SOUTHERN CALIFORNIA EDISON®

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May 28, 2020

Honorable Chair Mary D. Nichols
Honorable Board Members California Air Resources Board
1001 I Street
P.O. Box 2815
Sacramento, CA 95812

Submitted online to the act2019 online comment submittal form

Re: Support for the Advanced Clean Truck Rule

Dear Chair Nichols and Honorable Board Members:

Southern California Edison (SCE) appreciates the opportunity to comment on the proposed Advanced Clean Truck (ACT) Rule.

The ACT Rule supports California's goals of confronting climate change and improving air quality.

SCE supports the ACT Rule and stands ready to facilitate the transformation of medium- and heavy-duty (MDHD) vehicles to zero emissions (ZE). SCE looks forward to supporting customers through the transition to modes of transportation that align with our shared goals and vision of a sustainable transportation network, with increasing numbers of electric vehicles on the road, cutting greenhouse gases while improving air quality for our communities and helping to meet California's goals.

Strong zero-emission vehicle sales targets put the State on course to achieve greenhouse gas and criteria air pollutant reduction targets.

SCE's Pathway 2045 whitepaper provides a blueprint for reaching California's greenhouse gas reduction and carbon neutrality goals.[1] An expeditious transition to zero-emission transportation is critical to the success of realizing these goals. Setting us on a path for deep decarbonization of the California economy requires a transformation of the transportation

[1] "Pathway 2045, Update to the Clean Power and Electrification Pathway," Southern California Edison, November 2019. https://www.edison.com/home/our-perspective/pathway-2045.html

sector, with the electrification of approximately 76% of light-duty vehicles, 67% of medium-duty vehicles, and 38% of heavy-duty vehicles by 2045.[2]

It is also important to note the vital role the ACT Rule will play in improving air quality and producing positive public health benefits. Transitioning to a substantial zero-emissions MDHD fleet has the potential to dramatically reduce local and regional air pollution impacts from the goods movement sector. The ACT Rule's strong targets will ensure meaningful improvements in communities disproportionately impacted by MDHD emissions -- particularly communities near heavily-trafficked truck and freight corridors such as the I-710. In Southern California, goods movement accounts for 42% of NOx emissions, with the drayage trucks that connect to the San Pedro Bay Ports being the largest contributing source in that group.[3] In fact, when assessing the level of zero-emission vehicles needed to attain air quality standards in the region, the South Coast Air Quality Management District estimates that 140,000[4] traditional internal-combustion MDHD trucks will need to be replaced with zero-emission vehicles by 2030.[5]

Increasing ZE truck sales will support and complement the local and regional policies working to alleviate these pollution impacts. The San Pedro Bay Ports Clean Air Action Plan has a goal of a full transition of the drayage fleet to ZE by 2035. The Transportation Electrification Partnership convened by the Los Angeles Cleantech Incubator (of which SCE is a leadership group member and strong supporter) developed the Zero-Emissions 2028 Roadmap 2.0 for Los Angeles County, which includes accelerating ZE electric truck deployment and outlines a similar goal of 40% of heavy-duty short haul and drayage trucks achieving zero-emissions by 2028. The proposed ACT Rule will provide critical support for these policies and initiatives.

Successful implementation of the ACT Rule will require significant focus on and investment in vehicle adoption incentives and infrastructure, which is attainable through holistic planning and cooperation by public and private stakeholders.

The ACT Rule's increased sales targets will not fully drive the ZE transformation on their own. As the CARB staff acknowledges in the Initial Statement of Reasons, the ACT Rule will need to be supported by a suite of policy drivers including an accompanying fleet rule, adequate and reliable incentives to support customers and manufacturers, and continued investment and planning for infrastructure.[6] Because a number of these factors and policies are beyond the

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[2] Id. p.9.

[3] "Zero-Emission Drayage Trucks Challenges and Opportunities for the San Pedro Bay Ports," p. 6, UCLA Luskin Center for Innovation, October 2019. https://innovation.luskin.ucla.edu/wp-content/uploads/2019/10/Zero_Emission_Drayage_Trucks.pdf

[4] The figure of 140,000 MDHD trucks cited here refers only to the class 4-8 trucks in the analysis. The SCAQMD planning scenario also includes additional numbers for ZEVs in many other categories, including cars and light-duty trucks, buses, and off-road vehicles and equipment, among other categories.

[5] "Planning Scenario to Meet Emission Reductions Needed from Transportation Sector in South Coast AQMD," p. 5, South Coast Air Quality Management District, May 2019. https://efiling.energy.ca.gov/GetDocument.aspx?tn=228411&DocumentContentId=59611

[6] "Staff Report: Initial Statement of Reasons," ES-2, ES-3, I-16, California Air Resources Board, October 2019. https://ww3.arb.ca.gov/regact/2019/act2019/isor.pdf

control of the manufacturers, we believe it is appropriate for CARB to perform check-ins over the course of the Rule's implementation, to ensure we remain on a path to success with ambitious yet achievable targets.

Additionally, increased sales and utilization of MDHD ZE vehicles will also create significant growth in transportation-related electricity demand and associated needs for, among other things, utility infrastructure upgrades, additional system-level planning, and customer-side charging infrastructure. To ensure success, utilities will need to assess impacts and plan ahead in these early years to respond to customer needs and ensure the necessary infrastructure is in place to meet expected compliance timelines for these regulations in the decade's later years. SCE has conducted a preliminary assessment of estimated grid impacts and constraints from significant levels of MDHD EV load, and -- while there is more work to be done -- the analysis shows that the grid impacts and incremental work are within the scope of the utility's ability to manage.[7]

While this early assessment is encouraging, there can be misalignment between electrification plans and the availability of capacity from the grid at distinct customer locations (e.g., if large numbers of vehicles electrify sooner than expected or high-power charging is installed). In order to mitigate this timing misalignment, utilities will need additional granularity, resolution, and accuracy related to where, when, and how fleets will electrify. SCE's system and distribution planning tools and processes are being enhanced and augmented to reflect this complexity and account for and plan around multiple possible scenarios. We are evaluating when and where MDHD EVs are likely to appear as a charging load, the potential magnitude of that load, and what grid changes would be necessary to accommodate that load.

Robust data gathering can better inform these assessments of grid impacts and infrastructure need. The vehicle fleet data CARB collects as a part of this process will therefore be an important tool to the utility planning and preparedness efforts to accommodate increased MDHD EV loads. Data that provides more specificity and granularity regarding the location, timing, and magnitude of future charging needs is extremely important to adequately assess and efficiently and proactively plan for grid impacts.[8] SCE looks forward to working with CARB and the other agencies involved in system planning to explore ways that this information, and other data sources, can support utility planning efforts. Given the potential multi-year lead times for certain projects, it is critical for the state agencies, utilities, fleet owners, and manufacturers to work collectively to reduce uncertainty for customers and address necessary infrastructure upgrades. We urge CARB to help convene these stakeholders as the suite of ZE rules are implemented, to ensure the rules' success and drive cohesive statewide planning efforts.

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[7] SCE analyzed levels of MDHD EV penetration from our Pathway 2045 study which included levels of MDHD EV penetration 2-3 times higher than the estimated impacts of the ACT Rule, inclusive of the recently revised higher vehicle targets.

[8] "Preparing for an Electric Vehicle Future: How Utilities Can Succeed," Smart Electric Power Alliance, October 2019.
https://sepapower.org/resource/preparing-for-an-electric-vehicle-future-how-utilities-can-succeed/

The IOUs' current and pending TE programs represent significant and meaningful investments in infrastructure by utility customers, but these investments alone cannot solve the State's TE infrastructure needs. It is critical that all stakeholders continue to focus on expeditiously and efficiently deploying TE infrastructure and increasing electric vehicle adoption.

As SCE customers develop plans to meet regulations focused on reducing emissions, SCE is committed to helping them identify electrical infrastructure solutions that meet all regulatory compliance commitments while minimizing costs. Programs developed by the investor-owned utilities and approved by the California Public Utilities Commission pursuant to SB 350 will help accelerate infrastructure and reduce costs for fleet owners. SCE's Charge Ready Transport program, for example, is helping to grow the MDHD TE market over a five-year period by installing electric infrastructure at eligible customer sites to support MDHD electric vehicles. With an approved total program budget of $356.4M, the program will achieve a minimum of 870 sites supporting approximately 8,500 MDHD electric vehicles. SCE's Charge Ready Transport program is helping to share installation and infrastructure costs with customers who own or operate fleets to ease the process of installing charging infrastructure. SCE also provides a rebate toward the cost of the qualified charging stations for eligible customers.

Additionally, SCE's commercial EV rates help to reduce costs for commercial fleet customers interested in fueling with electricity. Launched in 2019, the new rates waive demand charges over a five-year period and then gradually re-introduce them in a graduated manner over the subsequent five years. The rate also provides price signals to create opportunities for maximizing savings while charging during low-price periods. Additional incentives, such as revenues from Low Carbon Fuel Standard credits, can serve as an offset to the costs of fueling with electricity, increasing the favorable economics of electrifying fleets.

SCE also provides resources and assistance for customers to navigate questions and challenges associated with electrifying vehicle fleets. SCE offers fleet assessments that provide customers with reports of vehicle options for fleets, associated GHG benefits for going electric, customized rate analyses to help customers understand potential fuel costs, an online publicly available fuel cost calculator,[9] along with additional information on utility and non-utility programs and incentives. SCE also works onsite with customers walking sites to offer an assessment of the feasibility of installing infrastructure to serve potential EV fleet deployments. By providing consultation on infrastructure needs and siting, rates, charging needs and optimal siting of required charging infrastructure, SCE stands ready to help support customers' business needs in electrifying fleets.

There are challenges ahead as ZE vehicles increase in fleets across California – from incentives to infrastructure. We recognize that IOU TE programs alone cannot solve the State's TE infrastructure needs, and additional private and public investments are critical to support customer infrastructure installations that are essential for successful fleet transitions. SCE is

[9] SCE Electric Fleet Fuel Savings Calculator, https://fleetfuelcalculator.sce.com/

committed to working with CARB, CEC, CPUC, fleet owners, and the other private and public stakeholders to ensure infrastructure is not a barrier but instead a pathway to success that enables clean transportation and drives economic and employment growth.

SCE views the challenges and work ahead as a call to action and we are committed to doing our part -- partnering with customers and the State to ensure a successful transition to the necessary ZE technology solutions that set us on a path to achieving our air quality and climate goals.

Thank you for considering our comments regarding this important regulation.

Sincerely,

Vazken Kassakhian
Senior Advisor, Air & Climate Policy
Southern California Edison