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October 22, 2015

California Air Resource Board Members
California Air Resources Board
1001 I Street
Sacramento, California 95814
Via Hand Delivery at Board Meeting

Dear Chair Nichols, Vice-Chair Berg, and California Air Resources Board Members:

SoCalGas appreciates California Air Resources Board's ("CARB") focus on public health and addressing air pollution, and specifically the challenges of NOx reduction for Southern California, that is reflected in this Draft Mobile Source Strategy document.

At SoCalGas we remain focused on the end goal - which is emission reductions - whether it be reducing ozone for public health or reducing greenhouse gases ("GHGs") for global health. No one is asking for a change or a compromise in our end goals.

But we do think that CARB should take advantage of the best of what innovation can deliver, and shouldn't limit options, but instead welcome technology advancements that move us towards our goal.

We observe that CARB's Draft Mobile Source Strategy is focused on a NOx control strategy divided in two periods - from 2015 to 2030, and from 2031 to 2050. For the largest NOx contributor - the heavy-duty truck sector - CARB is relying upon a Low NOx Engine Strategy in the first period, but then pivots to a strategy that promotes zero emission tailpipe vehicles in the second.

We believe that a strategy that relies upon zero emission tailpipe vehicles that occurs nearly a decade before CARB's own technology assessment concludes these vehicles will be commercially available has significant technological and economic risk.

Importantly, the timeframe proposed undercuts the investment needed to deploy Low NOx trucks in the first phase - jeopardizing the success of CARB's NOx control strategy overall.

We see the same problem in CARB's Proposed Alternative Clean Transit ("ACT") rule - a mandate for an all-electric or fuel cell transit fleet by 2040 means that no natural gas near-zero

engine running on renewable natural gas (“RNG”) can be purchased starting in 2028 (considering a 12-year capital life for the vehicle).

This essentially means that any investment in a .02 NOx engine - like the one already made and certified by Cummins Westport Innovations (“CWI”) sized for the transit market (that actually certified at a .01 level – twice as clean!); or the one nearing completion and to be certified next year for the long haul goods movement sector - will become a stranded investment. A more prudent plan would include an option that has a lower risk. CARB should include a Low Carbon Gas option which extends the Low NOx Strategy into the second period. Moving natural gas into heavy-duty transportation immediately reduces NOx. It also creates market pull for the development of RNG to displace traditional gas – which can achieve the same or even lower carbon intensities as electricity, given the state’s renewable generation portfolio in the 2020 and 2030 timeframes.

As electric heavy-duty transportation options do become available over a later timeframe, then RNG can be redirected to traditional natural gas end uses, like cooking, space heating, and water heating, achieving our Governor’s goal announced in this year’s State of the State speech to “clean our heating fuels.”

Results of E3’s published analysis of an Electrification Scenario and a Low Carbon Gas Scenario demonstrates that a Low Carbon Gas Scenario can meet the 2050 GHG goals of the State, at less risk, and comparable or less cost.

Results of another E3 study indicate that with a 33% RNG factor, gas water heating, space heating, clothes drying and smaller commercial and industrial heat processes can have a lower GHG profile than their electric counterpart – a better outcome than electrification of these end uses.

We note that CARB is also requesting the Federal Environmental Protection Agency (“EPA”) to establish a low NOx standard for heavy-duty trucks, implemented no later than 2024.

We support this request. But we also must note that in order to meet a 2023 goal, a substantial incentive program for the deployment of Low NOx heavy-duty trucks will be needed between 2016 and 2023. We see this deployment funding challenge as a critical component of any NOx control strategy; and critical for the success of the region’s Air Quality Management Plan and the State’s Implementation Plan (“SIP”).

In sum, the reason it’s important to establish a Low Carbon Gas pathway after 2030 is that it provides a continuous path forward for the Low NOx pathway to achieve 2023 *and* 2032 NOx reduction goals; as well as ensure investments made in RNG to address GHG reduction goals for 2030 and 2050 are not stranded investments, which would not be made.

While it is not explicit in the Draft Mobile Source Strategy (or the 2016 Scoping Plan Update slide presentation or CARB’s “Vision 2.0”), it does seem to be fundamental to the emphasis on zero emission tailpipe vehicles, that there is a belief that fossil fuels and combustion together

must be eliminated. This approach is not fact-based, nor supported by science. And it will *not* lead to the goal – lower emissions.

The CWI truck engine tells us that from a criteria pollutant basis we can achieve electric equivalence. And utilization of RNG shows us (under CARB’s own Low Carbon Fuel Standard program) that we can be lower in carbon intensity than electricity.

We need to re-think methane. First, methane emissions, primarily from agriculture, dairies, landfills, wastewater treatment, etc., will continue to be part of the GHG inventory, even with aggressive control technology applications. Second, capture and use of this methane as RNG takes the fossil out of the fuel.

In fact the Short Lived Climate Pollutant (“SLCP”) plan depends on the capture of this methane and its delivery as an energy resource, mostly directed to transportation. Yet the Draft Mobile Source Strategy and the ACT rule would undermine the deployment of RNG to transportation by limiting its term of use, thus undermining the SLCP plan.

Today and out into the future, the most cost effective (and available) control technology for methane emissions is combustion, which converts methane (GWI = 25+) to CO₂, returning to the atmosphere the CO₂ that was sequestered by the organic matter originally – a net zero carbon loop.

The most efficient combustion of captured methane emissions, and the optimal end use applications, will be an important part of any long term plan to control GHG emissions. The Governor, in his State of the State speech, was right. We do need to clean our heating fuels. And the inclusion of a Low Carbon Gas pathway can accomplish this.

Sincerely,



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External Affairs and Environmental Strategy