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Floyd Vergara
Industrial Strategies Division Chief
California Air Resources Board
1001 I Street
P.O. Box 2815
Sacramento, CA 95812

**RE: Southern California Gas Company Comments on “Rethinking Transportation in California”
Symposium to Discuss Cutting Petroleum Use in Half by 2030**

Dear Mr. Vergara:

Southern California Gas Company (“SoCalGas”) is pleased to submit these written comments on the “Rethinking Transportation in California” Symposium to Discuss Cutting Petroleum Use in Half by 2030 (“Symposium”) hosted by the California Air Resources Board (“ARB”) on July 8, 2015. We appreciated the ideas and expertise shared by the speakers and presenters at the Symposium, and wanted to share some of our perspectives with you as well. Like ARB, we want to reduce air toxics health risk, attain air quality standards, and mitigate climate change through the development and deployment of near zero and zero emissions vehicles, increased use renewable energy (including renewable natural gas), and greater energy efficiency in new and existing buildings.

1. Natural Gas Is A Lower Carbon Fuel and Should Be Part of the Petroleum Solution

Since natural gas is not a petroleum product, we believe it has an important role to play as California seeks to cut its reliance on other transportation fuels currently in heavy use. As you know, conventional compressed natural gas (“CNG”) and liquefied natural gas (“LNG”) have lower carbon intensities (“CI”) than diesel fuel in the existing Lower Carbon Fuel Standard (“LCFS”) Program administered by ARB. According to the most recent data generated from the proposed LCFS 2.0 GREET model, diesel fuel CI is measured at 102.01, whereas conventional LNG CI is 93.92 and conventional CNG CI is even lower at 87.05. Beyond the lower CI

benefits from using natural gas, CNG and LNG reduce smog-causing NOx and cancer-causing particulate matter compared to existing conventional engine technologies. These benefits of natural gas used as a transportation fuel are of particular use to disadvantaged communities throughout the State that suffer from the most heavy impacts of freight movement on crowded freeways and major arterial streets. As suggested at the Symposium by ARB Science and Technology Advisor Dr. Ryan McCarthy, natural gas has a role to play in reducing petroleum use, as do biofuels, hydrogen and improved heavy duty vehicle efficiency.

In light of these lower CI values for natural gas fuels, and the current availability of those fuels and heavy duty trucks running on CNG and LNG in the California market, we would encourage ARB and other agencies working on Governor Brown's climate goals to consider using natural gas as a fuel solution for cutting petroleum use as we move toward 2020 and beyond. We also request that ARB and other agencies support utility efforts to lay the groundwork that will expand California's infrastructure for alternative fuels to provide consumers and business with realistic alternatives to petroleum-based vehicles for transportation and goods movement and to achieve the forecasted cost savings.

2. Zero Emission Heavy Duty Engines Are Too Far Off, According to ARB Estimates

We know ARB and others are eagerly anticipating the results of zero emission demonstration and pilot projects particularly as they relate to heavy duty engine applications. At the same time, we don't want ARB to wait in vain. According to data shared by ARB at their Technology Assessment Workshop on Heavy-Duty Engines and Fuels in September 2014, zero emission heavy-duty vehicles won't be ready for pilot demonstrations until 2025 (diesel-electric hybrid) and 2035 (hydrogen fuel cell) – no date is given by ARB for battery electric trucks.¹ If those dates from ARB are accurate, the 2030 date the Governor is targeting for petroleum use reduction will be met or exceeded by even those demonstration project targets. State residents would have to wait even longer to see broad market changes, and corollary improvements in air quality and greenhouse gas reductions, from the commercial deployment of zero emission heavy duty trucks in the California market. And we simply don't have that much time to waste. As result, existing CNG and LNG heavy duty trucks, and those heavy duty vehicles expected with even lower NOx emissions, should be viewed as part of the overall strategy to reach both GHG and petroleum reduction as requested by Governor Brown.

3. ARB Projections for Zero Emission Passenger Vehicles and Light/Medium Duty Trucks

As discussed above, we have reason to believe heavy duty engines won't be commercially deployed as zero emission for several years and perhaps beyond the 2030 goal date. If that is true, and, as ARB and others like Tom Reinhart suggested at the Symposium, increased fuel efficiency in the heavy duty sector won't get the State to the Governor's petroleum reduction goal, then compliance with the Governor's reduction goal will necessarily come from other sources. We respectfully request that ARB staff produce estimates of market penetration needed for zero emission passenger vehicles and vehicles in the light and medium duty sectors would be needed to meet the Governor's goal.

¹ I attended a workshop recently where Henry Hogo of the South Coast Air Quality Management District suggested that ARB is planning to rescind this information and replace it with more recent data and dates. If that is indeed the case, we would appreciate notification of that new information as soon as it is available.

4. Renewable Natural Gas Is Necessary

SoCalGas was excited and encouraged by the discussion of renewable natural gas during various parts of the Symposium. According to comments you made after the formal presentations were over, ARB is very “bullish” on renewable natural gas, and wants to accelerate development of more renewable natural gas facilities as soon as possible. But questions remain as to just how the State will encourage creation of renewable natural gas and hydrogen.

We appreciated the expertise shared by UC Berkeley Philomathia Professor of Alternative Energy and Director of Energy Biosciences Institute Chris Sommerville at the Symposium. His example of Germany was illuminating, in that Germany has made renewable natural gas technologically feasible by supporting the creation and operation of 8,500 biogas facilities, compared to only 10 of those facilities in California. He also believes that about 60 of the California dairies can be converted to utilize biogas. According to Dr. Somerville, “The technology is mature, works well and can be implemented at any scale.” Dr. Sommerville believes we need more incentives to move in this direction and be able to inject renewable biogas into the natural gas grid. Further, he mentioned, as we do above, the need for additional support for CNG/LNG infrastructure for heavy duty trucks, allowing them freer access to the freeway and highway systems Statewide and beyond.

Further, we also welcomed the presentation by Pacific Northwest National Laboratory engineer Corinne Drennan ,who outlined in some detail the refinery requirements to include renewable feedstocks. In addition to her specific refinery requirements, she believes the renewable market must provide to refiners guarantees of safety, reliability, predictability and profitability. Further, California needs to consider refinery infrastructure and ability to manufacture biofuels to move the entire initiative forward. Ms. Drennen believes a comprehensive network of small and medium-sized refiners will be needed to implement biofuel availability successfully.

SoCalGas continues to have dialogue with ARB staff, CEC staff and other agency stakeholders regarding the exciting opportunities presented by the use of renewable natural gas in the transportation sector, and is eager to help reach clear renewable goals in the future.

Conclusion

SoCalGas hopes that the comments and recommendations provided will inform ARB and other State agencies as we move forward toward achieving the Governor’s climate and other objectives. We look forward to participating in a collaborative, multi-agency approach and highly transparent public process to reach those objectives.

Sincerely,



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