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March 19, 2018

Transmitted electronically to the Air Resources Board Comment Log: freightfacilities18

**Re: SoCalGas Comments on Concepts to Minimize the Community Health Impacts from Large Freight Facilities**

Thank you for the opportunity to comment on the presentation and discussion materials presented at the February 2018 public workshops (workshops) on Concepts to Minimize the Community Health Impacts from Large Freight Facilities.

Emission reductions from freight are needed to meet the air quality goals of the state and specifically areas in nonattainment for ozone and particulate matter for which oxides of nitrogen (NOx) is a precursor pollutant. Low-NOx heavy duty engines, recently certified to the state's Optional Low-NOx Standard of 0.02 grams of NOx per brake horsepower hour can play a significant role in reaching attainment of the National Ambient Air Quality Standards. When paired with renewable natural gas (RNG), these engines can achieve over 90% reduction in NOx and significantly reduce greenhouse gases (GHG). Use of RNG as a transportation fuel, on average, can reduce GHG emissions by 60%, but can also be carbon negative depending on the source. A recent study conducted by the University of California, Riverside College of Engineering Center for Environmental Research and Technology (CE-CERT) showed that in some drayage duty cycles, the Low NOx engines achieved a 99.8 percent reduction in NOx emissions from existing diesel trucks. The use of Low-NOx engines in heavy, heavy-duty trucks produce the most emission reductions for the least cost in the freight sector.

While SoCalGas supports the effort to reduce emissions from freight facilities, we have some concerns with the materials presented at the workshops, which are detailed below.

**ARB should pursue performance standards rather than a technology mandate**

The proposed actions for drayage trucks and cargo handling equipment (CHE) are a strict technology mandate that requires the use of technologies that are not available today. While there are demonstration projects in place for both trucks and CHE, the technology has not yet proven to be operationally or financially feasible. SoCalGas strongly recommends a flexible approach based on performance standards to allow fleets to deploy advanced, clean technologies that address state environmental needs while providing users operational flexibility and choice. Additionally, if regulatory action is taken, ARB should use the most advanced technologies available today. Near-zero technology such as the Low-NOx heavy duty engine (both 8.9 and 11.9 liter) are available to achieve emission reductions from this sector now.

**Timing and Certainty of Implementation**

Staff lists "Timing and certainty of implementation" as a consideration in developing the concepts. As stated above, the proposed actions to amend the Drayage Truck and Cargo Handling Equipment

Regulations to require zero-emission equipment relies on technology that currently does not exist. Demonstration projects of zero-emission equipment have been done for over a decade and there are still no commercially available zero-emission drayage trucks or CHE. ARB's own small-scale demonstration projects are currently in progress. Without results from these and subsequent larger-scale pilot deployments there is absolutely no certainty if the equipment will be available by the time the proposed regulation begins implementation.

### **Incentive Availability**

The cost of zero-emission trucks and CHE can cost three times more than existing offerings. Incentives would be required to transition to zero-emission technology. However, incentives are not available to comply with regulations. Users would therefore have to purchase the equipment entirely with their own funds or apply for incentive funding for the incremental cost in the next few years to achieve early, surplus emissions required by incentives. As these technologies are still being demonstrated, users would effectively be purchasing demonstration units with little data on their performance. These are enormous financial and operational risks for users to bear. Incentivizing the use of Low-NOx engines achieves almost the same emission reductions sooner and at a fraction of the incremental cost.

### **Sector vs. Facility Approaches**

ARB is proposing a hybrid sector and facility approach for regulation. The example used in the presentation was for transportation refrigeration units (TRUs). In the example, ARB states that there would be regulation to require the use of zero-emission TRUs by TRU owners (sector) and require the installation of charging infrastructure by the facility owner (facility). If TRU owners elect to use hydrogen because there is no charging-time loss and it is a more versatile technology, the investments made by the facility owner to install charging infrastructure would be lost. There should be a performance standard rather than a technology mandate to allow the industry flexibility to choose the best option.

### **Emission Reductions at Many Facilities Will Be Achieved Through Other Mechanisms**

Emission reductions from facilities located near disadvantaged communities (DACs) or in areas of nonattainment would be included in other regulatory, legislative, or policy mechanisms such as Assembly Bill 617, Air Quality Management Plans, or the Ports Clean Air Action Plan. There are warehousing, rail, and port facilities throughout the state, some of which have low activity and/or are not located near DACs or in areas of nonattainment. These facilities, in particular, should not be subject to a technology mandate, as there would be negligible impact to air quality and health benefits to the surrounding populations.

### **Minimizing Cost and Impacts to Industry**

The staff presentation lists as a consideration for developing the concepts, "Minimizing cost and impacts to industry." However, the proposals do not take this into consideration. In the details of each proposed action contained in Attachment C, the cost of each action is not shown or contemplated. The Ports or Los Angeles and Long Beach state in their Clean Air Action Plan that the cost of electrifying drayage and CHE can be up to \$14 billion to achieve minimal emission reductions. Additionally, ARB has not studied the number of pieces of equipment that will be required to replace the existing fleet. Today, when diesel equipment runs out of fuel, they spend five to ten minutes refueling and continue operating. Charging depleted batteries can take up to eight hours, therefore multiple pieces of equipment would have to be purchased to replace a single unit. Not only would this drive up the cost, but it would drastically change the operating model of freight facilities. It appears that ARB did not

consider costs or impacts to industry in the proposed actions. On the other hand, Low NOx technology that is a fraction of the cost of zero-emission equipment and can operate exactly like diesel equipment is available today.

### **No Metrics Are Identified**

In March 2017, the Air Resources Board in its Addendum to Resolution 17-7 (2016 State Strategy for the State Implementation Plan) and 17-8 (2016 South Coast Ozone and PM2.5 Air Quality Management Plan), directed staff to come back to the Board within one year or 12 months and report back on metrics for assessing progress in achieving the necessary reductions outlined in the Proposed State SIP Strategy. Metrics are not addressed in the concepts; however, they are vital to achieving the state's goals. Without metrics, it is unclear how staff is evaluating progress in achieving reductions from the State SIP and comparing potential emission reductions from the concepts.

### **Focus of Resources**

Staff discussed focusing ARB resources by prioritizing contribution to health risk, fastest transition in most impacted communities, and targeting incentives to technology capable of zero emission or zero emission operating in sensitive areas. Prioritizing emission reductions to quickly reduce health risk in the most impacted community is very important, but there is no demonstration of how targeting incentives to zero-emission technology will achieve emission reductions the quickest nor provide the amount of reductions necessary to reduce health risks. We believe that using incentives for the most cost-effective emission reductions will achieve more reductions more quickly.

Low NOx engines for both heavy duty trucks and CHE are the most cost-effective way to achieve significant emission reductions of NOx and GHGs and protect public health. The technology is proven, commercial, and available today. Low NOx engines should be included in reducing emissions from freight facilities.

Thank you again for the opportunity to comment on the Freight Concepts. If you have any questions please feel free to contact me.

Sincerely,



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