(A.16-12-010)

(DATA REQUEST ORA-11)

Date Requested: September 15, 2017

Date Responded: October 2, 2017

QUESTION 1:

In Chapter 1 testimony, SoCalGas states "the State earmarked 6.7 million metric tons of GHG emission reductions through the use of CHP by 2020." (footnote omitted). SoCalGas further explains that to accomplish that goal, the State "established a goal to develop 6,500 MW of additional CHP capacity by 2030" but based on a CEC study, the State is now expected to only develop 1,499 MW of CHP capacity by 2020. (footnote omitted). SoCalGas cites to the CARB First Update in 2014 to state that California is falling short of the stated CHP goals, i.e., the goal of developing 6,500 MW additional CHP capacity by 2030. Further, SoCalGas asserts the CIP will promote California policy concerning CHP by incentivizing customer-owned CHP, one of the technologies that is eligible to receive the CIP incentive.

In response to ORA-04 Q.1a., SoCalGas also states: "The incentives through the proposed CIP are designed to help meet the stated goals of California. CHP is one of the technologies that can help California reach its goals as are other technologies the proposed CIP seeks to incentivize."

In D.15-06-028, the Commission decision on Combined Heat and Power (CHP) procurement matters, the Commission explains that the previous D.10-12-035 primarily established a CHP procurement program.³ According to D.15-06-028, the CHP procurement program features both an Initial Program Period (from November 23, 2011 until November 23, 2015) and a Second Program Period (from November 24, 2015 until December 31, 2020).⁴ The combined total of CHP procurement target in the Initial Program Period was 3,000 Megawatts (MW) and a second target of 6.7 MMT of GHG emission reductions from CHP.⁵ The decision further states that "D.10-12-035 adjusts this second target for retail sales of the investor-owned utilities, which translates into a proportionate allocation of approximately 4.8 MMT.⁷⁶ Finding of Fact #11 of the decision states that "The capacity procurement activity from the Initial Program Period's 3,000 MW Capacity Target achieved 2.09 MMT towards the 4.8 MMT GHG Emissions Reduction Target (equaling 43% of the target) established in D.10-12-035 as of July 2014."

3 D.15-06-028, p.3.

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¹ Chapter 1 Testimony, p.3.

² ld.

⁴ Id., p.4 and Finding of Fact #2, D.15-06-028.

⁵ Finding of Fact #6, D.15-06-028.

⁶ ld.

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D.15-06-028 further explains:⁷

"D.10-12-035 recognizes that the MW Capacity and GHG Emissions Reduction Targets interact with each other; any GHG emissions reductions achieved from the procurement of the 3,000 MW during the Initial Program Period also apply to the overall GHG Emissions Reduction Target. For example, if during the Initial Program Period the three utilities procured highly-efficient CHP facilities to satisfy the Capacity Target, then the GHG Emissions Reduction Target could be largely satisfied. Conversely, if the utilities capacity procurement choices during the Initial Program Period were relatively inefficient CHP, facilities, then the GHG Emissions Reduction Target would be largely unmet. Thus, in order to provide context for the Second Program Period, we should consider the three utilities' progress to date on reducing GHG emissions from CHP. Our consideration will focus primarily on whether we should make an adjustment to the GHG Emissions Reduction Target. We use this decision to determine if the GHG Emissions Reduction Target in D.10-12-035 should be modified."

In addition, the Commission states in D.15-06-028:8

"Therefore, we will use the June 2012 CEC Report's Medium Case to establish the Second Program Period GHG Emissions Reduction Target. The Medium Case has assumptions that reflect policies in effect today. In cases when this scenario reflects policies not currently enacted, these reach goals are consistent with the need to balance policies toward stimulating additional CHP procurement, ensuring adequate cost control, and providing opportunities for other beneficial resources. The Medium Case estimates that the total annual CO2e emissions reduction potential for the utility service territories by 2020 is 2.72 MMT. (footnote omitted) With all of these factors under consideration, we apportion the 2.72 MMT according to the utilities' most recently-available retail sales figures from 2013 (footnote omitted) and we set the GHG Emissions Reduction Target for the Second Program Period as follows:

Table 2: Revised GHG Emissions Reduction Targets and Remaining Need

(Million Metric Tonnes, MMT)	PG& E	SCE	SDG &E	Total
Revised Second Program Period GHG Emissions Reduction	1.22	1.22	0.28	2.72

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Target				
Utility Progress Towards Goal as of 7/7/14	1.34	0.74	0.01	2.09
Remaining GHG Credits Needed (Illustrative) ⁴⁵	0*	0.48	0.27	0.75*

^{*}PG&E progress to the revised target would result in a negative value of 0.12 MMT, so PG&E will not be required to conduct any additional CHP-only RFOs during the Second Program Period. The total for SCE and SDG&E exclusive this negative PG&E value is 0.75 MMT.

Footnote 45 of Table 2 above on page 21 of D.15-06-028 states: The Illustrative remaining target is based on the July 7, 2014 semi-annual report. The remaining progress will change over time as new progress reports become available.

Therefore, in Ordering Paragraph #1 of D.15-06-028, the Commission ordered:

"The revised greenhouse gas (GHG) Emissions Reduction Target for Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) shall be as follows: "

(Million Metric Tonnes, MMT)	PG&E	SCE	SDG&E	Total
Revised Second Program Period GHG Emissions Reduction Target	1.22	1.22	0.28	2.72

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7 D.15-06-028, pp.8-9. 8 D.15-06-028, pp.20-21.

With all of the above in mind, please respond below:

- (a) When SoCalGas states that the State is falling short of the stated CHP goals, i.e., the goal of developing 6,500 MW additional CHP capacity by 2030, please explain what SoCalGas means by the statement given the Commission's statements in decision D.15-06-028 regarding CHP procurement and GHG emissions reduction target in the second program period.
- (b) Please identify the specific goals of additional CHP capacity targeted by SoCalGas under the proposed CIP relative to the stated goals of developing 6,500 MW additional CHP capacity in California by 2030 and cite reference to the SoCalGas application where this is stated. Please identify each fuel type to be used by the "other technologies" that will be eligible under the proposed CIP. As part of this exercise, please identify the primary fuel type.
- (c) In your response to item (a) above, please state whether the identified additional CHP capacity under the proposed CIP will be a topping or bottoming cycle CHP.ase state whether SoCalGas has considered and analyzed the impact on the SoCalGas gas system capacity from the expected incremental increases in gas throughput from these identified target technologies, and if so, please describe the results of such analysis undertaken with respect to the sufficiency of gas capacity and system reliability.
- (d) Please identify the "other technologies" mentioned in the above statements and the specific goals of the "other technologies" in terms of capacity targeted under the proposed CIP which SoCalGas seeks to incentivize.
- (e) Please identify each fuel type to be used by the "other technologies" that will be eligible under the proposed CIP. As part of this exercise, please identify the primary fuel type.
- (f) Please state whether SoCalGas has considered and analyzed the impact on the

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SoCalGas gas system capacity from the expected incremental increases in gas throughput from these identified target technologies, and if so, please describe the results of such analysis undertaken with respect to the sufficiency of gas capacity and system reliability.

- (g) Please state whether the SoCalGas response to item (e) above has considered the Aliso Canyon Gas Storage facility current status, and if so, please state the assumption of the analysis with respect to the facility.
- (h) To monitor the extent by which the eligible projects actually deliver the target goals, please state whether SoCalGas expects to provide regular reporting to the Commission's Energy Division, with a copy to ORA, on the asserted energy efficiency savings, GHG emissions reductions or criteria air pollutant emissions that are projected to be achieved by the eligible projects under the proposed CIP.

RESPONSE 1:

- (a) SoCalGas objects to this question on the grounds that it is vague and ambiguous as to which Commission's statements in D.15-06-028 ORA is referring to. ORA cites several statements in its question. Subject to its objections, SoCalGas responds as follows: SoCalGas' statement in its testimony that "California is falling short of the stated CHP goals" cites to the First Update to the Climate Scoping Plan. D.15-06-028 establishes procurement targets for CHP Program's Second Program Period that came out of the QF/CHP settlement. The targets set by D.15-06-028 are not the only goals related to CHP for the State.
- (b) SoCalGas does not have specific goals of CHP capacity it will be targeting.
- (c) The additional capacity could be either topping or bottoming cycle.
- (d) SoCalGas objects to this question on the grounds that it calls for speculation. Subject to its objections, SoCalGas responds as follows: Other technologies referenced in SoCalGas' testimony cited above are technologies that can meet the criteria that SoCalGas has set for the program. Some examples include, but are not limited to, gas engines, furnaces, steam systems, heaters, process ovens and dryers. Since the marketplace is fluid, SoCalGas cannot predict what type of current or new technologies may be available or appear in the future. SoCalGas does not have a

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specific capacity goal that it is targeting for any technology.

- (e) The proposed CIP will be for technologies fueled by natural gas or renewable natural gas
- (f) SoCalGas has not undertaken a reliability study on how increased or decreased load would affect the system.
- (g) Please see the response to Question 1(f).
- (h) SoCalGas does not have a specific capacity goal that it is targeting for the proposed CIP. See Chapter 2, Section V for proposed regulatory procedures.

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QUESTION 2:

In Chapter 1 testimony, SoCalGas states:9

"Certain geographical areas in California are also falling short of their goals concerning criteria pollutants, like nitrogen oxide (NOx). According to the U.S. EPA, NOx are a family of poisonous, high reactive gases, which play a major role in producing ozone (smog). (footnote omitted) Ozone levels are a measure of whether an air quality zone is within attainment. SoCalGas' service territory contains the only two extreme nonattainment zones in the United States. (footnote omitted) Despite efforts to mitigate the impacts of NOx, the South Coast Air Quality Management District (AQMD) has stated that an additional 55% reduction of NOx is needed to reach the AQMD's NOx reduction goal and reduce NOx to 100 tons/day by 2031. (footnote omitted) The ability of the AQMD (and the State) to achieve the NOx reductions remains uncertain."

- (a) Please define the terms "attainment" and "nonattainment" zones as used in the statements above
- (b) Please explain the economic consequences of having areas in the SoCalGas territory designated as "the only two extreme nonattainment zones in the United States."
- (c) Please explain whether, and if so how, the SoCalGas natural gas system contributes to the extreme nonattainment status of these zones.
- (d) Please explain in detail how the current programs have made contributions, if any, towards mitigating the impacts of NOx.
- (e) Please explain in specific terms how the proposed CIP will make an improved contribution towards mitigating the impacts of NOx.
- (f) Please explain the basis for the statement "The ability of the AQMD (and the State) to achieve the NOx reductions remain uncertain."

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9	ld., p.4.		

RESPONSE 2:

(a) According to the EPA,1 the term attainment means "meeting" and nonattainment means

¹ See https://www.epa.gov/ozone-designations

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"not meeting."

- (b) SoCalGas objects to this question on the grounds that it is not relevant and outside the scope of this proceeding.
- (c) SoCalGas objects to this question on the grounds that it is not relevant and outside the scope of this proceeding.
- (d) The current programs have made contributions towards mitigating the impacts of NOx. Energy efficient technology reduces the amount of energy that may have been used resulting in lower NOx emissions. For example, one customer converted their coal boiler to natural gas. There have also been customers that have changed from propane to natural gas. Both coal and propane combustion emit more NOx than natural gas combustion.
- (e) As part of the eligibility criteria, customers can show a reduction in criteria air pollutants to qualify for the program. Therefore, new technologies that qualify under the reduction of air pollutants criteria will improve air quality. Also, customers who convert from coal and propane technology to natural gas technology will reduce NOx. Reductions may also occur from a customer using more efficient natural gas equipment than it could have purchased.
- (f) According to the 2016 Air Quality Management Plan Fact Sheet (attached), "NOx emission reductions needed for attainment are significant." NOx emissions require an additional 43% reduction from current projections for 2023 attainment and 55% reduction by 2031. These are significant and it is uncertain if these numbers can be reached by the deadline.