

Liane Randolph, Chair  
California Air Resources Board  
1001 "I" Street  
Sacramento, CA 95814

**RE: Proposed 2022 State Strategy for the State Implementation Plan.**

Dear Chair Randolph and Members of the Board,

Southern California Edison (SCE) appreciates the opportunity to provide comments on the Proposed 2022 State Strategy for the State Implementation Plan (Proposed 2022 State SIP), released on August 12 by the California Air Resources Board (CARB).

SCE is committed to supporting California's ambitious air and climate goals and in its *Pathway 2045* whitepaper, found that reaching the State's air and climate goals "requires a near-complete transformation of how the state sources and uses energy across all sectors of the economy."<sup>1</sup> Specifically, SCE concluded that economywide decarbonization will be achieved through 100 percent decarbonization of retail sales, electrifying transportation, and buildings, and using low-carbon fuels for technologies not viable for electrification.

SCE commends CARB's efforts in the Proposed 2022 State SIP to document the State's forecast commitments and recommend additional control measures necessary to reduce emissions from State-regulated sources and support attainment of the U.S. Environmental Protection Agency's (U.S. EPA) federal ozone standard. Without substantial action by the federal government, CARB, and local air districts, the State won't reach attainment of the standard. We need close collaboration with federal, state, and regional governments, businesses, and the public to tackle this challenge. SCE offers comments and recommendations on the chapters specific to (1) Infrastructure (2) Incentives, and (3) the State SIP Measures.

## 1. Infrastructure

As an electric utility, serving a 50,000 square-mile area of central, coastal, and Southern California, SCE is planning the grid for large-scale electrification in support of emissions reductions in order to help achieve the State's climate goals. Specifically, SCE is working closely with the state to ensure that the electric vehicle (EV) forecast used for grid planning is aligned with where state policies are moving. SCE is also conducting scenario planning and working with fleets to assess where additional loads may occur to help improve the utility's planning processes in preparation for this clean energy transformation. Accordingly, SCE is concerned that (1) the Zero Emission Vehicle (ZEV) and EV charger projections within the Proposed 2022 State SIP are overly conservative and do not appropriately represent the number of ZEVs or chargers needed in 2030 and (2) the Proposed 2022 State SIP should include a requirement for fleets to develop and report ZEV transition plans.

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<sup>1</sup> Pathway 2045. Edison International. November 2019. <https://www.edison.com/home/our-perspective/pathway-2045.html>, p. 3.

## A. The ZEV and EV Charger Projections Are Overly Conservative and Do Not Appropriately Represent the Number of ZEVs or Chargers Needed in 2030

In its assessment of the infrastructure needs and demands necessary to achieve the State's 2035 zero emission vehicle (ZEV) sales goals,<sup>2</sup> the Proposed 2022 State SIP analyzes the number of light-duty and medium- and heavy-duty ZEVs forecast to be on California's roads in 2035, as well as the EV charging stations that are required to support these vehicles. Specifically, the Proposed 2022 State SIP forecasts 5.5 million light-duty ZEVs by 2030 and 13 million by 2035.<sup>3</sup> Additionally, approximately 132,000 medium- and heavy-duty ZEVs are forecast by 2030 and 343,000 ZEVs by 2035.<sup>4</sup> The Proposed 2022 State SIP explains that these forecasts were developed using vehicle projections proposed in the Advanced Clean Cars II (ACC II) regulation and the draft Advanced Clean Fleets (ACF) regulation, which are based on CARB's motor vehicle emissions inventory model - EMFAC 2017 with MPO activities.<sup>5</sup> Based on this analysis, the Proposed 2022 State SIP projects that a total of 764,000 public and shared EV chargers are needed by 2030, and over 1.7 million EV chargers are needed by 2035.<sup>6</sup>

In comparison, the California Energy Commission's (CEC's) Assembly Bill (AB) 2127 Electric Vehicle Charging Infrastructure Assessment Report (AB 2127 Report) estimates that "8 million light-duty ZEVs and 180,000 medium and heavy-duty ZEVs will be needed in 2030 to meet the new goal." Additionally, the AB 2127 Report found that in 2030, nearly 1.2 million EV chargers are needed to support light-duty ZEVs and approximately 157,000 EV chargers are needed to support medium- and heavy-duty ZEVs. A difference in 2030 of approximately 2.5 million light-duty ZEVs and 500,000 light-duty EV chargers.

Based on SCE's internal analysis, the ZEV forecast in the Proposed 2022 State SIP may be overly-conservative and does not properly represent the total number of ZEVs that will be on California's roads in 2030 and beyond. When SCE utilized the sales trajectory from ACC II and extrapolated the sales from today and the average light-duty vehicle sales from 2011 to 2021, it resulted in 7.7 million ZEVs in 2030 and 16.3 million in 2035. Further, when SCE used the average vehicle sales from 2015 to 2021, it resulted in even higher numbers – 8.3 million in 2030 and 17.6 million in 2035. In both cases, the projections are more closely aligned with the forecasts in the CEC's AB 2127 Report, than CARB's analysis in the Proposed 2022 State SIP. Using a forecast in the Proposed 2022 State SIP that underestimates the number of ZEVs in the population means that there are likely to be larger improvements in criteria pollutants from these sectors than the Proposed 2022 State SIP contemplates; the challenge is that a lower ZEV forecast subsequently means that the supporting infrastructure needs may be higher than what is projected within the Proposed 2022 State SIP and could unintentionally, send the message that the State is expecting to slow down – rather than accelerate – the transition to

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<sup>2</sup> Governor Newsom's Executive Order (E.O.) N-79-20 sets a state goal of 100% ZEV goal for the sale of in-state, new passenger vehicles and operations for drayage trucks, where feasible. September 23, 2020. <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf>

<sup>3</sup> Proposed 2022 State Strategy for the State Implementation Plan (Proposed 2022 State SIP), p. 149. [https://ww2.arb.ca.gov/sites/default/files/2022-08/2022\\_State\\_SIP\\_Strategy.pdf](https://ww2.arb.ca.gov/sites/default/files/2022-08/2022_State_SIP_Strategy.pdf)

<sup>4</sup> *Id.*,

<sup>5</sup> Proposed 2022 State SIP, p. 150.

<sup>6</sup> *Id.*,

zero-emission vehicles and a decarbonized economy. Therefore, SCE requests that CARB reconsider the ZEV and EV charger forecasts within the Proposed 2022 State SIP and align them with the CEC's AB 2127 report.

## B. Proposed 2022 State SIP Should Include a Requirement for Fleets to Develop and Report ZEV Transition Plans

Certain grid upgrades will be needed to support the transition to a decarbonized economy. As described above, SCE has been working with the regulators to ensure that the EV forecast used for grid planning is aligned with state policies. Additionally, SCE has been encouraging fleets within its territory to share their transportation electrification plans, in order to help the utility better understand where specific infrastructure upgrades are needed. SCE appreciates and commends the fleets that have already engaged with SCE to share their prospective plans. However, SCE is concerned that a voluntary request to share information will not sufficiently motivate fleets to develop or share their long-term plans with the utility – impacting SCE's ability to appropriately identify and address necessary upgrades.

To help electric utilities, like SCE, better understand where to plan for needed infrastructure and grid upgrades, SCE recommends that the Proposed 2022 State SIP include a requirement for fleets to develop and report ZEV transition plans, so that CARB can share this information with the electric utilities for planning purposes. SCE requests that CARB collect and share information from fleets related to vehicle type, numbers of vehicles, fuel type/charging type, locations (where the vehicles are domiciled), and timeline. Providing this type of information to the electric utilities will help them better understand and prioritize the grid infrastructure upgrades needed to support the transition to ZEVs and the State's air and climate goals.

## 2. Incentives

The Proposed 2022 State SIP recognizes that an all-hands-on-deck effort is needed for California to reduce emissions and ground-level ozone, and SCE agrees that the “[c]ontinued deployment incentives and innovation enabling policies are critical to promoting private investment and a sustainable industry,”<sup>7</sup> both of which will be necessary to achieve the required industry transformation. For this reason, SCE supports the continuation of incentives, such as HVIP, for as many vehicles and supporting infrastructure and equipment as possible, especially in the medium-duty, heavy-duty, and off-road sectors, where the volume of vehicle conversions needed does not justify targeted incentives at this time. CARB should also continue to provide support for the transition to zero-emissions transportation by ensuring that the Low Carbon Fuel Standard (LCFS) market mechanism is robust and able to support these critical sectors. As the Proposed 2022 State SIP correctly identifies “one of the most important incentives for EV charging, particularly DC fast chargers, is the CARB Low Carbon Fuel Standard (LCFS) Program.”<sup>8</sup> The Proposed 2022 State SIP further states that charging station operators can be expected to generate nearly \$1,000 in annual LCFS revenues from each Level 2 charger, based upon the charger being “used 3.5 hours per weekday and the LCFS credit price is \$200 per credit.”<sup>9</sup> However, due in large part to the success of the LCFS program and the

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<sup>7</sup> Proposed 2022 State SIP, p. 163.

<sup>8</sup> Proposed 2022 State SIP, p. 162.

<sup>9</sup> *Id.*

promotion of alternative fuels, this credit price has not been reliably observed since the 2<sup>nd</sup> quarter of 2021 and is currently less than half of this value.<sup>10</sup> CARB is in the process of updating the LCFS regulation and has indicated support for more stringent near-term targets to address the current imbalance in the price market; SCE urges CARB to 1) incorporate controls that will allow adjustments to the stringency of LCFS outside of future rulemakings to ensure that the market mechanism remains strong, 2) ensure that the critical market segments identified in the Proposed 2022 State SIP (MDHD, Off-Road, and Light Duty) remain fully supported by the LCFS regulation, and 3) adopt post-2030 carbon intensity targets aligned with California’s net-zero goals in order to provide clear signals to market participants as to the long term direction of the LCFS regulation.

### 3. Proposed State SIP Measures

#### A. Transportation

SCE commends CARB for the array of transformative transportation policies that it is promoting. As stated in CARB’s 2020 Mobile Source Strategy, “[m]obile sources, including cars, trucks, tractors and a myriad of other on-road vehicles and off-road equipment, contribute the majority of smog-forming oxides of nitrogen (NOx), the largest portion of greenhouse gas (GHG) emissions, and are a significant source of toxic air contaminants that directly impact community health.”<sup>11</sup> SCE believes that regulations, such as CARB’s Proposed Advanced Clean Fleets (ACF) regulation will help accelerate the transition to zero-emission vehicles and provide important air quality and public health benefits.

As stated in SCE’s comments on the third public workshop for the Proposed 2022 State SIP, as well as comments on the ACF regulation, SCE supports the Proposed ACF regulation and is planning to electrify its fleet. SCE also provided informal comments on the Proposed ACF regulation to express its support and request consideration of recommendations to help clarify certain aspects of the proposed rule and help address concerns around topics such as vehicle availability and the exception process.

Additionally, SCE looks forward to working with CARB on the Proposed 2022 State SIP’s additional measures (e.g. Zero Emissions Trucks) to address the conversion of the heavy-duty fleet to ZEVs and agrees that it would be better for the state’s ozone attainment and GHG targets to upgrade the 480,000 trucks that would not convert as a result of the ACF to ZEV, rather than to cleaner combustion engines. However, SCE urges CARB to ensure that any new rules or regulations do not duplicate the efforts of the ACF in order to avoid potentially confusing compliance scenarios for fleet operators. CARB should also continue to collaborate with the fleets and other relevant parties to help ensure that operational requirements are considered, such as the potential need for narrow exceptions in any new regulations to account for certain specific scenarios, such as limited ZEV options or delays in infrastructure, in order to help ensure that the compliance obligations are clear, achievable and the regulation can be successfully implemented.

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<sup>10</sup> Weekly LCFS Credit Transfer Activity Reports. California Air Resources Board.  
<https://ww2.arb.ca.gov/resources/documents/weekly-lcfs-credit-transfer-activity-reports>

<sup>11</sup> 2020 Mobile Source Strategy, California Air Resources Board. October 28, 2021, p. 2.  
[https://ww2.arb.ca.gov/sites/default/files/2021-12/2020\\_Mobile\\_Source\\_Strategy\\_0.pdf](https://ww2.arb.ca.gov/sites/default/files/2021-12/2020_Mobile_Source_Strategy_0.pdf)

## B. Residential and Commercial Buildings

SCE supports the proposed measures in the Proposed 2022 State SIP to require new space and water heaters sold in California to meet the zero-emission standard, starting in 2030.<sup>12</sup> This supports the state's ambitious air and climate goals because building electrification must play an immediate and vital role in the state's decarbonization and ambient air quality efforts. The proposed measure is aligned with the environmental policies of other state agencies, including the CEC and the Office of the Governor.

The CEC's Assembly Bill (AB) 3232 California Building Decarbonization Assessment concluded that reducing direct emissions in buildings requires a shift toward electric end-uses, which must be a major component of any decarbonization plan.<sup>13</sup> In its Final 2021 Integrated Energy Policy Report (IEPR), the CEC recommended a goal of installing at least 6 million electric heat pumps statewide by 2030.<sup>14</sup>

In July 2022, California Governor Newsom sent a letter to the Chair of CARB, calling for bold actions in CARB's final 2022 Scoping Plan to move faster toward climate goals, achieving carbon neutrality by 2045.<sup>15</sup> In the letter, the governor established goals with a request that they are incorporated into the final CARB Scoping Plan, stating, "[b]uildings are a large source of carbon pollution, and decarbonization of California's buildings must be accelerated to achieve our climate targets. This will also help us reduce harmful air pollution both inside and outside of people's homes. Transforming the market for climate solutions in buildings will lower costs for consumers in California and across the nation while spurring increased domestic manufacturing and installation jobs. That is why I am establishing a goal of 3 million climate-ready and climate-friendly homes by 2030 and 7 million homes by 2035, which shall be supplemented through the deployment of 6 million heat pumps statewide by 2030. At least fifty percent of the funding to achieve these goals shall be directed toward disadvantaged communities."<sup>16</sup>

SCE commends CARB for the proposed measure to require space and water heating to meet the zero-emission standard, as it will encourage the adoption of electric heat pumps and other electric end-use targets to set the path for achieving decarbonization within the building sector.

## Conclusion

SCE thanks CARB for taking into consideration the above comments on the Proposed 2022 State Strategy for the State Implementation Plan. Please do not hesitate to contact me at (626) 302-3297 with any questions or concerns you may have. I am available to discuss these matters further at your convenience.

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<sup>12</sup> Proposed 2022 State SIP, p. 102.

<sup>13</sup> Final Commission's Report California Building Decarbonization Assessment, California Energy Commission. pp. 14 and 33. <https://efiling.energy.ca.gov/GetDocument.aspx?tn=239311>.

<sup>14</sup> 2021 Integrated Energy Policy Report, California Energy Commission. <https://www.energy.ca.gov/datareports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report>.

<sup>15</sup> Letter from California Governor Gavin Newsom to Liane Randolph, Chair, California Air Resources Board. July 22, 2022. <https://www.gov.ca.gov/wp-content/uploads/2022/07/07.22.2022-Governors-Letter-to-CARB.pdf?emrc=1054d6>

<sup>16</sup> *Id.*

Sincerely,

A handwritten signature in black ink, appearing to read 'Erica Bowman', with a long horizontal flourish extending to the right.

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