

***Sent via electronic mail***

October 8, 2020

**Re: California's Advanced Clean Truck Rule**

Tesla is pleased to submit this letter in strong support of New Jersey adopting California's Advanced Clean Truck (ACT) Rule. This rule will play an invaluable role in ensuring sustained and systematic progress in transitioning New Jersey's medium and heavy-duty vehicles to zero emission technologies. Such a transition is fundamental to the state's goals laid out in the Energy Master Plan and the EV Law of reducing its contributions to climate change, improving air quality, increasing the adoption of electric vehicles, and enhancing public health and quality of life. Adopting this rule will ensure that New Jersey is among the first states to realize the enormous benefits from the deployment of medium and heavy duty zero emission vehicles in the state and would demonstrate the state's continued leadership in the drive toward transportation electrification. New Jersey communities, especially those historically impacted by environmental injustice, work and live adjacent to the logistics and freight corridors that experience the heaviest traffic of heavy-duty vehicles in the state, and therefore deal with the largest amount of transportation induced air pollution. This rule can address these inequities of health and pollution that especially burden our black and brown communities.

We want to first express our appreciation and support for Governor Murphy for signing the multi-state memorandum of understanding (MOU) with 14 other states and the District of Columbia to zero-out emissions from new medium- and heavy-duty trucks and buses by 2050. The Rhodium Group in a recent analysis found that the MOU "would reduce US oil demand by 138 to 144 million barrels cumulatively by 2035, depending on the pace of future economic recovery. Its impact grows substantially over time as the stock of medium and heavy-duty trucks turns over, resulting in a cumulative reduction of 709 to 740 million barrels by 2045. If the MOU were expanded nationally, the impact would increase six-fold."<sup>1</sup> This reduced oil demand would lead to drastic reductions in Greenhouse Gas (GHG) emissions from the transportation sector. "The current

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<sup>1</sup> <https://rhg.com/research/states-zero-emission-vehicles/>

MOU could reduce 277 to 289 MMT CO<sub>2</sub> by 2045, on a cumulative basis, and reduce annual GHG emissions from medium and heavy-duty trucks by 11 MMT or 1% of US truck emissions in 2035, and 35 MMT or 2% of total US truck emissions in 2045. Expanding the MOU nationally has the potential to completely transform the US medium and heavy-duty fleet, which would be more than half electric by 2045. This would result in an estimated 1.8 to 1.9 billion metric tons of cumulative emissions reductions by 2045, and annual GHG emission reductions of 70 MMT or 5% of US truck emissions in 2035, climbing to 252 MMT or an 18% reduction in US truck emissions in 2045, relative to the baseline.”<sup>2</sup>

The ACT Rule is particularly important for New Jersey to adopt because the state is part of region that the North American Council for Freight Efficiency (NACFE) has found is favorable for electric truck deployments.<sup>3</sup> Through early adoption of the ACT Rule, New Jersey can lead the region in transforming goods movement to make it safer, cleaner and more equitable. There are huge health benefits from this sort of transformation. According a the American Lung Association, the “widespread transition to zero-emission transportation technologies could produce emission reductions in 2050 that could add up to \$72 billion in avoided health harms, saving approximately 6,300 lives and avoiding more than 93,000 asthma attacks and 416,000 lost work days annually due to significant reductions in transportation-related pollution.”<sup>4</sup> Specifically, New Jersey in 2050 would see nearly \$2 billion in avoided health impact costs, avoid 169 premature deaths, 2,306 asthma attacks, and 10,725 work loss days avoided.<sup>5</sup>

We fully expect that the state will face considerable pressure from some who believe the rule will go too far too soon. Tesla offers these comments as a counterweight to the various arguments that we can anticipate detractors will make, none of which hold up under any reasonable scrutiny.

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<sup>2</sup> *Ibid.*

<sup>3</sup> <https://nacfe.org/emerging-technology/electric-trucks/high-potential-regions-for-electric-truck-deployments/>

<sup>4</sup> <https://www.lung.org/getmedia/99cc945c-47f2-4ba9-ba59-14c311ca332a/electric-vehicle-report.pdf> at pg. 6.

<sup>5</sup> *Ibid.* at pg. 10.

### **Consumer Demand for Zero Emission Medium and Heavy-Duty Vehicles is Strong**

The ACT rule is reasonable given the level of demand that can be observed in the marketplace. On the heavy-duty side, since unveiling the Tesla Semi in late 2017, a significant number of fleets with substantial freight needs have placed reservations for the truck, indicating broad industry demand for heavy-duty electric vehicles. These fleets will be deploying the Tesla Semi in a wide range of applications, including but not limited to, manufacturing, retail, grocery and food distribution, package delivery, dedicated trucking, rental services, intermodal, drayage, and other applications. Companies with operations throughout North America representing every major trucking sector and category of the economy have reserved the Tesla Semi, ranging from food service to logistics to retail.

The reason for this strong interest is clear – the economics of electrified heavy-duty vehicles are incredibly compelling for end-users. We estimate that the time to recoup the investment in a Tesla Semi, given the operational savings it provides customers compared to a conventional class 8 truck, will be approximately two to three years. Tesla further notes that complementary programs, like commercial EV rate design, would further enhance the economics of zero emission heavy-duty vehicles by reducing fueling costs relative to a conventional diesel vehicle.

Tesla has also seen strong interest for electric pickup trucks. Within the week after unveiling the Tesla Cybertruck, Tesla received more than 250,000 pre-orders, which continue to grow. With an expected towing capacity of 7,500 – 14,000 lbs, Tesla anticipates that the Cybertruck will qualify as a Class 2b-3 medium-duty vehicle. We currently expect production of the Cybertruck to begin in 2021. There has also been considerable reported interest in offerings of other manufacturers in this vehicle category.

### **The Availability of Zero Emission Medium and Heavy-Duty Vehicles is Expanding**

Tesla currently anticipates the Semi beginning deliveries in 2021. However, as mentioned, Tesla is not alone in its efforts to manufacturer electrified medium and heavy-duty vehicles, with several

other major manufacturers announcing plans to make zero emission Class 8 trucks.<sup>6,7</sup> A similar picture emerges in the context of electric pick-up trucks, with a number of major and new automakers unveiling plans to manufacture electric pick-up trucks.<sup>8</sup> Tesla anticipates that most – if not all – of these offerings would fall within the Class 2b-3 class. According to a recent report from CalStart,<sup>9</sup> last year there were 95 models of zero emission medium and heavy-duty vehicle models in commercial production, and that number is set to increase by nearly 78% to 169 models by the end of this year.

Strong consumer demand helps drive investments from auto manufacturers; however, strong regulations that set a clear direction for industry, such as the Zero Emission Vehicle (ZEV) mandates, accelerate the pace of innovation and ensure the industry actually makes these vehicles available to consumers. With growing demand and wide availability, supported by a strong regulatory framework, the broader industry could easily exceed the targets in the rule.

### **The COVID-19 Crisis Underscores the Need to Transition Away from Fossil Fuels**

The coronavirus pandemic and its disproportionate impacts on vulnerable communities highlights the profound public health interest that underpins the state's efforts to transition away from fossil fuels. Emissions from vehicles, including medium and heavy-duty vehicles, disproportionately fall on low income communities and communities of color.<sup>10</sup> This in turn contributes to health outcomes that are demonstrably worse for these communities. These adverse health outcomes have been further compounded by the current pandemic, given the clear evidence that those with

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<sup>6</sup> "8 electric truck and van companies to watch in 2020"; Shane Downing, GreenBiz, January 13, 2020. <https://www.greenbiz.com/article/8-electric-truck-and-van-companies-watch-2020>

<sup>7</sup> "Big Rigs Begin to Trade Diesel for Electric Motors", Susan Carpenter, New York Times, March 19, 2020; <https://www.nytimes.com/2020/03/19/business/electric-semi-trucks-big-rigs.html>

<sup>8</sup> *Id.*

<sup>9</sup> <https://calstart.org/zero-emission-model-numbers-expected-double-2023/>

<sup>10</sup> "Inequitable Exposure to Air Pollution from Vehicles in California"; Union of Concerned Scientists; January 28, 2019. <https://www.ucsusa.org/resources/inequitable-exposure-air-pollution-vehicles-california-2019>

underlying conditions are particularly vulnerable to the virus.<sup>11,12,13</sup> While some will seek to use the current crisis as a pretext to delay or to scale back action, the current crisis makes the case for aggressive, immediate action to improve public health.

For all the reasons discussed herein, Tesla strongly supports the adoption of the Advanced Clean Truck Rule. It is both timely and appropriate given the current trends in the market. Tesla appreciates New Jersey's leadership in this area, something that is critically needed not only for New Jersey, but for the entire region.

Thank you for your consideration.



Zachary Kahn  
Senior Policy Advisor, Northeast

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<sup>11</sup> "People Who are at Higher Risk for Severe Illness" Centers for Disease Control,

<https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html>

<sup>12</sup> "Low-Income and Communities of Color at Higher Risk of Serious Illness if Infected with Coronavirus"; Wyatt Koma, Samantha Artiga, Tricia Neuman, Gary Claxton, Matthew Rae, Jennifer Kates, and Josh Michaud; Kaiser Family Foundation; May 7, 2020. <https://www.kff.org/coronavirus-covid-19/issue-brief/low-income-and-communities-of-color-at-higher-risk-of-serious-illness-if-infected-with-coronavirus/>

<sup>13</sup> "Coronavirus Compounds Challenges for Low-Income Communities and Communities of Color"; Federal Reserve Bank of San Francisco; April 24, 2020. <https://www.frbsf.org/our-district/about/sf-fed-blog/covid19-coronavirus-low-income-disproportionate-impact-communities-color/>