September 12, 2018

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

RE: Comments in Response to Proposed Aliso Canyon Mitigation Agreement

Dear Chair Nichols,

We are writing to share our concerns regarding the terms of the proposed Aliso Canyon Mitigation Agreement (proposed mitigation agreement). The proposed mitigation agreement provides an opportunity to address the impacts of SoCalGas's Aliso Canyon Natural Gas Storage Facility natural gas leak (Aliso Canyon Leak) on nearby residents and reduce our collective vulnerability and exposure to the production, storage, transport, and use of biomethane and natural gas. Unfortunately, the proposed mitigation agreement instead proposes to do the opposite – it secures tens of millions of dollars toward the dairy and natural gas industry to support infrastructure development far from Aliso Canyon that will incentivize the creation of waste, increase local pollution, extend our dependence on natural gas, and maintain our dependence on Aliso Canyon's storage facility.

The Aliso Canyon leak lasted nearly four months and emitted an estimated 109,000 tonnes of heat-trapping methane into the atmosphere, as well as carbon dioxide and volatile organic compounds (including BTEX). Instead of addressing these impacts and reducing vulnerability to similar events in the future, the proposed mitigation agreement calls for SoCalGas to pay $26.5-34.1 million (or more) toward development of interconnected dairy digesters and treatment facilities (dairy clusters) for the manufacture and treatment of biomethane[1] for subsequent injection into the common-carrier pipeline.

[1] Sempra. SEC Form 8-K. August 8, 2018.

The Proposed Mitigation Agreement Represents Business As Usual

While the proposed mitigation agreement implies that the investment from SoCalGas into dairy clusters is designed to be additive of other activities related methane emission reduction and the related production, treatment, transport, and sale of biomethane, the funds instead propose investments in projects that were already in development and further SoCalGas's long-standing and on-going partnerships with California Bioenergy (CalBio), and other companies and interest groups that are in the business of creating natural gas from dairy waste lagoons.[2]

The proposed mitigation agreement includes conditions that the mitigation fund may not be used toward the same *costs* as those funded by other public investments, yet the mitigation fund will further subsidize *projects* that have received or will receive other public investments. The investments guaranteed by the proposed mitigation agreement contribute to cluster projects that have already received funding commitments in the tens of millions of dollars from the state's Dairy Digester and Research Development Program and contribute to CalBio's and SoCalGas's ongoing collaboration. (CalBio and SoCalGas are involved in over half of the projects funded by the California Department of Food and Agriculture's Dairy Digester program in 2017 and 2018.[3] Projects involving both CalBio and SoCalGas are receiving over half of the funds (about $57.2 million) in those first two years of the grant program.)

Beyond the millions of dollars in potential mitigation funds steered to biogas infrastructure, and the additional $100 million plus in state grants to the industry over the past two years, other dairy biogas policy incentives are integrated into the state's Renewable Fuel Standards, Low-Carbon Fuel Standards, and cap-and-trade program, as written.[4]

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[2] Sempra Energy. [Press release.] "SoCalGas, SDG&E propose new biogas services to develop renewable natural gas market." November 23, 2010. [Available at: https://www.sempra.com/newsroom/press-releases/socalgas-sdge-propose-new-biogas-services-develop-renewable-natural-gas]; Goodman, Ron. SoCalGas. [Presentation]. "Biofuels market development roadmap." June 14, 2011. [Available at: https://www.socalgas.com/documents/innovation/presentations/RON_GOODMAN_RNGseminar_presentation.pdf]; SoCalGas. [Workshop agenda]. "One-Day Workshop Hosted By SoCalGas and Energy Vision. October 5, 2017. [Available at: https://www.socalgas.com/one-day-workshop-hosted-by-socalgas-and-energy-vision].

[3] California Department of Food and Agriculture. "2018 Dairy Digester Research and Development Program Projects Selected for Award of Funds." July 6, 2018 [Available at: https://www.cdfa.ca.gov/oefi/ddrdp/docs/2018_DDRDP_ProjectsAwarded.pdf]; California Department of Food and Agriculture. "2018 Dairy Digester Research and Development Program Projects Selected for Award of Funds." March 22, 2018. [Available at: https://www.cdfa.ca.gov/oefi/ddrdp/docs/2017_DDRDP_ProjectsAwarded.pdf]
[For tallies of involvement see: https://docs.google.com/spreadsheets/d/1tD7PDE3FFdc5zux2HRK5kRfcQUtbVIjj0GSUsuJ7vUg/edit#gid=139218213].

[4] California Energy Commission. "Economic feasibility of dairy digester clusters in California: A case study. June 2013 at 11 to 13. [Available at: http://calbioenergy.com/wp-content/uploads/2017/01/usda-cluster-project.pdf]; California Energy Commission. Investment plan update for the alternative and renewable fuel and vehicle technology program: 2014-2015 investment plan. April 2014 at 17 to 18. [Available at: http://www.energy.ca.gov/2013publications/CEC-600-2013-003/CEC-600-2013-003-CMF.pdf] ; California Energy Commission. Investment plan update for the alternative and renewable fuel and vehicle technology program: 2015-2016 investment plan. May 2015 at 56 to 59. [Available at:

Furthermore, the proposed mitigation agreement lacks clarity regarding the benefit that SoCalGas will realize through its nominally punitive investment in biomethane. While the proposed mitigation agreement notes that SoCalGas will not maintain an interest or derive benefit from the capital investment, we assume that SoCalGas will certainly benefit from the ultimate transport and sale of the biomethane produced and treated. We ask that the mitigation agreement, to the extent that in its final form it maintains investment in biomethane production, disclose the likely short and long-term benefits that will accrue to SoCalGas both financially and with respect to regulatory requirements, including those imposed by SB 1383.

The Proposed Mitigation Agreement Lacks Clarity as to the Amount Of Funding Available for Biomethane Production and Available for The Aliso Canyon Recovery Account or Aliso Fund

The proposed mitigation agreement guarantees $26.5 million to dairy digester and cluster projects, and then allows for an additional $7.6 million for additional projects should the clusters fail to achieve their promised methane reduction projections. Much or all of this $7.6 million could further develop the states dairy manure-to-energy pipeline, in spite of the fact that the $7.6 will only be necessary should the digester projects fail to deliver. In fact, additional dairy projects are already preapproved for investment should the initial investments fail to result in necessary reductions. Furthermore, the proposed mitigation agreement includes a clause that the mitigation fund need not transfer funds to the Aliso Canyon Recovery Account or the Aliso Fund – funding that could ultimately benefit the communities most impacted by the underlying disaster – should the mitigation fund require more investment to achieve the needed methane reductions. Thus, it appears that there is no guarantee as to when, or even if, funding will be available for investments from either the Aliso Canyon Recovery Account or the Aliso Fund.

The Proposed Mitigation Agreement Will Result in Negative Impacts to San Joaquin Valley Communities

The undersigned organizations based in the San Joaquin Valley and our allies throughout the state are most concerned that the proposed mitigation agreement proposes tens of millions of investment in practices and technologies that threaten to exacerbate environmental degradation in an already vulnerable region of the state. While manure digestion reduces methane emissions from dairy farms that rely on waste lagoons for manure management, NOx is a likely byproduct of digestion along with myriad of unknown air and water quality impacts in the form of nitrogen, ammonia, hydrogen sulfide, and other volatile organic compounds and other contaminants. Of additional concern, is the probable increased concentration of dairies and cows near dairy digesters and near dairy clusters. The projects generate revenue in proportion to the size of the lagoon and the volume of manure. That translates to more concentrated enteric emissions from cows,

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http://www.energy.ca.gov/2014publications/CEC-600-2014-009/CEC-600-2014-009-CMF.pdf]; California Energy Commission. Investment plan update for the alternative and renewable fuel and vehicle technology program: 2016-2017 investment plan. May 2016 at 38. [Available at: http://www.energy.ca.gov/2015publications/CEC-600-2015-014/CEC-600-2015-014-CMF.pdf].

higher concentration of manure and its components, and higher concentration of silage. All of this results in more concentrated emissions and pollution from nitrogen, hydrogen sulfides, ammonia, and other toxic air contaminants and volatile organic compounds leading to compromised water quality, air quality and increased odor for communities already most impacted by environmental degradation.

Thus, reliance on dairy digester technology incentivizes continued use of manure lagoons instead of incentivizing other manure management strategies that prevent methane from forming, incentivizes larger diaries and further concentration of dairies, and facilitates the further degradation of areas in California least able to shoulder more of the burden from climate change or ancillary negative impacts of climate change policy.

There Are Better Ways to Mitigate Impacts of the Aliso Canyon Leak

The focus on mitigating the Aliso Canyon leak by supporting dairy digester facilities is the wrong approach for a variety of reasons, including: its exclusion of other contaminants from the leak from mitigation strategies, its preference for methane destruction as opposed to methane prevention, its failure to prioritize investment toward reduction of local sources of greenhouse gases, and the counterproductive effects that incentivizing manure production could have on emissions.

For months the emissions during the Aliso Canyon blowout were a mix of methane, carbon dioxide and other volatile organic compounds such as BTEX. The blowout was about much more than methane. Yet, the proposed mitigation agreement focuses solely on methane. Projects and investments should target all relevant contaminants, and the multiple impacts of the leak.

Dairy digesters rely on destruction of methane that forms from the storage of manure in contaminating, odiferous waste lagoons. While waste disposal in lagoons constitutes business as usual with respect to the majority of dairy waste in California, it need not be accepted as such, and the continued practice need not be considered a foregone conclusion. There are other, better, ways to manage manure which prevent the creation of methane in the first place and provide other benefits such as improved soil health. Incentivizing methane destruction from dairies not only accepts, but incentivizes, unsustainable and environmentally damaging practices.

Moreover, digestion is an inefficient means of reducing methane from dairies. From 2007 through 2016, emissions from manure management in California remained at a consistent annual level: 10-11 million tonnes CO2e.[5] These emissions, mostly from dairy cow manure lagoons, accounted for about 25 percent of the state's 2016 methane emissions.[6] The investment from the mitigation fund only foresees an estimated

[5] California Air Resources Board. "Greenhouse gas emissions for 2000 to 2016. Trends of emissions and other indicators." July 11, 2018. [Available in full at https://www.arb.ca.gov/cc/inventory/data/data.htm. See GHG inventory by sector at: https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_sector_sum_2000-16ch4.pdf].

reduction of 109,000 tonnes of methane over ten years. Furthermore, Enteric fermentation — the collective gas of the California dairy cows — accounted for another quarter of the state's emissions; that is, nearly another 10 million tonnes annually.[7] The significant investment from this proposed mitigation agreement, in addition to the millions of other investments from the state, project approximately a 1% reduction of dairy-produced methane assuming no increase in enteric emissions over the next ten years. Additionally, it bears noting that biomethane, like all natural gas, will likely escape into the environment from leaks in transportation and storage facilities. Investment in digesters will not solve, and may even exacerbate methane emissions by focusing solely on methane destruction and incentivizing manure production which could in turn lead to increased emissions in the form of both enteric emissions and gas leaks.

The proposed mitigation agreement fails to consider other project types for initial investment that would result in equivalent or greater greenhouse gas reductions while providing other benefits to both the region impacted by the leak and California as a whole. The proposed mitigation agreement fails to consider focused efforts to reduce methane emissions from Los Angeles Basin emission sources, including oil and gas sources and landfills, and fails to consider potential greenhouse gas emission reductions beyond methane such as black carbon and hydrofluorocarbons. There is no requirement that mitigation for the Aliso Canyon leak consist solely of reducing methane emissions as the proposed agreement does despite the many opportunities within the Los Angeles basin to reduce other short lived climate pollutants including through efforts to reduce diesel and black carbon emissions from the transportation and goods movement sectors. A revised mitigation agreement should provide opportunities for investments in reduction of super-pollutants including methane as well as other short-lived climate pollutants.

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The propose mitigation agreement, as drafted, fails to leverage a critical opportunity to mitigate the damage the leak caused while also reducing our vulnerability to similar disasters. It also threatens to exacerbate environmental degradation of an already vulnerable region of the state. Accordingly, we ask

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[6] California Air Resources Board. "Greenhouse gas emissions for 2000 to 2016. Trends of emissions and other indicators." July 11, 2018 at 13. [Available at: https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2016/ghg_inventory_trends_00-16.pdf; See GHG inventory by sector at: https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_sector_sum_2000-16ch4.pdf]; ; Also see Stanford University. [Climate Change and the West]. "Under New Pollution Regulations, Milk Producers Seek Profit in Dairy Air." Stanford. April 24, 2018.

[7] California Air Resources Board. "Greenhouse gas emissions for 2000 to 2016. Trends of emissions and other indicators." July 11, 2018 at 13. [Available at: https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2016/ghg_inventory_trends_00-16.pdf; See GHG inventory by sector at: https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_sector_sum_2000-16ch4.pdf]; Also see Stanford University. [Climate Change and the West]. "Under New Pollution Regulations, Milk Producers Seek Profit in Dairy Air." Stanford. April 24, 2018.

that you consider significant modifications to the proposed mitigation agreement in line with these comments. Thank you for your consideration and please let us know if you would like to discuss these matters in greater detail.

Sincerely,

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Asian Pacific Environmental Network

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