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California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

RE: Docket No. 14-IEP-1B – Comments of Southern California Gas on the 2014 IEPR Workshop on Transportation

Dear Commissioners:

SoCalGas appreciates the opportunity to comment on the transportation workshop held by the CEC on March 27, 2014. Additionally, SoCalGas looks forward to working with the CEC during this evaluation of the transportation sector as it transforms to meet California's air quality and climate policy goals.

Looking forward, SoCalGas sees natural gas as a foundation for new energy pathways that can deliver energy with combustion emissions approaching emission levels associated with electric generation. The ongoing drive to reduce both criteria pollutant and GHG emissions, and to improve overall vehicle efficiency, will continue to reshape gas technologies.

We are already witnessing the resurgence of an important transportation pathway; Natural gas – as both CNG and LNG – is moving into the transportation sector. In Southern California, we have seen large transit bus fleets shift to natural gas to both reduce emissions and realize significant fuel cost savings. And, now, we are seeing a move towards natural gas for heavy duty trucks, rail, port operations, and even shipping to provide greater fuel diversity and to capture the fuel cost savings from natural gas.

As interest in natural gas is increasing, we have an opportunity to develop cleaner technologies for our vehicles that will make a significant difference in reducing criteria pollutant and GHG emissions.

Through partnerships with CEC, SCAQMD, SoCalGas and engine manufacturers, we are seeing natural gas engines being developed today that will reduce NOx emissions by 90%, achieving power plant equivalent emissions. We expect to see these near-zero emissions heavy duty trucks brought to the market in the next 5 to 7 years. To ensure adoption of these cleaner technologies, we'll need to see more funding for the transition of fleets to these cleaner trucks.

These new near-zero NOx engines provide an excellent opportunity to leverage programs across agencies to accelerate the transition of heavy-duty trucks to near-zero emission technologies.

The CEC/SCAQMD/SCG grant funds to spur technology development is just the first step. ARB's Optional Low-NOx standard also provides an additional signal to engine and vehicle manufacturers to develop and commercialize the technology. Although these low-NOx standards are now optional, it seems clear that such

low-emission engines will be necessary for California's two extreme ozone non-attainment areas to meet the federal air quality standards.

Providing incentives for engine manufactures and funding at least a portion of the incremental cost for consumers will be another critical step to seeing commercialization of the near-zero emissions technology. The price differential between natural gas and diesel fuel is already driving fleet purchases of natural gas fueled heavy-duty trucks. Incentives will be critical to get heavy-duty truck purchasers to choose the lowest emissions engines.

For near-zero emissions engines to become economically viable for manufacturers to produce and to ultimately bring down the incremental vehicle cost, they will need to be able to sell into vehicle markets in other regions. CEC and ARB need to reach out to other states to support programs like the Optional Low-NOx Standard and incentive programs to support adoption of near-zero emission technologies.

CEC grant funds (through the ARFVT) are critical to building out the infrastructure needed to accelerate the adoption of alternative fuel vehicles. SoCalGas and our customers have been a beneficiary of this program. Our first CNG station using these funds will open in Lancaster in April. Later this year, we will open stations in Murrieta & Pico Rivera. These stations are not only for SoCalGas fleet use; through these grants we are also able to provide public access at these stations. This infrastructure grant money will have a multiplying effect by providing long-term access to cleaner fuels in local communities.

Over the longer term, we will begin to "de-carbonize" the pipeline, just as the electricity sector is "de-carbonizing" generation. The use of renewable natural gas (or biomethane) from existing agricultural feedstocks, waste water and landfills, as well as hydrogen blends, will lower the GHG profile of natural gas applications. Purpose grown crops and algae will further expand the potential of renewable natural gas, which will enable us to meet the long-term GHG reduction goals for the state.

How do we accomplish this transformation?

1. We accomplish this by funding research in new gas technologies through the CEC's PIER Program.
2. We accomplish this by providing incentives for vehicles and infrastructure for cleaner vehicle technologies through the ARFVT Program.
3. We accomplish this by supplementing current programs with additional funds from California's Cap and Trade revenues and ensuring that a portion of these funds go to technologies that are available today, like CNG and LNG heavy-duty trucks.
4. And, we accomplish this by focusing on the development and utilization of biomethane, and hydrogen reformation and production. We move from geologic methane toward blends with biomethane, synthetic methane and hydrogen.

SoCalGas' vision is entirely consistent with the state's "de-carbonizing" vision – we just take a different approach to achieving California' criteria pollutant and GHG reduction targets. While the State of California's long term energy and environmental planning efforts often focus on "de-carbonizing" electric generation and then electrifying all end uses of energy, SoCalGas is focusing on the development of **"near-zero"** end use gas technologies and **"de-carbonization of the pipeline".**

SoCalGas believes there are important natural gas pathways that can help California achieve our clean energy and clean air goals faster and more economically. Developing near-zero natural gas end use technology and de-carbonizing the gas delivery system keep intact the inherent energy efficiencies of direct uses of natural gas, at a

lower carbon content, without creating the dramatic increase in electric demand and systems costs that make de-carbonizing electric generation such a challenge. And, it utilizes our existing energy infrastructure, protecting energy users from paying future stranded costs.

We look forward to the opportunity to share more information at upcoming workshops about long-term pathways for natural gas vehicles to help the state meet the air quality and climate policy goals for the transportation sector.

Sincerely,