comment 181 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Russ  
Last Name: Head  
Email Address: rhead@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Russ Head  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:15:28

No Duplicates.

## **Comment 182 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Josh  
Last Name: Perceful  
Email Address: jperceful@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Josh Perceful  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:20:13

No Duplicates.

## **Comment 183 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Teri  
Last Name: Larson  
Email Address: tlarson@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Teri Larson  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:27:39

No Duplicates.

## **Comment 184 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Casandra

Last Name: Russo

Email Address: casandra.russo@amerigas.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Casandra Russo  
1288 Cimmeron Way  
Lincoln, CA 95648

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:28:18

No Duplicates.

## **Comment 185 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jim  
Last Name: Jones  
Email Address: jim@topsidemarine.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jim Jones  
900 Golden Wheel Park Dr  
San Jose, CA 95112

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:30:26

No Duplicates.

## **Comment 186 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Mike

Last Name: Senoski

Email Address: msenoski@edplp.net

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Mike Senoski  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:33:14

No Duplicates.

## **Comment 187 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Eric  
Last Name: McNeily  
Email Address: emcneily@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Eric McNeily  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:34:26

No Duplicates.

## **Comment 188 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Chase  
Last Name: Frederick  
Email Address: cfrederick@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Chase Frederick  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:35:17

No Duplicates.

## **Comment 189 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Kris  
Last Name: Osika  
Email Address: kosika@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Kris Osika  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:36:17

No Duplicates.

## **Comment 190 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Alan  
Last Name: Copenhaver  
Email Address: acopenhaver@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Alan Copenhaver  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:37:11

No Duplicates.

## **Comment 191 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Don  
Last Name: Wilk  
Email Address: dwilk@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Don Wilk  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:38:07

No Duplicates.

## **Comment 192 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Fahad  
Last Name: Telchi  
Email Address: ftelchi@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Fahad Telchi  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:38:56

No Duplicates.

## **Comment 193 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Kenya  
Last Name: Alexander  
Email Address: kalexander@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Kenya Alexander  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:39:43

No Duplicates.

## **Comment 194 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Tanvir  
Last Name: Siddiqui  
Email Address: tsiddiqui@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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Regards,  
Tanvir Siddiqui  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:41:08

No Duplicates.

## **Comment 195 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Josh  
Last Name: Gibson  
Email Address: jgibson@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Josh Gibson  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:41:45

No Duplicates.

## **Comment 196 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Brenda  
Last Name: Hernandez  
Email Address: bhernandez@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Brenda Hernandez  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:42:43

No Duplicates.

## **Comment 197 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Lynn  
Last Name: Curto  
Email Address: lcurto@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Lynn Curto  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:43:54

No Duplicates.

## **Comment 198 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jennifer  
Last Name: Rivas  
Email Address: jrivas@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jennifer Rivas  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:44:58

No Duplicates.

## **Comment 199 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Gail  
Last Name: Lambert  
Email Address: glambert@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Gail Lambert  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:45:46

No Duplicates.

## **Comment 200 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Mary

Last Name: Brown

Email Address: mbrown@edplp.net

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Mary Brown  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:46:28

No Duplicates.

## **Comment 201 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Mary  
Last Name: Seklecki  
Email Address: mseklecki@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Mary Seklecki  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:47:15

No Duplicates.

## **Comment 202 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Desiree

Last Name: Aranda

Email Address: daranda@edplp.net

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Desiree Aranda  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:48:19

No Duplicates.

## **Comment 203 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Marisa  
Last Name: Robertson  
Email Address: mrobertson@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Marisa Robertson  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:49:11

No Duplicates.

## **Comment 204 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Atearia  
Last Name: Caldwell  
Email Address: acaldwell@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Atearia Caldwell  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:49:59

No Duplicates.

## **Comment 205 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Dennis

Last Name: Cayaba

Email Address: dcayaba@edplp.net

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Dennis Cayaba  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:51:11

No Duplicates.

## **Comment 206 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Anthony  
Last Name: Jagers  
Email Address: ajagers@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Anthony Jagers  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:51:59

No Duplicates.

## **Comment 207 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Andrew  
Last Name: Fahrenbach  
Email Address: afahrenback@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Andrew Fahrenbach  
638 E Gage Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:52:48

No Duplicates.

## **Comment 208 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jeremy  
Last Name: Bidwell  
Email Address: jbidwell@edplp.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jeremy Bidwell  
1484 Pinon Ave  
CA 95341

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:53:47

No Duplicates.

## **Comment 209 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Diana  
Last Name: Dominguez  
Email Address: baytechins@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Diana Dominguez  
1515 Day Ave  
San Mateo, CA 94403

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:57:14

No Duplicates.

## **Comment 210 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Dario  
Last Name: Dominguez  
Email Address: darioriosness@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Dario Dominguez  
1515 Day Ave  
San Mateo, CA 94403

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:58:20

No Duplicates.

## **Comment 211 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Rajiv  
Last Name: Jain  
Email Address: [rjain@btw1.com](mailto:rjain@btw1.com)  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Rajiv Jain  
29523 Holyoke Ave  
Hayward, CA 94544

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 20:59:28

No Duplicates.

## **Comment 212 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Stephen  
Last Name: Evans  
Email Address: swenceslaoe@hotmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Stephen Evans  
1110 Golden Way  
Los Altos, CA 94024

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:00:26

No Duplicates.

## **Comment 213 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jeff  
Last Name: Silversmith  
Email Address: jsilversmith@ksplastic.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jeff Silversmith  
2116 Farallon Dr  
San Leandro, CA 94577

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:01:20

No Duplicates.

## **Comment 214 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Kevin  
Last Name: Ahern  
Email Address: kahern@ksplastic.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Kevin Ahern  
2116 Farallon Dr  
San Leandro, CA 94577

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:02:19

No Duplicates.

## **Comment 215 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Eric  
Last Name: McAlister  
Email Address: emcalister@jswest.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Eric McAlister  
501 9th St  
Modesto, CA 95354

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:03:08

No Duplicates.

## **Comment 216 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: David  
Last Name: Spinney  
Email Address: dave@allstatepropane.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
David Spinney  
21520 Yorba Linda Blvd  
Yorba Linda, CA 92887

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:03:56

No Duplicates.

## **Comment 217 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Paul  
Last Name: Dinsdale  
Email Address: pdinsdale@wrmeadows.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Paul Dinsdale  
652 Indiana St  
Benicia, CA 94510

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:05:13

No Duplicates.

## **Comment 218 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Melissa  
Last Name: Newland  
Email Address: melissa.newland@amerigas.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Melissa Newland  
985 Sun City Ln Ste 109  
Lincoln, CA 95648

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:06:17

No Duplicates.

## **Comment 219 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Anthony  
Last Name: Pedotto  
Email Address: pedotto@rocketmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Anthony Pedotto  
27623 Jefferson Ave  
Temecula, CA 92590

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:07:15

No Duplicates.

## **Comment 220 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Michael  
Last Name: Woodside  
Email Address: woody@westernpropane.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Michael Woodside  
1044 Cinnabar Ct  
Santa Maria, CA 93455

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:08:23

No Duplicates.

## **Comment 221 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Flavio

Last Name: Arce

Email Address: sunlitemetals@yahoo.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Flavio Arce  
2210 E 85th St  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:09:15

No Duplicates.

## **Comment 222 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Larissa

Last Name: Crittenden

Email Address: larissa.crittenden@amerigas.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Larissa Crittenden  
1345 Incline Dr  
Lincoln, CA 95648

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:10:16

No Duplicates.

## **Comment 223 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Patrick  
Last Name: Harvey  
Email Address: pharvey.fsl@sbcglobal.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Patrick Harvey  
6899 Smith Ave  
Newark, CA 94560

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:13:04

No Duplicates.

## **Comment 224 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Cody  
Last Name: Krakowski  
Email Address: codysilva172@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Cody Krakowski  
PO Box 335  
Point Arena, CA 95468

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:14:06

No Duplicates.

## **Comment 225 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Steve

Last Name: Moore

Email Address: stevemooorepropane@outlook.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Steve Moore  
32565b Golden Lantern  
Dana Point, CA 92629

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:15:10

No Duplicates.

## **Comment 226 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Justin  
Last Name: Tran  
Email Address: justintran82@yahoo.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Justin Tran  
114 Adeline St  
Oakland, CA 94607

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:16:29

No Duplicates.

## **Comment 227 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Dr.

Last Name: Wong

Email Address: docwong@mac.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Dr Wong  
6 Quail Ct  
Woodside, CA 94062

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:17:14

No Duplicates.

## **Comment 228 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Mark  
Last Name: Leitman  
Email Address: mark.leitman@icloud.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Mark Leitman  
5980 Vista Ridge  
Santa Rosa, CA 95409

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:18:03

No Duplicates.

## **Comment 229 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: David  
Last Name: Murphy  
Email Address: david.murphy@amerigas.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
David Murphy  
113 Duranta St  
Roseville, CA 95678

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:19:01

No Duplicates.

## **Comment 230 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Felipe  
Last Name: Gutierrez  
Email Address: abm90502@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Felipe Gutierrez  
23116 Normandie Ave  
Torrance, CA 90502

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:19:57

No Duplicates.

## **Comment 231 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Yamel  
Last Name: Monjaraz  
Email Address: lemay72@aol.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Yamel Monjaraz  
555 E Tennis Ct Ln  
San Bernardino, CA 92408

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:20:43

No Duplicates.

## **Comment 232 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Armando  
Last Name: Silva  
Email Address: aa@armandoaluminum.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Armando Silva  
1761 Massachusetts Ave  
Riverside, CA 92507

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:21:32

No Duplicates.

## **Comment 233 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Alex  
Last Name: Loyola  
Email Address: gm@apexpalletsinc.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Alex Loyola  
1006 S East End Ave  
Pomona, CA 91766

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:22:41

No Duplicates.

## **Comment 234 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: William

Last Name: Hayes

Email Address: william@westernstatesroofing.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
William Hayes  
18605 Parthenia St  
Los Angeles, CA 91324

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:23:34

No Duplicates.

## **Comment 235 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Sabrina

Last Name: Garcia

Email Address: [sabrina@westernstatesroofing.com](mailto:sabrina@westernstatesroofing.com)

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Sabrina Garcia  
18605 Parthenia St  
Los Angeles, CA 91324

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:24:26

No Duplicates.

## **Comment 236 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Samuel  
Last Name: Wagya  
Email Address: p27global@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Samuel Wagya  
4900 E Washington Blvd  
Commerce, CA 90040

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:25:13

No Duplicates.

## **Comment 237 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Eric  
Last Name: Van Der Heyden  
Email Address: eric@royalcabinets.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Eric Van Der Heyden  
1299 East Phillips Blvd  
CA 91763

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:26:05

No Duplicates.

## **Comment 238 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Maria  
Last Name: Vargas  
Email Address: maria@anyabrothers.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Maria Vargas  
3130 Leonis Blvd  
Vernon, CA 90058

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:27:42

No Duplicates.

## **Comment 239 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Chris

Last Name: Roy

Email Address: ocfarmsupply@gmail.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Chris Roy  
1826 W Chapman Ave  
Orange, CA 92868

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:28:24

No Duplicates.

## **Comment 240 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Steve  
Last Name: Wright  
Email Address: stevewnjb@aol.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Steve Wright  
8422 Standustrial St  
Stanton, CA 90680

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:29:04

No Duplicates.

## **Comment 241 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Yvette

Last Name: Garcia

Email Address: yvette@deluxebuildingproducts.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Yvette Garcia  
12559 Vivienda Ave  
Grand Terrace, CA 92313

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:32:21

No Duplicates.

## **Comment 242 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Teri

Last Name: Lucero

Email Address: tlucero@centerlinelogistics.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Teri Lucero  
321 A Ave  
Alameda, CA 94501

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:33:43

No Duplicates.

## **Comment 243 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Gregory  
Last Name: Leighton  
Email Address: greg@cgplastics.net  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Gregory Leighton  
12729 Foothill Blvd  
Los Angeles, CA 91342

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:35:37

No Duplicates.

## **Comment 244 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Robert  
Last Name: Whitley  
Email Address: bob@venturahighwayinc.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Robert Whitley  
15313 Santa Gertrudes Ave  
La Mirada, CA 90638

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:36:49

No Duplicates.

## **Comment 245 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Eric

Last Name: Li

Email Address: info@famoustargetla.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Eric Li  
455 S 6th Ave  
City Of Industry, CA 91746

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:38:13

No Duplicates.

## **Comment 246 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jeri  
Last Name: Fisher  
Email Address: 7603hazeltine@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jeri Fisher  
7603 Hazeltine Ave  
Los Angeles, CA 91405

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:39:45

No Duplicates.

## **Comment 247 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Thomas

Last Name: Li

Email Address: thomasli@hensunexpress.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Thomas Li  
912 W Hillcrest Blvd  
Inglewood, CA 90301

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:40:29

No Duplicates.

## **Comment 248 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Oliver

Last Name: Fleck

Email Address: oliverfleck@bisonengineeringco.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Oliver Fleck  
15535 Texaco Ave  
Paramount, CA 90723

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:41:20

No Duplicates.

## **Comment 249 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Roberto

Last Name: Robaina

Email Address: roberto@robainaindustries.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Roberto Robaina  
18000 Studebaker Rd  
Cerritos, CA 90703

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:42:17

No Duplicates.

## **Comment 250 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Richard  
Last Name: Qin  
Email Address: richard@apolloathletics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Richard Qin  
1428 W Central Park Ave S  
Anaheim, CA 92802

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:43:23

No Duplicates.

## **Comment 251 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Christopher

Last Name: Park

Email Address: chris@onestoprecyclingla.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Christopher Park  
7100 Stanford Ave  
Los Angeles, CA 90001

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-22 21:44:09

No Duplicates.

## **Comment 252 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Michael  
Last Name: Caprio  
Email Address: mcaprio@republicservices.com  
Affiliation: Republic Services

Subject: Proposed Zero-Emission Forklift Regulation  
Comment:

To whom it may concern,

Thank you for including our company in the 45 day public comment process for the Zero-Emission Forklift Regulation. We appreciate the approach taken by staff in balancing the time needed to transition from LSI equipment to ZE options.

After review of the Proposed Regulation our comments primarily center upon the exemption of diesel powered units as noted in the ISOR and specifically on Page 4 of the June 27, 2024 Notice of Public Hearing documents. The last sentence of the 3rd full paragraph on this page states:

"Certain types of forklifts, such as rough-terrain forklifts and diesel forklifts, would not be addressed by the Proposed Regulations".

While we may have missed the inclusion of a reference to this exclusion in our review of the Proposed Regulations, we didn't see a specific notation of diesel forklifts being excluded from the Proposed Regulation. This may be inferred as the Proposed Regulation specifically addresses spark ignited forklifts and diesel forklifts are compression ignited.

This distinction is made clear in the second full paragraph on Page 4 of the aforementioned Notice of Public Hearing. However, we believe it would be helpful for the Final Regulation to have a clear reference regarding the exclusion of diesel forklifts. Additionally, the Proposed Regulation references reporting requirements for diesel powered forklifts as well as the need to justify the addition of diesel fueled forklifts in Section 3008(j).

In summary, due to the items noted above we believe that some additional thought be placed into whether diesel fueled forklifts are fully exempt from the Proposed Rule or conditionally exempt if no other ZEV options are available. If the latter is true and/or reporting is required for newly added diesel powered forklifts, as inferred in Section 3008(j), there should be a clear statement in the supporting documents (ISOR, other discussion documents and Notice of Public Hearing) of their inclusion under specific circumstances.

Lastly, Workshops put forth by CARB staff have been very helpful on this and many other proposed rule changes. Given the extent of



comments received and some of our comments noted herein, we believe additional Workshop(s) on this Proposed Regulation (before and/or after it's adoption) would be helpful to address any points requiring further clarification.

We appreciate the consideration of our comments and look forward to participating in the rulemaking process as it progresses.

Regards,

Michael Caprio  
Director of Government Affairs

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-25 13:40:57

No Duplicates.

**Comment 253 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Matthew

Last Name: Moravek

Email Address: mmoravek@mcclone.net

Affiliation: McClone Construction

Subject: 2023.12 Appendix A-1 Comments

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/259-zeforklifts-ATMCNFJhUjIAKFJj.pdf'

Original File Name: 2023.12. Letter\_CARB.pdf

Date and Time Comment Was Submitted: 2023-12-25 18:58:19

No Duplicates.

**Comment 254 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Spencer  
Last Name: Adams  
Email Address: spencer.adams@hyster-yale.com  
Affiliation: Hyster-Yale Group, Inc.

Subject: Hyster-Yale Comments to CARB forklift ZEV Proposed Regulations  
Comment:

Dear Chair Randolph and CARB Board Members:

Attached please find Hyster-Yale Group, Inc.'s comments to CARB's proposed Zero-Emission Forklift Regulations. Hyster-Yale Group, Inc. has worked collaboratively with CARB throughout this rulemaking process, and respectfully requests that CARB take into account and adjust the Proposed Regulation to both these direct comments from Hyster-Yale Group, Inc. and those separately submitted by the Industrial Truck Association.

Sincerely,

Spencer Adams  
Hyster-Yale Group, Inc.

Attachment: 'www.arb.ca.gov/lists/com-attach/260-zeforklifts-AmoGeVcxAw8FYFM8.pdf'

Original File Name: HYG Comments to CARB forklift ZEV regs Dec 26 2023.pdf

Date and Time Comment Was Submitted: 2023-12-26 08:46:06

No Duplicates.

## **Comment 255 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: David  
Last Name: Cox  
Email Address: dave@meeder.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
David Cox  
3495 S Maple Ave  
Fresno, CA 93725

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 09:14:09

No Duplicates.

## **Comment 256 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Shane  
Last Name: Guenther  
Email Address: sugarshayn@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Shane Guenther  
6000 10th St Spc 11  
Sheridan, CA 95681

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 09:15:11

No Duplicates.

**Comment 257 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Gary

Last Name: Cross

Email Address: gcross27103@earthlink.net

Affiliation: Industrial Truck Association

Subject: Proposed Zero-Emission Forklift Regulation

Comment:

I am submitting these comments from the Industrial Truck Association again, following my initial submission on Dec. 22, because they do not appear in the log of comments submitted and there is no answer at the Clerk's office.

Attachment: 'www.arb.ca.gov/lists/com-attach/263-zeforklifts-AGNdNAZqUmwHZAdp.docx'

Original File Name: COMMENTS OF THE INDUSTRIAL TRUCK ASSOCIATIO1.docx

Date and Time Comment Was Submitted: 2023-12-26 10:35:12

No Duplicates.



**Comment 258 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Roxana  
Last Name: Ramirez  
Email Address: rramirez@mdwh2o.com  
Affiliation: Metropolitan Water District of SC

Subject: MWD's Comments on the Proposed ZEF Regulation  
Comment:

Please find attached MWD's comment letter on the 45-day rulemaking draft for the Proposed ZEF Regulation.

Best Regards,

Roxana Ramirez  
Environmental Specialist  
Water Systems Operations Group  
Metropolitan Water District of Southern California  
700 North Alameda Street, US8-205  
Los Angeles, CA 90012  
Office: 213-217-6407

Attachment: 'www.arb.ca.gov/lists/com-attach/264-zeforklifts-VzoAcQdiBAhXMII9.pdf'

Original File Name: MWD Comments on ZE Forklift 45\_Day Package\_Signed.pdf

Date and Time Comment Was Submitted: 2023-12-26 11:16:28

No Duplicates.

**Comment 259 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Priscilla

Last Name: Rodriguez

Email Address: priscilla@agprocessors.org

Affiliation:

Subject: CARB ZEV Forklift Rule\_Ag Coalition Comments

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/265-zeforklifts-AWJVMlckWWgBWFlo.pdf'

Original File Name: CARB ZEV Forklift Rule Ag Coalition Comments\_Final 2\_12-18-23.pdf

Date and Time Comment Was Submitted: 2023-12-26 12:33:57

No Duplicates.

**Comment 260 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Dennis

Last Name: Runnels

Email Address: dennis@sierrapropane.net

Affiliation: Windmill Propane

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/266-zeforklifts-BmVTNAZ1AjNRCFU5.pdf'

Original File Name: CARB Letter Windmill Dennis Runnels.pdf

Date and Time Comment Was Submitted: 2023-12-26 13:10:49

No Duplicates.

**Comment 261 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Patrick  
Last Name: Temples  
Email Address: ptemples@edlp.net  
Affiliation: Campora Propane

Subject: Zero-Emission Forklifts - Proposed Regulation  
Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/267-zeforklifts-UTIHYANwVmcKUwNv.docx'

Original File Name: CARB Letter Campora Patrick Temples.docx

Date and Time Comment Was Submitted: 2023-12-26 13:39:08

No Duplicates.

**Comment 262 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Andy  
Last Name: Fellman  
Email Address: [afellman@edplp.net](mailto:afellman@edplp.net)  
Affiliation: Campora Propane

Subject: Zero-Emission Forklifts - Proposed Regulation  
Comment:

Attachment: '[www.arb.ca.gov/lists/com-attach/268-zeforklifts-UTIBZgNwU2IHXgll.pdf](http://www.arb.ca.gov/lists/com-attach/268-zeforklifts-UTIBZgNwU2IHXgll.pdf)'

Original File Name: CARB Letter Campora Andy Fellman.pdf

Date and Time Comment Was Submitted: 2023-12-26 13:59:43

No Duplicates.

**Comment 263 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Enrique

Last Name: Silva

Email Address: enriques@expopropane.com

Affiliation: Expo Propane

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/269-zeforklifts-UDNSNVMgWWgFXANv.pdf'

Original File Name: CARB Letter Expo Enrique 1.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:24:28

No Duplicates.

**Comment 264 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Daniel

Last Name: Fisher

Email Address: [dfisher@aednet.org](mailto:dfisher@aednet.org)

Affiliation: Associated Equipment Distributors

Subject: ZEF Regulation Forklift Comments--Associated Equipment Distributors

Comment:

Attachment: '[www.arb.ca.gov/lists/com-attach/270-zeforklifts-UjMGZVw5AH4LbgFg.pdf](http://www.arb.ca.gov/lists/com-attach/270-zeforklifts-UjMGZVw5AH4LbgFg.pdf)'

Original File Name: AED-CARBForkliftComments.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:34:59

No Duplicates.

**Comment 265 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Veronica

Last Name: Silva

Email Address: veronica@expopropane.com

Affiliation: Expo Propane

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: '[www.arb.ca.gov/lists/com-attach/271-zeforklifts-UTJQNwd0AjNRCAVp.pdf](http://www.arb.ca.gov/lists/com-attach/271-zeforklifts-UTJQNwd0AjNRCAVp.pdf)'

Original File Name: CARB Letter Expo Veronica Silva.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:24:27

No Duplicates.



**Comment 266 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jorge

Last Name: Rivas

Email Address: jorger@expopropane.com

Affiliation: Expo Propane

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/272-zeforklifts-AWJSNQNwV2YFXARo.pdf'

Original File Name: CARB Letter Expo Jorge Rivas.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:24:25

No Duplicates.

**Comment 267 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Marty  
Last Name: Huerta  
Email Address: martyh@expopropane.com  
Affiliation: Expo Propane

Subject: Zero-Emission Forklifts - Proposed Regulation  
Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/273-zeforklifts-VjUCZVwvVWQHxghk.pdf'

Original File Name: CARB Letter Expo Marty Huerta.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:24:25

No Duplicates.

**Comment 268 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Sean

Last Name: O'Hara

Email Address: seano@expopropane.com

Affiliation: Expo Propane

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/274-zeforklifts-BmUFYgBzUmMCWwll.pdf'

Original File Name: CARB Letter Expo Sean Ohara.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:21:11

No Duplicates.

**Comment 269 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Danny

Last Name: Martinez

Email Address: dmartinez@edplp.net

Affiliation: Expo Propane / EDP

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/275-zeforklifts-AWJTNFAjBzZQCVI+.pdf'

Original File Name: CARB Letter Expo EDP Danny Martinez.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:46:21

No Duplicates.

**Comment 270 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Merle

Last Name: Edington

Email Address: medington@edlp.net

Affiliation: Expo Propane / EDP

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/276-zeforklifts-VzRWMVckV2YCW1c7.pdf'

Original File Name: CARB Letter Expo EDP Merle Edington.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:46:20

No Duplicates.

**Comment 271 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jim

Last Name: Rushing

Email Address: jrushing@edlp.net

Affiliation: Expo Propane / EDP

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/277-zeforklifts-AGMHYFIhUGEHXgdr.pdf'

Original File Name: CARB Letter Expo EDP Jim Rushing.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:46:19

No Duplicates.

**Comment 272 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jose  
Last Name: Cardenas  
Email Address: jcardenas@edlp.net  
Affiliation: Expo Propane / EDP

Subject: Zero-Emission Forklifts - Proposed Regulation  
Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/278-zeforklifts-WjIXMAFyV2YGXwdr.pdf'

Original File Name: CARB Letter Expo EDP Jose Cardenas.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:46:18

No Duplicates.

**Comment 273 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Chris

Last Name: Daly

Email Address: cdaly@edlp.net

Affiliation: Expo Propane / EDP

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: '[www.arb.ca.gov/lists/com-attach/279-zeforklifts-AGMGYQZ1UGEHXgBs.pdf](http://www.arb.ca.gov/lists/com-attach/279-zeforklifts-AGMGYQZ1UGEHXgBs.pdf)'

Original File Name: CARB Letter Expo EDP Chris Daly.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:46:17

No Duplicates.



**Comment 274 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Boyd  
Last Name: McGathey  
Email Address: boyd@edplp.net  
Affiliation: Expo Propane / EDP

Subject: Zero-Emission Forklifts - Proposed Regulation  
Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/280-zeforklifts-AWJXMFYIWWWhWDwRo.pdf'

Original File Name: CARB Letter Expo EDP Boyd McGathey.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:46:16

No Duplicates.

**Comment 275 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Tom  
Last Name: Knauff  
Email Address: tknauff@edplp.net  
Affiliation: Expo Propane / EDP

Subject: Zero-Emission Forklifts - Proposed Regulation  
Comment:

Attachment: "

Original File Name: CARB Letter Expo EDP Tom Knauff.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:46:14

No Duplicates.

**Comment 276 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Kathy

Last Name: Johnson

Email Address: kjohnson@edlp.net

Affiliation: Expo Propane / EDP

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/282-zeforklifts-UjFRNgFyUWBRCFQ4.pdf'

Original File Name: CARB Letter Expo EDP Kathy Johnson.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:46:12

No Duplicates.

**Comment 277 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: John  
Last Name: Casper  
Email Address: jcasper@edplp.net  
Affiliation: Expo Propane / EDP

Subject: Zero-Emission Forklifts - Proposed Regulation  
Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/283-zeforklifts-BmUBZlIhVmdVDANv.pdf'

Original File Name: CARB Letter Expo EDP John Casper.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:46:11

No Duplicates.

**Comment 278 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: David

Last Name: Stroupe

Email Address: dstroupe@edplp.net

Affiliation: Expo Propane / EDP

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/284-zeforklifts-UDMCZQd0U2JWDwBs.pdf'

Original File Name: CARB Letter Expo EDP David Stroupe.pdf

Date and Time Comment Was Submitted: 2023-12-26 14:46:08

No Duplicates.

**Comment 279 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Travis

Last Name: Myers

Email Address: tmyers@campora.com

Affiliation: Ebbetts Pass Gas Service

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: '[www.arb.ca.gov/lists/com-attach/285-zeforklifts-UzBXMF0uUmMAWQBs.pdf](http://www.arb.ca.gov/lists/com-attach/285-zeforklifts-UzBXMF0uUmMAWQBs.pdf)'

Original File Name: CARB Letter Ebetts Travis Myers.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:10:21

No Duplicates.

**Comment 280 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jerry

Last Name: Behlen

Email Address: jerry@vmpropane.com

Affiliation: Van Unen Miersma Propane

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/286-zeforklifts-UjEFYIEiU2IAWVc7.pdf'

Original File Name: CARB Letter VMP Jerry Behlen.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:10:19

No Duplicates.

**Comment 281 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Cathy

Last Name: Adams

Email Address: cadams@edplp.net

Affiliation: Van Unen Miersma Propane / EDP

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/287-zeforklifts-WzhdOgR3BTRSCwll.pdf'

Original File Name: CARB Letter VMP EDP Cathy Adams.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:10:19

No Duplicates.



**Comment 282 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Dennis

Last Name: Runnels

Email Address: dennis@sierrapropane.net

Affiliation: Sierra Propane

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/288-zeforklifts-WzgGYVYIUGEAWVI+.pdf'

Original File Name: CARB Letter Sierra Dennis Runnels.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:10:18

No Duplicates.

**Comment 283 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Chris

Last Name: Everett

Email Address: ceverett@fallbrookpropanegas.com

Affiliation: Fallbrook Propane

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/289-zeforklifts-AGMBZIIhVWRRRCABs.pdf'

Original File Name: CARB Letter Fallbrook Chris Everett.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:10:17

No Duplicates.

**Comment 284 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Todd  
Last Name: Wright  
Email Address: [twright@campora.com](mailto:twright@campora.com)  
Affiliation: Campora Propane

Subject: Zero-Emission Forklifts - Proposed Regulation  
Comment:

Attachment: '[www.arb.ca.gov/lists/com-attach/290-zeforklifts-UjEBZl0uAjMAWQhk.pdf](http://www.arb.ca.gov/lists/com-attach/290-zeforklifts-UjEBZl0uAjMAWQhk.pdf)'

Original File Name: CARB Letter Campora Todd Wright.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:10:16

No Duplicates.

**Comment 285 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Mark

Last Name: Price

Email Address: mprice@campora.com

Affiliation: Campora Propane

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/291-zeforklifts-BWZRNIUmAjMEXQFt.pdf'

Original File Name: CARB Letter Campora Mark Price.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:10:15

No Duplicates.

**Comment 286 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Todd  
Last Name: Spicer  
Email Address: tspicer@campora.com  
Affiliation: Campora Propane

Subject: Zero-Emission Forklifts - Proposed Regulation  
Comment:

Attachment: "

Original File Name: CARB Letter Campora Todd Spicer.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:10:14

No Duplicates.

**Comment 287 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Travis

Last Name: Myers

Email Address: tmyers@campora.com

Affiliation: Campora Propane

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/293-zeforklifts-AWJRNIYIVWQEXQZq.pdf'

Original File Name: CARB Letter Campora Travis Myers 1.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:31:22

No Duplicates.

**Comment 288 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jordan  
Last Name: Terlouw  
Email Address: jterlouw@campora.com  
Affiliation: Campora Propane

Subject: Zero-Emission Forklifts - Proposed Regulation  
Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/294-zeforklifts-BWZUM1EiBzZVDFa8.pdf'

Original File Name: CARB Letter Campora Jordan Terlouw.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:31:21

No Duplicates.

**Comment 289 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Ben  
Last Name: de Boer  
Email Address: bdeboer@campora.com  
Affiliation: Campora Propane

Subject: Zero-Emission Forklifts - Proposed Regulation  
Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/295-zeforklifts-UDMBZIYIUWBQCQFt.pdf'

Original File Name: CARB Letter Campora Ben de Boer.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:31:20

No Duplicates.



**Comment 290 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Denny

Last Name: Justice

Email Address: djustice@campora.com

Affiliation: Campora Propane

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/296-zeforklifts-UDNSNQFyVmcGXwJu.pdf'

Original File Name: CARB Letter Campora Denny Justice.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:31:19

No Duplicates.

**Comment 291 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Mike

Last Name: Maclaren

Email Address: mmaclaren@campora.com

Affiliation: Campora Propane

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/297-zeforklifts-B2QBZlckVGVRCAhk.pdf'

Original File Name: CARB Letter Campora Mike Maclaren.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:31:19

No Duplicates.

**Comment 292 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Brenda

Last Name: Griffie

Email Address: bgriffie@edplp.net

Affiliation: Campora Propane / EDP

Subject: Zero-Emission Forklifts - Proposed Regulation

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/298-zeforklifts-UzBdOgNwU2JWD1Q4.pdf'

Original File Name: CARB Letter Campora EDP Brenda Griffie.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:31:17

No Duplicates.

**Comment 293 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jon

Last Name: Switalski

Email Address: jon@rebuildsocial.org

Affiliation: Rebuild SoCal Partnership

Subject: Comments on the proposed Zero-Emission Forklift Regulation

Comment:

Attached are the comments from the Rebuild SoCal Partnership regarding the proposed Zero-Emission Forklift regulation.

Attachment: 'www.arb.ca.gov/lists/com-attach/299-zeforklifts-UGIFM1VmAmJQCQFn.pdf'

Original File Name: 2023 Forklift Regulation Comments.pdf

Date and Time Comment Was Submitted: 2023-12-26 15:45:27

No Duplicates.

**Comment 294 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Krysta

Last Name: Wanner

Email Address: krysta@westernpga.org

Affiliation: Western Propane Gas Association

Subject: Zero-Emission Forklift Regulation

Comment:

See attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/300-zeforklifts-VixTMFAOVWABaAR2.pdf'

Original File Name: ZE Forklift Letter December 2023 Final.pdf

Date and Time Comment Was Submitted: 2023-12-26 16:20:12

No Duplicates.

## **Comment 295 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Walter  
Last Name: Chang  
Email Address: waltmnc@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Walter Chang  
1788 Rogers Ave  
San Jose, CA 95112

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:11:05

No Duplicates.

## **Comment 296 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Antonio  
Last Name: Montelongo  
Email Address: miatrading1@yahoo.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Antonio Montelongo  
2034 E 48th St  
Vernon, CA 90058

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:11:41

No Duplicates.

## **Comment 297 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Salvador  
Last Name: Hernandez  
Email Address: sal@dnsexportpacking.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Salvador Hernandez  
12961 Sunnyside Pl  
Santa Fe Springs, CA 90670

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:13:07

No Duplicates.

## **Comment 298 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Ryan

Last Name: Donovan

Email Address: rdonovan@stateslogistics.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Ryan Donovan  
5650 Dolly Ave  
Buena Park, CA 90621

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:14:12

No Duplicates.

## **Comment 299 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Eric  
Last Name: Monson  
Email Address: emonson@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Eric Monson  
5650 Dolly Ave  
WA 98026

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:15:06

No Duplicates.

## **Comment 300 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Eileen

Last Name: Conrique

Email Address: econrique@stateslogistics.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Eileen Conrique  
7102 Cate Dr  
Buena Park, CA 90621

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:16:12

No Duplicates.

## **Comment 301 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jesse  
Last Name: Sevilla  
Email Address: jsevilla@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jesse Sevilla  
7102 Cate Dr  
Buena Park, CA 90621

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:17:20

No Duplicates.

## **Comment 302 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Michelle  
Last Name: Miller  
Email Address: mmiller@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Michelle Miller  
6570 Altura Blvd  
Buena Park, CA 90620

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:18:25

No Duplicates.

## **Comment 303 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Nicole  
Last Name: Koerner  
Email Address: nkoerner@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Nicole Koerner  
6570 Altura Blvd  
Buena Park, CA 90620

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:19:29

No Duplicates.

## **Comment 304 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Angelina  
Last Name: Martinez  
Email Address: amartinez@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Angelina Martinez  
6570 Altura Blvd  
CA 90638

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:20:33

No Duplicates.

## **Comment 305 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Maytee

Last Name: Cortes

Email Address: mcortes@stateslogistics.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Maytee Cortes  
6570 Altura Blvd  
Buena Park, CA 90620

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:21:22

No Duplicates.

## **Comment 306 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Edgardo  
Last Name: Mendoza  
Email Address: emendoza@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Edgardo Mendoza  
5650 Dolly Ave  
CA 92805

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:22:10

No Duplicates.

## **Comment 307 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Briana  
Last Name: Radilla  
Email Address: bradilla@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Briana Radilla  
6570 Altura Blvd  
Buena Park, CA 90620

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:23:03

No Duplicates.

## **Comment 308 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Brian  
Last Name: Prado  
Email Address: bprado@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Brian Prado  
5650 Dolly Ave  
Buena Park, CA 90621

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:23:52

No Duplicates.

## **Comment 309 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: John  
Last Name: Conrique  
Email Address: jconrique@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
John Conrique  
5650 Dolly Ave  
Buena Park, CA 90621

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:25:03

No Duplicates.

## **Comment 310 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Edmund  
Last Name: Domingo  
Email Address: edomingo@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Edmund Domingo  
5650 Dolly Ave  
Buena Park, CA 90621

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:25:34

No Duplicates.

## **Comment 311 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Michelle

Last Name: King

Email Address: michelle.king17@yahoo.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Michelle King  
13502 Tracy St Apt 2  
Baldwin Park, CA 91706

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:26:23

No Duplicates.

## **Comment 312 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Arline

Last Name: Ramos

Email Address: aramos@stateslogistics.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Arline Ramos  
5650 Dolly Ave  
Buena Park, CA 90621

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:27:09

No Duplicates.

## **Comment 313 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jaime  
Last Name: Michel  
Email Address: jmichel@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jaime Michel  
6570 Altura Blvd  
Buena Park, CA 90620

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:27:49

No Duplicates.

## **Comment 314 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Efren

Last Name: Lira

Email Address: elira@stateslogistics.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Efren Lira  
11265 Beech Ave  
Fontana, CA 92337

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:28:49

No Duplicates.

## **Comment 315 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jose  
Last Name: Soto  
Email Address: jsoto@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jose Soto  
6570 Altura Blvd  
Buena Park, CA 90620

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:29:31

No Duplicates.

## **Comment 316 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Daniel

Last Name: Pla

Email Address: dpla@stateslogistics.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Daniel Pla  
6570 Altura Blvd  
Buena Park, CA 90620

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:30:13

No Duplicates.

## **Comment 317 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Nicolas

Last Name: Sendis

Email Address: nsendis@stateslogistics.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Nicolas Sendis  
6570 Altura Blvd  
Buena Park, CA 90620

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:30:56

No Duplicates.

## **Comment 318 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Aron  
Last Name: Gregoire  
Email Address: [agregoire@stateslogistics.com](mailto:agregoire@stateslogistics.com)  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Aron Gregoire  
6872 Ramona Ave  
Rancho Cucamonga, CA 91701

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:31:44

No Duplicates.

## **Comment 319 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Javier  
Last Name: Sotelo  
Email Address: jsotelo@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Javier Sotelo  
6570 Altura Blvd  
Buena Park, CA 90620

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:32:26

No Duplicates.

## **Comment 320 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: John  
Last Name: Welch  
Email Address: j.welch50@gmail.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
John Welch  
1913 N Sundown Ln  
Anaheim, CA 92807

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:33:06

No Duplicates.

## **Comment 321 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Jerico  
Last Name: Jones  
Email Address: jjones@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Jerico Jones  
6570 Altura Blvd  
Buena Park, CA 90620

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:33:46

No Duplicates.

## **Comment 322 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Gabriel  
Last Name: Rodriguez  
Email Address: grodriguez@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Gabriel Rodriguez  
5650 Dolly Ave  
Buena Park, CA 90621

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:34:27

No Duplicates.

## **Comment 323 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Kevin

Last Name: Monson

Email Address: thurmy7@yahoo.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Kevin Monson  
350 Del Cerro Pl  
Fullerton, CA 92835

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:35:37

No Duplicates.

## **Comment 324 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Helder  
Last Name: Faria  
Email Address: hfaria@dassels.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Helder Faria  
31 Wright Rd  
Hollister, CA 95023

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:36:21

No Duplicates.

## **Comment 325 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Bryan  
Last Name: Rogers  
Email Address: brogers@dassels.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Bryan Rogers  
31 Wright Rd  
Hollister, CA 95023

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:37:05

No Duplicates.

## **Comment 326 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Michael  
Last Name: Graham  
Email Address: mgraham@dassels.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Michael Graham  
31 Wright Rd  
Hollister, CA 95023

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:37:47

No Duplicates.

## **Comment 327 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Julian  
Last Name: Gomez  
Email Address: jgomez@dassels.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Julian Gomez  
31 Wright Rd  
Hollister, CA 95023

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:38:29

No Duplicates.

## **Comment 328 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Victor  
Last Name: Zendejas  
Email Address: vzendejas@dassels.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Victor Zendejas  
31 Wright Rd  
Hollister, CA 95023

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:39:23

No Duplicates.

## **Comment 329 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Rocco  
Last Name: Biafore  
Email Address: rbiafore@dassels.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Rocco Biafore  
31 Wright Rd  
Hollister, CA 95023

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:40:15

No Duplicates.

## **Comment 330 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Kirk  
Last Name: Hellofs  
Email Address: khellofs@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

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I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Kirk Hellofs  
5650 Dolly Ave  
Buena Park, CA 90621

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:41:06

No Duplicates.

## **Comment 331 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Steven  
Last Name: Valverde  
Email Address: steven@teecoproducts.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

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are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Steven Valverde  
16881 Armstrong Ave  
Irvine, CA 92606

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:41:39

No Duplicates.

## **Comment 332 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Mariah

Last Name: Arredondo

Email Address: mariaharredondo4@gmail.com

Affiliation:

Subject: ZE Forklift Regulation

Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs



are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Mariah Arredondo  
5650 Dolly Ave  
Buena Park, CA 90621

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:42:30

No Duplicates.

## **Comment 333 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Veronica  
Last Name: Gomez  
Email Address: vgomez@stateslogistics.com  
Affiliation:

Subject: ZE Forklift Regulation  
Comment:

Dear Chair Randolph,

While the proposed regulation has been amended to address some industry concerns, there are still significant issues with the rulemaking that must be acknowledged including cost, feasibility of implementation, and inaccuracies of data in CARB's analysis. Main points of contention are as follows:

Actual impacted forklifts far exceed CARB estimate: CARB has modelled the total affected forklifts of approximately 95,000, though this inventory count is less than a third of the values produced from the 2017 CARB/SSRC Study. CARB assumes that the internal combustion engine (ICE) forklift population remains stagnant though time has shown an increase in forklifts in the state due to an increase in goods movement. After evaluating forklift fleet owners and operators, CARB's proposal will actually impact over 390,000 ICE forklifts - over three out of every four forklifts in the state.

Technical challenges of run time & operational loads could impact overall cost: While CARB noted that "opportunity charging" may resolve use needs, manufacturers and industry experts remain skeptical that there is a one-to-one replacement for ICE forklifts versus battery electric. Considering an 8-hour use period, 8-hour charge period, and 8-hour battery cool down period for the bulk of existing battery electric forklifts, it would actually be a three-to-one replacement for businesses utilizing 24-hour shifts. Such ratios would significantly increase the total financial impact of this regulation. In addition, lift capacities of battery electric units can make real-world runtimes for heavier loads much lower than rated capacities.

Burdensome costs to forklift owners and operators: CARB's Standardized Regulatory Impact Assessment (SRIA) estimates that the proposed regulation will result in cumulative savings of over \$13.9 billion. Unfortunately, analysis undertaken by Andrew Chang & Company, a consultant hired to determine the potential savings or costs from the rulemaking, has shown quite the opposite. In total, the proposed regulations will cost forklift owners and operators as much as \$28 billion in extra expenses. Even under midpoint estimates, owners and operators must bear nearly \$20 billion in costs.

Propane-powered forklifts are the more affordable fuel option: ICE forklift fuel costs decrease substantially when propane fuel costs

are utilized. When propane is used as the fuel of choice for ICE forklifts, ICE forklift fuel costs go down by approximately 55%. Cumulative fuel savings when using propane add up to \$1.87 billion, while cumulative fuel savings when using gasoline amount to \$5.25 billion. Utilizing propane as the main source of fuel for ICE forklifts provides a more accurate depiction of ICE forklift fuel costs as the majority of forklifts are propane-powered. Considering that the fuel savings generated by CARB make up approximately 47% (\$8.2 billion) of CARB's cumulative regulation benefits, transparency on their fuel cost methodology is essential.

Renewable propane drastically reduces GHG emissions without significant financial investment: The propane industry has made extraordinary strides to expand production of low carbon renewable fuels for the transportation sector within California. These strides have been made in part thanks to the work of CARB in its implementation of the Low Carbon Fuel Standard. Renewable propane carbon intensities range from half- to one-quarter of the carbon intensity of California's current electric grid. With current blending and transitions to all-renewable fuels, propane has outpaced carbon emissions for California's electric sector in transportation - particularly off-road forklifts.

I appreciate the opportunity to submit this document regarding the rulemaking in hopes of adopting an equitable solution for forklift owners and operators.

Regards,  
Veronica Gomez  
7102 Cate Dr  
Buena Park, CA 90621

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2023-12-26 17:43:29

No Duplicates.

**Comment 334 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Daniel

Last Name: Fisher

Email Address: dfisher@aednet.org

Affiliation: Associated Equipment Distributors

Subject: AED ZEF Forklift Regulation Comments

Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/340-zeforklifts-UjMBYIA1WCZSN1Iz.pdf'

Original File Name: AED-CARBForkliftComments.pdf

Date and Time Comment Was Submitted: 2023-12-26 18:02:05

No Duplicates.

**Comment 335 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Priscilla  
Last Name: Rodriguez  
Email Address: priscilla@agprocessors.org  
Affiliation: WAPA

Subject: CARB ZEV Forklift Rule\_Ag Coalition Comments  
Comment:

Attachment: 'www.arb.ca.gov/lists/com-attach/341-zeforklifts-VixTM1VmU2JWoM0d.pdf'

Original File Name: CARB ZEV Forklift Rule Ag Coalition Comments\_Final 3\_12-18-23.pdf

Date and Time Comment Was Submitted: 2023-12-26 20:03:24

No Duplicates.

**Comment 336 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Christine  
Last Name: Luther Zimmerman  
Email Address: Non-web submitted comment  
Affiliation: WSPA

Subject: Comments on the CARB Public Hearing to Consider the Proposed Zero-Emission Forklift Regula

Comment:

Please see attached file.

Attachment: 'www.arb.ca.gov/lists/com-attach/2-0-ViEGc wd2BzUHXIAz.pdf'

Original File Name: wspa comment.pdf

Date and Time Comment Was Submitted: 2024-01-18 11:04:36

No Duplicates.

**Comment 337 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 45 Day.**

First Name: Yuying

Last Name: Ma

Email Address: yuying.ma@dot.ca.gov

Affiliation: Office of Aviation Planning

Subject: Zero Emission Forklift Regulation - Draft EIA Review

Comment:

Please see attached file.

Attachment: 'www.arb.ca.gov/lists/com-attach/349-zeforklifts-AGNWMVE8ByAHc1Iz.pdf'

Original File Name: Caltrans EIA comment 12212024.pdf

Date and Time Comment Was Submitted: 2024-06-05 11:26:28

No Duplicates.

## **Comment 1 for Proposed Zero-Emission Forklift Regulation (zeforklifts). (At Hearing)**

First Name: Larry

Last Name: Schroeder

Email Address: larrykf11@gmail.com

Affiliation:

Subject: Zero-Emission Forklift

Comment:

With California importing 30% of its Electricity and with 48.7% coming from the burning of Fossil Fuels. How does Zero Emissions Forklifts impact emission output from adding an increase to the electric grid? Also with a lot of forklift being charged at night can you confirm the public's off peak electric rate will not increase because of this new regulation?

Thank you,

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2024-06-27 10:47:38

No Duplicates.



## **Comment 2 for Proposed Zero-Emission Forklift Regulation (zeforklifts). (At Hearing)**

First Name: Andrea

Last Name: Woods

Email Address: andrea@jbdewar.com

Affiliation: JB Dewar

Subject: Zero-Emission Forklifts

Comment:

Please do not consider zero-emission forklifts, they are infeasible, and the electric support structure cannot support more electric demand.

Thank you,

Andrea

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2024-06-27 11:29:14

No Duplicates.

## **Comment 3 for Proposed Zero-Emission Forklift Regulation (zeforklifts). (At Hearing)**

First Name: Kris  
Last Name: Flaig  
Email Address: kris.flaig@lacity.org  
Affiliation:

Subject: Zero-Emission Forklift Regulation - Economics for small businesses  
Comment:

Sir/Madam,  
It seems that California will lose some number of jobs and businesses with adoption of this rule. There is no question about that. But, this regulation can go into full effect, IF CARB supports financing of the forklifts for any of the industries or small businesses that have voiced such challenges. Use of propane seems to also be a verifiably life cycle winner of lower emissions when compared to electric forklifts.

So, unless CARB provides this financing, people will lose their jobs and owners will lose their businesses, unless the less expensive propane forklifts are allowed.

Unless CARB levels the field by providing free or zero-interest loans to each small business or essential public service who must buy one or more forklift, especially those who might need to buy three electric units to replace each existing unit, but must buy such forklift(s) at a cashflow loss for several years before then can break even.

Or, unless CARB comes to its senses regarding life cycle emissions of propane forklifts versus "clean" energy.

This seems like a safe bet for CARB and the people of California.

Respectfully yours,

Kris Flaig, PE

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2024-06-27 11:35:22

No Duplicates.

**Comment 1 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Matthew  
Last Name: Moravek  
Email Address: mmoravek@mcclone.net  
Affiliation: McClone Construction

Subject: Attachment A-1 Proposed 15-Day Changes  
Comment:

Attachment: [www.arb.ca.gov/lists/com-attach/343-zeforklifts-VTRUJIMmBzUKbwhg.pdf](http://www.arb.ca.gov/lists/com-attach/343-zeforklifts-VTRUJIMmBzUKbwhg.pdf)

Original File Name: Attachment A-1 Proposed 15-Day Changes.pdf

Date and Time Comment Was Submitted: 2024-05-31 14:00:39

No Duplicates.

## **Comment 2 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Michael  
Last Name: Caprio  
Email Address: mcaprio@republicservices.com  
Affiliation: Republic Services

Subject: 15 Day Zero-Emission Forklift Regulation  
Comment:

This is a point of clarification relative to Section 3007(b)3B1(c&d) - Page 47 - Fleet Eligibility Criteria for an Infrastructure Site Electrification Delay.

Republic Services has nearly 50 operating locations in CA with at least one affected forklift. Most of the facilities don't have a large number of forklifts (generally 1 per site) with the exception being our recycling plants which may have 3-4 forklifts at each location (there are 3 such facilities statewide). These locations are served by a wide range of public and municipal utilities.

Subdivision c of this section notes that in order for the extension request to be considered the "Fleet Operator has deployed the maximum number of ZEFs that can be supported by the electric utility provider". Due to the limited number of ZEF at each location, the number deployed will most likely be zero since the issue will be access to power or Construction Delays as noted below. There will be limited ability to move units between locations as is required in subdivision d of this section. This will be challenging due to the limited number of units at each site to start with (ie. 1 at most locations that is needed for continuation of operations at that location).

This is more of an FYI and that this type of situation may arise with several company's like ours that operate numerous locations throughout the state that have only 1 forklift. As such, our ability to power and deploy any forklifts at the site if there is an Infrastructure Site Electrification Delay or relocate units from another location and remain in compliance as we Phase Out certain model years will be extremely limited. This may also be the case for Infrastructure Construction Delay Extension requests (outlined on Page 44) as the criteria for receiving the extension are similar to the Electrification Delay criteria.

The reporting platform to be developed by CARB should allow us to map this out for CARB staff as it will be a complete listing of all of our units that operate in the state. We note this here as there is at times a tendency to view large corporations as having the resources to cover their needs state wide and just simply transfer spare equipment between locations. However, the Phase-Out Criteria along with the manufacturer, dealer and rental restrictions contained within the regulation could make it difficult to gain access to qualified forklifts as there will be a higher demand on compliant units throughout the state for all sectors. As noted, there will not be a surplus of spare units that are compliant

within our company pool due to the limited number at each location that are needed to continue operations at each site.

Just noting this so that if and when a situation such as the one described herein does arise, all of the factors noted are taken into consideration when reviewing the extension request. The interaction with several utilities will also complicate matters in this regard and since our Fleet will be viewed as an aggregate of our statewide position (due to the provisions in the Common Ownership or Control definition) the extension request will most likely involve information from multiple locations and multiple utilities.

Appreciate CARB staff's consideration of this note as well as clarifications made on comments we submitted on the 45 day rule (ie. are diesel powered forklifts governed by the rule or not).

Regards,

Michael Caprio  
Director of Government Affairs - CA

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2024-05-31 14:49:33

No Duplicates.

**Comment 3 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Bob

Last Name: Shepherd

Email Address: bshepherd@quinncompany.com

Affiliation: The California Caterpillar Dealers

Subject: Zero-Emission Forklift Regulation - 15 Day Comments

Comment:

Please see the attached.

Attachment: [www.arb.ca.gov/lists/com-attach/345-zeforklifts-B2AFbFYhUWdSJIM9.pdf](http://www.arb.ca.gov/lists/com-attach/345-zeforklifts-B2AFbFYhUWdSJIM9.pdf)

Original File Name: Governing Board Comments - 15-Day - Proposed Zero-Emission Forklift Regulation.pdf

Date and Time Comment Was Submitted: 2024-06-03 14:21:05

No Duplicates.

## **Comment 4 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Rosalie  
Last Name: Barcinas  
Email Address: Rosalie.Barcinas@sce.com  
Affiliation: SCE

Subject: Comments on Proposed 15-day Changes to the Zero-Emission Forklift Regulation  
Comment:

SCE supports a successful Zero Emission Forklift (ZEF) Regulation and requests that CARB eliminate the requirement for the customer to provide either historical billing or usage data in support of the Infrastructure Site Electrification Delay Extension.

Attachment: [www.arb.ca.gov/lists/com-attach/346-zeforklifts-VWVTY1Z5BWZWZQgm.pdf](http://www.arb.ca.gov/lists/com-attach/346-zeforklifts-VWVTY1Z5BWZWZQgm.pdf)

Original File Name: 06.05.2024.SCE ZE Forklift Comments.pdf

Date and Time Comment Was Submitted: 2024-06-04 17:54:48

No Duplicates.

## **Comment 5 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Luke  
Last Name: Webber  
Email Address: luke.webber@logisnextamericas.com  
Affiliation:

Subject: 15 Day Public Comment  
Comment:

Thank you for taking these comments into consideration during the development of the regulatory draft.

In addition, i also reviewed comments from Mr. Shephard (California Caterpillar Dealers) and also support CARB's efforts to consider this important feedback.

Attachment: [www.arb.ca.gov/lists/com-attach/347-zeforklifts-WzhRNIAjVWRVDA9.docx](http://www.arb.ca.gov/lists/com-attach/347-zeforklifts-WzhRNIAjVWRVDA9.docx)

Original File Name: CARB ZEF 15 day draft comments.docx

Date and Time Comment Was Submitted: 2024-06-05 09:11:49

No Duplicates.



**Comment 6 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Robert  
Last Name: Spiegel  
Email Address: rspiegel@cmta.net  
Affiliation: CMTA

Subject: Zero-Emission Forklift Regulation - 15 Day Comments  
Comment:

Please see the attached comments from the California Manufacturers & Technology Association (CMTA).

Attachment: [www.arb.ca.gov/lists/com-attach/348-zeforklifts-UjFcN1wpVGYDWgIv.pdf](http://www.arb.ca.gov/lists/com-attach/348-zeforklifts-UjFcN1wpVGYDWgIv.pdf)

Original File Name: CMTA - ZEF 15-Day Comments 6.05.24 .pdf

Date and Time Comment Was Submitted: 2024-06-05 11:01:37

No Duplicates.

**Comment 7 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Tommy

Last Name: Goodwin

Email Address: [tommy.goodwin@exhibitionsconferencesalliance.org](mailto:tommy.goodwin@exhibitionsconferencesalliance.org)

Affiliation: Exhibitions & Conferences Alliance

Subject: ECA CARB ZEF 15-day comments

Comment:

Please see attached. Thank you.

Attachment: [www.arb.ca.gov/lists/com-attach/350-zeforklifts-V2UGMFJhVDMKIQAaw.pdf](http://www.arb.ca.gov/lists/com-attach/350-zeforklifts-V2UGMFJhVDMKIQAaw.pdf)

Original File Name: 2024-06-05 -- ECA CARB ZEF 15-day comments.pdf

Date and Time Comment Was Submitted: 2024-06-05 13:14:37

No Duplicates.

## **Comment 8 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Alison

Last Name: Hahm

Email Address: ahahm@nrdc.org

Affiliation: T.H.E. Impact Project & Coalition Allies

Subject: Comments on CARB Zero-Emission Forklifts Regulation

Comment:

Dear Chair Randolph and Members of the Board,

On behalf of Earthjustice, NRDC, Sierra Club, CCAEJ, CCA, Pacific Environment, SPPHC, WLBA, and EYCEJ, we submit this comment letter regarding the proposed 15-day changes to the California Air Resources Board's Zero-Emission Forklift Rulemaking.

We appreciate CARB's hard work on the ZE Forklifts Regulation. In order to address the air quality challenges in California, we need to transition every segment of our transportation sector to zero-emissions. This regulation is an important step in that direction, but we urge CARB to adopt a more ambitious proposal that will bring us to 100 percent zero-emission forklifts by 2035.

Thank you for your consideration of our comments.

Attachment: [www.arb.ca.gov/lists/com-attach/351-zeforklifts-ADZWfVFIVCpRZVRg.pdf](http://www.arb.ca.gov/lists/com-attach/351-zeforklifts-ADZWfVFIVCpRZVRg.pdf)

Original File Name: 6-5-24 Impact Project ZE Forklifts Letter\_Final.pdf

Date and Time Comment Was Submitted: 2024-06-05 14:49:51

No Duplicates.

**Comment 9 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: James  
Last Name: Simonelli  
Email Address: james@metalscoalition.com  
Affiliation: California Metals Coalition

Subject: Comments on 15-day Zero Emission Forklift Regulation  
Comment:

Thank you for the opportunity to comment. Please see attached.

Attachment: [www.arb.ca.gov/lists/com-attach/352-zeforklifts-BjcFNgYqUWZWMVcu.pdf](http://www.arb.ca.gov/lists/com-attach/352-zeforklifts-BjcFNgYqUWZWMVcu.pdf)

Original File Name: 15-DAY\_ZEF\_Comments\_CMC\_June5.pdf

Date and Time Comment Was Submitted: 2024-06-05 15:59:17

No Duplicates.

**Comment 10 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Allegra  
Last Name: Curiel  
Email Address: allegrac@cceb.org  
Affiliation: CCEEB

Subject: RE: Proposed Zero-Emission Forklift 15-Day Regulatory Package  
Comment:

Attachment: [www.arb.ca.gov/lists/com-attach/353-zeforklifts-UjFTNgZiVGJXM1UK.pdf](http://www.arb.ca.gov/lists/com-attach/353-zeforklifts-UjFTNgZiVGJXM1UK.pdf)

Original File Name: CCEEB ZEF 15 Day 06.05.24.pdf

Date and Time Comment Was Submitted: 2024-06-05 16:49:57

No Duplicates.

**Comment 11 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Priscilla  
Last Name: Rodriguez  
Email Address: priscilla@ccgga.org  
Affiliation:

Subject: Proposed ZEV Forklift Rule Ag Coalition Comments  
Comment:

Please see attachment.

Attachment: [www.arb.ca.gov/lists/com-attach/354-zeforklifts-AWJSNVAjBDVXDgJ4.pdf](http://www.arb.ca.gov/lists/com-attach/354-zeforklifts-AWJSNVAjBDVXDgJ4.pdf)

Original File Name: CARB ZEV Forklift Rule Ag Coalition Comments\_Final\_ 6-5-24.pdf

Date and Time Comment Was Submitted: 2024-06-05 16:57:53

No Duplicates.

**Comment 12 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Karen

Last Name: Mann

Email Address: kmann@trccompanies.com

Affiliation: TRC

Subject: Lower Phase-Out Cap for Large Fleets and Modifications to Infrastructure Extensions  
Comment:

Attachment: [www.arb.ca.gov/lists/com-attach/355-zeforklifts-VSFUIFc1VVkHYgJt.pdf](http://www.arb.ca.gov/lists/com-attach/355-zeforklifts-VSFUIFc1VVkHYgJt.pdf)

Original File Name: TRC Comments on ZE Forklift Regulation.pdf

Date and Time Comment Was Submitted: 2024-06-05 17:49:13

No Duplicates.

**Comment 13 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Jacob

Last Name: Asare

Email Address: jasare@aednet.org

Affiliation: State Government Affairs Manager - AED

Subject: Zero-Emission Forklift Regulation Proposed 15-Day Modifications

Comment:

Attachment: [www.arb.ca.gov/lists/com-attach/356-zeforklifts-VjcGZVYzUixVMFU0.pdf](http://www.arb.ca.gov/lists/com-attach/356-zeforklifts-VjcGZVYzUixVMFU0.pdf)

Original File Name: AED-CARBForkliftComments-15Day.pdf

Date and Time Comment Was Submitted: 2024-06-05 17:44:43

No Duplicates.



**Comment 14 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Michael

Last Name: Lewis

Email Address: mike@lewisandco.net

Affiliation: CIAQC

Subject: Forklift comments

Comment:

Attachment: [www.arb.ca.gov/lists/com-attach/357-zeforklifts-USFVIQBuaIEBaFck.pdf](http://www.arb.ca.gov/lists/com-attach/357-zeforklifts-USFVIQBuaIEBaFck.pdf)

Original File Name: Proposed Zero-Emission Forklift Regulation – 15-Day Comments (1).pdf

Date and Time Comment Was Submitted: 2024-06-05 19:38:57

No Duplicates.

**Comment 15 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Bridget  
Last Name: McLeavy  
Email Address: mcleavyb@emwd.org  
Affiliation: Eastern Municipal Water District

Subject: Clarification Compliance Dt - Alternative Schedule for LSI Small Fleet  
Comment:

Please see attached file.

Attachment: [www.arb.ca.gov/lists/com-attach/359-zeforklifts-AWJTOVAwWXgFagZg.pdf](http://www.arb.ca.gov/lists/com-attach/359-zeforklifts-AWJTOVAwWXgFagZg.pdf)

Original File Name: Clarification Compliance DT - Alternative Schedule for LSI Small Fleet.pdf

Date and Time Comment Was Submitted: 2024-06-11 12:19:00

No Duplicates.

**Comment 16 for Proposed Zero-Emission Forklift Regulation (zeforklifts) - 15-1.**

First Name: Michael  
Last Name: Villanueva  
Email Address: mvillanueva@syaslparkers.com  
Affiliation: WPGA

Subject: ZEForklifts Regulation  
Comment:

Please see attached File

Attachment: [www.arb.ca.gov/lists/com-attach/362-zeforklifts-USZQJgNIWGoLUgVm.pdf](http://www.arb.ca.gov/lists/com-attach/362-zeforklifts-USZQJgNIWGoLUgVm.pdf)

Original File Name: WPGA Comments.pdf

Date and Time Comment Was Submitted: 2024-06-14 15:13:19

No Duplicates.