

## **Comment 1 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Ronald

Last Name: Stein

Email Address: rstein@PTSstaffing.com

Affiliation:

Subject: Transparency of any results from the emissions crusade

Comment:

When will the ARB and AQMD provide transparency of the results of the emissions crusade? California's flagship climate change policy Assembly Bill 32, the Global Warming Initiative was signed into law in 2006 when California was contributing 1% to the worlds green hose gases. And now, 10 years later, by AVOIDING transparency of the results of the California emissions crusade, the state only focuses on how to spend the cap and trade funds they receive.

Now, a decade later, California still contributes a miniscule 1 percent ( 1%) and has had little to no impact on the reduction of global greenhouse gas emissions. With many of the businesses the emit now departed from California, the contributions to the worlds greenhouse gases has actually INCREASED as no other state or country comes close to California which has the most stringent environmental laws and regulations in the world.

California is in a precarious position, being an energy island with the Sierra Mountains on one side and the Pacific Ocean on the other side. The 40,000,000 million gallons of transportation fuel being consumed EVERY DAY by the present 32 million vehicles are only manufactured here in California by the few refineries that are left, as virtually no other state or country can provide our boutique fuels in a timely manner to California. Sounds like a lot of fuel, but it's just more than 1 gallon per day, per vehicle!

Contributory to the islands high cost of fuel is that California's boutique fuels are not manufactured at present in other states or countries, the high California taxes on fuel, and the extra costs for California's emission crusade. There are no pipelines to bring into the state, the energy needed to run the economy. If it were less expensive to import our transportation fuels, it would already be in process.

If and when other states or countries opt to manufacture the California boutique fuels, the results of importing our energy needs via trucks, rail and ships from States and Counties that have less stringent environmental controls than California, would be increases to the world's greenhouse gasses, and increases in costs for our transportation fuels, energy, and every product that are the basis of our standard of living for those living in California.

Yet, the state, by avoiding transparency of the results of the California emissions crusade remains on a go-it-alone crusade to micro manage the California emissions that generates billions of dollars for the government at the expense of businesses and the financially challenged. With numerous state government agencies, there is a feeding frenzy on getting a piece of the lucrative cap and trade tax revenue, yet there remains no progress in California reducing its contribution to the Worlds Greenhouse gasses. When will the AQMD will provide transparency of the results of the

emissions crusade?

The public, especially the homeless and poor that are paying dearly for the emissions crusade efforts of the ARB and AQMD deserves to know if there is any progress over the last decade in reducing California's 2006 1% contribution to the world's greenhouse gases.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2016-04-12 05:58:40

No Duplicates.

**Comment 2 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Sarah

Last Name: Taheri

Email Address: staheri@scppa.org

Affiliation: Southern CA Public Power Authority

Subject: Southern CA Public Power Authority Comments on Cost Containment & Cap-Setting  
Comment:

Please see attached.

Attachment: [www.arb.ca.gov/lists/com-attach/2-sectorbased3-ws-UyBTNgFwByRQNwBf.pdf](http://www.arb.ca.gov/lists/com-attach/2-sectorbased3-ws-UyBTNgFwByRQNwBf.pdf)

Original File Name: SCPPA Comments on Cost Containment & Cap-Setting\_Final.pdf

Date and Time Comment Was Submitted: 2016-04-15 09:51:03

No Duplicates.

**Comment 3 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Ken

Last Name: Nold

Email Address: krnold@tid.org

Affiliation:

Subject: TID March 29 Allowance Allocation Workshop Comments

Comment:

TID Comments for March 29 Allowance Allocation Workshop

Attachment: [www.arb.ca.gov/lists/com-attach/3-sectorbased3-ws-UydWOVI3UV0KbQdr.pdf](http://www.arb.ca.gov/lists/com-attach/3-sectorbased3-ws-UydWOVI3UV0KbQdr.pdf)

Original File Name: TID Allowance Allocation March 29, 2016 Workshop Comments.pdf

Date and Time Comment Was Submitted: 2016-04-15 17:16:07

No Duplicates.

**Comment 4 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Norvell

Last Name: Nelson

Email Address: norv@ltvcorporate.com

Affiliation: Longbow Technology Ventures

Subject: Comments on April 5, 2016 Workshop

Comment:

The attached comments were primarily prepared for the April 4 LCFS Workshop but material from the April 5 Workshop on Cap and Trade was included in those comments so a copy here seemed natural.

Regards.

Norvell Nelson Ph.D.

CTO Longbow Technology Ventures

Former Member Citizens Advisory Council SBCAPCD

Attachment: [www.arb.ca.gov/lists/com-attach/4-sectorbased3-ws-ATNVY1xsAGVSZAM3.docx](http://www.arb.ca.gov/lists/com-attach/4-sectorbased3-ws-ATNVY1xsAGVSZAM3.docx)

Original File Name: 20160415 Comments on ARB Workshop 20160404 LCFS, Rev 2.docx

Date and Time Comment Was Submitted: 2016-04-18 12:34:15

No Duplicates.

## **Comment 5 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Thomas

Last Name: Vessels

Email Address: tvessels@vesselscoalgas.com

Affiliation:

Subject: Cost containment of Cap and Trade

Comment:

I respectfully recommend that California continue to take the lead in policies to slow climate change by:

Concentrate on reducing methane and black carbon in the atmosphere. According to scientific findings attached herewith, reducing those will make the most cost effective repair to climate damage in the short term. The most cost effective strategies to repair the climate will likewise contain the cost of climate repair.

Evaluating proposals and initiatives based on their climate repair potential in a 20 year time frame instead of a 100 year time frame. The United States Environmental Protection Agency (EPA) and United Nations Framework on Climate Change (UNFCCC) use a 100 year time frame that was developed in the 1990s when interested parties thought we had 100 years. Climate change is occurring faster than early modeling predicted and we are seeing the impacts now. We are in climate change.

Go immediately to using Scientific information and guidance and let the EPA and UNFCCC catch up with California instead of California waiting for the EPA to adjust. Methane and Soot or black carbon reduction in the atmosphere will make the quickest repair to climate damage in the most cost effective way. According to scientific analysis a 20 year global warming potential for methane is 100 not the 21 currently used by California or the 25 used by the EPA.

Attachment: [www.arb.ca.gov/lists/com-attach/5-sectorbased3-ws-BWhdNlAyVGQCZVIX.pdf](http://www.arb.ca.gov/lists/com-attach/5-sectorbased3-ws-BWhdNlAyVGQCZVIX.pdf)

Original File Name: MMCCACAPTRADEGMIDC2016.pdf

Date and Time Comment Was Submitted: 2016-04-21 12:37:29

No Duplicates.

**Comment 6 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Claire  
Last Name: Halbrook  
Email Address: cehu@pge.com  
Affiliation: PG&E

Subject: PG&E Comments on April 5 Cost Containment Workshop  
Comment:

PG&E Comments on April 5 Cost Containment Workshop

Attachment: [www.arb.ca.gov/lists/com-attach/6-sectorbased3-ws-BXVXNIYyVVIQNQVq.pdf](http://www.arb.ca.gov/lists/com-attach/6-sectorbased3-ws-BXVXNIYyVVIQNQVq.pdf)

Original File Name: PGE Comments on 4\_5 Cost Containment\_Final 4\_22\_16.pdf

Date and Time Comment Was Submitted: 2016-04-22 14:02:20

No Duplicates.

**Comment 7 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: William

Last Name: Westerfield

Email Address: [william.westerfield@smud.org](mailto:william.westerfield@smud.org)

Affiliation: Sacramento Municipal Utility District

Subject: SMUD Comments Pursuant to April 5th Workshop

Comment:

Please see attached comments.

Attachment: [www.arb.ca.gov/lists/com-attach/7-sectorbased3-ws-WyhXPARwVWIFXFc0.pdf](http://www.arb.ca.gov/lists/com-attach/7-sectorbased3-ws-WyhXPARwVWIFXFc0.pdf)

Original File Name: SMUD comments to ARB Re April 5th workshop - LEG 2016-0311.pdf

Date and Time Comment Was Submitted: 2016-04-22 14:08:50

No Duplicates.



**Comment 8 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Mark

Last Name: Purdon

Email Address: mark.purdon@iqcarbone.org

Affiliation: Institut québécois du carbone (IQCarbone)

Subject: omments on April 5, 2016 Workshop - Ongoing Evaluation of the Potential for Sector-Based O  
Comment:

Please see attached document.

Attachment: [www.arb.ca.gov/lists/com-attach/8-sectorbased3-ws-VSVQI1wvUmUAaQRq.pdf](http://www.arb.ca.gov/lists/com-attach/8-sectorbased3-ws-VSVQI1wvUmUAaQRq.pdf)

Original File Name: Purdon\_IQCarbone\_California REDD\_Final.pdf

Date and Time Comment Was Submitted: 2016-04-22 14:45:45

No Duplicates.

**Comment 9 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Christie

Last Name: Pollet-Young

Email Address: cpollet-young@scscertified.com

Affiliation: SCS Global Services

Subject: Verification Comments for Sector-Based Offsets

Comment:

Please see attached document.

Attachment: [www.arb.ca.gov/lists/com-attach/9-sectorbased3-ws-AnFdOANxAw8KYFQx.pdf](http://www.arb.ca.gov/lists/com-attach/9-sectorbased3-ws-AnFdOANxAw8KYFQx.pdf)

Original File Name: SCS Letter to ARB\_042216.pdf

Date and Time Comment Was Submitted: 2016-04-22 15:51:06

No Duplicates.

## **Comment 10 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Leslie  
Last Name: Durschinger  
Email Address: leslie.durschinger@terraglobalcapital.com  
Affiliation:

Subject: Comments on Sector-Based Workshop- April 2016  
Comment:

April 22, 2016

Dear Air Resources Board,  
Thank you very much for your tremendous effort in creating the recommendations for California's inclusion of REDD+ jurisdictional offsets into the AB 32 compliance program. Terra appreciates the significant amount of work is going into designing the sector-based crediting program. We at Terra, completely support the inclusion of jurisdictional REDD in the AB 32 compliance program, as a way to both deliver cost effective compliance grade offsets, and if designed properly, benefit communities who manage their land and forests sustainability.

Terra Global Capital, LLC was founded in 2006 to facilitate market and payment-for-performance based approaches for forest and land-use emission reductions that provide community benefits. Terra is now the leader in forest and land-use analytics and finance, providing technical expertise and investment capital to their global client base in a collaborative and innovative manner. As a group, Terra has more global experience in the land-use carbon sector than any other entity and is committed to working with its local partners to build capacity and support local communities and governments to sustainably manage their land. Terra has extensive developing country experience and is the leading developer of protocols to measure GHG emissions reductions from a full range of agricultural activities in the United States.

For jurisdictional REDD+ Terra was one of the lead technical writers of the VCS Jurisdictional Nested REDD Requirements (JNR) and is on the JNR Permanence and Leakage work groups. Terra developed one of the first papers on Operationalizing jurisdictional REDD for the Governors' Climate and Forest Task Force and recently has provided technical finance, operational, MRV and leakage support the Forest Carbon Partnership Fund. Terra provides technical support to the government of Congo in the preparation of the emission reduction program document (ER-PD), for their participation in the results-based payment of the World Bank Carbon Fund. In addition, Terra work on the design and implementation of the USAID BIOREDD jurisdictional program along the Colombian coast. Please accept the following high level comments:

Buffer Pool

Terra suggests that ARB use a buffer pool to account for potential reversals. The buffer pool is an appropriate cost-effective approach to risk management, and can be applied to all jurisdictions in a similar manner. There are many standards that use a risk-buffer and years of knowledge can be leveraged from these existing standards. Terra does not suggest that a specified percentage of credits should be set aside for each jurisdiction, but that there are "risk ratings" given at each verification period (similar to that of the AFOLU Non-Permanence Risk Tool). This step-wise approach can be applied to 1) Human-caused risk broken down into Management Risk (or risk associated with implementation

and maintenance of REDD+ activities), Political Risk (such as legal and regulatory, political stability), and 2) Natural Risk (wildfire, pests or other ecological risks, including a changing climate). By defining risks on a more granular manner, the appropriate risk mitigation and non-permanence buffer methodologies can be applied. Over time, as the jurisdiction reduces risk (such as implementing climate mitigation activities, deeply engaging communities, has better political stability, etc.), the risk rating should be reduced, and less credits should be held in the buffer pool. The use of the buffer pool and the reduction of the buffer pool over time encourages jurisdictions to improve in all methods from political stability, to improved forest management, and community engagement.

#### Insurance

The effectiveness of insurance to reduce reversal risk depends on the type of risk that would lead to the reversal and whose risk is being insured. If sectoral credits carry with them the same buyer liability that domestic offsets carry for invalidation and this is applied to cases where reversals were over a threshold, then sectoral credit buyers could seek to use insurance instruments to reduce this risk. The threshold could be set such that it is triggered only after the jurisdiction's own risk buffer pool, as defined in their methodology and funded with credits, does not have adequate credits to cover the reversal. In this way, it 1) requires jurisdictions to have risk buffers (based on their methodology and program risk), 2) provides protections within AB 32 through buyer liability for any remaining reversals, and 3) sets up a structure where credits from different jurisdictions can trade according to their specific risk. This use of insurance by sectoral credit buyers will then be a decision of risk/return versus other compliance instruments. Depending on the legal instrument between California and the jurisdiction, there may also be an interesting case for the state to use insurance to protect the integrity of their program.

For specific applications of insurance there are two possibilities, insuring 1) natural risk and 2) political risk. There are products that have been developed to protect against weather damage to crops and timber, but to date there has been limited use of these to insure carbon values against natural risks. The existing products could evolve if there is meaningful demand from the users of sectoral credit under AB 32.

For political risk, Terra developed a product with Overseas Private Investment Corporation (OPIC), that was used to protect Terra against loss of carbon linked investment value due to expropriation by the government and/or political violence. This was applied to an investment made by Terra in a REDD+ project in Cambodia and provides protection in the case where the government breaches its agreement or if there is political violence in the REDD+ area that destroys carbon credits. Besides OPIC, MIGA provides political risk insurance, but has yet to underwrite a pure carbon based policy like OPIC. This product could be very valuable to credit buyers and possibly the state to protect against loss of value. OPIC has in the past indicated that they would also be in a position to insure against changes in law that demands investment value. This could be very useful in the REDD+ sector which is still in the early stages of regulatory development.

These products could be a compliment but not replacement for sound risk assessment that funds jurisdictional non-permanence risk buffer pools. Any methods that discount the future or apply general not risk based deductions will be counterproductive.

#### Leakage

At a high level, the leakage risk being addressed appears to represent market and commodity leakage, and does not include activity shifting leakage, or geographically constrained, subsistence based leakage. Activities, such as sustenance agriculture, shifting from one jurisdiction to another need to be clearly addressed and quantified.

In order to properly address market or commodity leakage, Approach 1 is most appropriate. Approach 1 more closely aligns with internationally recognized standards, although the data required to

measure the loss in production and determine the proxy of land maybe difficult to obtain in a credible way. In order to address this, accepted jurisdictions must demonstrate the availability of the required data. Approach 1 must include conditions in which a decrease in production should not be penalized due to a downturn in market or other market forces.

Approach 2 does not appear to capture a quantifiable leakage discount and it is unclear how that approach can contribute to managing leakage. In general, activities suggested to reduce leakage within the jurisdiction, are just activities to reduce deforestation.

#### Jurisdictional Offset Tracking System

With regards to the proposed minimum standards for the jurisdictional offset tracking systems, Terra agrees with the list set forth by ARB. However, we would add to the condition that the system is transparent and publicly available free of charge, that there would need to be mechanisms in place to protect commercially sensitive information.

We support the inclusion of nested projects within a jurisdictional program to also be accounted for and tracked within the offset tracking system, some of which include REDD early movers, The Forest Carbon Fund and ISFL.

#### Monitoring, Reporting and Verification

At a high level, ARB should specify in the regulations an overarching set of principles and criteria, or set of standards, that all jurisdictions need to meet at a minimum in order to be considered in the sector-based crediting program. Jurisdictions must define methods followed in order to meet the principles and criteria. Terra would like to make it clear that there should be separate validation and verification events. Methodologies used for sector-based crediting programs should be validated by a third party to verify that the methods used follow ARB's set of standards. Terra views verification as the event where activities implemented are confirmed and credits are issued. Verification should be separate then monitoring, as monitoring should be continual for different events and activities implemented through or triggered by the program.

Terra suggests that there is an independent third-party used for both validation and verification. This is the most objective approach to give guidance on the success of the program. ARB's current verification standards could be followed for the design of and definition of the verification procedures

Terra supports that jurisdictional sector-based crediting programs should be fully transparent with sufficient information provided on methods and underlying uncertainty estimations to permit full evaluation and verification. Terra also supports that jurisdictions can be transparent on procedures used while protecting intellectual property. The use of an independent third-party can help with both meeting transparency requirements and the protection intellectual property.

Thank you,

Leslie Durschinger  
Founder, Managing Director  
Terra Global Capital, LLC

Attachment: [www.arb.ca.gov/lists/com-attach/10-sectorbased3-ws-VyNQMWbZWHkFYIUK.pdf](http://www.arb.ca.gov/lists/com-attach/10-sectorbased3-ws-VyNQMWbZWHkFYIUK.pdf)

Original File Name: Terra Global Comments to Workshop in April 2016 v1-0.pdf

Date and Time Comment Was Submitted: 2016-04-22 16:45:17

No Duplicates.



**Comment 11 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Richard

Last Name: Saines

Email Address: richard.saines@bakermckenzie.com

Affiliation: Encourage Capital

Subject: Comments of Encourage Capital in Support of REDD+  
Comment:

Please see attached.

Attachment: [www.arb.ca.gov/lists/com-attach/11-sectorbased3-ws-AWJXOQNrUGdROlAj.pdf](http://www.arb.ca.gov/lists/com-attach/11-sectorbased3-ws-AWJXOQNrUGdROlAj.pdf)

Original File Name: CHIDMS1-#3712178-v2-ARB\_Comments\_on\_Apri\_5\_\_2016\_REDD\_Workshop.pdf

Date and Time Comment Was Submitted: 2016-04-25 15:55:50

No Duplicates.

**Comment 12 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Evan

Last Name: Vessels

Email Address: [evan.vessels@gmail.com](mailto:evan.vessels@gmail.com)

Affiliation: Vessels Coal Gas Inc.

Subject: Cost Containment and Other Cap and Trade Concerns

Comment:

I am with an environmental remediation company in Colorado. California carbon offsets help make our line of business economical. Over the years I have encountered many organizations and people who would be interested in either clean energy, or environmental remediation if there were good economics. I am attempting to convince them that because of California, Ontario, and now Quebec (and hopefully more to come, Colorado?) there are.

Attachment: [www.arb.ca.gov/lists/com-attach/12-sectorbased3-ws-UyEBYgZkVGgBalcy.docx](http://www.arb.ca.gov/lists/com-attach/12-sectorbased3-ws-UyEBYgZkVGgBalcy.docx)

Original File Name: recommendations to ARB for cost containment and sector specific offsets.docx

Date and Time Comment Was Submitted: 2016-04-28 10:12:56

No Duplicates.



**Comment 13 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Katie  
Last Name: Sullivan  
Email Address: sullivan@ieta.org  
Affiliation:

Subject: IETA Comments on Post-2020 Cost-Containment  
Comment:

Comments Attached

Attachment: [www.arb.ca.gov/lists/com-attach/13-sectorbased3-ws-VTxTMFQhUWNsc1U2.pdf](http://www.arb.ca.gov/lists/com-attach/13-sectorbased3-ws-VTxTMFQhUWNsc1U2.pdf)

Original File Name: IETA\_Comments\_ARB Cost-Containment\_28Apr2016.pdf

Date and Time Comment Was Submitted: 2016-04-28 16:44:34

No Duplicates.

**Comment 14 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Catherine  
Last Name: Reheis-Boyd  
Email Address: creheis@wspa.org  
Affiliation: WSPA

Subject: WSPA Comment on ARB's Workshops on Sector-based Offsets  
Comment:

See attached.

Attachment: [www.arb.ca.gov/lists/com-attach/14-sectorbased3-ws-VCMFcFMiVmQLUgRn.pdf](http://www.arb.ca.gov/lists/com-attach/14-sectorbased3-ws-VCMFcFMiVmQLUgRn.pdf)

Original File Name: WSPA Comments on ARB Sector-Based Offsets Presentations.pdf

Date and Time Comment Was Submitted: 2016-05-02 14:12:22

No Duplicates.

**Comment 15 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Catherine  
Last Name: Reheis-Boyd  
Email Address: creheis@wspa.org  
Affiliation: WSPA

Subject: WSPA comments on Cap & Trade Cost Containment  
Comment:

See attached.

Attachment: [www.arb.ca.gov/lists/com-attach/15-sectorbased3-ws-ViFSJwFwAzFRCFQ3.zip](http://www.arb.ca.gov/lists/com-attach/15-sectorbased3-ws-ViFSJwFwAzFRCFQ3.zip)

Original File Name: WSPA comment letter AB 32 Offsets Workshops\_05\_13\_2016\_final.zip

Date and Time Comment Was Submitted: 2016-05-16 13:27:55

No Duplicates.

**Comment 16 for April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) - 1st Workshop.**

First Name: Erica  
Last Name: Morehouse  
Email Address: emorehouse@edf.org  
Affiliation: EDF

Subject: Cost containment comments  
Comment:

See attached.

Attachment: [www.arb.ca.gov/lists/com-attach/16-sectorbased3-ws-VDFRM1QzVloKb1R5.pdf](http://www.arb.ca.gov/lists/com-attach/16-sectorbased3-ws-VDFRM1QzVloKb1R5.pdf)

Original File Name: EDF C-T Cost Conatinment.pdf

Date and Time Comment Was Submitted: 2016-06-06 13:09:23

No Duplicates.

**There are no comments posted to April 5, 2016 Cap-and-Trade Workshop on Cost-Containment and Sector-Based Offsets (sectorbased3-ws) that were presented during the Workshop at this time.**