

## **Comment 1 for CARB's public discussion of the Research Program's priorities (research-input-ws) - 1st Workshop.**

First Name: Daniel  
Last Name: Fernandez  
Email Address: dfernandez@csumb.edu  
Affiliation: CSU Monterey Bay

Subject: CARB research plans  
Comment:

Thank you for your efforts to integrate a wide range of feedback from various statewide stakeholders.

Per my oral comment:

One of my suggestions centers around the role that higher education can play in helping reach many of CARB's goals. My university is affiliated with an international partnership program called EPIC-N ([www.epicn.org](http://www.epicn.org)). Through EPIC-N, affiliated universities work with local municipalities to assist them in their sustainability-related goals. That is, there are often many projects that municipalities wish to engage in that have a sustainability focus, and, often, an air quality focus, but the associated municipality lacks the necessary expertise or sufficient human resources to engage in the project.

By partnering with universities, municipalities can leverage the expertise, enthusiasm and efforts of university classrooms, guided both by the expertise of the faculty member and the city staff. The university receives some compensation from the municipality to engage in this effort and the municipality reaps benefits far beyond its investment in the university.

If CARB were able to support such partnerships through investment in these programs, it could significantly leverage relevant research proposals that would benefit multiple municipalities, their higher-education partners throughout the state, and provide both practical and relevant research experiences to the current cohorts of students, some of whom will be seeking future employment in related fields.

For more information on the national EPIC-N programs, please see [www.epicn.org](http://www.epicn.org). At the site you will see several of the universities in the state of California that are involved in such efforts.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2020-09-16 10:27:58

No Duplicates.

## **Comment 2 for CARB's public discussion of the Research Program's priorities (research-input-ws) - 1st Workshop.**

First Name: Daniel  
Last Name: Fernandez  
Email Address: dfernandez@csumb.edu  
Affiliation: CSU Monterey Bay

Subject: fog research as a vector for chemical pollutants  
Comment:

Greetings,

I am a fog researcher at CSU Monterey Bay. While the bulk of my work involves measurement of volumes of liquid water that can be collected from fog, significant opportunity exists to examine the chemistry of water from fog. In particular, does fog act as a vector to transfer chemicals from agricultural fields, pesticides and nitrates, to regional communities?

Is this something that could be of interest to CARB?

Furthermore, since fog involves the condensation of water vapors on tiny particle nuclei, its presence and its consistency (that is the size and number of the fog droplets per unit volume) is affected by particulates as well as the proper environmental parameters (e.g. dew point). Fog measurements may, therefore, offer a new and unique lens to measure and examine the presence or absence of particulates.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2020-09-16 10:54:39

No Duplicates.

**Comment 3 for CARB's public discussion of the Research Program's priorities (research-input-ws) - 1st Workshop.**

First Name: Ryan  
Last Name: Sinclair  
Email Address: rsinclair@llu.edu  
Affiliation: Loma Linda University

Subject: Salton Sea  
Comment:

The Eastern Coachella Valley is out of attainment for Ozone. What can the CARB do to improve the air quality in the ECV regarding Ozone? Are there local sources of Ozone that you can regulate? Can you regulate the urban areas of Southern California with a goal to reduce exposure to the Disadvantaged groups in the Eastern Coachella Valley? The Inland Empire and the Coachella Valley receive many negative Environmental Justice related contaminants as a result of being downstream of the Southern California logistics and industry area.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2020-09-16 10:49:47

No Duplicates.

## **Comment 4 for CARB's public discussion of the Research Program's priorities (research-input-ws) - 1st Workshop.**

First Name: Catherine

Last Name: Garoupa White

Email Address: catherine@calcleanair.org

Affiliation: Central Valley Air Quality Coalition

Subject: comments on centering equity and justice in research

Comment:

I had to leave the meeting early so unfortunately wasn't able to contribute these comments:

1) Research should be undertaken with an action orientation, anticipating how results can inform changes across relevant agencies and communities.

2) Research should support and coordinate with existing efforts.

For example: In the San Joaquin Valley, we help convene the SJV EJ Steering Committee, which has an air monitoring network in partnership with local communities. Central CA EJ Network also coordinates IVAN networks in several counties.

3) Communities should be consulted early on. What was the front end process for getting feedback on proposed research projects? I heard community kick off meetings mentioned but obviously today's meeting was not at a time or of a length that's generally accessible to community members.

4) Finally, a recent analysis by the governor's office showed that in terms of both state and private philanthropic dollars, the San Joaquin Valley is heavily underinvested in. Please don't do research "on" us; do research with us that results in improved quality of life.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2020-09-16 11:42:47

No Duplicates.

## **Comment 5 for CARB's public discussion of the Research Program's priorities (research-input-ws) - 1st Workshop.**

First Name: Ryan

Last Name: Sinclair

Email Address: rsinclair@llu.edu

Affiliation: Associate Professor, Loma Linda University

Subject: We need research on improving AQI resolution.

Comment:

The ECV agricultural areas have a very different air quality than the western Coachella Valley. The western valley has blow sand with high winds and periodic issues with PM10. The Eastern valley (ECV) has agriculture and the Salton Sea. There is only one number for the AQI for the entire valley with similar geographical areas in the South Coast AQMD having up to 5 different AQIs. The first part of this question is how do we petition to have the CV split up into two AQI numbers for the North West and South East Coachella Valley?

There are now 4 to 5 regulatory sensors throughout the valley and the resolution for two different AQIs is possible. The research part of this question is to look into the inclusion of low cost sensors (or medium cost intermediate sensors) into the AQI. There are also several low cost sensors throughout the valley that could help build this resolution for an AQI, at least using PM2.5 from Purple Air sensors. With the EPA Air Now as one of the only outlets to promise to integrate low cost sensors in the near future, much more work needs to be done to build a tool that integrates the many types of low cost sensors. As an example, the SCAQMD uses purpleair sensors, has the AQSPEC and has hosted intermediate cost Aeroqual AQY1 sensors which are highly useful for NO2, Ozone, and PM2.5. The limitation is that many of the AQ SPEC sensors use a proprietary web access format requiring a password. We need research to explore how to integrate the many different brands of sensors to a much more localized AQI. This is a research topic and I would like to know how the CARB is intending on exploring and funding this rapidly developing technology. The output should be an AQI with a much better resolution that the public can use.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2020-09-16 12:19:15

No Duplicates.

**Comment 6 for CARB's public discussion of the Research Program's priorities (research-input-ws) - 1st Workshop.**

First Name: Ryan  
Last Name: Sinclair  
Email Address: rsinclair@llu.edu  
Affiliation: Alianza Coachella Valley

Subject: Salton Sea  
Comment:

The Salton Sea produces several natural types of air contaminants with harmful algal blooms, H<sub>2</sub>S and Selenium to name a few. Does the CARB have a community research fund that could help us explore and quantify some health risks from natural biological components of the Salton Sea? We represent a group of University researchers and community scientists that would like to initiate some specific research questions.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2020-09-16 12:20:44

No Duplicates.

**Comment 7 for CARB's public discussion of the Research Program's priorities (research-input-ws) - 1st Workshop.**

First Name: Frank

Last Name: Micone

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

Affiliation: Air Voltaics Inc

Subject: Small Wind Turbines to help reduce carbon emissions

Comment:

Hello- My company is Air Voltaics Inc. We are distributors for small wind turbines (3kw and 6kw) similar in size to the old fashion windmills that helped build California. We can help California meet its goals for reduced carbon emissions and renewable energy. Small Wind and Hybrid Wind/Solar Systems are ideal for the rural areas of Ca that have wind. Small Wind gets the same rebates as solar and qualifies for the CA SGIP Program except for the outdated policy requiring an 85ft Monopole to get the CA rebate. Because of this policy only a handful of rebates have been given out over the last 10 years which defeats the intent of the program. New Small wind turbines make excellent power at reduced hub heights of 30-45 ft. Need you to help get this policy changed to allow Californians to have access to the SGIP Program. Check us out at [airvoltaics.com](http://airvoltaics.com). Enclosed is a copy of a letter sent to CA Task Force for Economic Recovery.

Attachment: [www.arb.ca.gov/lists/com-attach/7-research-input-ws-AGwCYQF0ACcGZQh6.docx](http://www.arb.ca.gov/lists/com-attach/7-research-input-ws-AGwCYQF0ACcGZQh6.docx)

Original File Name: Letter to CA Task Force.docx

Date and Time Comment Was Submitted: 2020-09-24 14:33:37

No Duplicates.

**Comment 8 for CARB's public discussion of the Research Program's priorities (research-input-ws) - 1st Workshop.**

First Name: Hana

Last Name: Creger

Email Address: hanac@greenlining.org

Affiliation: The Greenlining Institute

Subject: Public Comments

Comment:

Thank you for your consideration.

Attachment: [www.arb.ca.gov/lists/com-attach/8-research-input-ws-VTICdgBkUGYEBANv.docx](http://www.arb.ca.gov/lists/com-attach/8-research-input-ws-VTICdgBkUGYEBANv.docx)

Original File Name: Greenlining Public Comments CARB Triennial Research Plan.docx

Date and Time Comment Was Submitted: 2020-09-28 17:15:30

No Duplicates.



**Comment 9 for CARB's public discussion of the Research Program's priorities (research-input-ws) - 1st Workshop.**

First Name: Muriel

Last Name: Strand

Email Address: ecoengr@comcast.net

Affiliation:

Subject: Ideas for the CARB 2021-2024 Triennial Strategic Research Plan

Comment:

please see attached

Attachment: [www.arb.ca.gov/lists/com-attach/9-research-input-ws-UTJdNFQ4U21RMIM9.pdf](http://www.arb.ca.gov/lists/com-attach/9-research-input-ws-UTJdNFQ4U21RMIM9.pdf)

Original File Name: comments for carb 2021-24 research plan.pdf

Date and Time Comment Was Submitted: 2020-10-06 15:26:27

No Duplicates.

## **Comment 10 for CARB's public discussion of the Research Program's priorities (research-input-ws) - 1st Workshop.**

First Name: Pat

Last Name: Tighe

Email Address: ptighe@astound.net

Affiliation: Migraine sufferer from fragrance chems

Subject: 20% of women +10% of men get migraines from fragrance chems

Comment:

Research (abstracts attached) shows that 20% of women and 10% of men get migraines from fragrance chemicals. These are also VOCs so cause ozone and smog. I listened into the consumer products rulemaking meetings for the last 2 years with no help for reducing exposures to clothes dryer air pollution, air fresheners in public restrooms and buildings such as stores, and public pools and beaches exposure to spray sunscreens. In fact the 'lower VOCs' ARB consumer products staff said they are not interested in public health. I contacted a public health ARB staff person and got no reply.

If we have 40 million people in California then about 6 million want you to get to this area of air pollution NOW to reduce the daily sources of migraines for us! I can't even sit in my own backyard since the neighbors all choose different days to do their highly fragranced laundry (which some refuse to give up and switch to unscented). 4000 chemicals are used for fragrance (ewg.org). Many are on hazardous, toxic, and cancer-causing lists. Grab some low-hanging fruit to clean our air since all the manufacturers of laundry already make unscented products! Stick and cream sunscreens come in unscented. Air fresheners are just pure chemical pollution for our lungs. Just get fragrance out of public air Now please!

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

Original File Name: FragranceChemSciAbs2019.pdf

Date and Time Comment Was Submitted: 2020-10-06 16:13:24

No Duplicates.

**Comment 11 for CARB's public discussion of the Research Program's priorities (research-input-ws) - 1st Workshop.**

First Name: Colby  
Last Name: Morrow  
Email Address: [clmorrow@socalgas.com](mailto:clmorrow@socalgas.com)  
Affiliation: SoCalGas Company

Subject: Feedback on CARB 2021-2024 Triennial Research Plan & 9-16-2020 Research Roundtable  
Comment:

Please find attached SoCalGas comment letter & attachment of proposed research projects. Thank you very much for your consideration.

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

Original File Name: 2020-10-7 SoCalGas Attachment 1-Input to CARB-Proposed Research Projects.pdf

Date and Time Comment Was Submitted: 2020-10-07 16:24:58

No Duplicates.

**Comment 12 for CARB's public discussion of the Research Program's priorities (research-input-ws) - 1st Workshop.**

First Name: Colby  
Last Name: Morrow  
Email Address: clmorrow@socalgas.com  
Affiliation: SoCalGas Company

Subject: Feedback on CARB 2021-2024 Triennial Research Plan & 9-16-2020 Research Roundtable  
Comment:

Submitting SoCalGas comment letter again as did not see it and the letter attachment-1 both of which I tried attachment in initial submittal. If you can link them in the official record, I would appreciate it. Thank you again.

Attachment: [www.arb.ca.gov/lists/com-attach/12-research-input-ws-AjBQZgY1UzACKQg5.pdf](http://www.arb.ca.gov/lists/com-attach/12-research-input-ws-AjBQZgY1UzACKQg5.pdf)

Original File Name: 2020-10-7 SoCalGas Input on CARB Research Priorities\_final.pdf

Date and Time Comment Was Submitted: 2020-10-07 16:24:58

No Duplicates.

**Comment 13 for CARB's public discussion of the Research Program's priorities (research-input-ws) - 1st Workshop.**

First Name: Andrew

Last Name: Campbell

Email Address: [acampbell@berkeley.edu](mailto:acampbell@berkeley.edu)

Affiliation: Energy Institute at Haas, UC Berkeley

Subject: Energy Institute Comments on Triennial Strategic Research Plan

Comment:

See attached comments. Thank you.

Attachment: [www.arb.ca.gov/lists/com-attach/13-research-input-ws-UjFVPFU5Az1WNQFv.docx](http://www.arb.ca.gov/lists/com-attach/13-research-input-ws-UjFVPFU5Az1WNQFv.docx)

Original File Name: Comments CARB Campbell 201007.docx

Date and Time Comment Was Submitted: 2020-10-07 16:53:01

No Duplicates.

**There are no comments posted to CARB's public discussion of the Research Program's priorities (research-input-ws) that were presented during the Workshop at this time.**