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September 27, 2018

Mr. Kurt Karperos
Deputy Executive Officer
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812

RE: Comments on the Draft San Joaquin Valley Supplement to the Revised 2016 State Strategy for the State Implementation Plan - August 27, 2018

Dear Mr. Karperos:

Southern California Gas Company (SoCalGas) appreciates the opportunity to provide comments on the California Air Resources Board's (ARB) August 27, 2018, Draft San Joaquin Valley Supplement to the Revised 2016 State Strategy for the State Implementation Plan (Draft Supplement). SoCalGas strongly supports ARB and the San Joaquin Valley Air Pollution Control District's (San Joaquin Valley APCD) efforts to develop an integrated State Implementation Plan to demonstrate attainment of the fine particulate matter (PM2.5) National Ambient Air Quality Standards. The attainment of these Clean Air Act standards is vitally important to the San Joaquin Valley communities in which SoCalGas operates and provides natural gas service.

I. Comments on the Proposed State Measure for the Valley: Accelerated Turnover of Trucks and Buses

If successfully implemented, the Proposed State Measure for the Valley: Accelerated Turnover of Trucks and Buses (pages 23-25) will significantly reduce emissions of oxides of nitrogen (NOx) from heavy-duty trucks/buses. The proposed measure relies on new and existing incentive funding programs to accelerate the turnover of approximately 33,000 heavy heavy-duty diesel trucks that meet or exceed "an optional low-NOx standard until implementation of a new federal low-NOx standard begins and part of the current round of Moyer Program funding ends."¹ ARB suggests commitments in this measure will reduce 10 tons per day (tpd) of NOx emissions. To achieve the ten tpd, two tpd may come from already funded and implemented projects, two tpd

¹ "Draft San Joaquin Valley Supplement to the Revised 2016 State Strategy for the State Implementation Plan," California Air Resources Board, August 31, 2018, p. 24.

are expected from new projects using existing funding, and six tpd from projects using to-be-defined new funding sources.

SoCalGas supports this measure and offers the following comments to ensure that it is developed and implemented effectively to achieve the anticipated emission reductions.

The Measure Should Capitalize on Maximizing Co-Benefits by Fueling Low-NOx Trucks with Locally Produced Renewable Natural Gas

The CWI 11.9 Liter natural gas engine is certified to ARB's lowest Optional Low-NOx Standard of 0.02 grams per brake horsepower hour (g/bhp-hr) and is now in production. These engines have 90 percent less NOx emissions than their diesel counterparts and will play a key role in the San Joaquin Valley reaching attainment. As a co-benefit, when these engines are fueled with renewable natural gas (RNG), they also have significantly lower carbon emissions than diesel engines. RNG has an average carbon intensity (CI) 60-80 percent lower than diesel. Depending on the source, RNG can have a CI intensity up to 400 percent lower than diesel, and can be carbon negative, as RNG mitigates emissions that would have otherwise occurred. For example, ARB awarded the company AMP Americas, a renewable energy company, a CI score of minus 254.94 grams of carbon dioxide per megajoule (g CO₂e/MJ) for its RNG, which is the lowest ever issued in California. In comparison, the California electric grid has an energy-efficiency-ratio corrected CI value of approximately 20 g CO₂e/MJ. Right now, CWI natural gas engines using RNG exceed the carbon reductions from electric vehicles.

The California Department of Food and Agriculture has funded 62 dairy digester projects in the San Joaquin Valley that currently produce or will soon produce RNG. Incentivizing a fleet of natural gas trucks that is located or traverses through an area with RNG production would be ideal to assure success of these projects that are key to ARB's Short-Lived Climate Pollutant Plan.

The Measure Should More Clearly Explain How Two Tons Per Day of SIP-Creditable Emissions Will be Achieved By Projects That are Already Funded

To achieve two tpd of "SIP-creditable reductions in 2024 and 2025" from "projects already funded or executed,"² these projects must exceed emission reductions already accounted for in ARB's existing truck and bus rule, which is already included in the SIP and supposed to be fully implemented by the end of 2023. SoCalGas respectfully requests that ARB further explain how the 2 tpd of NOx is surplus. It is also not clear why accelerated turnover of trucks that meet or exceed an optional low-NOx standard is related to the end of "part of the current round of Moyer Program funding."

ARB Should Not Delay This Measure by Waiting Until 2021 For Board Action

ARB proposes to bring this measure to its Board as one or more SIP-creditable measures by 2021 to achieve creditable emission reductions for 2024 and 2025 attainment. Expecting to turnover 33,000 heavy duty trucks from 2021 through 2024, a span of just three years, is not practical. The

² *Id.* at 23.

actions outlined in the measure need to take place as soon as possible and ARB should commit to doing so. ARB should immediately focus on securing incentive funding for this effort. Accordingly, on September 20, 2018, the San Joaquin Valley APCD Governing Board supported a policy position that ARB act more quickly than 2021 on this mobile-source control measure. The Central California Asthma Coalition also verbally supported the San Joaquin Valley APCD Governing Board policy position, noting that although zero-emission vehicles are a goal, the heavy-duty vehicle sector needs near-zero technology now. SoCalGas strongly urges ARB to accelerate the timeline for Board action on this measure.

II. Comments on the Supplemental State Commitments

The Commitment to Achieve Aggregate Emission Reductions Should Not Rely on Near-Term Federal Action to Achieve Emission Reductions

Although ARB has formally requested that the federal government develop new, lower NOx heavy-duty vehicle emissions standards, it is unrealistic that there will be a new federal low-NOx standard developed and implemented by 2025. The current federal EPA has taken actions contrary to California's clean air goals, including the recent roll-back of stricter federal CAFÉ standards and proposal to revoke California's waiver. By including federal agency emission reductions in ARB's aggregate commitment, ARB is skewing the emission reductions needed from State commitments.

Moreover, the Commitment to Achieve Aggregate Emission Reductions states that, "if a federal heavy-duty low-NOx engine standard is not established, CARB will look to achieve the necessary reductions from other source categories, **such as stationary sources.**"³ Defaulting to further squeezing emission reductions from stationary sources in the San Joaquin Valley defeats the purpose of this Supplement to the State SIP. The San Joaquin Valley APCD has already identified an extensive suite of stationary source measures in the "Draft 2018 Plan for the 1997, 2006, and 2012 PM 2.5 Standards." Accordingly, the purpose of ARB's Draft Supplement is to identify realistic mobile source emission reduction measures that will achieve near-term NOx reductions necessary to help the Valley attain federal standards – not to punt back to stationary sources. SoCalGas respectfully requests that this section be revised and the reference to additional stationary source reductions be removed.

To Effectively Implement the Proposed State Measures for the Valley, Existing Incentive Programs Should Be Revised

To optimize participation in incentive programs and maximize the number of trucks replaced under the accelerated truck and bus measure discussed above, the barriers to participation in existing programs should be revisited and revised. For example, the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP), highlighted in the Draft Supplement, has barriers that limit participation. One of the primary barriers is a low voucher amount. The program is intended to cover the incremental cost of advanced technologies. Therefore, the incremental

³ *Id.* at p. 38, emphasis added.

cost of all components specific to the technology, including the engine and complete fuel system, should be covered by the voucher. The current voucher amount is up to \$40,000, which is not adequate to cover the incremental technology cost above standard diesel technology. Based on information submitted by engine and fuel system manufacturers on February 21, 2018 (attached), the incremental cost of the engine and fuel system are as follows:

- Engine: \$13,000 to \$15,000
- Fuel System: \$34,000 to \$43,000 (or more depending on capacity)

This is an incremental cost of \$47,000 to \$58,000, not including other incremental costs such as federal excise tax, sales tax, and additional warranties. The incremental cost could be even higher if larger fuel tanks are purchased to accommodate longer range. Clearly, the \$40,000 voucher is not enough to entice users to take advantage of the program.

Each of the funding programs have unique features that should be re-assessed to determine if any modifications to programs need to be made to encourage participation, resulting in greater NOx emission reductions in the San Joaquin Valley.

Incentives Should Focus on Cost-Effective Solutions

The proposed measure intends to accelerate the turnover of 33,000 heavy-duty trucks primarily through incentives. Even with a low incentive of \$50,000 per truck as an example, to turnover 33,000 trucks, \$1.65 billion in incentives is needed. It is imperative that any incentives used to implement this measure be the most cost effective available, thus achieving the most “bang for your buck.”

At recent ARB meetings, Board Member have discussed finding a balance in investments between meeting near-term air quality goals and long-term technology advancement goals. While that topic is still being discussed, it is important to recognize that the purpose of this measure and of the Draft Supplement Revised is to meet the San Joaquin Valley 2024 and 2025 attainment dates for annual and 24-hour average PM2.5 standards. Therefore, the incentives associated with this measure should be used to reduce emissions prior to the attainment dates, not for technology advancement.

The Draft Supplement states that, “While a majority of the incentivized on-road heavy-duty vehicles under this measure will be turnover to meet the California low-NOx engine standard, CARB continues to provide funding for zero-emission technologies where feasible.”⁴ In several previous ARB proceedings, the phrase “zero-emission technologies where feasible” has been used to imply that if zero emission technologies were feasible, ARB would not fund low-NOx technologies. ARB should explicitly commit to funding cost-effective low-NOx technologies, regardless if zero emission options are feasible.

⁴ *Id.* at 24.

ARB Should Not Limit Incentives to Specific Truck Routes

The Draft Supplement specifically identifies truck trips originating from the Port of Oakland for incentives. While that is an important truck route in reducing emissions in the San Joaquin Valley, other routes should not be excluded from receiving incentives as they may result in significant emission reductions as well. For example, many truck trips originate or are destined for southern California ports and goods movement facilities (railyards, warehouses, airports). These routes should be eligible for funding as well, provided they result in emission reductions in the San Joaquin Valley.

SoCalGas Offers Its Support to Implementation of Incentive Programs in the San Joaquin Valley

SoCalGas offers its resources to help with implementation of this measure. SoCalGas has expertise and experience helping individuals and business apply for and obtain funding. San Joaquin Valley APCD's last Proposition 1B (Prop 1B) solicitation was in 2017, and SoCalGas helped fleet owners submit 225 applications for near zero emission natural-gas trucks. This was an oversubscription of 150 percent in the available \$12 million in funding. Most recently, SoCalGas assisted 21 fleet owners operating within the South Coast Air Quality Management District (SCAQMD) with Carl Moyer Program funding applications for 209 new near-zero natural gas trucks. Also, SoCalGas customers have submitted more than 150 Prop 1B applications to the SCAQMD this year.

Thank you again for the opportunity to comment on the Draft Supplement. If you have any questions, please feel free to contact me or Colby Morrow at (559) 999-3450 on San Joaquin Valley specific issues.

Sincerely,



Kevin Maggay
Energy and Environmental Affairs