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Ariel Fideldy, Manager  
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Air Quality Planning and Science Division  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

**Subject: Comments on the Draft Environmental Analysis for the Proposed 2022 State Strategy for the State Implementation Plan**

Dear Ms. Fideldy and Mr. Hicks:

Southern California Gas Company (SoCalGas) appreciates the opportunity to provide comments on the California Air Resources Board (CARB) Draft Environmental Analysis (Draft EA) for the Proposed 2022 State Strategy for the State Implementation Plan (Draft 2022 State SIP Strategy) released March 29, 2022. We recognize and appreciate the effort put into evaluating the potential significant impacts on the environment due to the implementation of the Draft 2022 State SIP Strategy measures. SoCalGas supports the implementation of policies to reduce emissions from State-regulated sources, however it is imperative that ozone attainment and air quality policies, especially those adopted for widespread implementation and with equally widespread effects, be developed with a thorough and fact-based understanding of prospective benefits, consequences, and results. Thus, our comments consider these reasonably foreseeable impacts of the Draft 2022 State SIP Strategy: (1) Zero emissions standards may increase diesel backup generator use which could offset benefits gained from proposed measures; and (2) Zero-emission heavy-duty vehicles will reduce exhaust emissions from combustion but could increase vibrations and non-exhaust emission.

**(1) Zero emissions standards may increase diesel backup generator use which could offset benefits gained from proposed measures**

The Draft EA states that “implementation of the 2022 State SIP Strategy would minimize criteria air pollution to meet the national ambient air quality standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) both regionally and statewide” and concludes that, for these reasons, long-term operational-related air quality impacts would be beneficial.<sup>1</sup> Yet, the Draft 2022 State SIP Strategy is clear that reductions estimated from the measures identified and quantified to date for proposal in the 2022 State SIP Strategy are not enough to attain the 70 ppb ozone standard in the South Coast.<sup>2</sup> Given that the South Coast may not reach attainment, it is crucial that the analysis of long-term operational-related air quality impacts from the proposed zero emission standards account for reasonably foreseeable impacts of implementing the various measures. One of the impacts that is not accounted for in the Draft EA is the air quality impacts from the increased use of diesel backup generators during public safety power shutoff (PSPS) events and other related reliability events.

Power outages, especially those that are long-duration and system-wide, are costly and affect millions of Californians. For example, in October 2020 a large-scale power outage in Northern and Central California impacted 2.7 million people and cost \$2.5 billion.<sup>3</sup> In response to the need for reliable power, diesel-fired generation is growing at a rapid pace in California. According to a recent analysis, there are 14,785 back-up generators (BUGs) capable of generating 7.3 GW of power in the South Coast Air Basin.<sup>4</sup> Since April 1, 2020, the South Coast Air Quality Management District (AQMD) has seen a 22 percent increase (3,331 units) in permitted BUGs, which collectively have the potential to emit an estimated 37.8 MT of volatile organic compounds and 645.56 MT of NOx.<sup>5</sup> The South Coast AQMD estimated that during a 2019 Public Safety Power Shutoff (PSPS) event in Los Angeles and San Bernardino Counties, fewer than 2,000 diesel back-up generators emitted 6 tons of NOx per day (tpd). This is higher than average daily emissions from the largest refinery in its jurisdiction.<sup>6</sup> In areas that are prone to these PSPS events, operation of these generators could produce NOx emissions that offset benefits gained from proposed control measures such as the 5.8 tpd expected emissions reductions of NOx from the Zero Emission Standard for Space and Water Heaters<sup>7</sup>.

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<sup>1</sup> *Draft Environmental Analysis for the Proposed 2022 State Strategy for the State Implementation Plan*, pg. 58.

<sup>2</sup> *Draft 2022 State Strategy for the State Implementation Plan*, pg. 38.

<sup>3</sup> Stevens, P., “PG&E power outage could cost the California economy more than \$2 billion,” *CNBC*, October 10, 2019, available at: <https://www.cnn.com/2019/10/10/pge-power-outage-could-cost-the-california-economy-more-than2-billion.html>.

<sup>4</sup> See M. Cubed, “Diesel Back-Up Generator Population Grows Rapidly in the Bay Area and Southern California,” Available at <https://www.bloomenergy.com/wp-content/uploads/diesel-back-up-generator-population-grows-rapidly.pdf>.

<sup>5</sup> *Ibid.*

<sup>6</sup> See SCAQMD Legislative Update Presentation by Philip Crabbe to the Environmental Justice Community Partnership Advisory Council held September 2, 2020, available at <http://www.aqmd.gov/home/news-events/webcast/live-webcast?ms=0U9KfvcV3w>.

<sup>7</sup> *Draft 2022 State Strategy for the State Implementation Plan*, pg. 39.

The scope of review under the California Environmental Quality Act (CEQA) is not confined to “immediate effects but extends to reasonably foreseeable indirect physical changes to the environment.”<sup>8</sup> The CEQA Guidelines define and provide examples of reasonably foreseeable indirect changes to the environment, which are not immediately related to the project, but which are caused indirectly by the project. For instance, the increase in air pollution as an indirect impact caused by the construction of a new sewage treatment plant which may facilitate population growth in the service area due to the increase in sewage treatment capacity.<sup>9</sup> While environmental assessments for broad programs such as the Draft 2022 State SIP Strategy are not required to be as detailed as specific projects, lead agencies are nevertheless required by CEQA to analyze such reasonably foreseeable significant environmental effects of the project and should not defer such analysis to a later tier environmental impact report or negative declaration.<sup>10</sup> The air quality impacts from the increased use of diesel backup generators could increase as more energy demand is met with electricity, making more load vulnerable to PSPS and other reliability events and, as discussed above, it is a fact that the increasing diesel back-up generator use is causing adverse environmental impacts. It is, thus reasonably foreseeable that, in order to for customers to reliably provide electricity for their load, back-up generator installations will proliferate. The impacts of this policy should include calculating the anticipated emissions resulting from back-up generator use, including potential episodic ozone precursor emissions that detract from attainment progress

**(2) Zero-emission heavy-duty vehicles will reduce exhaust emissions from combustion but could increase vibrations and non-exhaust emissions.**

The draft EA states that “the main purpose of the 2022 State SIP Strategy is to reduce mobile source emissions of criteria air pollutants to improve air quality and attain the NAAQS”.<sup>11</sup> This is evident from the numerous ZEV standards proposed in the Draft 2022 State SIP Strategy. However, currently plug-in technologies cannot replace conventional fast-fuel technologies at a one-to-one ratio, especially for heavy duty vehicles. In fact, a 2020 study found that 19 diesel drayage trucks would have to be replaced by 36 zero-emission (ZE) drayage trucks.<sup>12</sup> This means that deploying proposed zero emissions truck measures would significantly increase fleet sizes. For instance, the South Coast has 17,000 drayage trucks operating, replacing these trucks with ZE trucks, at a 19:36 ratio, would require 32,211 ZE trucks.<sup>13</sup> It is reasonably foreseeable that an 89% increase in fleet size due to the ZEV transition would increase traffic congestion, vibration and could increase non-exhaust particle emissions, yet such impacts were not considered in the Draft EA.

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<sup>8</sup> *California Unions for Reliable Energy v. Mojave Desert Air*, 178 Cal.App.4th 1225, 1242 (2009).

<sup>9</sup> *Union of Medical Marijuana Patients, Inc. v. City of Upland*, 245 Cal.App.4th 1265, 1272-73 (2016).

<sup>10</sup> *CEQA Guidelines at Section 15152(b)*

<sup>11</sup> *Draft Environmental Analysis for the Proposed 2022 State Strategy for the State Implementation Plan*, pg. 58.

<sup>12</sup> *Genevieve Giulliano, Maged Dessouky, et al., Developing Markets for ZEVs in Short Haul Goods Movement*, UC Davis: National Center for Sustainable Transportation, 2020, available at <https://escholarship.org/uc/item/0mw4q530>.

<sup>13</sup> See “Near-Zero Emission Natural Gas Truck Technology Proven Ready for the Rigors of Port Drayage Operations,” Available at <https://www.aqmd.gov/docs/default-source/news-archive/2020/CNGVP-port-drayage-operations-may28-2020.pdf>

These impacts should be evaluated in the Draft EA as evidence shows that particulate matter (PM) emissions have significant implications for human health. Non-exhaust particle emissions from road traffic consist of airborne PM generated by the wearing down of brakes, clutches, tires, and road surfaces, as well as by the suspension of road dust. In a recent study, Emissions Analytics, an organization that conducts independent emissions tests, found that emissions of particulate matter from tire wear can be 1,000 times worse than from tailpipes and the increased weight and torque drive characteristics of battery electric cars are expected to increase tire emissions.<sup>14</sup> Due to the weight of the battery, ZEVs with battery packs enabling a driving range of 300 miles or higher emit an estimated 3-8% more PM<sub>2.5</sub> than internal combustion engine vehicles.<sup>15</sup> Studies have established that exposure to non-exhaust PM emissions, particularly PM<sub>2.5</sub>, is associated with an increased risk of cardiovascular, respiratory, and developmental conditions, as well as an increased risk of overall mortality.<sup>16</sup>

Provided that the increased weight of battery powered ZE trucks will increase tire emissions and the fact that currently ZEVs cannot replace diesel trucks on a one-to-one basis it is reasonably foreseeable that a complete transition to ZE heavy-duty trucks would increase traffic congestion and vibrations and could increase non-exhaust emissions. As such, the Draft EA should evaluate these environmental impacts associated with the expansion in the population of heavy-duty ZE trucks, which will be required to move goods at the same rate as combustion vehicles, due to the proposed zero emissions trucks measures.

## **Conclusion**

We appreciate the effort put into identifying and disclosing the 2022 State SIP Strategy's potential significant impacts on the environment and the consideration of our comments. SoCalGas supports the implementation of air quality polices to achieve attainment but reiterate the need to look at the reasonably foreseeable impacts of the measures. CARB Staff has done an admirable job in developing a statewide implementation plan and we look forward to receiving and reviewing the actual measures when proposed. SoCalGas is committed to a collective, collaborative transition to cleaner energy, and appreciates a continued open and collaborative process among policymakers, stakeholders, and energy market participants to develop the solutions needed to achieve our shared goals.

Respectfully,

*/s/ Kevin Barker*

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<sup>14</sup> See "Tyres Not Tailpipe," Available at <https://www.emissionsanalytics.com/news/2020/1/28/tyres-not-tailpipe>

<sup>15</sup> See "Non-exhaust Particulate Emissions from Road Transport," Available at <https://www.actu-environnement.com/media/pdf/news-36643-rapport-ocde-emissions-hors-echappement.pdf>

<sup>16</sup> *Ibid.*