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SoCalGas Comments on CEC Draft Staff Report, Tracking Progress for Energy Equity

Additional submitted attachment is included below.



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Subject: Comments on CEC draft staff report, *Tracking Progress for Energy Equity*, Docket # 18-IEPR-08

Dear Commissioners:

Southern California Gas Company (SoCalGas) appreciates the opportunity to comment on the California Energy Commission (CEC) draft staff report, *Tracking Progress for Energy Equity* (draft report). Our comments are organized as follows:

- I. Adding natural gas information to the draft report**
 - a. Natural gas is a clean, affordable energy solution for disadvantaged communities disproportionately impacted by air pollution and climate change*
- II. SoCalGas supports opportunities for disadvantaged communities**
 - a. City of South Gate Barrier Removal Pilot Project*
 - b. Increasing access to affordable, clean energy*
- III. Need for strategic deployment of energy storage during natural disasters**
 - a. Natural gas infrastructure is resilient in the face of natural disasters*
- IV. The future of Aliso Canyon should not be predetermined in the draft report**

I. Adding natural gas information to the draft report

SoCalGas appreciates that information on natural gas will be added to the next draft of the draft report, as it plays a critical role in disadvantaged communities as a low-cost and low-emission fuel. In order to provide the most accurate picture of the benefits of and opportunities for natural gas and renewable gas, we respectfully ask that we and other natural gas industry stakeholders be included in relevant discussions and workshops.

Looking forward, natural gas infrastructure will not only play an integral role in planning efforts to help protect the resiliency of the energy grid, ensuring energy provision to residents that are especially vulnerable to climate change impacts, but also can be a foundation for new energy pathways, delivering energy with zero and near-zero emissions quickly and cost-effectively.

First, it is critical to note that a vast majority of residents on the west coast trust and rely on natural gas for their home heating.¹ Over 90% of homes in our service territory use natural gas for water and space heating, and report that they prefer it.² Second, the U.S natural gas pipeline network has a “strong safety record of pipelines,”³ and has significantly reduced emissions from local distribution systems in the past 20 years,⁴ specifically the number of (main) pipeline leaks has reduced by 25% since 1990.⁵

A. Natural gas is a clean, affordable energy solution for disadvantaged communities disproportionately impacted by air pollution and climate change

There is a significant opportunity to dramatically reduce air pollution emissions and benefit disadvantaged communities through the use of heavy-duty natural gas vehicles, and the development of renewable gas for pipeline injection for core residential and commercial end-uses.

Many disadvantaged communities in California are located near transportation corridors and freight hubs. Immediately addressing mobile source criteria air pollution is critical to public health. Goods movement trucks are the largest source of both oxides of nitrogen (NO_x) and greenhouse gas (GHG) emissions within the freight sector.⁶

Low NO_x natural gas engines,⁷ when paired with renewable natural gas can achieve lifecycle GHG emissions reductions of 60% and can be carbon negative (depending on the fuel source). The use of these low NO_x engines with renewable gas in goods movement, particularly in disadvantaged communities, can yield significant health and environmental benefits. These engines eliminate diesel particulate matter emissions, which are linked to a variety of health problems⁸. As numerous studies show the harmful health impacts of living near transportation corridors, it is critical that we immediately deploy technology solutions that are available today.

¹ 2014 Visions Home Preference Survey, Meyers Research LLC, and 2016 Market Strategies Survey. <https://www.socalgas.com/for-your-business/builder-services/visions-home-preference-survey> and <https://www.nwnatural.com/AboutNWNatural/PressRoom/2016PressReleases/HomebuyerPreference/>.

² 2014 Visions Home Preference Survey, Meyers Research LLC

³ <https://primis.phmsa.dot.gov/comm/PipelineBasics.htm?nocache=8264>

⁴ to levels 36 to 70% lower than the 2011 U.S. Environmental Protection Agency inventory.

⁵ Lamb et al (2015) Direct Measurements Show Decreasing Methane Emissions from Natural Gas Local Distribution Systems in the United States. Link to study at:

<http://pubs.acs.org/doi/abs/10.1021/es505116p?ga=1.155985595.1447121853.1445893145>

⁶ ARB’s Mobile Source Strategy, Exec. Summary p. 5, available at:

<https://www.arb.ca.gov/planning/sip/2016sip/2016mobsr.pdf>

⁷ Low NO_x natural gas engines are those that meet the CARB optional Low NO_x Emission standard of 0.02 grams of NO_x per brake horsepower per hour (g/bhp-hr), which is 90% lower than its diesel counterparts, are available *today* for Class 7 and 8 heavy duty operations. An 8.9 liter Cummins Westport offering has already been certified for 0.02 g/bhp-hr. An 11.9 liter offering is currently being demonstrated at the Ports of Los Angeles and Long Beach and is expected to receive its optional Low-NO_x certification of 0.02 g/bhp-hr in early 2018.

⁸ Diesel Particulate Matter, California Office of Environmental Health Hazard Assessment <https://oehha.ca.gov/calenviroscreen/indicator/diesel-particulate-matter>

II. SoCalGas supports opportunities for disadvantaged communities

SoCalGas is committed to serving its low-income customers and disadvantaged communities. Over one-third of our customers—or 1.5 million households—receive bill assistance each month, and energy affordability is an important issue for all our customers. SoCalGas’ estimates that the Energy Savings Assistance Program (ESAP) served nearly 100,000 low-income households in 2017,⁹ many located in underserved communities. SoCalGas will continue to work towards providing ESAP services to 100% of all willing and eligible low-income customers by 2020. SoCalGas also offers energy efficiency upgrades to middle income customers that are between 201% and 300% of Federal Poverty Guidelines through the Middle Income Direct Install Program.

The economic impact on ratepayers, especially low-income ratepayers, must be considered during energy policy development and clean energy strategy implementation efforts. As the lowest-price fuel source in California, natural gas provides valuable, low-cost energy to ratepayers. Consider that the average annual household electricity bill is \$1,460, while the annual natural gas bill is \$421.¹⁰ Without natural gas in the home, the cost of energy for many consumers could rise.¹¹

A. City of South Gate Barrier Removal Pilot Project

SoCalGas is partnering with the City of South Gate to pilot an innovative project targeting low-income communities that qualify for participation in ESAP, but cannot participate due to physical barriers, such as asbestos, electrical availability, drainage problems, incremental costs of high efficiency equipment, etc. The City of South Gate is a predominately Latino community with a median household income of \$45,080.¹² The city has committed \$100,000 from Community Development Block Grants to fund the pilot, and SoCalGas expects to service approximately 100 homes during the 12-month pilot project. Based on pilot success, SoCalGas is looking to expand this approach throughout our service territory and include non-low-income customers in the future.

B. Increasing access to affordable, clean energy

In part to address the fact that “[m]any counties in the San Joaquin Valley have high levels of asthma-related emergency room visits,”¹³ SoCalGas is actively exploring extension of natural gas service to seven communities within the twelve identified pilot communities. This effort will not only lower the energy burden in disadvantaged communities, but also reduce particulate emissions. Further, most of these communities are located near agriculture, which is a significant source of the state’s methane emissions. Converting these methane sources to renewable gas for

⁹ Final 2017 Energy Savings Assistance Program numbers will be published in the program annual report to be filed May 1, 2018.

¹⁰ Bureau of Labor Statistics, U.S. Department of Labor. <https://www.bls.gov/opub/ted/2016/household-spending-increased-4-point-6-percent-from-2014-to-2015.htm>

¹¹ In the CEC’s Pre-Rulemaking on 2019 Building Energy Efficiency Standards docket, an Energy and Environmental Economics, Inc. (E3) study examining building electrification found a \$24 monthly energy bill increase when moving to an all-electric home from a mixed-fuel home. (Electrification Analysis, report completed by Energy & Environmental Economics in July 2016.) Additionally, E3’s analysis showed that an all-electric home required more energy than a mixed-fuel home.

¹² Southern California Association of Governments’ (SCAG), Profile of the City of South Gate. <http://www.scag.ca.gov/Documents/SouthGate.pdf>

¹³ CEC draft staff report, *Tracking Progress for Energy Equity*, p.2.

pipeline injection would not only reduce emissions, but also provide consumers access to lower carbon gas. Additionally, renewable gas development in rural areas has the potential to spur economic growth in these underserved regions, providing additional green job opportunities. Renewable gas will be a more feasible and affordable transition for disadvantaged customers than electrifying end uses, as the state moves towards lower carbon energy.

Additionally, in 2015 SoCalGas partnered with the South Coast Air Quality Management District and the U.S. Environmental Protection Agency to help its low-income customers in polluted freeway corridors of Boyle Heights and San Bernardino. The pilot program reached more than 1,000 customers.

SoCalGas continues to work with our customers and technology developers to identify clean technology solutions through energy efficiency programs and customer education and outreach initiatives. We also support near and long-term technology development that can reduce both GHG and criteria pollutant emissions and better meet our customers' changing energy needs.

III. Need for strategic deployment of energy storage during natural disasters

SoCalGas agrees that “strategic deployment of energy storage may provide critical services such as water pumping and telecommunications to firefighters and other emergency responders in the event of planned or unplanned grid outages because of extreme events. Beyond forest fires, this approach may be relevant for other disasters such as extreme weather events, flooding, or earthquakes.”¹⁴

Natural gas storage and generation can be relied upon to respond quickly to shortfalls and reduce stress on the grid caused by the intermittency of renewable power production. Power-to-gas (P2G) may be used as another measure in a diverse portfolio to integrate renewables and manage excess renewable energy while supporting California's ambitious climate and air pollution targets. Not only is P2G modular and can be sited virtually anywhere on the grid, but also our research indicates that it stores energy less expensively than batteries¹⁵ and can support increased renewable and traditional energy storage, increased system flexibility and resiliency, and reaching climate change policy goals. Additionally, P2G can help ensure system reliability through management of over-generation, providing flexible energy storage, resource adequacy and flexibility, and addressing regional reliability needs. Lastly, P2G largely relies on existing infrastructure, existing permits and existing rights-of-way.

For these reasons, we encourage CEC to consider natural gas storage and generation as well as P2G when deciding how best to strategically deploy energy storage, especially as a strategy to respond to natural disasters.

A. Natural gas infrastructure is resilient in the face of natural disasters

Southern California's natural gas infrastructure supports the overall resilience of California's energy system. Because the natural gas system is mostly underground it is very resilient to

¹⁴ As noted at the CPUC Wildfire en banc panel on January 31, 2018: <http://www.cpuc.ca.gov/2018FireEnBanc/> and stated on p.28 of *Tracking Progress for Energy Equity*.

¹⁵ for durations over 6 to 8 hours, providing a potentially more cost-effective strategy for day-night, weekly, and seasonal electricity storage.

extreme weather events. For example, the entire natural gas system in the Northeast was essentially intact in areas affected by Superstorm Sandy, allowing residents with natural gas service to support back-up generators, to cook, and to heat their homes while the electric grid was repaired.

Weather extremes within California and across the country, including droughts, hurricanes, and wildfires, provide the following lesson: over reliance on a single energy source can create avoidable and unnecessary risks for the economy and public safety. For example, the Oakland firestorm of 1991, Hurricane Katrina in 2005, and the 2017 October and December wildfires in California demonstrate why sole reliance on electricity-driven water pumps can be disastrous.

During the California Public Utilities Commission (CPUC) Fire Safety and Utility Structure En Banc, held on January 31, 2018, the agency representative from the Safety & Enforcement Division stated that the number one cause of wildfires was related to electric infrastructure.¹⁶ During last year's wildfires, electricity infrastructure suffered heavily, and hundreds of thousands of homes lost electric power,^{17,18} leaving some residents unable to receive evacuation calls, and others unable to access well water. Additionally, a lawsuit filed by nine residents of the Cities of Ventura, Santa Paul, and Ojai allege that water-pumping stations in the City of Ventura lost electrical power and did not have functioning backup generators to take water from fire hydrants to stop the flames.¹⁹

Superstorm Sandy provided another example where every system dependent on electricity was jeopardized, from the refueling pumps at gasoline stations to the water pumps for putting out fires. Natural gas-powered fuel cells that kept many facilities operating in the midst of surrounding blackouts during the aftermath of the storm provide a real-world example of the importance of energy supply diversification.

The California Council of Science and Technology (CCST) prepared an independent and scientific assessment of the long-term viability of underground natural gas storage in California. The CCST report was created by numerous scientific experts and research institutions, in consultation with the CPUC, CEC, California Air Resources Control Board (CARB), and the Division of Oil, Gas, and Geothermal Resources (DOGGR). The report ultimately determined that California needs natural gas and underground natural gas storage to run reliably. Further, as it related to natural disaster preparedness and response, SoCalGas agrees with the CCST report that underground natural gas storage could increasingly be called upon to provide natural gas and support electric reliability during emergencies caused by extreme weather and wildfires, which are expected to only increase with climate change.²⁰ In fact, this was evidenced by the recent wildfires and mudslides in the Santa Barbara County area, and the consequences of those events being mitigated by underground natural gas storage.

¹⁶ CPUC Fire Safety and Utility Structure En Banc, held on January 31, 2018, available at: http://www.adminmonitor.com/ca/cpuc/en_banc/201801312/

¹⁷ PG&E, "PG&E's Wildfire Response," accessed December 13, 2017, https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/wildfires.page?WT.pgeac=Alerts_NapaFire-Oct17_Billing

¹⁸ Brian Leventhal, Southern California Gas Newsroom, "Thomas Fire Leads to Santa Barbara Area Outage," December 10, 2017, <https://newsroom.edison.com/releases/releases-20171210>

¹⁹ Mike Harris, Ventura County Star, "Lawsuits allege Southern California Edison negligently started Thomas Fire," January 4, 2018, <http://www.vcstar.com/story/news/local/2018/01/04/lawsuits-allege-southern-california-edison-negligently-started-thomas-fire/991192001/>

²⁰ Long-Term Viability of Underground Natural Gas Storage in California, p. 506.

IV. The future of Aliso Canyon should not be predetermined in the draft report

SoCalGas respectfully disagrees with the assumption in the draft report that the Aliso Canyon natural gas storage facility will permanently close.²¹ As the CEC is aware, the CPUC is already examining the future of Aliso Canyon through the proceeding it opened pursuant to Senate Bill 380 (I.17-02-002). In reaching a final determination in that proceeding, SB 380 (Chapter 14, Statutes of 2016) requires that multiple stakeholders and “relevant government entities” must be consulted. As a relevant government entity, the CEC is already involved in I.17-02-002, and both the CPUC and CEC have indicated their intent to develop various models to better understand the system and allow technical analysis to guide the determination of the need for the facility.

Furthermore, the CPUC recently stated that it is investigating the increase in electric and natural gas commodity costs associated with the cold winter weather experienced in February and March of this year.²² Specifically, the CPUC stated that “Energy Division staff have been monitoring both natural gas and electric prices this winter and plans to model how reductions in Aliso Canyon storage capacity could impact energy prices for the Aliso Canyon Order Instituting Investigation (I.17-02-002).” This further underscores the need for the CEC to not assume *a priori* that Aliso Canyon will be permanently closed.

At this time, neither agency has completed analysis or related modelling efforts. Any predetermination that Aliso Canyon should be closed undermines due process afforded to all parties in the CPUC’s open proceeding. SoCalGas suggests that the appropriate regulatory process be permitted to complete before the CEC unilaterally commits to any plan for closure of Aliso Canyon.

Closing

SoCalGas appreciates the CEC’s consideration of these comments and looks forward to continuing to address barriers affecting low-income customers and disadvantaged communities. Please do not hesitate to contact us for more information.

Sincerely,

/s/ Tim Carmichael

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²¹ CEC draft staff report, *Tracking Progress for Energy Equity*, p.14.

²² Ed Randolph letter to Senator Henry Stern, March 13, 2018. Available at http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Safety/Untitled_03132018_145713.pdf