

## **Comment 1 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Daniel  
Last Name: Chandler  
Email Address: dwchandler@gmail.com  
Affiliation: NOT APPLICABLE

Subject: 2022 Scoping Plan Update - Engineered Carbon Removal  
Comment:

Yes the scientific consensus is that carbon capture is necessary and some of it will have to be engineered. So it is worth researching and worth trying to bring the cost down.

There are three caveats. 1) Fossil fuel companies and their paid lobbyists and legislators want to use carbon capture to delay the demise of fossil fuels. This has brought about a lot of greenwashing "information." This is difficult to deal with because our politicians have not said clearly when and how fossil fuels will be phased out. The International Energy Agency has clearly said we have used up our carbon budget, so no new fossil fuel development. If fossil fuel companies use carbon capture to reduce their impact during the short time they will still be around, more power to them and I will gladly pay the extra cost. But this has to be distinguished from efforts to continue development, which are not made more tolerable by carbon capture. technology.

2) All fossil fuel processing has very negative effects on humans living nearby, including the poor and people of color near refineries and drilling sites and the millions who use gas appliances. Eliminating fossil fuels as quickly as possible (by 2030 say) will pay for itself many times over in reductions in the costs of pollution. So we must be very clear that carbon capture does not prolong or increase the climate injustice we experience due to fossil fuels. The first and second points are clearly linked.

3) The third caveat is that carbon capture should not have countervailing effects. I'm thinking particularly of carbon capture paired with biomass processing. If the biomass is waste and there is no other use for it, then we are better off capturing the carbon produce than emitting it. But harvesting biomass that sequesters carbon for purposes such as making hydrogen make no sense since we are eliminating one method of sequestering carbon (tree growth) and "compensating" for it with carbon capture. That is to say, engineered carbon capture should not replace natural lands carbon capture. They need to be additive.

Thank you for this opportunity to comment.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-02 11:26:08

No Duplicates.

**Comment 2 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Adrian

Last Name: Reed

Email Address: mradrianreed@yahoo.com

Affiliation:

Subject: Presentations availability

Comment:

Will the workshop presentation slides be available for download.  
If so, please provide url for access.

Thanks

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-02 12:48:12

No Duplicates.

**Comment 3 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: David  
Last Name: Hassan  
Email Address: tirnuatoo@live.ca  
Affiliation: Tir Nua Consulting Ltd.

Subject: Comments from an energy consultant  
Comment:

Please see attached file.

Attachment: [www.arb.ca.gov/lists/com-attach/3-sp22-co2-removal-ws-BTcBN1BjUDIGMAA4.pdf](http://www.arb.ca.gov/lists/com-attach/3-sp22-co2-removal-ws-BTcBN1BjUDIGMAA4.pdf)

Original File Name: 20210803 CARB Webinar Comments- Tir Nua Consulting Ltd..pdf

Date and Time Comment Was Submitted: 2021-08-03 14:01:00

No Duplicates.

**Comment 4 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: William

Last Name: Stewart

Email Address: billstewart@berkeley.edu

Affiliation: University of California Berkeley

Subject: Using more engineered wood products in buildings will be very cost effective

Comment:

Please see the attachment on the climate benefits of using more engineered wood products in buildings.

Attachment: [www.arb.ca.gov/lists/com-attach/4-sp22-co2-removal-ws-USYHaFM+UW5WOQVk.docx](http://www.arb.ca.gov/lists/com-attach/4-sp22-co2-removal-ws-USYHaFM+UW5WOQVk.docx)

Original File Name: William Stewart comments on engineered wood products .docx

Date and Time Comment Was Submitted: 2021-08-04 09:23:56

No Duplicates.

## **Comment 5 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Nabil

Last Name: EL Shaari

Email Address: nabilelshaari@esgway.com

Affiliation:

Subject: CCS and CCUS are safe common sense solutions

Comment:

Carbon Capture & Sequestration AND Carbon Capture Use & Sequestration are safe common sense and logical solutions for the state of California to reach its GHG targets. CCS/CCUS are the only technologies capable of reducing the absolute level of CO2 from the atmosphere. And CCUS is also a common sense win-win-win solution to allow for reliable energy production and the capturing and removing and reducing of GHS in the backend. Supporting CCS/CCUS projects in California is good for the state and its people.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-05 10:12:33

No Duplicates.

**Comment 6 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Emily

Last Name: Siegel

Email Address: hannahsenesch@yahoo.com

Affiliation:

Subject: carbon capture and environmental justice

Comment:

I understand the scientific consensus that carbon capture is necessary, but if carbon capture is used by Fossil fuel companies and their paid lobbyists to delay the end of fossil fuels, that is a very negative consequence. I am particularly concerned that fossil fuel processing, which will continue with carbon capture has very negative effects on people who live nearby. Poor people and people of color are the ones who live near refineries and drilling sites and are often the ones who have to live near gas appliances. Furthermore, eliminating fossil fuels as rapidly as possible will pay for itself many times over in decreases in the costs of pollution. It seems obvious to me that we must make sure that carbon capture does not contribute to the intensification of the climate injustice we experience due to fossil fuels. Environmental justice is extremely important to consider.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-08 19:32:58

No Duplicates.

**Comment 7 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Rock  
Last Name: Zierman  
Email Address: rock@cipa.org  
Affiliation: CIPA

Subject: CIPA CCS Scoping Plan Comments  
Comment:

See attached.

Attachment: [www.arb.ca.gov/lists/com-attach/7-sp22-co2-removal-ws-WjlWOVwtADIEXQV2.pdf](http://www.arb.ca.gov/lists/com-attach/7-sp22-co2-removal-ws-WjlWOVwtADIEXQV2.pdf)

Original File Name: CIPA SP CCUS Workshop Comments Aug 2021.pdf

Date and Time Comment Was Submitted: 2021-08-13 16:07:21

No Duplicates.

## **Comment 8 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Jeff  
Last Name: Rayner  
Email Address: jmraynerpginc@gmail.com  
Affiliation:

Subject: Follow up request for Data  
Comment:

Hi,

I wanted to thank you and all those who presented, for the Aug. 2nd, CARB presentations given in the 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop

Informative, with inclusive points of view.

Excellent panels, concise presentations, and thoughtful follow-up questions/commentaries.

I would like to study up more on efforts to identify good CO2 storage sites. Dr. Sally Benson's criteria for good CO2 sites was excellent.

Really respect the work and thought she presented.

Would it be possible to get shape files of the various polygons shown on slides of her presentation.

In particular those which outline areas with suitable Saline Formations at appropriate depths, O&G fields, the 'Avoidance Areas' (Faults, Earthquakes, Sensitive habitats, High Population Density), the CO2 emissions points with identification of the facility, the large polygon of the Exclusion Zone and Notional CO2 Pipelines she recommended based on all of the above?

If the shape files are available, would really appreciate a copy as well as identification of the coordinate system those files are in (NAD27?).

Best Regards,

Jeff Rayner  
jmraynerpginc@gmail.com

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-15 22:48:32

No Duplicates.



**Comment 9 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: John  
Last Name: Holladay  
Email Address: holladay@lanzatech.com  
Affiliation: LanzaTech

Subject: Comment on Engineering Carbon Removal Technical Workshop  
Comment:

Please see the uploaded comment on the Carbon Removal Technical Workshop.  
Thank you.  
-john

Attachment: [www.arb.ca.gov/lists/com-attach/9-sp22-co2-removal-ws-BmoHYFY5UHkLbAJ2.pdf](http://www.arb.ca.gov/lists/com-attach/9-sp22-co2-removal-ws-BmoHYFY5UHkLbAJ2.pdf)

Original File Name: LanzaTech Response\_CARB CCUS.pdf

Date and Time Comment Was Submitted: 2021-08-16 06:59:34

No Duplicates.

**Comment 10 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Jason  
Last Name: Barbose  
Email Address: jbarbose@ucsusa.org  
Affiliation: Union of Concerned Scientists

Subject: UCS comments re: Engineered Carbon Removal Technical Workshop  
Comment:

On behalf of the Union of Concerned Scientists, thank you for considering our letter responding to your Aug 2 workshop relating to engineered carbon removal technologies. Attached to our letter is a recent article from The Electricity Journal co-authored by a UCS staff member ("Environmental and climate justice and technological carbon removal").

Attachment: [www.arb.ca.gov/lists/com-attach/10-sp22-co2-removal-ws-UmBVYwQ3BWdXYQgw.pdf](http://www.arb.ca.gov/lists/com-attach/10-sp22-co2-removal-ws-UmBVYwQ3BWdXYQgw.pdf)

Original File Name: 20210816 ltr re CARB workshop on carbon removal.pdf

Date and Time Comment Was Submitted: 2021-08-16 10:43:26

No Duplicates.

**Comment 11 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Rick

Last Name: Spurlock

Email Address: rick.spurlock@ihipower.com

Affiliation:

Subject: IHI Power Services Corp Comments on Engineered Carbon Removal Technical Workshop  
Comment:

Please find our comment letter attached.

Attachment: [www.arb.ca.gov/lists/com-attach/11-sp22-co2-removal-ws-WjMBb1w0BAhXMgdm.pdf](http://www.arb.ca.gov/lists/com-attach/11-sp22-co2-removal-ws-WjMBb1w0BAhXMgdm.pdf)

Original File Name: IHI Carbon Removal Workshop Comments.pdf

Date and Time Comment Was Submitted: 2021-08-16 12:16:28

No Duplicates.

## **Comment 12 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Victoria

Last Name: Bogdan Tejeda

Email Address: vbogdantejeda@biologicaldiversity.org

Affiliation: Center for Biological Diversity

Subject: Comments re: 2022 Scoping Plan Update - Engineered Carbon Removal  
Comment:

The Center for Biological Diversity (the "Center") appreciates the opportunity to comment on the California Air Resources Board's ("CARB") August 2, 2021 Engineered Carbon Removal Technical Workshop (hereinafter, "the workshop"). The Center was disappointed that the workshop primarily featured speakers who assumed carbon capture and storage ("CCS") by the State of California is necessary to achieve carbon neutrality, and who asserted that CCS is safe and minimally disruptive to frontline communities. The Center vehemently disagrees with these assumptions.

As CARB "consider[s]" engineered carbon removal, it is essential that the agency take into account that according to the Intergovernmental Panel on Climate Change ("IPCC"), CCS is not necessary to achieve emissions reductions, nor is its effectiveness or safety proven. Moreover, the types of dirty energy CCS may prolong, and the infrastructure and energy required for CCS, will cause additional pollution in communities already suffering from unhealthy air and water quality.

We urge CARB to reevaluate its approach to CCS in its upcoming greenhouse gas emissions Scoping Plan update. CARB should focus on a rapid phase out of fossil fuels rather than seeking to entrench technologies that prolong the life of climate-damaging activities and harm frontline communities. In doing so, CARB must ensure meaningful community participation and input from the Environmental Justice Advisory Council ("EJAC"), who, as we understand, has been urging CARB throughout the Scoping Plan process to give greater weight to its recommendations.

Our full letter is attached and we've emailed our compiled references.

Attachment: [www.arb.ca.gov/lists/com-attach/12-sp22-co2-removal-ws-iZhk3fqjC2btmqYm.zip](http://www.arb.ca.gov/lists/com-attach/12-sp22-co2-removal-ws-iZhk3fqjC2btmqYm.zip)

Original File Name: sp22-co2-removal-ws.zip

Date and Time Comment Was Submitted: 2021-08-16 12:20:56

No Duplicates.

**Comment 13 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: david

Last Name: bezanson

Email Address: bezanpsy3506@hotmail.com

Affiliation:

Subject: Engineered Carbon Removal

Comment:

See attached pdf.

Attachment: [www.arb.ca.gov/lists/com-attach/13-sp22-co2-removal-ws-Wz4BaQRiU2kLYwVg.pdf](http://www.arb.ca.gov/lists/com-attach/13-sp22-co2-removal-ws-Wz4BaQRiU2kLYwVg.pdf)

Original File Name: ENGINEERED CARBON REMOVAL.pdf

Date and Time Comment Was Submitted: 2021-08-16 13:31:17

No Duplicates.

**Comment 14 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Pete

Last Name: Montgomery

Email Address: pete@pmontgomeryconsulting.com

Affiliation: Montgomery Consulting

Subject: Clean Energy Systems (CES) ECR Workshop Comments

Comment:

On behalf of CEO Keith Pronske, please find attached comments on the ECR technical workshop.

Attachment: [www.arb.ca.gov/lists/com-attach/17-sp22-co2-removal-ws-WzgGbABkV2UBaQZZ.docx](http://www.arb.ca.gov/lists/com-attach/17-sp22-co2-removal-ws-WzgGbABkV2UBaQZZ.docx)

Original File Name: Clean Energy System (CES) Comments on ARB ECR Technical Workshop.docx

Date and Time Comment Was Submitted: 2021-08-16 14:17:49

No Duplicates.

**Comment 15 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

This comment was posted then deleted because it was unrelated to the Workshop item or it was a duplicate.

**Comment 16 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Myles  
Last Name: Culhane  
Email Address: Myles\_Culhane@oxy.com  
Affiliation:

Subject: Oxy Low Carbon Ventures Comments to the August 2, 2021 Public Workshop  
Comment:

Oxy Low Carbon Ventures Comments to the August 2, 2021 Public  
Workshop: 2022 Scoping Plan - Engineered Carbon Removal Technical  
Workshop

Attachment: [www.arb.ca.gov/lists/com-attach/19-sp22-co2-removal-ws-VjlQLgR8V1sBawhn.pdf](http://www.arb.ca.gov/lists/com-attach/19-sp22-co2-removal-ws-VjlQLgR8V1sBawhn.pdf)

Original File Name: Oxy Low Carbon Ventures CARB Carbon Removal Tech Workshop Comments .pdf

Date and Time Comment Was Submitted: 2021-08-16 14:44:59

No Duplicates.



**Comment 17 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Lauren

Last Name: Cullum

Email Address: lauren.cullum@sierraclub.org

Affiliation: Sierra Club California

Subject: Sierra Club CA scoping plan comments on engineered carbon removal workshop

Comment:

Sierra Club California, on behalf of our over 500,000 members and supporters in California, appreciates the opportunity to comment on the California Air Resources Board's (CARB) Scoping Plan Technical Workshop on Engineered Carbon Removal.

Attachment: [www.arb.ca.gov/lists/com-attach/20-sp22-co2-removal-ws-UCNXOF05V3YAdAR1.pdf](http://www.arb.ca.gov/lists/com-attach/20-sp22-co2-removal-ws-UCNXOF05V3YAdAR1.pdf)

Original File Name: Sierra Club CA Scoping Plan Comments - Carbon Removal Technologies.pdf

Date and Time Comment Was Submitted: 2021-08-16 15:26:05

No Duplicates.

**Comment 18 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Laura  
Last Name: Berland-Shane  
Email Address: laura@blueplanet-ltd.com  
Affiliation: Blue Planet

Subject: Comments on Engineered Carbon Removal Technical Workshop  
Comment:

Please find our comment letter attached.

Attachment: [www.arb.ca.gov/lists/com-attach/21-sp22-co2-removal-ws-BWdRO1AkUWdWDwFx.pdf](http://www.arb.ca.gov/lists/com-attach/21-sp22-co2-removal-ws-BWdRO1AkUWdWDwFx.pdf)

Original File Name: Blue Planet\_Carbon Removal Workshop Comments.pdf

Date and Time Comment Was Submitted: 2021-08-16 16:02:51

No Duplicates.

**Comment 19 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Kim

Last Name: Floyd

Email Address: kimffloyd@fastmail.com

Affiliation:

Subject: Engineered Carbon Removal Technical Workshop on August 2, 2021

Comment:

I am concerned that CARB is moving forward on advancing carbon capture, utilization and storage (CCUS) technologies without fully listening and hearing the concerns of environmental and environmental justice organizations. The Scoping Plan workshop that took place on August 2, 2021 certainly gave me the impression that CARB has a bias in favor of engineered carbon capture technologies.

CARB must take into account input from the Environmental Justice Advisory Council (EJAC) as well as other environmental groups.

CCUS will be very expensive. Those resource would be better focused on eliminating the use of fossil fuels completely.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-16 15:55:24

No Duplicates.

**Comment 20 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Tim

Last Name: Carmichael

Email Address: tcarmichael@semprautilities.com

Affiliation:

Subject: SDG&E and SoCalGas 2022 Scoping Plan ECR Workshop Comments

Comment:

Please find our comment letter attached.

Attachment: [www.arb.ca.gov/lists/com-attach/23-sp22-co2-removal-ws-USJTMVE3U2UAWQBh.pdf](http://www.arb.ca.gov/lists/com-attach/23-sp22-co2-removal-ws-USJTMVE3U2UAWQBh.pdf)

Original File Name: SDGE and SCG 2022 Scoping Plan ECR Workshop Comments.pdf

Date and Time Comment Was Submitted: 2021-08-16 16:13:04

No Duplicates.

## **Comment 21 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Catherine

Last Name: Ronan

Email Address: cmronan@gmail.com

Affiliation: Resident of Los Angeles

Subject: Engineered Carbon Removal

Comment:

Carbon capture and storage is a costly strategy using unproven technology. Moreover, other than carbon dioxide, it does not mitigate the harmful and air polluting gases and particles that are emitted during the extraction, transportation, refining, use and disposal of fossil fuels. It does nothing to lessen the air quality issues we suffer in the Los Angeles area, especially in the communities, often underserved communities, located in close proximity to oil and gas facilities.

Please focus your efforts on phasing out fossil fuel production and replacing fossil fuels with clean renewable energy such as solar, wind, hydropower, and geothermal energy.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-16 16:08:40

No Duplicates.

**Comment 22 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Gary

Last Name: Hughes

Email Address: garyhughes.bfw@gmail.com

Affiliation: Biofuelwatch

Subject: Geoengineering, Mitigation Deterrence and Disputed Effectiveness of Carbon Removal  
Comment:

The attached letter is provided as comment on the 'engineered carbon removal' workshop that took place on Aug 3, 2021.

Attachment: [www.arb.ca.gov/lists/com-attach/25-sp22-co2-removal-ws-UzIHc1MwUzIDNVNh.pdf](http://www.arb.ca.gov/lists/com-attach/25-sp22-co2-removal-ws-UzIHc1MwUzIDNVNh.pdf)

Original File Name: ARB2022ScopingPlan\_BFWcomment\_engineeredcarbonremovalworkshop.pdf

Date and Time Comment Was Submitted: 2021-08-16 16:23:33

No Duplicates.

## **Comment 23 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Colin

Last Name: Miller

Email Address: colin@ej.solutions

Affiliation: Physicians for Social Responsibility-LA

Subject: PSR-LA & Allies Comments Re: Engineered Carbon Removal Technical Workshop  
Comment:

Dear Chair Randolph and Members of the California Air Resources Board,

PSR-LA and our allies thank you for the opportunity to provide comments regarding engineered carbon removal through Carbon Capture, Utilization and Storage (CCUS) technologies as presented at CARB's public workshop on August 2, 2021.

We urge CARB to reject CCUS as a false climate solution that would legitimize and extend the extraction and burning of fossil fuels and is not needed to meet our climate goals of reducing GHGs and other pollutants.

Attachment: [www.arb.ca.gov/lists/com-attach/26-sp22-co2-removal-ws-AXFTJgNwVCpXPQJj.pdf](http://www.arb.ca.gov/lists/com-attach/26-sp22-co2-removal-ws-AXFTJgNwVCpXPQJj.pdf)

Original File Name: PSR-LA and Allies CCUS CARB Comment Letter 8\_16\_2021 Final.pdf

Date and Time Comment Was Submitted: 2021-08-16 15:53:49

No Duplicates.

**Comment 24 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Rohimah  
Last Name: Moly  
Email Address: moly@caliberstrat.com  
Affiliation:

Subject: Charm Industrial -- Comments on the Engineered Carbon Removal Technical Workshop  
Comment:

On behalf of Charm Industrial, attached is Charm's comments to the 2022 Scoping Plan Public Workshop - Engineered Carbon Removal Technical Workshop.

Please let me know if there are issues with opening the document.

Thank you.

Attachment: [www.arb.ca.gov/lists/com-attach/27-sp22-co2-removal-ws-VGRdY1xzWTtRYQcp.pdf](http://www.arb.ca.gov/lists/com-attach/27-sp22-co2-removal-ws-VGRdY1xzWTtRYQcp.pdf)

Original File Name: 08.16.2021 Charm\_CARBSPWKSHHP.pdf

Date and Time Comment Was Submitted: 2021-08-16 16:35:26

No Duplicates.



**Comment 25 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Leah

Last Name: Silverthorn

Email Address: leah.silverthorn@calchamber.com

Affiliation: California Chamber of Commerce

Subject: Scoping Plan Comments re Engineered Carbon Removal  
Comment:

Attached is our coalition comment letter.

Attachment: [www.arb.ca.gov/lists/com-attach/28-sp22-co2-removal-ws-ADhVfQc3B2IDKwk7.pdf](http://www.arb.ca.gov/lists/com-attach/28-sp22-co2-removal-ws-ADhVfQc3B2IDKwk7.pdf)

Original File Name: 8.16.21 Scoping Plan Comments re Engineered Carbon Removal.pdf

Date and Time Comment Was Submitted: 2021-08-16 16:40:13

No Duplicates.

**Comment 26 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Colin  
Last Name: Miller  
Email Address: colin@ej.solutions  
Affiliation: Physicians for Social Responsibility-LA

Subject: UPDATED PSR-LA & Allies Comments Re: Engineered Carbon Removal Technical Workshop  
Comment:

Dear Chair Randolph and Members of the California Air Resources Board,

PSR-LA and our allies thank you for the opportunity to provide comments regarding engineered carbon removal through Carbon Capture, Utilization and Storage (CCUS) technologies as presented at CARB's public workshop on August 2, 2021.

We urge CARB to reject CCUS as a false climate solution that would legitimize and extend the extraction and burning of fossil fuels and is not needed to meet our climate goals of reducing GHGs and other pollutants.

Attachment: [www.arb.ca.gov/lists/com-attach/29-sp22-co2-removal-ws-B3cAdVQnUS8CaAdm.pdf](http://www.arb.ca.gov/lists/com-attach/29-sp22-co2-removal-ws-B3cAdVQnUS8CaAdm.pdf)

Original File Name: PSR-LA and Allies CCUS CARB Comment Letter 8\_16\_2021 Final 2.pdf

Date and Time Comment Was Submitted: 2021-08-16 16:46:53

No Duplicates.

**Comment 27 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Blanca

Last Name: Escobedo

Email Address: bescobedo@leadershipcounsel.org

Affiliation:

Subject: 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop

Comment:

Please see attachment.

Attachment: [www.arb.ca.gov/lists/com-attach/30-sp22-co2-removal-ws-WjlWMwByVlpVMAVq.pdf](http://www.arb.ca.gov/lists/com-attach/30-sp22-co2-removal-ws-WjlWMwByVlpVMAVq.pdf)

Original File Name: CCS comments.pdf

Date and Time Comment Was Submitted: 2021-08-16 16:49:39

No Duplicates.

**Comment 28 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Alfred  
Last Name: Sattler  
Email Address: alsattler@igc.org  
Affiliation:

Subject: CC&S  
Comment:

Comment attached

Attachment: [www.arb.ca.gov/lists/com-attach/31-sp22-co2-removal-ws-B2RTNFajWGkCawZo.pdf](http://www.arb.ca.gov/lists/com-attach/31-sp22-co2-removal-ws-B2RTNFajWGkCawZo.pdf)

Original File Name: Carbon\_Capture\_Sequestration\_Al.pdf

Date and Time Comment Was Submitted: 2021-08-16 16:56:45

No Duplicates.

**Comment 29 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Clair

Last Name: Brown

Email Address: clairbrown@gmail.com

Affiliation: 350 Bay Area Actdion

Subject: 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop

Comment:

See attached pdf file.

Thank you.

Attachment: [www.arb.ca.gov/lists/com-attach/32-sp22-co2-removal-ws-AjFRYIRlBzYKbVc2.pdf](http://www.arb.ca.gov/lists/com-attach/32-sp22-co2-removal-ws-AjFRYIRlBzYKbVc2.pdf)

Original File Name: 350BAA comments CCUS.pdf

Date and Time Comment Was Submitted: 2021-08-16 17:02:19

No Duplicates.

**Comment 30 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Amy

Last Name: Mmagu

Email Address: amy.mmagu@bloomenergy.com

Affiliation:

Subject: Bloom Energy Comments on the Engineered Carbon Removal Workshop

Comment:

Please see attached comments.

Attachment: [www.arb.ca.gov/lists/com-attach/33-sp22-co2-removal-ws-WjgAalU7UW0FbgZZ.pdf](http://www.arb.ca.gov/lists/com-attach/33-sp22-co2-removal-ws-WjgAalU7UW0FbgZZ.pdf)

Original File Name: Bloom Energy - Engineered Carbon Removal letter 8.16.pdf

Date and Time Comment Was Submitted: 2021-08-16 17:08:49

No Duplicates.

**Comment 31 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Ronald

Last Name: Martin

Email Address: martinrj93638@yahoo.com

Affiliation: Sierra Club

Subject: do not go forward with carbon capture and underground sequestration

Comment:

I ask that you disapprove of carbon capture and underground sequestration since it only eliminates a part of carbon dioxide from burning fossil fuel, the part of its use at a point of application, but does not reduce the carbon dioxide released from drilling, transporting, and storage of the fuel, then transporting and sequestering. Also, it prolongs the time that carbon is brought up from underground. Also, it would be easy for industries to stop capturing carbon when they feel they need to make more money since the capture and sequestration costs are not part of the product of the industry. There will be sacrifices in the transition to not using fossil fuel, but are the lives of our grandchildren worth it? Of course, they are.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-16 18:28:23

No Duplicates.

## **Comment 32 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Ann

Last Name: Rogan

Email Address: ann.rogan@edgecollaborative.org

Affiliation:

Subject: Community & engineered carbon removal

Comment:

As a resident of Stockton, CA - I listened with interest during the scoping workshop about the various view points represented by scientists, industry representatives, environmental justice advocates, workforce advocates, and CARB staff.

Going forward, I'd hope that EJAC members feel that they are given enough time to prepare or offer their perspectives on each panel. In particular, I am concerned that the Central Valley communities who stand to be most affected by engineered carbon removal (CCS, DAC, etc) have very little technical understanding of the implications (including benefits and drawbacks) of these technologies. That in itself is a significant impediment to a public conversation on this topic, and both can/should be rectified.

Without being a technical expert in this area, it seems that while engineered carbon removal is an important tool in the decarbonization toolkit, it should not be used to justify the extended life of carbon emitting activities. To that end, the proposed implementation of these technologies should not be done at the expense of frontline communities. How then, should we think about that?

If the environmental justice communities (across the Central Valley) are in a meaningful dialogue on this topic, I imagine that CARB would glean useful insights on a range of topics - including how to think about enabling policy to drive dramatic decarbonization through both technology and natural means, alongside renewables adoption -- as well as the relationship between the financing of new technologies and community benefits agreements.

Finally, we all know that climate and workforce and jobs have to work in tandem to really accelerate towards aggressive decarbonization goals. Frontline or 'disadvantaged communities' know their community's needs best, and these conversations on technology - whatever that technology is - have to center the community's voice in determining how to create workforce pathways that bring to life what a 'just transition' should look like for incumbent workers across the state.

Every serious climate projection keeping temps below 2 degrees incorporates some amount of engineered carbon removal. These technologies, while a necessary means of advancing climate goals, must be approached with the due diligence that their affected communities deserve. CARB should actively seek to educate those who will be most impacted by carbon removal technologies, so that they may make accurate and informed comments on their design, implementation, and regulation.



Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-16 18:51:12

No Duplicates.

## **Comment 33 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Ann

Last Name: Rogan

Email Address: ann.rogan@edgecollaborative.org

Affiliation:

Subject: Community & engineered carbon removal

Comment:

As a resident of Stockton, CA - I listened with interest during the scoping workshop about the various view points represented by scientists, industry representatives, environmental justice advocates, workforce advocates, and CARB staff.

Going forward, I'd hope that EJAC members feel that they are given enough time to prepare or offer their perspectives on each panel. In particular, I am concerned that the Central Valley communities who stand to be most affected by engineered carbon removal (CCS, DAC, etc) have very little technical understanding of the implications (including benefits and drawbacks) of these technologies. That in itself is a significant impediment to a public conversation on this topic, and both can/should be rectified.

Without being a technical expert in this area, it seems that while engineered carbon removal is an important tool in the decarbonization toolkit, it should not be used to justify the extended life of carbon emitting activities. To that end, the proposed implementation of these technologies should not be done at the expense of frontline communities. How then, should we think about that?

If the environmental justice communities (across the Central Valley) are in a meaningful dialogue on this topic, I imagine that CARB would glean useful insights on a range of topics - including how to think about enabling policy to drive dramatic decarbonization through both technology and natural means, alongside renewables adoption -- as well as the relationship between the financing of new technologies and community benefits agreements.

Finally, we all know that climate and workforce and jobs have to work in tandem to really accelerate towards aggressive decarbonization goals. Frontline or 'disadvantaged communities' know their community's needs best, and these conversations on technology - whatever that technology is - have to center the community's voice in determining how to create workforce pathways that bring to life what a 'just transition' should look like for incumbent workers across the state.

Every serious climate projection keeping temps below 2 degrees incorporates some amount of engineered carbon removal. These technologies, while a necessary means of advancing climate goals, must be approached with the due diligence that their affected communities deserve. CARB should actively seek to educate those who will be most impacted by carbon removal technologies, so that they may make accurate and informed comments on their design, implementation, and regulation.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-16 19:03:45

No Duplicates.

**Comment 34 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Rebecca

Last Name: Franke

Email Address: bekka@sonic.net

Affiliation:

Subject: Re: Engineered Carbon Removal Technical Workshop

Comment:

I attended the afternoon session of the 2022 Scoping Plan Update, Engineered Carbon Removal Technical Workshop. California needs to support continued research into carbon removal, BUT only as a complement to the larger need to cut carbon emissions. Enabling technology which extends indefinitely the life of existing facilities that extract, produce, or utilize fossil fuels is not a step which California, or the planet, has time for, given the direness of the climate crisis.

Aside from prolonging the life of the fossil fuel infrastructure, carbon removal maintains a narrow focus on CO<sub>2</sub>, leaving other heat trapping gases, notably methane, and other climate pollutants unaddressed. This omission is particularly noxious to poor communities which have long contended with the health impacts of greater levels of air pollution. To gain the support of the residents of these communities for the many future mitigations required to deal with the climate crisis, they must see tangible benefits in their environment. Removing CO<sub>2</sub> alone does not meet this need.

As CARB continues support for carbon removal, it should focus on technology for drawing down the existing high level of accumulated CO<sub>2</sub> in the atmosphere and in redoubling its efforts to transition California from fossil fuels to clean and renewable energy.

Thank you for your attention to these very challenging matters.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-16 19:42:39

No Duplicates.

**Comment 35 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Lauren

Last Name: Cullum

Email Address: lauren.cullum@sierraclub.org

Affiliation: Sierra Club California

Subject: Sierra Club CA scoping plan comments on engineered carbon removal workshop

Comment:

Sierra Club California, on behalf of our over 500,000 members and supporters in California, appreciates the opportunity to comment on the California Air Resources Board's (CARB) Scoping Plan Technical Workshop on Engineered Carbon Removal.

Attachment: [www.arb.ca.gov/lists/com-attach/38-sp22-co2-removal-ws-B3RdMgNnByYKfgFg.pdf](http://www.arb.ca.gov/lists/com-attach/38-sp22-co2-removal-ws-B3RdMgNnByYKfgFg.pdf)

Original File Name: Sierra Club CA Scoping Plan Comments - Carbon Removal Technologies.pdf

Date and Time Comment Was Submitted: 2021-08-16 20:51:11

No Duplicates.

**Comment 36 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Clair

Last Name: Brown

Email Address: clairbrown@gmail.com

Affiliation: Co-Chair Legislative Committee

Subject: 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop

Comment:

Comments being submitted again because not showing up online.

Attachment: [www.arb.ca.gov/lists/com-attach/39-sp22-co2-removal-ws-BTZQYwQ1AjMHYAZn.pdf](http://www.arb.ca.gov/lists/com-attach/39-sp22-co2-removal-ws-BTZQYwQ1AjMHYAZn.pdf)

Original File Name: 350BAA comments CCUS.pdf

Date and Time Comment Was Submitted: 2021-08-16 21:10:36

No Duplicates.

**Comment 37 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Pete

Last Name: Montgomery

Email Address: pete@pmontgomeryconsulting.com

Affiliation: California Carbon Capture Coalition

Subject: California Carbon Capture Coalition Engineered Carbon Removal Workshop Comments  
Comment:

Please find comments on the engineered carbon removal technical workshop on behalf of the California Carbon Capture Coalition.

Attachment: [www.arb.ca.gov/lists/com-attach/40-sp22-co2-removal-ws-ATFRb1FhUTQANFNi.docx](http://www.arb.ca.gov/lists/com-attach/40-sp22-co2-removal-ws-ATFRb1FhUTQANFNi.docx)

Original File Name: 081621\_CARB\_SCOPINGPLAN\_CALCCC.docx

Date and Time Comment Was Submitted: 2021-08-16 21:14:45

No Duplicates.

**Comment 38 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Tiffany  
Last Name: Roberts  
Email Address: troberts@wspa.org  
Affiliation: WSPA

Subject: WSPA Comments - Engineered Carbon Removal Workshop  
Comment:

Attached please find our comments regarding the Aug 2 workshop.

Attachment: [www.arb.ca.gov/lists/com-attach/41-sp22-co2-removal-ws-VyAFcFcmWGpVDFQy.pdf](http://www.arb.ca.gov/lists/com-attach/41-sp22-co2-removal-ws-VyAFcFcmWGpVDFQy.pdf)

Original File Name: WSPA FINAL \_Engineered Carbon Removal Scoping Plan Workshop Aug 2 2021.pdf

Date and Time Comment Was Submitted: 2021-08-16 21:41:35

No Duplicates.



**Comment 39 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Janet

Last Name: Cox

Email Address: janet@350siliconvalley.org

Affiliation: 350 Silicon Valley

Subject: Comments on the Engineered Carbon Removal Technical Workshop

Comment:

Please accept the attached comment letter, which I am submitting on behalf of 350 Silicon Valley.

Thank you for your attention!

Janet Cox

Legislation/Policy Director

350 Silicon Valley

Attachment: [www.arb.ca.gov/lists/com-attach/42-sp22-co2-removal-ws-VjUCawFtUmwLaAdp.pdf](http://www.arb.ca.gov/lists/com-attach/42-sp22-co2-removal-ws-VjUCawFtUmwLaAdp.pdf)

Original File Name: Comments-CARB-ECR08162021.pdf

Date and Time Comment Was Submitted: 2021-08-16 22:20:47

No Duplicates.

## **Comment 40 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Jim R  
Last Name: Stewart  
Email Address: drjimstewart@gmail.com  
Affiliation:

Subject: Please include this peer-reviewed paper in your planning.

Comment:

As a PhD member of a team working on reversing climate change, I am supportive of prioritizing natural solutions first. Our paper shows that the combination of using wastes plus seaweed in the ocean can remove CO2 without engineered climate removal, at a lower cost. Please include this peer-reviewed paper in your planning.

Capron, M. E., Stewart, J. R., N'Yeurt, A. de R., Chambers, M. D., Kim, J. K., Yarish, C., Jones, A. T., Blaylock, R. B., James, S. C., Fuhrman, R., Sherman, M. T., Piper, D., Harris, G., Hasan, M. A. (2020). Restoring Pre-Industrial CO2 Levels While Achieving Sustainable Development Goals. *Energies* 2020, 13, 4972. <https://doi.org/10.3390/en13184972>

Detailed calculations in the Spreadsheet, plus more technology details in the Supplemental Materials Word document, both at: [https://res.mdpi.com/d\\_attachment/energies/energies-13-04972/article\\_deploy/energies-13-04972-s001.zip?version=1600834431](https://res.mdpi.com/d_attachment/energies/energies-13-04972/article_deploy/energies-13-04972-s001.zip?version=1600834431)

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-16 22:04:34

No Duplicates.

**Comment 41 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Jan

Last Name: Dietrick

Email Address: jdietrick9@gmail.com

Affiliation: 350 Ventura County Climate Hub

Subject: Comments on CARB 2022 Scoping Plan-workshop on Engineered  
Comment:

The 350 Ventura County Climate Hub and the Conejo Climate Coalition submit the attached comment letter on the workshop on Engineered Carbon Removal and implications for priority scoping workshops.

Attachment: [www.arb.ca.gov/lists/com-attach/44-sp22-co2-removal-ws-ADNRYlRlAg5WJgVm.pdf](http://www.arb.ca.gov/lists/com-attach/44-sp22-co2-removal-ws-ADNRYlRlAg5WJgVm.pdf)

Original File Name: 350 VC CH & CCC Comment to CARB Workshop Engineered CCS.pdf

Date and Time Comment Was Submitted: 2021-08-16 21:55:10

No Duplicates.

**Comment 42 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: George

Last Name: Peridas

Email Address: peridas1@llnl.gov

Affiliation: Lawrence Livermore National Laboratory

Subject: Joint comments: Technical Workshop on Engineered Carbon Removal (2022 Scoping Plan Update)  
Comment:

Dear Ms. Sahota,

Please find attached joint comments on the Technical Workshop on Engineered Carbon Removal (2022 Scoping Plan Update).

Attachment: [www.arb.ca.gov/lists/com-attach/45-sp22-co2-removal-ws-UTRROQdhADoFbVQx.pdf](http://www.arb.ca.gov/lists/com-attach/45-sp22-co2-removal-ws-UTRROQdhADoFbVQx.pdf)

Original File Name: Engineered Carbon Removal Workshop (Scoping Plan) Joint Comments\_16Aug2021\_FINAL.pdf

Date and Time Comment Was Submitted: 2021-08-16 23:09:49

No Duplicates.

**Comment 43 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Rosenberger Laura

Last Name: Haider

Email Address: lauragreen.rosenberger@gmail.com

Affiliation: Fresnans Against Fracking, CEJC, Sierra

Subject: 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop

Comment:

The Atmospheric carbon would reach dangerous, irreversible levels before the infrastructure is built which itself uses fossil fuels and the sequestration uses fossil fuels. Carbon capture would pollute and increase the price of fossil fuels in the short term which would create poverty in EJ communities leading to an increased Covid death rate. The recent deficiencies in monitoring programs and maintenance that led to the explosion of Aliso Canyon Gas Storage, and the Ventura Compressor station lead me to predict a similar accident with the Salt Cavern storage. Also, carbon leaks during transport to the storage. There are so many incidents of leaking oil wells that they nevershould be used for storage of carbon. We still need to pass a bill forbidding the use of this carbon for oil extraction.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-16 23:31:09

No Duplicates.

**Comment 44 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: MayLin  
Last Name: Heuchling  
Email Address: maylin@twelve.co  
Affiliation:

Subject: Carbon Transformation, a Carbon Removal Solution  
Comment:

See attached.

Attachment: [www.arb.ca.gov/lists/com-attach/47-sp22-co2-removal-ws-UydUJQRgBToHdwRh.pdf](http://www.arb.ca.gov/lists/com-attach/47-sp22-co2-removal-ws-UydUJQRgBToHdwRh.pdf)

Original File Name: Twelve comment\_Carbon Transformation, a Carbon Removal Solution.pdf

Date and Time Comment Was Submitted: 2021-08-25 08:10:49

No Duplicates.

**Comment 45 for 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) - 1st Workshop.**

First Name: Miles

Last Name: Heller

Email Address: HELLERMT@airproducts.com

Affiliation:

Subject: Engineered Carbon Removal workshop for 2022 Scoping Plan Update

Comment:

See attached.

Attachment: [www.arb.ca.gov/lists/com-attach/48-sp22-co2-removal-ws-WjtXOABzVVlXIQZ0.pdf](http://www.arb.ca.gov/lists/com-attach/48-sp22-co2-removal-ws-WjtXOABzVVlXIQZ0.pdf)

Original File Name: Air Product Comments - August 2 2021 Scoping Plan Engineered Carbon Removal workshop final.pdf

Date and Time Comment Was Submitted: 2021-08-25 11:09:48

No Duplicates.

**There are no comments posted to 2022 Scoping Plan Update - Engineered Carbon Removal Technical Workshop (sp22-co2-removal-ws) that were presented during the Workshop at this time.**