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SoCalGas Comments on the CEC IEPR Workshop Natural Gas Market and Demand Forecast

Additional submitted attachment is included below.

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September 13, 2021

The Honorable J. Andrew McAllister
The Honorable Siva Gunda
Commissioners, California Energy Commission
Docket Unit, MS-4
Docket No. 21-IEPR-05
1516 Ninth Street
Sacramento, CA 95814-5512

Subject: Comments on the CEC IEPR Commissioner Workshop on Natural Gas Market and Demand Forecasts

Dear Commissioners McAllister and Gunda:

Southern California Gas Company (SoCalGas) appreciates the opportunity to provide comments on the August 30, 2021 California Energy Commission (CEC) Integrated Energy Policy Report (IEPR) Commissioner Workshop on Natural Gas Market and Demand Forecasts. SoCalGas would like to thank the CEC for considering our recommendation to use hourly data in energy demand forecasting and modeling, which we included in prior comments.[1]

SoCalGas appreciates the CEC's thoughtful consideration of future short-term and long-term natural gas demand in its IEPR planning and thanks the CEC for inviting utilities to present their gas demand forecasts and methodologies to the CEC and stakeholders. SoCalGas's comments focus on the following topics: 1) Declining average demand may not necessarily correlate to declining peak day demand; and 2) SoCalGas requests additional details on the CEC's decarbonization assumptions and scenarios to better understand the impact on gas demand and transportation rates.

[1] SoCalGas submitted comments in response to the CEC Commissioner Workshop on Data Inputs and Assumptions for 2021 IEPR Modeling and Forecasting Activities held on August 5, 2021. Available at https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=21-IEPR-03.

1) Declining average demand may not necessarily correlate to declining peak day demand

Several important questions were posed to SoCalGas and Pacific Gas and Electric Company (PG&E) during the workshop public question and answer period. We would like to provide the following supplemental information to SoCalGas's response provided at the workshop. Specifically, the two questions directed to SoCalGas and PG&E from the public were as follows (paraphrased):

- If the average gas demand for residential and commercial customers (temperature-sensitive customers) trends downward, could peak day demand follow a different trend and why?
- On the same subject, while peak day demand is likely to decline at a slower rate than average demand, under what circumstances could peak day demand increase while the average demand declines?

Several factors could contribute to such deviations between peak day demand relative to average demand. Currently, peak demand on the California gas system occurs in the winter season because the majority of gas throughput during this time period is attributable to meeting the essential thermal heating needs of core customers. Increased volatility of weather patterns caused by climate change could result in more occurrences of extreme hot and cold weather events such as the August 2020 Western states heatwave and Texas freeze. The increased volatility of weather patterns coupled with increased electrification of end-uses, including vehicle electrification, could also produce greater peak demand in the electric system during times when the only existing, flexible capacity on the grid at the scale needed is generated from gas-fired power plants. Gas demand could be further needed due to increased reliance on intermittent renewables and diurnal gas ramping. Storage resources such as batteries and compressed air could reduce some of that demand, but currently the scale of these energy sources in the future market is uncertain.[2]

The CEC has accurately observed that the gas system is increasingly relied upon in "meeting EG [electric generation] demand for large afternoon/evening ramps and net peaks as the sun sets."[3] In particular, the gas system is integral to the electric grid because the gas system is "being used to integrate renewables" by "meet[ing] peak and net peak demand."[4] Advancement of renewable resources has changed the way electricity is generated and driven increased "inter-dependencies between gas and electric systems."[5] As a result of this increased interdependency, the electric grid is anticipated to incorporate an increasing amount of renewable resources, which will likely result in less gas used for electric generation on an annualized basis. Gas may be called upon to fill even bigger gaps presented when variable renewable resources cannot meet demand in light of increased levels of end-use electrification and increases in severe weather events.

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[2] "Future Energy, Compressed Air Energy Storage," Dooner & Wang, p. 279-312. Available at: https://www.sciencedirect.com/science/article/pii/B9780081028865000141.
[3] *See* CEC, "Overview of California Gas Reliability Issues," presented at the IEPR Joint Agency Workshop on Summer 2021 Reliability, Session 3: Gas Reliability Issues and Polar Vortex, held on July 9, 2021.
[4] Ibid.
[5] Ibid.

2) SoCalGas requests additional details on the CEC's decarbonization assumptions and scenarios to better understand the impact on gas demand and transportation rates

During the CEC's Preliminary Natural Gas Market Results presentation at the workshop, the CEC did not discuss how it plans to incorporate greenhouse gas (GHG) reduction goals into the CEC's gas demand forecast. SoCalGas requests more details on the decarbonization assumptions and scenarios being used by the CEC to better understand the impact on gas demand and transportation rates. During the workshop, Commissioner McAllister noted the need for additional consideration of Assembly Bill (AB) 3232 scenarios in the utility's natural gas demand forecasts. SoCalGas is interested in meeting with CEC staff to discuss the AB 3232 greenhouse gas reduction goals and possible scenarios to model.

Since economics and demography tend to be the most significant factor in natural gas and electricity consumption, an accurate rate forecast is foundational to projected usage. Projected rates can significantly change the results of economic analyses for various emission mitigation measures. In the Proposed Changes to the California Code of Regulations Title 24 Parts 1 and 6 (Proposed 2022 California Energy Code) proceeding, the CEC's energy efficiency staff projected significant increases in future natural gas price forecasts and a flatline of electricity rates in 2030. Specifically, CEC staff used a consumer natural gas price forecast that represents a much higher than expected retail gas price, even after consideration of changes in throughput and increases in volume of low carbon gas in the supply portfolio.[6] In our comments, we shared concerns that numerous data points, facts, and sensitivity analyses suggest certain assumptions embedded in the Proposed 2022 California Energy Code are either overly optimistic and/or do not reflect the most current data sets – suggesting that cost-effectiveness projections for the cost of electric and gas supply and delivery infrastructure do not reasonably reflect likely outcomes.[7] For instance, the analysis assumes that resulting high natural gas costs provide additional impetus for more existing gas customers to leave the system than otherwise would be occurring – which create an artificially accelerated price spiral for the gas prices used in the Proposed 2022 California Energy Code.[8] We further expressed concern that discrepancies may exist between the rate forecasts used for the Proposed 2022 California Energy Code and the energy demand forecasts used for utility procurement plans.[9] Lastly, the California Public Utilities Commission (CPUC) held a joint *en banc* hearing with the CEC, California Independent System Operator (CAISO), and legislative leaders in February 2021 on "Electric Costs and Rates," highlighting concerns about increases in

[6] "SoCalGas Comments on the Proposed Changes to the 2022 Energy Code Update Rulemaking, TN# 238386, 21 June 2021," CEC, p. 18. Available at https://efiling.energy.ca.gov/GetDocument.aspx?tn=238386&DocumentContentId=71682.

[7] SoCalGas Comments on the Proposed Changes to the 2022 Energy Code Update Rulemaking," CEC, last modified June 21, 2021, https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=21-BSTD-01.

[8] We provide detailed information expressing concern about the premise of the CEC's assumptions in our comments (TN# 238386).

[9] "SoCalGas Comments on 15 Day Changes to 2022 CA Energy Code, TN# 239066," CEC, 28 July 2021. Available at https://efiling.energy.ca.gov/GetDocument.aspx?tn=239066&DocumentContentId=72501.

electricity rate forecasts.[10] SoCalGas similarly requests additional information to better understand the models the CEC is using to forecast gas and electricity rates.

Conclusion

As California continues to progress towards its decarbonization goals, the gas system continues to play an integral role in decarbonizing the electric grid to aid in integrating renewables during times of peak and net peak demand. Transparent and informative discussions on natural gas market and demand forecasts between the CEC and stakeholders including SoCalGas can assure alignment in forecasting assumptions and results. SoCalGas looks forward to contributing to and advancing California's decarbonization efforts by continuing to work with the CEC, the CPUC, and sister agencies to define solutions for leveraging the fuel system and enabling the energy transition. Thank you for consideration of our comments.

Respectfully,

/s/ Kevin Barker

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[10] "CPUC to Hold Joint Hearing with CEC, CAISO, and Legislative Leaders on Electric Costs and Rates," CPUC, last modified September 9, 2021. Available at https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M366/K429/366429218.PDF.