

Comment 1 for Public comments on the innovative concept application for Shell (atberth-icapp-08-ws) - 1st Workshop.

First Name: Mark
Last Name: Hoffberg
Email Address: mark.b.hoffberg@gmail.com
Affiliation:

Subject: Comments to the Board
Comment:

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<h5 dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 2pt;"><span style="font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #404040; background-color: transparent; font-weight: bold; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre-wrap;">Legal Issues</span></h5>
<ol style="margin-top: 0; margin-bottom: 0; padding-inline-start: 48px;">
<li dir="ltr" style="list-style-type: decimal; font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre;" aria-level="1">
<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 10pt;" role="presentation"><span style="font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: bold; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre-wrap;">The draft plan does not demonstrate that California is on track to even meet the legally mandated goal of at least a 40% reduction in greenhouse gases by 2030.[2]</span><span style="font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre-wrap;"> Short-lived climate pollutants are particularly unlikely to achieve a 40 percent reduction.</span></p>
</li>
<li dir="ltr" style="list-style-type: decimal; font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre;" aria-level="1">
<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 10pt;" role="presentation"><span style="font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: bold; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre-wrap;">The draft plan does not follow AB 32's requirement that California achieve "the maximum technologically feasible" emission reductions, using the most cost-effective methods.[3] </span><span style="font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent;
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font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre-wrap;">“Air board officials said they will propose the option that has the least impact on the economy rather than accelerating the pace of achieving carbon neutrality.”[1]</p>

<h5 dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 2pt;">>Scientific Issues</h5>

<ol style="margin-top: 0; margin-bottom: 0; padding-inline-start: 48px;">>

<li dir="ltr" style="list-style-type: decimal; font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre;" aria-level="1">

<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 10pt;" role="presentation">>The draft plan will not keep global temperatures close to what scientists say will avoid catastrophe. >The world has only ten years to cut greenhouse gas emissions by 50 percent if we are to attain the goal. President Biden has committed the United States to a 50 percent reduction by 2030. Yet the draft plan admits that it may not achieve even 40 percent by 2030.</p>

<li dir="ltr" style="list-style-type: decimal; font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre;" aria-level="1">

<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 10pt;" role="presentation">>The science of climate change requires front-loading our response. >“If mitigation pathways are not rapidly activated, much more expensive and complex adaptation measures will have to be taken to avoid the impacts of higher levels of global warming on the Earth system.”[4]</p>

<li dir="ltr" style="list-style-type: decimal; font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre-wrap;">>“If mitigation pathways are not rapidly activated, much more expensive and complex adaptation measures will have to be taken to avoid the impacts of higher levels of global warming on the Earth system.”[4]</p>

font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre;" aria-level="1">
<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 10pt;" role="presentation">California's goal should be at least an 80 percent reduction in emissions by 2030. Prof. Daniel Kammen, former coordinating author of the Intergovernmental Panel on Climate Change and Professor of Sustainability at UC Berkeley, set out a scientifically backed and feasible program for California in 2021. It calls for an 80 percent reduction in emissions by 2030.[5]</p>

<li dir="ltr" style="list-style-type: decimal; font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre;" aria-level="1">
<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 10pt;" role="presentation">The draft plan only aims for an 80 percent reduction in emissions by 2045. Even more troubling, the draft's reliance on carbon capture and sequestration (CCS) or direct air capture of carbon (DAC) to reduce 20 percent of our emissions is more than New York (15 percent) and far more than the State of Washington (5 percent) anticipates.[6]</p>

<li dir="ltr" style="list-style-type: decimal; font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre;" aria-level="1">
<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 10pt;" role="presentation">Neither CCS nor DAC should be counted on as scalable. The March 28,<span style="font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none;

vertical-align: baseline; white-space: pre-wrap;">
2022 IPCC report on the capacity
of different actions to reduce greenhouse gases puts CCS as the least effective and most expensive of the 43 climate actions the IPCC evaluated for deployment prior to 2030.[7]</p>

<h5 dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 2pt;">Environmental Justice Problems</h5>
<ol style="margin-top: 0; margin-bottom: 0; padding-inline-start: 48px;">
<li dir="ltr" style="list-style-type: decimal; font-size: 12.499999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; text-decoration: none; vertical-align: baseline; white-space: pre;" aria-level="1">
<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 10pt;" role="presentation">The draft plan drags out elimination of pollution that disproportionately affects poor people and people of color. But rapid elimination of GHG pollution costs less than the health costs of continuing pollution. [8]</p>

<li dir="ltr" style="list-style-type: decimal; font-size: 12.499999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre;" aria-level="1">
<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 10pt;" role="presentation">CARB’S Environmental Justice Advisory Council (EJAC), which advises the CARB Board, has demanded faster and more comprehensive measures

than in the draft plan so as to protect disadvantaged communities, particularly those suffering from air pollution.[9]</p><h5 dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 2pt;">Short-lived Climate Pollutants (SLCPs)</h5><ol style="margin-top: 0; margin-bottom: 0; padding-inline-start: 48px;"><li dir="ltr" style="list-style-type: decimal; font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre;" aria-level="1"><p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 10pt;" role="presentation">The draft scoping plan recognizes the importance of SLCP abatement but not the importance of moving very quickly.[10]</p><li dir="ltr" style="list-style-type: decimal; font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre;" aria-level="1"><p dir="ltr" style="line-height: 1.38; margin-top: 0pt; margin-bottom: 10pt;" role="presentation">Reduction of emissions from HFC refrigerants having thousands of times more warming effect than carbon dioxide must be greatly accelerated.[11]</p><li dir="ltr" style="list-style-type: decimal; font-size: 12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre;" aria-level="1"><p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 10pt;" role="presentation"><span style="font-size:

12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: bold; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre-wrap;">The draft plan expects to reduce fugitive emissions of methane by 50 percent, but that will not be enough to keep global warming to no more than 1.5

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C.

[12]

Cap and Trade

48px;

12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre;" aria-level="1">

Highly reputable critics of California's Cap and Trade program, our market-based carbon pricing method, believe the program may not be able to achieve even its limited emission reduction goal by 2030.

[13]

12.49999999999998pt; font-family: Calibri,sans-serif; color: #505050; background-color: transparent; font-weight: 400; font-style: normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre;" aria-level="1">

As a market-based mechanism, the Cap and Trade program does not reduce major sources

of pollution fast enough. CARB should consider replacing parts of it by direct regulation.[14]</p>

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<p dir="ltr" style="line-height: 1.38; margin-top: 0pt; margin-bottom: 0pt;">[1] Nadia Lopez. Lower cost, slower gains: California prepares controversial new climate strategy. CalMatters, April 28, 2022. <span

<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 11pt;">[2] See the critique of the plan by Danny Cullenward, Ph.D.: <a style="text-decoration: none;" href="https://url1005.email.actionnetwork.org/ss/c/Mqag7sW8TIW-nixyBdulQt_duhFIJOrHENVduhVASvNOHZaYQBjY69uAVCI8lMKfK_07lgO4t5j9Hlld74hi jz5Z8pVkJUmD8P2uAfPusy-HqhIU05QceaJAFPw6op8lGb_DDIw29zKKwbhBG5EZ-NZkT4sDtFrpRVAa3GacrveZBAIwamSH2FfMwWg_TtqFtv1LFhgjDvW6AlisLQ4JT23kUCdVZfcZcUd07tKX2_R-

WsPHNbe28NGK7bLnkSlaijssvOzqnUUiVlhX50k_fd10KWMgB1CKOBYm6foRet1lCV1liqdmEBUqnCHjXvUIcz-og4JzE5wFSLRl9OhIKQw/3n3/wr8MkM5mQRO3zDj8nWF44g/h1/ObMwBN9gs4lZQlPb6be-igcMz0AkjsVL3lLunFFtfqU"><span

<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 11pt;">[3] “Air board officials said they will propose the option that has the least impact on the economy rather than accelerating the pace of achieving carbon

neutrality.” Lopez, Nadia. “Lower cost, slower gains: California prepares controversial new climate strategy.” CalMatters, April 28, 2022. https://calmatters.org/environment/2022/04/california-climate-change-strategy/</p><p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 11pt;">[4] https://www.ipcc.ch/sr15/cross-chapter-boxes/</p><p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 11pt;">[5] Kammen, Daniel M., Teenie Matlock, Manuel Pastor, David Pellow, Veerabhadran Ramanathan, Tom Steyer, Leah Stokes, and Feliz Ventura. "Accelerating the timeline for climate action in California." arXiv preprint arXiv:2103.07801(2021).</p><p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 11pt;"><a style="text-decoration: none;" href="https://url1005.email.actionnetwork.org/ss/c/P8Elou2Rvc0qoMPEUZrMXRHZ5wZtP7A9_8D0a5JnHwOcQvmHt7F9pkevJzFdNQ_QNXz1WlhMSKLDRAThfUifD5unl5FKLeqcp21PxNfKe79dYOSzqNDRYV4ihTn4Z4kbq6CnYgUijSUGitJnsa7IymDTkocOjMttcJMmHrtLq4KvNEvtDhMDqWdRu8rDGyMvRQ83cUfulTL5gpzdxB7PQuMl4B9M87Wy-sW_t89Q-qojXUnlLSHHnqb8CBF2SUVzqynfUXyOQUbyObQemppg_JF91-

oJ7C58sWsBrIpSx0uHxXnPFuRB_jDHl4HOxHBr8TvN6xU9iXF9XcRdtFcQA/3n3/wr8MkM5mQRO3zDj8nWF44g/h3/lwM_XR9jjspobeZU2GPNDFEAuHR-BOzNugsPVAaAntqQ">https://arxiv.org/abs/2103.07801?context=eess.SY</p><p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 11pt;">[6] Cullenward, op cit. </p><p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 11pt;">[7] https://www.ipcc.ch/report/ar6/wg3/figures/summary-for-policymakers</p><p dir="ltr" style="line-height: 1.38; margin-top: 0pt; margin-bottom: 0pt;">[8]Wang, T., Jiang, Z., Zhao, B. et al. Health co-benefits of achieving sustainable net-zero greenhouse gas emissions in California. Nat Sustain 3, 597–605 (2020). https://doi.org/10.1038/s41893-020-0520-y

normal; font-variant: normal; text-decoration: none; vertical-align: baseline; white-space: pre-wrap;">.</p>
<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 11pt;">[9] https://caleja.org/wp-content/uploads/2022/05/CARB-draft-plan-vs-EJ-recommendations-FINAL-CORRECTED.pdf</p>
<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 11pt;">[10] Gabrielle Dreyfus, chief scientist for the Institute for Governance & Sustainable Development and lead author of: Dreyfus, Gabrielle B., Yangyang Xu, Drew T. Shindell, Durwood Zaelke, and Veerabhadran Ramanathan. "Mitigating climate disruption in time: A self-consistent approach for avoiding both near-term and long-term global warming." Proceedings of the National Academy of Sciences of the United States of America 119, no. 22 (2022): e2123536119. https://www.pnas.org/doi/full/10.1073/pnas.2123536119. This article is the most current and comprehensive on

the forcing role of CO₂, SLCs and aerosols.

[11] Daniel M. Kammen, et al., "Accelerating the timeline for climate action in California," *March 2021*, https://url1005.email.actionnetwork.org/ss/c/P8Elou2Rvc0qoMPEUZrMXRHZ5wZztp7A9_8D0a5JnHzqytD6LMtJ_c7Cg_M5OhdYAT1X_e--BkAir44SLaEa8sWOLk27a0Kodo0Rj1BomwNuWus5C4VcJXgKzLQ2RxxgvjeeRglvGzbNjeCDwmIJnkDZo54ZeyJz0GNS2imlUlr79aD6w4KGYy2E28X7cM-FssQw3uR8vOxKiB6lbtPepDa2SG-3wQlrskdXOblphTi9l04BvhIaOUOTXvMRpWD7fMIRt7yePucwmgWzdHDqwfV328TDXcN_jNKScxCG7tWlpae5GsgPUMly5YDcDjt0l/3n3/wr8MkM5mQRO3zDj8nWF44g/h14/_6ftk9ng2iDAW9KYabmjJZYnLHN3PYxd3UjfsA2PD4

<https://arxiv.org/abs/2103.07801>

[12] Illissa B. Ocko, et al. "Acting rapidly to deploy readily available methane mitigation measures by sector can immediately slow global warming." *Environmental Research Letters* 16, no. 5 (2021): 054042. https://url1005.email.actionnetwork.org/ss/c/AmCPGAA5TKCV0Ya3nRaidBSsrkJ26ITUBnlf2C06Iv4EZE7y6M8ZcWMIqUtLlBYwjf0vagPWVjklic9jNc0jpJiiHrWFX9Ey2lLAOcbkPjFGKDPOj0aNs6yqWeeKkZ9ZJfYpIIEoayuCRThRZN0Gxrynk_RN6x9Q2inwghExEMA50rK4wKu27Cn1bsZEYujWLoKbe9fka7RDXMekSthcA4X9Et_i_Y3pdpUUiu2whCE36nbeQz51SAyArAC6U51WzyT5UjxiZ9rLA_m6facvf4ZMV6jEN6qXoMuegHvwrKvO-zBDXaSBS2zQoZsptM0023MxrA_0IYnUQEWGP1KJUNR-81eDk8sqrAHAYOn7qYj1fbZNe4_304wp4P96jtnkaR9P7XG56jR9JiH21zepheF0K3x8mRU0KVTK7uKyY3s/3n3/wr8MkM5mQRO3zDj8nWF44g/h15/B61tqGZrnNbI_S3yhuOb_PTE50oYn5g1VVYPa9ksVqw

pre-wrap;">https://iopscience.iop.org/article/10.1088/1748-9326/abf9c8?addl_info=2021

The fastest way to slow warming</p>

<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 11pt;">[13] <https://calepa.ca.gov/2021-iemac-annual-report/></p>

<p dir="ltr" style="line-height: 1.38; margin-top: 11pt; margin-bottom: 11pt;">[14] https://calepa.ca.gov/wp-content/uploads/sites/6/2022/02/Comment_on_IEMAC_Report___CVAQC.a.pdf</p>

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Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2022-06-23 17:27:08

No Duplicates.

Comment 2 for Public comments on the innovative concept application for Shell (atberth-icapp-08-ws) - 1st Workshop.

First Name: Randall

Last Name: Pasek

Email Address: r.pasek@STAXengineering.com

Affiliation: STAX Engineering

Subject: Comment letter

Comment:

See attached comment letter

Attachment: www.arb.ca.gov/lists/com-attach/5-atberth-icapp-08-ws-UiFTIVU1WXIBWABj.pdf

Original File Name: STAX comment letter at berth innovative concept.pdf

Date and Time Comment Was Submitted: 2022-07-01 10:52:39

No Duplicates.

Comment 3 for Public comments on the innovative concept application for Shell (atberth-icapp-08-ws) - 1st Workshop.

First Name: Teresa

Last Name: Bui

Email Address: tbui@pacificenvironment.org

Affiliation: Pacific Environment

Subject: Pacific Environment Comments on Innovative Concept from Shell

Comment:

<p>Hello,</p>

<p>Please see attached for our comments. Please let me know if you have any problem accessing the zip file. Thank you.</p>

<p>Teresa</p>

Attachment: www.arb.ca.gov/lists/com-attach/6-atberth-icapp-08-ws-AHMBb1I2WWZXPQBf.zip

Original File Name: Shell - PE comments.zip

Date and Time Comment Was Submitted: 2022-07-04 21:35:31

No Duplicates.

There are no comments posted to Public comments on the innovative concept application for Shell (atberth-icapp-08-ws) that were presented during the Workshop at this time.