Comment 1 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Philip M. Last Name: Fine Email Address: pfine@aqmd.gov Affiliation:

Subject: SCAQMD Comment Letter - Aliso Canyon Climate Change Impacts Mitigation Program Comment:

The South Coast Air Quality Management District appreciates the opportunity to submit a comment letter from SCAQMD Chairman Dr. William A. Burke, on the Aliso Canyon Climate Change Mitigation Program.

Attachment: www.arb.ca.gov/lists/com-attach/3-alisompdraft-ws-AHMAZQNjVXcKYVcz.pdf

Original File Name: SCAQMD Comment Letter - Aliso Canyon Mitigation Program.pdf

Date and Time Comment Was Submitted: 2016-03-18 12:59:12

Comment 2 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Malcolm Last Name: Weiss Email Address: mweiss@hunton.com Affiliation:

Subject: Aliso Canyon Mitigation Program Comment:

Please see attached letter.

Attachment: www.arb.ca.gov/lists/com-attach/4-alisompdraft-ws-WjZQM1MmWH8BYgR2.pdf

Original File Name: Letter to ARB re Aliso Cyn.pdf

Date and Time Comment Was Submitted: 2016-03-18 15:14:42

Comment 3 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Martin Last Name: Gordon Email Address: valleyspreader@sbcglobal.net Affiliation: Valley Spreader

Subject: So Cal Gas mitigation proposal Comment:

Do nothing. The leak was unintentional. The money spent on mitigation will be misspent and the true payment of the bill will be the ratepayers.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2016-03-18 16:40:27

Comment 4 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Jenny Last Name: Oorbeck Email Address: joorbeck@nsf.org Affiliation: NSF International

Subject: Mitigation projects should be validated Comment:

Please see our attached letter.

Attachment: www.arb.ca.gov/lists/com-attach/6-alisompdraft-ws-BWtTJlw7WFRQNQZp.pdf

Original File Name: NSF comment letter on Aliso Canyon methane mitigation program_20160321.pdf

Date and Time Comment Was Submitted: 2016-03-21 05:50:39

Comment 5 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Evan Last Name: Edgar Email Address: evan@edgarinc.org Affiliation: Ca Compost Coalition

Subject: Support Full Mitigation using organic waste diversion Comment:

Support Full Mitigation using organic waste diversion that are local and transformative such as the City of LA's commercial waste franchise system starting n 2017.

Attachment: www.arb.ca.gov/lists/com-attach/7-alisompdraft-ws-Wi1SPANrU3RRMgRb.pdf

Original File Name: White Paper - Waste Sector AD for RCNG trans fuel.pdf

Date and Time Comment Was Submitted: 2016-03-21 10:57:20

Comment 6 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Tim Last Name: Taylor Email Address: ttaylor@airquality.org Affiliation: Sacramento Air District

Subject: Aliso Canyon Mitigation Strategies Comment:

State legislation mandates that food waste generators of 8 cubic yards or more per week source separate and divert that waste from landfills. Sacramento Solid Waste Authority, (SWA), has passed Ordinance 26 to implement this requirement. Despite several years of effort to implement source-separation and diversion, and despite the ordinance, SWA anticipates that it will take several years to achieve compliance. SWA also recognizes that 4 yd/wk food waste generators will not be required to divert food waste until 2018 and 2yd/wk generators may never be required to divert.

A coalition of utility, agency and non-profit organizations has been organized in the Sacramento Region to educate and assist both generators and collectors to source-separate and divert food waste into bio-digesters where the methane and CO2 emissions can be captured and turned into Renewable Natural Gas, (RNG), for transportation and for electrical energy production. This effort cannot be fully effective without significant additional funding, but with additional funding from the Aliso Canyon mitigation effort, food waste diversion could be significantly increased and air emissions of methane and CO2 could be significantly reduced.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2016-03-22 06:08:24

Comment 7 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: barbara Last Name: coler Email Address: bcolerconsulting@gmail.com Affiliation: CAPCOA consultant

Subject: CAPCOA GHG Rx use and Organic Waste Digestion subsidies Comment:

Dear Sir or Madam:

I am employed by the California Air Pollution Control Officers Association (CAPCOA) as the administrator of the CAPCOA Greenhouse Gas Reduction Exchange (GHG Rx). The GHG Rx is a registry and information exchange for GHG emission reduction credits designed specifically to benefit the State of California It is a low cost, secure online platform for exchange of locally-generated GHG credits derived from California-only voluntary projects based on Board-approved protocols. The GHG Rx is implemented by Participating Air Districts throughout the state. Credits must be real, quantified, verified, permanent, enforceable, additional/surplus to be accepted within the GHG Rx. There are several co-benefits that can be realized through use of the GHG Rx: financial resources invested in-state will help create local jobs and result in other needed air pollution co-benefits as well as socioeconomic and other environmental co-benefits from projects in California.

The GHG Rx has several CAPCOA Board approved protocols, including, among others, two Biogas Control Systems (BCS) protocols: 1) Organic Waste Digesters (OWD) - Livestock Manure and 2) Livestock - Dairy Cattle & Swine. Of our Participating Districts, the San Joaquin Valley APCD and others have significant farming and ranching operations within their respective jurisdictions.

I suggest that use of CAPCOA GHG Rx be recommended as an option to utilize for the mitigation program and specifically for biodigester (OWD) projects. The program meets all the criteria listed within the document and would satisfy many (or all) of the additional considerations. Additionally, I respectfully suggest that the Air Resources Board provide specific recommendations as to the funding subsidies (amount and type) that should be provided by Southern California Gas to support OWD projects. At this time, State funding available through the Treasurer's Office would not be workable for such projects. There are limited USDA grants and loan funding, however they are insufficient to encourage widespread use of OWD. Given the magnitude of the methane emissions in the State from agriculture, and that they are primarily associated with enteric fermentation and emissions from dairy manure lagoons, it is critical that 1) mitigation is conducted, and, 2) that significant subsidies (grants/low-cost loans and guarantees) are provided through the Aliso Canyon program that would be applicable to a broad array of livestock operations, large and small.

Thank you for your consideration.

Barbara Coler, Coler Environmental Consulting LLC

Original File Name:

Date and Time Comment Was Submitted: 2016-03-22 09:39:09

Comment 8 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Timothy J. Last Name: O'Connor Email Address: toconnor@edf.org Affiliation:

Subject: Letter on Aliso Mitigation Comment:

See attached

Attachment: www.arb.ca.gov/lists/com-attach/10-alisompdraft-ws-VTQCaAZuUnJVPANc.pdf

Original File Name: Aliso mitigation letter_EDF_CR_NRDC.pdf

Date and Time Comment Was Submitted: 2016-03-22 13:08:10

Comment 9 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Gilbert Last Name: Duran Email Address: gilbertduran3@att.net Affiliation:

Subject: Letter on Aliso Mitigation Comment:

See Attached.

Attachment: www.arb.ca.gov/lists/com-attach/11-alisompdraft-ws-WzxRPlE8BTQKaVcl.pdf

Original File Name: Gilbert_Duran 3_18_2016.pdf

Date and Time Comment Was Submitted: 2016-03-22 14:02:28

Comment 10 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Jason Last Name: Hector Email Address: jason15838@gmail.com Affiliation:

Subject: : Comments on Aliso Canyon Methane Leak Climate Impacts Mitigation Program Draft Comment:

See attached.

Attachment: www.arb.ca.gov/lists/com-attach/12-alisompdraft-ws-WjBdOlQmAj4DawBf.pdf

Original File Name: Jason_Hector 3_22_2016.pdf

Date and Time Comment Was Submitted: 2016-03-23 13:57:14

Comment 11 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: David Last Name: Rosenheim Email Address: drosenheim@theclimateregistry.org Affiliation: The Climate Registry

Subject: TCR comments on Aliso Canyon draft plan Comment:

Dear Chairman Nichols,

thank you for the opportunity to provide comments on the Aliso Canyon draft plan. Please see the attached PDF with our comments.

Very best,

David Rosenheim Executive Director The Climate Registry

Attachment: www.arb.ca.gov/lists/com-attach/13-alisompdraft-ws-ViIGY10uBAgHYlc4.pdf

Original File Name: TCR comments_Alison Canyon.pdf

Date and Time Comment Was Submitted: 2016-03-23 14:51:06

Comment 12 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Paul Last Name: Relis Email Address: paulr@crrmail.com Affiliation: CR&R Incorporated

Subject: ARB methane mitigation plan Comment:

CR&R Incorporated, one of the largest privately held solid waste and recycling firms in the U.S. serves some 3 million customers and more than 50 communities in Southern California. The 50-year old company will complete the first phase of a four-phase anaerobic digester (AD) project that will convert source separated organic waste that would otherwise go to landfill, to renewable natural gas (RNG) and soil amendments by April of this year. A second phase, well under construction, will be completed by the fall of 2016.

The project is located in the city of Perris, an economically disadvantaged community. It will produce one million gallons of diesel equivalent (DGE) fuel with each phase or 4 million gallons when fully built out. Each one million gallons of RNG equals about 2500 metric tons of methane. Using the ARB 10-year methane reduction target in ARB's mitigation plan, two phases of our project would produce about 50,000 tons of methane mitigation, or about half of the ten-year mitigation target.

CR&R has privately financed 80% of Phases I and II of the Perris project with about \$8.7 million in grant funds from the California Energy Commission, CalRecycle and the South Coast Air Quality Management District and with the support of 10 communities. These ten communities have supplemented their waste service contracts with CR&R to enable them to use Phases I and II to manage their organic wastes and fuel the CR&R trucks serving these communities.

If mitigation funds were made available to CR&R the company would consider proceeding with Phases III and IV with a completion date of 2018. The methane production from these two phases, as previously noted, could achieve half of the methane mitigation target.

The project would reduce methane from organic waste going to landfill.

The project location is an economically disadvantaged community.

The project would build on CR&R's existing truck infrastructure, consisting of several hundred natural gas vehicles and three natural gas fueling stations, all located in the South Coast.

The project would exploit the use of the new Cummins low NOX .02 gram 8 liter engine that running on RNG, achieves carbon negative performance. CR&R has been awarded a grant from the South Coast Air Quality Management District to demonstrate the performance of the vehicle that goes into commercial production later this year or in early 2017.

CR&R has the land use entitlements to all four phases of the AD to RNG project. The project is thus, "shovel ready."

CR&R will be connected to Southern California Gas Company's gas grid by the end of 2016. At that time CR&R will become the first large scale facility of its kind to connect to the grid. It will then be able to "wheel" its RNG to customers throughout Southern California.

CR&R is contracting with the City of Los Angeles to help it manage its residential organic waste. 120 tons per day of organic waste will be processed at the Perris facility. The city has expressed interest, subject to proof of project performance, and the availability of grant funds, to increase green waste deliveries to the Perris facility.

CR&R's project team of Eisenmann (digester technology from Germany), Greenlane (gas clean up technology from New Zealand), Lyles,(an experienced public works contractor)and J.R. Miller, (architect and engineer for many solid waste facilities nationwide) brings exceptional capabilities to the development of the project.

The project technology and the development team has been fully vetted by the City of Los Angeles (Bureau of Sanitation), the California Energy Commission, Cal Recycle, and the South Coast Air Quality Management District.

If mitigation funds were used to assist with the development of Phases III and IV the ARB would have a clear and practical pathway to achieve its methane mitigation target building on an existing AD to RNG development platform.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2016-03-23 20:40:16

Comment 13 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Susan Last Name: Gorman-Chang Email Address: sggc@dslextreme.com Affiliation: Porter Ranch resident

Subject: Comments on Mitigation Plan for Aliso Canyon Leak Comment:

see attached comments

Attachment: www.arb.ca.gov/lists/com-attach/15-alisompdraft-ws-UyQFcVY+VXIAclUw.docx

Original File Name: written comments SG-C.docx

Date and Time Comment Was Submitted: 2016-03-24 06:06:41

Comment 14 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Mike Last Name: Levin Email Address: mlevin@fce.com Affiliation: FuelCell Energy, Inc.

Subject: Comments of FuelCell Energy, Inc. on Draft Aliso Canyon Mitigation Program Comment:

Please see the attached comments of FuelCell Energy, Inc. on the Draft Aliso Canyon Methane Leak Climate Impacts Mitigation Program. Included as Appendix 1 to these comments is independent analysis performed by Energy & Environmental Economics (E3) that offers an objective cost-benefit assessment of our proposal.

Attachment: www.arb.ca.gov/lists/com-attach/16-alisompdraft-ws-BjRRZwQ0VTBXfAc3.pdf

Original File Name: 2016-03-24; FuelCell Energy ARB Aliso Canyon Final.pdf

Date and Time Comment Was Submitted: 2016-03-24 06:37:05

Comment 15 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Frank Last Name: Caponi Email Address: fcaponi@lacsd.org Affiliation: LACSD

Subject: Commet Letter re: Draft Aliso Canyon Methane Leak Climate Impacts Mitigation Program Comment:

From Frank Caponi of the Los Angeles County Sanitation Districts.

Attachment: www.arb.ca.gov/lists/com-attach/17-alisompdraft-ws-UzdcNVAyUzBRZAAy.pdf

Original File Name: DOC032416-03242016095948.pdf

Date and Time Comment Was Submitted: 2016-03-24 11:11:06

Comment 16 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Mitchell Last Name: Englander Email Address: councilmember.englander@lacity.org Affiliation: Los Angeles City Council

Subject: Comments on CARB Aliso Canyon Climate Impacts Mitigation Program Comment:

Please see attached comment letter from Los Angeles City Councilmember Mitchell Englander.

Thank you.

Attachment: www.arb.ca.gov/lists/com-attach/18-alisompdraft-ws-WjkAZ10uWGlXDlAx.pdf

Original File Name: CARB Aliso Canyon mitigation comment letter.pdf

Date and Time Comment Was Submitted: 2016-03-24 11:24:16

Comment 17 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Mitchell Last Name: Englander Email Address: councilmember.englander@lacity.org Affiliation: Los Angeles City Council

Subject: Comments on the CARB Aliso Canyon Climate Impacts Mitigation Program Comment:

Please see attached comment letter from Los Angeles City Councilmember Mitchell Englander.

Thank you.

Attachment: www.arb.ca.gov/lists/com-attach/19-alisompdraft-ws-AGMHYAd0UGFXDgRl.pdf

Original File Name: CARB Aliso Canyon mitigation comment letter.pdf

Date and Time Comment Was Submitted: 2016-03-24 11:35:47

Comment 18 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Norvell Last Name: Nelson Email Address: norv@ltvcorporate.com Affiliation: Longbow Technology Ventures

Subject: Mitigation in the Transportation Sector Comment:

Please consider the mitigation potential of additional approaches in the transportation sector as outlined in the attachment.

Attachment: www.arb.ca.gov/lists/com-attach/20-alisompdraft-ws-BWgHYFckU2MCbAJd.docx

Original File Name: March 24 Alsio Canyon Comment Final.docx

Date and Time Comment Was Submitted: 2016-03-24 11:45:54

Comment 19 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Anna ("Mickey") Last Name: Moritz Email Address: mmoritz@biologicaldiversity.org Affiliation: Center for Biological Diversity

Subject: Aliso Canyon Draft Mitigation Plan Comments Comment:

Comments and references from the Center for Biodiversity attached.

Attachment: www.arb.ca.gov/lists/com-attach/21-alisompdraft-ws-VWRdbVIMVTZQZVQL.zip

Original File Name: 16 03 24 CBD comments Aliso draft mitigation plan.zip

Date and Time Comment Was Submitted: 2016-03-24 12:15:56

Comment 20 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Adam Last Name: Scow Email Address: ascow@fwwatch.org Affiliation: Food & Water Watch

Subject: Comments on Aliso Canyon Methane Leak Climate Mitigation Program Comment:

Please find attached cited comments on the Aliso Canyon Methane Leak Climate Mitigation Program submitted jointly by Matt Pakucko of Save Porter Ranch, Gary Graham Hughes of Friends of the Earth and me.

The comments, without citation, appear below my signature, here.

Thank you for your consideration of our recommendations.

Sincerely, Adam Scow California Director Food & Water Watch

March 24, 2016

California Air Resources Board Attn: Mary D. Nichols, Chair 1001 "I" Street Sacramento, CA 95814

RE: Comments on Aliso Canyon Methane Leak Climate Impacts Mitigation Program

Thank you for accepting these comments on the Aliso Canyon Methane Leak Climate Impacts Mitigation Program.

On October 23, 2015, workers at the Aliso Canyon Storage Facility operated by Southern California Gas Company (SoCalGas) discovered the well casing leak that became the worst natural gas disaster in U.S. history. The blowout lasted nearly four months, displacing more than 15,000 Porter Ranch area residents from their homes, sickening countless adults, children and pets, and emitting nearly 100,000 tons of heat-trapping methane into the atmosphere.

SoCalGas must be penalized for these impacts and the California Air Resources Board (CARB) must design such penalties to reduce directly the reliance of Los Angeles on fossil fuels and to increase access by Los Angeles residents - particularly those in lower income and vulnerable communities - to low-cost, non-fossil fuel, renewable energy sources. Therefore, we strongly recommend that CARB revise the Draft Aliso Canyon Methane Leak Climate Impacts Mitigation Program to effectively meet these objectives.

SoCalGas has a proven history of placing the community and environment at risk by failing to repair compromised equipment at Aliso Canyon.

The terrible impacts of the Aliso Canyon gas blowout are made worse by the fact that SoCalGas and the California Public Utilities Commission were well aware of the risks that led to the disaster and failed to take steps to protect the surrounding community and the environment. According to SoCalGas, the average age of a well at Aliso Canyon Storage Facility is 52 years; eight wells at the facility have been subjected to "internal and external corrosion" for over 81 years. SoCalGas operates 114 storage wells at Aliso Canyon, and over half of them are over 58 years old.

SoCalGas admitted in 2014 testimony before the California Public Utilities Commission (CPUC) that "a negative well integrity trend seems to have developed since 2008," indicating that well casings were reaching a breaking point due to their age and high-intensity use. The company explained that it discovered a 400 pounds per square inch leak at Aliso Canyon in 2008, and stated the leak was "indicative of production casing leaks from either internal or external corrosion where high pressure gas can migrate to the surface in a matter of hours." Integrity failures in two more wells at Aliso Canyon were discovered in 2013, but the gas was reportedly not reaching the surface through the leaking wells, but was migrating through the soil. Given these severe conditions, Porter Ranch and the surrounding areas of Los Angeles have been, and continue to be, at ongoing risk of exposure to leaks from the Aliso Canyon Storage Facility.

Numerous SoCalGas storage wells are known to have external corrosion problems or other signs of physical damage. At Aliso Canyon, natural gas storage wells show signs of external casing corrosion at relatively shallow depths in the well casing and at deeper depths where oil is extracted using fluid stimulation. SoCalGas cited the "unknown number of at-risk wells and their integrity status" as two factors that complicate budgeting and accounting related to rates set by the CPUC. The increasing number of safety and integrity conditions is attributed primarily to the frequency of use, exposure to the environment, and length of time wells have been in service. The clear implication is that costs to address the system-wide integrity issues could quickly balloon.

Natural gas storage wells can be damaged down-hole and have what SoCalGas terms "poor deliverability rates," meaning that there is resistance to natural gas injection. SoCalGas has been clearing this resistance using gravel packing other well stimulation methods, potentially including high-pressure injections of fluids, including acids.

During the gas disaster, the South Coast Air Quality Management District inspected 16 wells at the Aliso Canyon Storage Facility with a forward looking infrared (FLIR) camera, and found that 15 wells had leaking valves, fittings and/or flanges. These leaks were minor compared to the leak at SS-25, but nevertheless show the inherent leak risks associated with natural gas infrastructure at the Aliso Canyon Storage Facility and elsewhere.

The use of offsets and other market-based approaches does not result in net environmental and social benefits.

The proposed Aliso Canyon Methane Leak Climate Impacts Mitigation Program suggests that one way for SoCalGas to mitigate its releases of methane is by using "offsets" created by funding projects such as dairy digesters on some of the state's agricultural operations. CARB suggests that this offset mitigation approach exists outside of California's current GHG trading/offset program because of the impact it may have on that program's trading/offset projections and allocations. Regardless of whether the proposed offsets occur within or without the state trading/offset program, any kind of offset, including the purchase of credits, is a legitimate threat to achieving real, additional or permanent emissions reductions.

Offsets allow polluters to avoid the urgent need to stop polluting by allowing them instead to pay to continue harmful activities with impunity, while claiming that emissions have been reduced elsewhere. Moreover, the agenda behind offsets, as is clear here, too often places priority on cost containment, market efficiency and ease of polluter compliance, but disregards the true priority, which is to reduce GHG emissions.

The issue of permanence presents the most egregious problem from offsets. The dictionary defines permanence as "the state or quality of lasting or remaining unchanged indefinitely." However, CARBS's understanding of permanence is quite distorted: "Permanent means, in the context of offset credits, either that GHG reductions and GHG removal enhancements are not reversible, or when GHG reductions and GHG removal enhancements may be reversible, that mechanisms are in place to replace any reversed GHG emission reductions and GHG removal enhancements to ensure that all credited reductions endure for at least 100 years."

This definition of "permanence" sends the contradictory message that offset protocols require permanence, but then allows for situations where permanence can be violated so long as there are backup mechanisms in place. For example, the Forest Buffer Account exists for use should a forest used for offsets burn down or be destroyed by another natural disaster, reversing the offsets generated. However, what's left unsaid is that using a buffer account like this allows the total amount of emissions released to increase – the reversed offsets release emissions, requiring more offsets to replace those reversed, ultimately increasing the aggregate number of credits used and subsequently increasing the overall amount of emissions allowed. It's not as simple as a one-for-one exchange.

Additionally, offsets conflict with the requirement for permanence when the life of the reductions is only for 100 years, instead of achieving true permanence. Crediting periods also contradict the concept of permanence when they only go for 25 or 30 years at a time. This is, again, not permanent. It is also unclear what happens after the crediting periods end, or after the 100 years of "permanence" end. The companies that issue the offset credits might not exist in 25, 30 or 100 years, and these impermanent crediting periods bring all of the offsets issued into question. The entire structure of these offsets presents a significant risk of large-scale reversal in the future, undoing whatever emissions reductions might happen and creating no real progress on the very critical issue of GHG reductions.

Another problem arises in the methodology for measuring the amounts of carbon dioxide (CO2) stored in forests, as well as the methods for calculating emissions reductions from the proposed rice cultivation offsets. Although both methodologies are problematic, they share a significant issue in that they use models and estimates to arrive at the amount of CO2 stored in a forest or the amount of methane emissions prevented from different rice cultivation practices. From these estimates, offsets are then sold for exact amounts of avoided emissions. A modeled estimate does not equal an exact amount of emissions. It doesn't add up.

Issues of additionality also render California's offset program invalid. State regulations hold that, "A registry offset credit must represent a GHG emission reduction or GHG removal enhancement that is real, additional, quantifiable, permanent, verifiable, and enforceable [Health and Safety Code §38562(d)(1) and (2)]. Yet time and again, CARB approves offsets that do not meet this additional requirement. For example, Burbaker Farm in Pennsylvania built a manure digester in 2011, using taxpayer funding, to provide electricity for the farming operation. The owner of the farm is on record as saying he originally built the digester not for credits, but electricity. Yet, in 2015 CARB retroactively certified the Brubaker digester as a GHG offset generator, and California industries can now take advantage of this facility to continue their own emissions even though the digester was already in place, and operating. Likewise, CARB recently approved the 704-acre Pungo River Forest Conservation Project in North Carolina as a source of

GHG offsets even though this stand of forest was put into permanent conservation easement in 2003. Seeking already existing GHG reduction projects across the country to generate offsets in the state of California means that there are no additional GHG reductions taking place through the state's offset program.

The offset approach is not the only problem. Cap-and-trade is a regulatory framework that seeks to eliminate the most important tenets of the Clean Air Act, which is that companies do not have an inherent right to pollute. Under cap-and-trade policies, polluters are given a right to threaten public health and the environment, as long as they pay for it. These schemes essentially create loopholes that allow polluters to continue dumping and discharging rather than holding them accountable for pollution.

Trading creates a mechanism where profits determine who is able to pollute and can actually lead to an overall increase in pollution. This is because credits that polluters would purchase are difficult and often impossible to verify. In fact, a recent study of a European Union cap and trade program found that 80% of credits were unverifiable. This means that polluters were able to buy credits to pollute more from other polluters that may or may not have actually reduced emissions.

Even if the impossible task of verifying pollution credits were possible, trading creates regional pollution hot spots, as larger and well-financed polluters will often opt to purchase credits rather than run pollution-control equipment. This happened with the Los Angeles air pollution trading programs under the Rule 1610 and RECLAIM programs in which communicates of color near the City's refinery district suffered from increased air pollution when these facilities purchased emissions credits instead of installing reduction technologies.

While proponents of cap-and-trade and offsets tout the regulatory flexibility benefits of these policies, in reality these policies allow polluting industries to put profit above the interests of public health and the environment. We need to strengthen protections under the Clean Air Act that have worked for decades to help hold polluters accountable, rather than rolling back some of the most important public health laws.

The threats posed by climate change to our public health, environmental health, communities and livelihoods are permanent and real, and so must our efforts to stop these threats be permanent and real — offsets cannot accomplish this. The fact that they require loopholes, distortions and exceptions to even "work" shows that offsets are not a solution, but merely a scam.

Digesters are not a solution to environmental problems, including climate change.

Waste disposal is a problem for all factory farms, with impacts on wildlife and human health, the health of the waterways surrounding them and even on microbial development and potential antibiotic resistance. In addition to containing methane, a potent greenhouse gas, the air surrounding factory farms typically includes ammonia, hydrogen sulfide and particulate matter. These can lead to a variety of illnesses, including lung disease, chemical burns to the respiratory tract and even death. Anaerobic digestion is focused mostly on methane production, though it claims to help with some of the other effects as well.

At the most simple level, anaerobic digestion happens by adding microorganisms to animal waste. The microorganisms digest the waste, producing "biogas," mostly a mixture of methane and carbon dioxide. The methane, the main component of natural gas, can then be burned to generate electricity or heat.

By covering and heating manure lagoons - and installing expensive

machinery - factory farms claim to be able to capture and burn methane gas, thereby eliminating greenhouse gas emissions and producing energy. The environmental benefits of manure digesters, however, have proven elusive - and seem to offer little remedy to the far-ranging environmental impacts of the factory farms that feed these machines.

But, like manure pits without any methane capture system, digesters may accidentally spill or leak liquid manure and also present environmental and climate risks from explosions associated with methane production. A 1.25-million gallon manure digester in Wisconsin, constructed with more than \$3 million in public funds, spilled 380,000 gallons of manure into nearby waterways in 2013, then another 22,000 gallons in 2014. The digester then experienced a major methane explosion. Faced with the reality of such dangerous accidents at digesters, some rural communities have opposed the construction of digesters.

Manure digesters don't capture all of the methane they produce, and some amount of methane these machines generate escape as emissions. This "fugitive methane," as scientists call it, can greatly offset-or even negate-whatever greenhouse gas reductions digesters offer. And when digesters burn methane, they release greenhouse gases like carbon dioxide and nitrogen oxide, which also causes smog and public health issues like asthma.

Even factory farms that safely manage manure during methane capture still have to manage the huge volume of waste that remains following the digestion process. Digesters don't make the manure evaporate or disappear; they merely extract methane gas from it. In fact, if digesters add water to manure during the digestion process, the total volume of liquid waste may actually increase.

Additionally, trucking tons of digested manure to surrounding farms incurs significant environmental costs associated with fossil fuel use and presents risks associated with spills. For example, in April 2015 there were at least two reported trucking accidents in upstate New York in which thousands of gallons of manure were spilled.

Manure digesters are an extremely inefficient method of energy production and would not exist in the United States absent taxpayer subsidies. Start-up, maintenance and operating costs are often in the millions of dollars, and digesters often do not generate enough energy or revenue to be economically feasible. Therefore, manure digesters must not be included in the Aliso Canyon Methane Leak Climate Impacts Mitigation Program.

CARB should require SoCalGas to fund renewable energy projects in Los Angeles

CARB's plan should not call on SoCalGas to fund difficult to track and regulate agricultural methane 'offset' activities that may not reduce overall emissions and would certainly not benefit Los Angeles' impacted and vulnerable communities. In order to assure that all Angelenos have access to clean, renewable energy, CARB should require SoCalGas to fund the construction of community solar gardens that serve the low-income residents of the City of Los Angeles. Constructing these solar gardens would both provide economic relief to residents and result in a permanent reduction in the reliance on fossil fuels.

If combined with California's net metering program, residents who have shares in community solar gardens would see a reduction in their monthly electricity bills. In addition, increasing the amount of solar generation in the city would displace current fossil fuel generation. The total generation of the community solar gardens constructed by SoCalGas as part of this mitigation plan should be sufficient to annually displace more than enough fossil fuel generation to account for an equivalent amount of greenhouse gas as was emitted during the four months of the Aliso Canyon Storage Facility disaster.

According to the U.S. Department of Energy, less than one-third of American rooftop space is suitable for solar installation. Further, half of all households cannot install a solar PV system because of issues ranging from ownership, to shading, to lack of adequate roof space. Additionally, even though costs have dropped, installing a rooftop solar PV system still requires upfront financing that typically hinges on both higher levels of income and higher credit scores. While 40 percent of all households in the United States have income less than \$40,000 per year, those households "account for less than five percent of solar installations." In Los Angeles, less than 40 percent of residents live in owner-occupied housing. Median household income is below \$50,000 and more than 20 percent of residents live below the poverty line.

Community solar enables households that cannot, for financial or other reasons, to install rooftop solar on their homes and get the benefits of distributed solar. Community solar programs allow households to buy a share of the solar electricity generated at a larger-scale solar garden built in their community. The participants in the project receive a share of utility bill credits, tax incentives and production incentives. The bill credits work in the same way that an individual household with net metering receives credits. For the amount of electricity sold into the grid by the project, participants receive a payment for the kilowatt hours represented by their share. The payment then reduces their utility bill.

Conclusion

Given the aging and deteriorating nature of its infrastructure and the inherent dangers of natural gas storage to neighboring communities, a true long-term mitigation plan for the Aliso Canyon Storage Facility would require its permanent decommission. Therefore, CARB's Aliso Canyon Methane Leak Climate Impacts Mitigation Program must be viewed more accurately as a penalty against SoCalGas for the harms to the local community and the environment caused by the four-month leak disaster. CARB's plan should focus exclusively on requiring SoCalGas to fund projects to permanently reduce methane emission in Los Angeles communities. We urge CARB to revise its draft plan to require SoCalGas to spend its mitigation funds solely on the construction of community solar farms sufficient to annually displace more than enough fossil fuel generation to account for an equivalent amount of greenhouse gas as was emitted during the four months of the Aliso Canyon Storage Facility disaster. Any other mitigation activities should be stricken from CARB's plan.

Sincerely,

Adam Scow California Director, Food & Water Watch

Matt Pakucko President, Save Porter Ranch

Gary Graham Hughes California Advocacy Campaigner, Friends of the Earth Attachment: www.arb.ca.gov/lists/com-attach/22-alisompdraft-ws-WipSO1QnByACYVQm.pdf

Original File Name: PORTER RANCH COMMENTS final.pdf

Date and Time Comment Was Submitted: 2016-03-24 12:13:59

Comment 21 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Anna ("Mickey") Last Name: Moritz Email Address: mmoritz@biologicaldiversity.org Affiliation: Center for Biological Diversity

Subject: Aliso Canyon Draft Mitigation Plan Comments Comment:

Please substitute this comment letter for the one submitted earlier by the Center for Biological Diversity - this one has a corrected signature block.

Thank you.

Attachment: www.arb.ca.gov/lists/com-attach/23-alisompdraft-ws-BTRRYQNdWToGMwhX.pdf

Original File Name: 16 03 24 Center comments Aliso Canyon draft mitigation plan FNL.pdf

Date and Time Comment Was Submitted: 2016-03-24 12:38:23

Comment 22 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Anna ("Mickey") Last Name: Moritz Email Address: mmoritz@biologicaldiversity.org Affiliation: Center for Biological Diversity

Subject: Aliso Canyon Draft Mitigation Plan Comments Comment:

Please substitute this comment letter for the one submitted earlier by the Center for Biological Diversity - this one has a corrected signature block.

Thank you.

Attachment: www.arb.ca.gov/lists/com-attach/24-alisompdraft-ws-VmdVZVAOAGNRZANc.pdf

Original File Name: 16 03 24 Center comments Aliso Canyon draft mitigation plan FNL.pdf

Date and Time Comment Was Submitted: 2016-03-24 12:38:23

Comment 23 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Todd Last Name: Shuman Email Address: tshublu@yahoo.com Affiliation:

Subject: Comment on Aliso Canyon Climate Impacts Mitigation Program Draft Comment:

To CARB,

I am now resubmitting some of my previously-submitted comments concerning this matter, which focus on enteric-related methane emissions from livestock. The CARB draft concerning the Aliso Canyon Climate Mitigation Strategy completely ignored measures that might or would significantly lead to a reduction in enteric emissions from livestock (the largest source of methane emissions in California!) CARB also ignored previously-submitted comments concerning methane taxes/fees that would also likely reduce methane emissions from multiple sources. I request again that CARB address these issues before issuing a final document

Sincerely,

Todd Shuman, Wasteful Unreasonable Methane Uprising, Camarillo, CA 805.987.8203

Subject: Aliso Canyon Climate Impacts Mitigation Program

On behalf of Wasteful Unreasonable Methane Uprising, I submit the following recommendations concerning the Aliso Canyon Climate Impacts Mitigation Program:

1: SCGC/Sempra shall be required to heavily subsidize the widespread construction of freestall dairy barn enclosures with methane captured and vented to biofilters in California.

2: SCGC/Sempra shall be required to heavily subsidize a fund that will finance livestock herd size reduction in California (in order to reduce statewide, cattle-related enteric methane emissions) and enable the meaningful mitigation of environmental justice-related impacts associated with dairies and gas wells throughout California.

3: CARB shall consider instituting or developing or promoting a Methane Fee, in either of two forms presented below:

A: "All those legally responsible for the generation of more than 40 pounds of uncaptured, unburnt methane emissions per year shall be required to pay an annual fee on each ton of uncaptured, unburnt methane emission for which they are responsible. The fee shall be 100 percent of the baseline value of \$4700 of damages per ton of methane (in 2007 dollars) that is presented in The social cost of atmospheric release, Drew T. Shindell, Climatic Change (2015) 130:313-326, DOI 10.1007/s10584-015-1343-0, page 319, Table 2, Median total; declining rate." This approach would result in a methane price per ton paid by those responsible for methane emission of approximately 4700 dollars per ton, in 2007 dollars (or 5372 dollars, in 2015 dollars). (See http://www.usinflationcalculator.com/.)

B: "All those legally responsible for the generation of more than 40 pounds of uncaptured, unburnt methane emissions per year shall be required to pay an annual fee on each ton of uncaptured, unburnt methane emission for which they are responsible. The fee shall be based upon a methane-into-CO2-equivalency conversion algorithm/calculation that incorporates the most recent scientifically-defensible 10-year interval methane GWP constant (at best) or 20-year interval methane GWP constant (at worst). The methane GWP constant used for such calculations should also incorporate climate-carbon feedbacks."

This approach would result in a current methane price per ton of approximately 1120 dollars per ton. (Current price of CO2e [\$13/ton] X 86 [20-yr methane GWP, IPCC AR5th]. See http://calcarbondash.org/.

4: Additional measures should also be enacted that would require SoCalGas/Sempra to finance reductions in methane emissions from other sources, including pneumatic devices, pumps, and compressors used within the natural gas industry itself.

Sincerely,

Todd Shuman, Wasteful Unreasonable Methane Uprising, Camarillo, CA 805.987.8203

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2016-03-24 12:52:59

Comment 24 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Beth Last Name: Olhasso Email Address: bolhasso@westcoastadvisors.com Affiliation: AECA

Subject: AECA/Ag Council Comments Comment:

AECA/Ag Council Comments on Draft Mitigation for Aliso Canyon Plan

Attachment: www.arb.ca.gov/lists/com-attach/26-alisompdraft-ws-UDFVNlAyVGZQCQJj.pdf

Original File Name: AECA AG Council Comments on draft Aliso Canyon Methane Mitigation.pdf

Date and Time Comment Was Submitted: 2016-03-24 13:15:14

Comment 25 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Michael Last Name: Boccadoro Email Address: mboccadoro@westcoastadvisors.com Affiliation: Dairy Cares

Subject: Dairy Cares comments on Aliso Canyon Draft Mitigation Plan Comment:

Dairy Cares comments on Aliso Canyon Draft Mitigation Plan

Attachment: www.arb.ca.gov/lists/com-attach/27-alisompdraft-ws-UTVSNVI6WHIRLlUK.pdf

Original File Name: Dairy CARES Aliso Mitigation Comments.pdf

Date and Time Comment Was Submitted: 2016-03-24 13:22:16

Comment 26 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Jan Last Name: Dietrick Email Address: jdietrick9@gmail.com Affiliation: Ventura County Climate Hub, a 350 Org

Subject: Aliso Canyon Mitigation Plan Must Center on a Methane Tax Comment:

We support the proposal of Wasteful Unreasonable Methane Uprising, led by Todd Shuman of Camarillo. To summarize we support the following:

1: SCGC/Sempra finance freestall dairy barn enclosures with methane captured and vented to biofilters.

2: SCGC/Sempra finance livestock herd size reduction to reduce cattle-related enteric methane emissions and mitigate environmental justice-related impacts associated with dairies and gas wells.

3: CARB institute a Methane Fee on those legally responsible for the generation of more than 40 pounds of uncaptured, unburnt methane emissions per year pay an annual fee on each ton. The fee can be designed in one of two ways:

A: 100 percent of the baseline value of \$4700 of damages per ton of methane (in 2007 dollars or \$5372 in 2015 dollars) that is presented in The social cost of atmospheric release, Drew T. Shindell, Climatic Change (2015) 130:313-326, DOI 10.1007/s10584-015-1343-0, page 319, Table 2, Median total; declining rate."

B: A methane-into-CO2-equivalency conversion algorithm/calculation that incorporates the most recent scientifically-defensible 10-year interval methane GWP constant (at best) or 20-year interval methane GWP constant (at worst). The methane GWP constant used for such calculations should also incorporate climate-carbon feedbacks. This would result in a current methane price per ton of approximately 1120 dollars per ton. (Current price of CO2e [\$13/ton] X 86 [20-yr methane GWP, IPCC AR5th]. See http://calcarbondash.org/.

4: Enact measures to require SoCalGas/Sempra to finance reductions in methane emissions from other sources, including pneumatic devices, pumps, and compressors used within the natural gas industry.

If California is to distinguish itself as a climate policy leader, it must demonstrate the vision, accountability and political will to tax methane. The disaster that the Aliso Canyon leak represents to the future of life on earth is best redeemed by serving as a platform for the most difficult policy challenge of all--a tax on unburnt methane. It HAS to be one and the sooner you do it, the better. We are clearly running out of time and methane is showing itself to be at least as big an immediate issue as CO2. Please take courage and do your job.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2016-03-24 14:16:48
Comment 27 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Jake Last Name: Levine Email Address: jake.levine@sen.ca.gov Affiliation: Senator Fran Pavley

Subject: CA Air Resource Board Comment:

Additional steps for the success of the Aliso Canyon Methane Leak Climate Impacts Mitigation Program. Attached below.

Attachment: www.arb.ca.gov/lists/com-attach/29-alisompdraft-ws-Uz8AY1QhACcKaQd1.pdf

Original File Name: Letters - CARB.pdf

Date and Time Comment Was Submitted: 2016-03-24 14:24:32

Comment 28 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Clyde T Last Name: Williams Email Address: ctwilliams2012@yahoo.com Affiliation: Citiens Coalition for A Safe Community

Subject: Comments for ARB Aliso Mitigation Program Comment:

See uploaded file

Attachment: www.arb.ca.gov/lists/com-attach/31-alisompdraft-ws-AmNSJgdkWFQFbgVs.rtf

Original File Name: ARB Mitigation Program0322fin.rtf

Date and Time Comment Was Submitted: 2016-03-24 14:44:10

Comment 29 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Thomas Last Name: Morris Email Address: thomas.morris@honeywell.com Affiliation:

Subject: Honeywell's Comments Comment:

Honeywell's Comments are attached

Attachment: www.arb.ca.gov/lists/com-attach/32-alisompdraft-ws-B28FbABvAjRVKgZx.docx

Original File Name: Honeywell Comments on Aliso Canyon Mitigation.docx

Date and Time Comment Was Submitted: 2016-03-24 14:48:10

Comment 30 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Katharine Last Name: Merrill Email Address: kitty_merrill@hotmail.com Affiliation:

Subject: Porter Ranch leak Comment:

We need a tax on release of unburnt methane from all sources.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2016-03-24 14:58:21

Comment 31 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Elisabeth Last Name: Lamar Email Address: elisabethlamar@hotmail.com Affiliation:

Subject: Methane Comment:

It's time to institute a tax on unburnt methane that includes emissions from enteric production from dairy cows!

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2016-03-24 15:08:06

Comment 32 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Chris Last Name: Busch Email Address: chrisb@energyinnovation.org Affiliation: Energy Innovation

Subject: Comments on proposal Comment:

Please find our comment letter attached.

Attachment: www.arb.ca.gov/lists/com-attach/35-alisompdraft-ws-AmcHb1E1UnMKawR9.pdf

Original File Name: Energy Innovation comment Mitigation Fund (24 March 2016).pdf

Date and Time Comment Was Submitted: 2016-03-24 15:41:34

Comment 33 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Claire Last Name: Halbrook Email Address: cehu@pge.com Affiliation: Pacific Gas and Electric Company

Subject: Comments on Changes to Methane GWP Value Comment:

Comments on Changes to Methane GWP Value

Attachment: www.arb.ca.gov/lists/com-attach/36-alisompdraft-ws-UiJXNlA0VloLbgBv.pdf

Original File Name: PGE comment on GWP value 3_24_16.pdf

Date and Time Comment Was Submitted: 2016-03-24 15:38:19

Comment 34 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Sarah Last Name: Deslauriers Email Address: SDeslauriers@carollo.com Affiliation: CA Association of Sanitation Agencies

Subject: CASA Comments on the Draft Aliso Canyon Methane Leak Climate Impacts Mitigation Program Comment:

The California Association of Sanitation Agencies (CASA) appreciates the opportunity to comment on the Draft Aliso Canyon Methane Leak Climate Impacts Mitigation Program. We recommend the Draft Mitigation Program seek to maximize partnerships with wastewater treatment agencies as a prime mitigation strategy. Please contact us if you have any questions regarding are comment letter. We welcome the opportunity to further discuss the wastewater community's position in helping to proactively mitigate impacts from the Aliso Canyon leak.

Regards, Sarah Deslauriers Climate Change Program Manager

Attachment: www.arb.ca.gov/lists/com-attach/37-alisompdraft-ws-BjVVDFdkUzQLUlNi.pdf

Original File Name: 3 24 16 CASA-Comments_MitigationProgram.pdf

Date and Time Comment Was Submitted: 2016-03-24 15:40:09

Comment 35 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Martha Last Name: Davis Email Address: mdavis@ieua.org Affiliation: Inland Empire Utilities Agency

Subject: IEUA Comments on Aliso Canyon Draft Mitigation Plan Comment:

IEUA Comments on Aliso Canyon Draft Mitigation Plan

Attachment: www.arb.ca.gov/lists/com-attach/38-alisompdraft-ws-AGkAY1ElAzFRCAJh.pdf

Original File Name: IEUA Comments on draft Aliso Canyon Methane Leak.pdf

Date and Time Comment Was Submitted: 2016-03-24 15:47:00

Comment 36 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: George Last Name: Minter Email Address: giminter@semprautilities.com Affiliation:

Subject: SoCalGas's Comments on ARB's Draft Aliso Canyon Methane Leak Mitigation Program Comment:

Attached please find Southern California Gas Company's Comments on ARB's Draft Aliso Canyon Mitigation Program

Attachment: www.arb.ca.gov/lists/com-attach/39-alisompdraft-ws-VWdTZVRkBWBQZgY1.pdf

Original File Name: 20160324132307.pdf

Date and Time Comment Was Submitted: 2016-03-24 15:33:32

Comment 37 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Damon Last Name: Franz Email Address: dfranz@solarcity.com Affiliation:

Subject: SCTY Comments - Aliso Canyon Mitigation Program Comment:

Please find attached SolarCity's comments on the Aliso Canyon draft mitigation program.

Attachment: www.arb.ca.gov/lists/com-attach/40-alisompdraft-ws-UiFXMgRxV30KU1Q3.pdf

Original File Name: SCTY Comments Aliso Canyon Mitigation Program Mar 24 16.pdf

Date and Time Comment Was Submitted: 2016-03-24 16:11:30

Comment 38 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Tom Last Name: Knox Email Address: tom.knox@valleycan.org Affiliation: Valley Clean Air Now

Subject: Aliso Canyon Mitigation Program Comment:

Valley Clean Air Now Comments on the Aliso Canyon Methane Leak Climate Impacts Mitigation Program

Thank you for the opportunity to comment on the Aliso Canyon Methane Leak Climate Impacts Mitigation Program (referred to below as Draft Plan).

Valley Clean Air Now (Valley CAN) strongly supports the overall direction and proposed framework for this proposed mitigation plan and its targeting of both direct reductions of methane and other Short-Lived Climate Pollutants (SLCP) as well as related co-benefits, as summarized on Page 8 of the Draft Plan:

Specifically, the program should prioritize or otherwise encourage emission-reduction projects that: • Involve substantial direct and indirect reductions in emissions of SLCPs, especially methane; • Enhance the sustainability of the State's energy infrastructure, by decreasing reliance on fossil fuels or otherwise; · Address the interests of disadvantaged California communities and communities directly impacted by the leak; or • Provide other significant and demonstrable environmental, economic, and public health co-benefits. • These additional factors reflect priorities, rather than essential elements. Not every project would have to fulfill each of these additional criteria to be eligible for inclusion within the Aliso Canyon mitigation program. That said, projects that satisfy one or more of these criteria would represent especially attractive candidates for inclusion within the program.

In addition, we support these statements:

Serve valuable complementary roles by producing near-term emissions reductions, yielding co-benefits of their own, including in communities most directly affected by the Aliso Canyon leak, and ensuring the realization of other programmatic objectives.

As well as:

Affected communities may represent optimal settings for pilot programs or other investments that will contribute toward a more sustainable energy infrastructure.

Valley Clean Air Now (Valley CAN) believes that the approach outlined in the Draft Plan creates the opportunity to build an organizing program in CalEnviroScreen 2.0-designated disadvantaged communities throughout the affected region to deliver community-level projects with quantifiable methane and SLCP reductions as well as associated criteria pollutant and public health co-benefits. Valley CAN feels that the Draft Plan creates ideal conditions for effective pilots in disadvantaged communities to reduce GHGs including SLCP as well as maximize criteria pollutant emissions and public health benefits.

Valley CAN requests that staff give serious consideration to including a program category to target high-emitting vehicles in disadvantaged communities. We believe that a program to reduce or eliminate emissions by repairing and retiring high-emitting, likely unregistered older vehicles in disadvantaged communities fits well within CARB's stated strategy in the Draft Plan of creating quantifiable reductions in STCP quickly, with the opportunity to create related co-benefits with criteria pollutant reductions and public health: Program should prioritize or otherwise encourage emission-reduction projects that:

• Generating significant environmental and economic co-benefits, including benefits to public health and reduced reliance on fossil fuels;

• Conferring co-benefits upon disadvantaged communities and communities directly impacted by the leak, and incorporating avenues for engagement by these communities in the program development and implementation process;

• Facilitating participation by other stakeholders, with the public being given the opportunity to provide meaningful input toward the program's ongoing process,

• Allowing for ongoing monitoring and verification of program implementation and progress.

• An inclusive program development process being followed by a well-supervised and transparent implementation phase

Background

Valley CAN is a 501c3 focused on quantifiable and unique emissions reductions in the San Joaquin Valley. We manage the GGRF-funded Enhanced Fleet Modernization Program Plus-Up on behalf of the San Joaquin Valley Air Pollution Control District and CARB.

Valley CAN serves 12,000 customers annually at 26 Tune In & Tune Up smog repair events throughout the San Joaquin Valley. 94% of Tune In & Tune Up customers live in disadvantaged communities as defined by CalEnviroScreen 2.0, with a vast majority residing in low-income households. 45% of vehicles at Tune In & Tune Up events are unregistered, many of which have driven 10,000 miles or more since their registration expired and 25,000 miles since passing their last smog check.

Tune In & Tune Up continues to be driven by the support and the input of community stakeholders. Our outreach and organizing is a continual collaboration with nearly 100 community-based organizations throughout the San Joaquin Valley. These organizations participate directly in operating the event, with dozens of members helping with directing traffic, translating, and preparing and serving lunch for customers. The program would not be successful without the deep input from diverse communities that we have incorporated into the program process.

Emissions Reduction Opportunities

Valley CAN has long believed, and has confirmed with our program results, that older vehicles in disadvantaged community census tracts are a disproportionate air quality impact within these overimpacted areas. Specifically, vehicles older than 1996 registered within a disadvantaged community ZIP code are a significant but under-reported emissions problem throughout the San Joaquin Valley and Southern California. These two regions are likely home to more of these vehicles than any other part of the U.S.

The opportunity for the Draft Plan is that a significant percentage of these vehicles are unregistered and thus are outside of the state's air quality models. Reducing emissions from these dirtiest vehicles is additional and unique. The bulk of the emissions from gross polluting vehicles are the criteria pollutants NOx, HC, and CO. However, the State Implementation Plan shows higher-than-statewide-average emission levels for CH4, SOx, ROG, NO, and PM from pre-1996 vehicles.

In addition to the emissions modelled in the SIP, it is reasonable to assume that these older vehicles are among the most likely to have leaks and/or failure of the Freon system. According to the United Nations Environment Programme, Mobile Air Conditioning is the second largest source of hydrofluorocarbon (HFC) emissions at 24%, representing a full half of the total of Residential, Commercial & Industrial Air Conditioning & Refrigeration HFC emissions at 47%.

Given the high rate of unregistered vehicles within this category, it is difficult to estimate the true extent of the problem. However, rough estimates can be done with existing numbers: • 2.8MM pre-1996 vehicles in California o 1.6MM in San Joaquin Valley and greater LA area o 20% of these older cars are likely high emitters o 20+% are likely unregistered • Therefore, there are roughly 320,000 "problem" cars on the road in the San Joaquin Valley and greater LA area that are a priority to repair, retire or replace.

Solution In keeping with a strategy that is very well presented in the Draft Plan:

Projects in this sphere would sponsor or otherwise promote enhanced energy-efficiency measures and the targeted replacement of fossil fuels with renewable energy resources, especially in the transportation, commercial, and residential sectors. These projects could include incentive programs, sponsored infrastructure installations, equipment purchases, and other efforts to promote the adoption and utilization of less energy-intensive systems and devices, including those powered by renewable energy resources. Projects within this category could have several co-benefits, among them, reducing reliance on gas storage by reducing peak gas and electric demand in communities that have historically relied on the Aliso Canyon storage facility.

These projects also could produce transformative benefits either by auditioning new technologies and processes, or by placing emission-reducing innovations on more secure footing. In addition, while mitigation projects in the agriculture and waste sectors may take time to start generating emission reductions, projects designed to enhance energy efficiency could yield returns more quickly, thereby ensuring continuing momentum for the mitigation program.

Valley CAN believes that the expansion of a community-based program to repair, retire or replace the highest emitting vehicles in the most severely disadvantaged areas with the worst air quality in the nation would be among the fastest and most cost-effective means of building a delivery network within disadvantaged communities while achieving quantifiable and additional STCP and criteria pollutant reductions.

Creating a consistent pipeline of these older high-emitting vehicles will require continuous community organizing in disadvantaged communities that are most likely to have these high-emitting older vehicles. These targeted residents could attend a series of events within their region where qualified low-income motorists are offered a complete set of smog solutions:

- Smog repairs
- Vehicle retirement
- Vehicle replacement (via EFMP and EFMP Plus-Up)

- Additional energy efficiency, health care, carbon reduction

programs can be offered by disadvantaged community benefit

providers

Community Co-Benefits The initial organizing for the vehicle program could expand scope to deliver additional neighborhood- and household level programs including:

- Appliance retrofit and replacement

- Other residential and commercial energy-efficiency programs
- Vehicle replacement, including individual or fleets
- Gas network and appliance safety upgrades
- Sustainable transportation infrastructure

- Coordination with all other federal, state, local, and regional utility disadvantaged community and low-income assistance programs, in order to deliver the broadest potential benefits to qualified households.

Geographic Target The greater LA area and the San Joaquin Valley have a disproportionate percentage of the older, likely high-emitting cars in the nation. SoCalGas has service territory in both of these air basins, which share the worst air quality in the U.S., so it could make sense to include at least the southern San Joaquin Valley as well as the greater L.A. area.

Thank you again for the opportunity to provide comments. Please don't hesitate to contact me if you need any additional information.

Sincerely,

Tom Knox Executive Director (916) 273-8886 tom.knox@valleycan.org

Attachment: www.arb.ca.gov/lists/com-attach/41-alisompdraft-ws-UCYCZQdqU2wAYwlw.pdf

Original File Name: Valley CAN Aliso Canyon comment letter 3-24-16.pdf

Date and Time Comment Was Submitted: 2016-03-24 16:05:15

Comment 39 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Michael Last Name: Rubio Email Address: MichaelRubio@chevron.com Affiliation: Chevron U.S.A, Inc

Subject: Draft Aliso Canyon Methane Leak Climate Impacts Mitigation Program Comment:

Attached please find Chevron U.S.A., Inc's comments on the Draft Aliso Canyon Methane Leak Climate Impacts Mitigation Program.

Attachment: www.arb.ca.gov/lists/com-attach/42-alisompdraft-ws-BWZUOIYyByIHcwlm.pdf

Original File Name: Chevron Comments Aliso Canyon_Final_03242016.pdf

Date and Time Comment Was Submitted: 2016-03-24 16:15:54

Comment 40 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Strela Last Name: Cervas Email Address: scervas@caleja.org Affiliation: California Environmental Justice Allianc

Subject: Aliso Canyon Climate Impacts Mitigation Program Recommendations Comment:

The California Environmental Justice Alliance submit these attached recommendations for consideration in the Aliso Canyon Climate Impacts Mitigation Program.

Attachment: www.arb.ca.gov/lists/com-attach/43-alisompdraft-ws-VDdcPwZtVmQLUgVk.pdf

Original File Name: CEJA Aliso Canyon Mitigation Program Comments.pdf

Date and Time Comment Was Submitted: 2016-03-24 16:04:16

Comment 41 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Todd Last Name: Campbell Email Address: todd.campbell@cleanenergyfuels.com Affiliation: Clean Energy

Subject: Clean Energy's Comments on ARB's Draft Aliso Canyon Mitigation Document Comment:

Dear ARB Staff,

Please accept the attached comments on the Draft Aliso Canyon Natural Gas Leak Mitigation proposal prepared by ARB. Thank you for the opportunity to share our thoughts on this important matter.

Sincerely,

Todd R. Campbell

Attachment: www.arb.ca.gov/lists/com-attach/44-alisompdraft-ws-VWZTe1JhVjEBKVVk.pdf

Original File Name: 3.24.16 Final CE Comments on ARB Aliso Canyon Mitigation Proposal.pdf

Date and Time Comment Was Submitted: 2016-03-24 16:16:59

Comment 42 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Keilly Last Name: Witman Email Address: keilly@kwrms.com Affiliation: KW Refrigerant Management Strategy

Subject: Comments on ARB's Draft Aliso Canyon Climate Impacts Mitigation Program Comment:

These comments are related to the types of projects that should be prioritized under Program Concentration #2: Promoting Sustainable Energy Infrastructure

The draft mitigation program states that `[p]rojects in this sphere would sponsor or otherwise promote enhanced energy-efficiency measures ... especially in the transportation, commercial, and residential sectors.

One of the quickest and most effective ways to generate energy efficiency benefits in the commercial sector is through refrigerant retrofits of existing high GWP refrigerant systems to a lower GWP HFO refrigerant. A refrigeration system that uses an HFO blend refrigerant is about 10% less energy intensive than a system that uses a high GWP HFC refrigerant gas.

According to the Energy Star Program, an average supermarket uses approximately 2,346,000 kilowatt hours of electricity per year. Approximately half of that consumption is due to the store's refrigeration system. Therefore, a 10% energy efficiency improvement in that system translates into a savings of almost 120,000 kwh per store, per year.

In addition to an expected 10% energy efficiency gain that would be achieved by converting a supermarket refrigeration system to use a more efficient refrigerant, each of these projects also generates an immediate greenhouse gas benefit by lowering the direct emissions of the refrigerant.

Stores that currently use R-404A or R-507A, which both have a GWP of approximately 4000, leak on average about 1,000 pounds of that refrigerant. That translates into approximately 4,000,000 lbs. or about 1,800 metric tons of CO2 equivalent per store (the annual electricity use of approximately 250 houses). A store that converts its refrigeration system to use an HFO blend refrigerant can reduce its direct CO2e emissions to 1,300,000 lbs or 520 metric tons of CO2e (the annual electricity consumption of about 80 houses). The greenhouse gas benefit just from the reduction in store refrigerant emissions is the same as turning off the electricity for 170 houses.

It seems much easier to retrofit a grocery store than to try to achieve the same reductions through residential energy efficiency measures.

The average cost of a refrigerant retrofit is about \$50,000 per store. For \$1,000,000, you could retrofit about 20 stores, which equals a reduction in electricity demand of 2,400,000 kWh per year (about 600 tonnes of CO2e annually) and a greenhouse gas reduction from direct emissions of 25,600 metric tons. The total reduction for 20 stores is 26,200 tons of CO2e - per year! Over a ten year span, these 20 stores save 262,000 tons of CO2e!

Stores are unlikely to retrofit out of these high GWP refrigerants voluntarily. There is no regulatory mandate that they do so. In other words, all of these CO2e benefits will not happen without funding through the mitigation plan.

HFO blend refrigerants are fairly new to the supermarket industry. While some supermarkets are conducting trials on these refrigerants, a program to fund 20 store retrofits would greatly expand the body of knowledge and data available on the retrofit process and the environmental benefits. This will help expand the use of these refrigerants across the nation faster than would otherwise be the case.

This project would yield CO2e savings immediately. Twenty stores can be retrofit in a 3 month period, which will generate benefits much quicker than many other projects that might be funded by the mitigation program.

Refrigerants used in supermarkets are F-gases, which are short-lived climate forcers, so the inclusion of these projects in the mitigation program advances California's goal of reducing these greenhouse gases.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2016-03-24 16:33:28

Comment 43 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Danny Last Name: Cullenward Email Address: dcullenward@gmail.com Affiliation:

Subject: Use of 20-year global warming potentials Comment:

Please see the attached PDF for our comments.

Attachment: www.arb.ca.gov/lists/com-attach/46-alisompdraft-ws-V2VTZV1tBWADKAU1.pdf

Original File Name: 2016-03-24 Aliso Canyon 20-year GWPs.pdf

Date and Time Comment Was Submitted: 2016-03-24 16:34:53

Comment 44 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: David Last Name: Parziale Email Address: davidparziale@gmail.com Affiliation:

Subject: a cleaner future Comment:

Hello, I support the energy and research of citizens putting a tax on unburnt methane and capturing methane in dairy farms into filters in the hopes of a more clean future. Thank you for your public service and happy spring.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2016-03-24 16:32:18

Comment 45 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Kendra Last Name: Daijogo Email Address: Kendra_Daijogo@GualcoGroup.com Affiliation: CCEEB

Subject: Draft Aliso Canyon Methane Leak Climate Impacts Mitigation Program Comment:

California Council for Environmental and Economic Balance ("CCEEB") - Comments on Draft Aliso Canyon Methane Leak Climate Impacts Mitigation Program

Attachment: www.arb.ca.gov/lists/com-attach/48-alisompdraft-ws-AWJWM1YyUWcAZFQL.pdf

Original File Name: CCEEB FINAL AC Climate Impact Mitigation Program_March 24 2016.pdf

Date and Time Comment Was Submitted: 2016-03-24 16:48:17

Comment 46 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Ron Last Name: Whitehurst Email Address: ron@rinconvitova.com Affiliation: Rincon-Vitova Insectaries, Inc.

Subject: Aliso Canyon Mitigation Focus on Methane Tax Comment:

What better way to redeem the disaster at Aliso Canyon than to use it to rationalize a tax on methane released like that which must focus on that released from cow belching at the dairies. This will jumpstart an industry transition demonstrating to the world our high standards for pollution prevention from animal agriculture. The tax must be based on the 10-20 year interval for methane's global warming potential.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2016-03-24 16:50:23

Comment 47 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

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

Subject: Use Aliso Canyon Mitigation Funds to benefit local affected areas Comment:

Please use a major fraction of the Aliso Canyon Mitigation Funds to benefit local affected areas, including areas affected by this leak and other communities affected by So Cal Gas leaks.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2016-03-24 16:51:57

Comment 48 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Coby Last Name: Skye Email Address: cskye@dpw.lacounty.gov Affiliation: Los Angeles County Public Works

Subject: Comments on Aliso Canyon Mitigation Program Comment:

Los Angeles County Public Works views the recommended approach set by the California Air Resources Board to be reasonable and effective. Public Works offers comments for consideration in the attached letter.

Attachment: www.arb.ca.gov/lists/com-attach/52-alisompdraft-ws-VjJQJgN1Ul5RNFI9.pdf

Original File Name: DPW Comments on Aliso Canyon Mitigation Program.pdf

Date and Time Comment Was Submitted: 2016-03-24 16:48:18

Comment 49 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Johannes Last Name: Escudero Email Address: johannes@Rngcoalition.com Affiliation: Coalition for Renewable Natural Gas

Subject: RNG Coalition Support for Draft Aliso Canyon Methane Leak Mitigation Program Comment:

On behalf of the Coalition for Renewable Natural Gas, please find attached our brief comments in support of the Air Resources Board's DRAFT Aliso Canyon Methane Leak Climate Impacts Mitigation Program.

Attachment: www.arb.ca.gov/lists/com-attach/53-alisompdraft-ws-WihTO1M1BzcCW1Q3.pdf

Original File Name: RNGC Comments on Draft Aliso Canyon Methane Leak Mitigation Plan 032416.pdf

Date and Time Comment Was Submitted: 2016-03-24 16:47:05

Comment 50 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Edward Last Name: Torres Email Address: bugnet@rinconvitova.com Affiliation:

Subject: Invest in capturing/taxing all methane emissions including from dairy cows Comment:

I enjoy eating dairy products and do not mind paying at much as 50% more in order to know that what I eat is not contributing to global warming. Ask the Gas Company to help dairy farmers capture the methane. This will show your creativity and determination for a broad-based climate action program funded by the extremely profitable and wealthy Gas Company.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2016-03-24 16:54:39

Comment 51 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Matt Last Name: Petersen Email Address: matt.petersen@lacity.org Affiliation: LA Mayor Eric Garcetti

Subject: City of Los Angeles comments re CARB Draft Aliso Canyon Climate Mitigation Program Comment:

Official comments from Los Angeles Mayor Eric Garcetti attached for your review.

Attachment: www.arb.ca.gov/lists/com-attach/55-alisompdraft-ws-AGNRNlA9AjgFZVQ7.pdf

Original File Name: California Air Resources Board Aliso Canyon Mitigation Program Proposal-Garcetti March 2016.pdf

Date and Time Comment Was Submitted: 2016-03-24 16:55:03

Comment 52 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Kevin Last Name: Townsend Email Address: ktownsend@bluesource.com Affiliation: Blue Source

Subject: Comments on Draft Mitigation Program Comment:

Thank you for the opportunity to comment.

Attachment: www.arb.ca.gov/lists/com-attach/56-alisompdraft-ws-BmJTJ1AwUGUDcQlW.pdf

Original File Name: Draft Mitigation Plan_comments_032416.pdf

Date and Time Comment Was Submitted: 2016-03-24 16:57:21

Comment 53 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Julia Last Name: Levin Email Address: jlevin@bioenergyca.org Affiliation: Bioenergy Association of California

Subject: Aliso Canyon Mitigation Plan Comment:

Please find BAC's comments on the draft mitigation plan.

Attachment: www.arb.ca.gov/lists/com-attach/57-alisompdraft-ws-AWMHYFU3VFgEYQJt.pdf

Original File Name: BAC Comments on Aliso Canyon Mitigation Plan (3.24.16).pdf

Date and Time Comment Was Submitted: 2016-03-24 16:59:21

Comment 54 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Christiana Last Name: Darlington Email Address: darlingtonlaw@gmail.com Affiliation: Placer Air District

Subject: Aliso Canyon Comment:

Comments attached

Attachment: www.arb.ca.gov/lists/com-attach/58-alisompdraft-ws-B2ZcNII6V3cKY1IN.pdf

Original File Name: Aliso Canyon Climate Impacts Mitigation Program Comments Letter.pdf

Date and Time Comment Was Submitted: 2016-03-24 16:46:03

Comment 55 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 1st Workshop.

First Name: Jim Last Name: Costa Email Address: ombcomm@arb.ca.gov Affiliation: U.S. House of Representatives

Subject: Aliso Canyon Natural Gas Leak, Draft Mitigation Program Comment:

See attached.

Document received 3/24/16 at 1:24 p.m.

Attachment: www.arb.ca.gov/lists/com-attach/59-alisompdraft-ws-UWNda1ZmWTwAKwQ0.pdf

Original File Name: 2016-03-24 LTR.Costa to CARB re Aliso Canyon mitigation plan.pdf

Date and Time Comment Was Submitted: 2016-03-25 12:36:49

Comment 56 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 2nd Workshop.

First Name: Timothy J. Last Name: O'Connor Email Address: ombcomm@arb.ca.gov Affiliation: Environmental Defense Fund

Subject: Comments on the Development of the Aliso Canyon Mitigation Plan Comment:

See attached.

Attachment: www.arb.ca.gov/lists/com-attach/61-alisompdraft-ws-BmdQOIE5AiJVPAhX.pdf

Original File Name: Aliso mitigation letter_EDF_NRDC - Part 2.pdf

Date and Time Comment Was Submitted: 2016-04-29 10:24:31

Comment 57 for Aliso Canyon Mitigation Program Draft (alisompdraft-ws) - 2nd Workshop.

First Name: Angelo J. Last Name: Bellomo Email Address: ombcomm@arb.ca.gov Affiliation: LA County Dept. of Public Health

Subject: Draft Aliso Canyon Methane Leak Climate Impacts Mitigation Program Comments Comment:

See attached.

Attachment: www.arb.ca.gov/lists/com-attach/62-alisompdraft-ws-Wz9VI1c+VlpRNgFz.pdf

Original File Name: DPH ARB Climate MitigationAJB.pdf

Date and Time Comment Was Submitted: 2016-04-29 10:24:31

There are no comments posted to Aliso Canyon Mitigation Program Draft (alisompdraftws) that were presented during the Workshop at this time.