

DOCKETED

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Sierra Club - Comments on Climate Adaptation Workshop

Additional submitted attachment is included below.



August 22, 2019

Commissioners
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Re: Written Comments on CEC IEPR Workshop on Climate Adaptation

Dear Commissioners:

Sierra Club would like to commend the California Energy Commission (Commission) on hosting a workshop dedicated to climate adaptation and including a focus on community driven resilience. As global warming worsens, California will experience more frequent and hazardous climate related natural disasters and air pollution. It is incredibly important that we continue to decarbonize the economy, while we also work to build a resilient state now so that we can continue to function despite disruptive events.

I. Methane gas does not have a role in California climate adaptation energy plans

California has over 150 thousand miles of gas pipelines¹ crisscrossing the state. The Commission warns that much of California's gas system – particularly pipelines along the state's waterways and coasts – is vulnerable to the impacts of climate change, including sea level rise, storms, flooding and associated erosion.² By continuing to allow pipelines to run through vulnerable communities we are continuing to put the health of those residents at risk.

It is imperative that California reduces its reliance on methane gas if our state is going to be successful in reducing climate changes worst effects and adapt to the likely effects. While methane itself is a potent climate pollutant, studies increasingly show that even the methods used to extract methane cause a variety of public health and environmental impacts. For example, fracking used to extract methane creates localized air pollution that can cause and exacerbate health problems, such as asthma, other chronic pulmonary disease, and heart disease. Fracking is also linked to pollution in drinking water.

We urge the CEC to develop adaptation policies that will phase out methane dependence entirely.

II. Electrifying homes and buildings can help build resilience

Electrifying our homes is one way to remove methane dependence and help build resilience while also reaching our state's climate goals.

¹ <http://www.cpuc.ca.gov/general.aspx?id=4802>

² Radke, J. D., G. S. Biging, M. Schmidt-Poolman, H. Foster, E. Roe, Y. Ju, O. Hoes, T. Beach, A. Alruheil, L. Meier, W. Hsu, R. Neuhausler, W. Fourt, W. Lang, U. Garcia I. Reeves (University of California, Berkeley). 2016; Pipeline Hazardous Materials Safety Administration, Fact Sheet: External Corrosion, available at <https://primis.phmsa.dot.gov/Comm/FactSheets/FSEExternalCorrosion.htm>

Roughly 90% of California's 13 million homes and buildings rely on gas for water heating and space heating. These gas appliances consume more gas than all of the state's power plants, creating a major source of unregulated climate pollution. Plus, gas appliances worsen indoor and outdoor air quality and the distribution of gas to buildings is found to be increasingly vulnerable to leaks and explosions. Research has confirmed that electrification is the best pathway to cutting pollution from homes and buildings.

California is experiencing an increasing occurrence of extreme summer heat waves.³ Many Californians, particularly low-income families, do not have air conditioning and are not prepared to adapt to spiking temperatures, posing new health and safety risks.

As set forth in a new study, decarbonizing homes can also contribute to climate adaptation strategies because they "can support sustainability and equity policy goals. For example, heat pump systems provide a climate adaptation advantage, because they provide both high efficiency cooling and heating. Air conditioning, along with better building design and more resilient communities, can help protect public health in low-income and vulnerable communities as heat waves become more severe under climate change."⁴ The study also determined that electrified building would benefit the bulk power grid, making better use of the electric infrastructure.

We encourage you to continue to advance building decarbonization methods within the upcoming IEPR.

III. A continued expansion of microgrids

The IEPR needs to be looking at ways to expand microgrids in California. The IEPR should encourage microgrids that are sited, designed, and operated in a way that can help improve resilience. Community grids can provide resilience by establishing smaller distributed energy systems that can operate in standalone mode if a larger grid fails or is down due to high fire danger. Microgrids can also provide indefinite renewables-based backup power to critical facilities. The Legislature has already begun to express an interest in microgrids. The IEPR can provide the much-needed advice and information that Members and the Administration need to develop policies that will increase the use of microgrids in California.

California's energy grid will be challenged by events that are expected to occur more and more frequently as climate change continues to cause increases in sea level, storm intensity, and wildfire risk. We believe, if properly sited, designed, and operated, that microgrids have great value and can be an incredible asset to the state's climate adaptation goals. In the event of a climate disaster such as a hurricanes or wildfire, a microgrid can help a community continue to operate even if the wider grid fails. In addition, microgrids can protect public health from climate change impacts by improving the resilience of electricity services for critical infrastructure, such as wastewater treatment plants, healthcare facilities, etc.

IV. Conclusion

³ <http://www.climatesignals.org/headlines/2017-hottest-summer-california-history>

⁴ "Residential Building Electrification in California" Energy+Environmental Economics (E3) (April 2019), jointly funded by Southern California Edison, the Los Angeles Department of Water and Power, and Sacramento Municipal Utility District.

As the CEC's Climate Adaptation workshop explored, the impact of these climate adaptation efforts will be based on the community's involvement. We believe it is important to work closely with community members through education and outreach. Each community in California is faced with different challenges, different risks, and different capabilities. Thus, working closely with community members is a key aspect of achieving any climate adaptation strategy. And in facilitating community driven resilience we cannot lose sight of our clean energy goals and our need to stop using methane fuels.

In sum, we were pleased with the Climate Adaptation IEPR workshop. We urge that the Commission continue focusing on reducing methane use, advancing building decarbonization and expanding microgrids through the IEPR.

Sincerely,

A handwritten signature in black ink, appearing to read "Lauren Cullum", with a long horizontal flourish extending to the right.

Lauren Cullum
Policy Advocate