April 20, 2023

Zero-Emission Vehicle Infrastructure Joint Statement of Intent

1. Introduction

Zero-emission vehicles (ZEV) are critically needed to address the harms associated with the significant quantities of criteria air pollutants, toxic air contaminants, and greenhouse gases (GHG) emitted from conventionally-fueled vehicles, which threaten the health and welfare of Californians, impede California's ability to attain compliance with federal and state ambient air quality standards and state climate targets, and contribute to climate-change induced harms that threaten the State. Governor Newsom's Executive Order N-79-20 establishes commitments and timelines for transitioning vehicle sectors and equipment to zero-emission technologies by 2045 or earlier. This will require a whole of government approach to transition the state away from polluting fossil fuels, and State agencies are committed to this goal.

The California Air Resources Board (CARB) recently adopted passenger car and light truck standards that will ramp up sales of ZEVs to 100 percent of new car sales by 2035, the Advanced Clean Cars II regulation. Further, CARB is scheduled to vote on adoption of a proposed Advanced Clean Fleets regulation in April 2023 that would transition high priority, drayage, and public fleets to zero-emission by 2045, and also require 100 percent of new medium- and heavy-duty vehicles sold in California to be ZEVs beginning in 2036.

This transition to ZEV and equipment technologies requires new electric vehicle (EV) charging and hydrogen fueling infrastructure. While CARB has taken a lead in establishing regulatory timeframes for this transition, the California Energy Commission (CEC) is the lead state agency for ZEV infrastructure funding and station planning. The California Public Utilities Commission (CPUC) oversees the state's public utility companies to ensure safe and reliable energy service, including for ZEV infrastructure, at reasonable and fair rates. Several state agencies are integral in funding, planning, and supporting the needed ZEVs and ZEV infrastructure.

This Statement of Intent outlines how state agencies are working together to ensure that charging/fueling station build out and electric grid planning aligns with the vehicle rollout schedules associated with CARB's enacted regulatory programs, including the Advanced

Clean Cars II, and proposed regulations, including the Advanced Clean Fleets regulation. This document is not a comprehensive summary of the state's efforts to support ZEV market development and infrastructure planning. The ZEV Market Development Strategy and corresponding agency action plans provide the overall statewide summary of actions.

State agencies have many coordinated programs aimed at planning for and developing zero-emission charging and fueling infrastructure. Below are descriptions of programs grouped by energy supply and grid planning; ZEV infrastructure planning; and ZEV infrastructure development.

1 Energy Supply and Grid Planning

Transition to zero-emission technologies will add new load to the state's grid. The state's process for planning for and implementing load growth and management is well established and some key components are summarized in the programs listed below.

1.1 Integrated Energy Policy Report (IEPR) and the California Energy Demand (CED) Forecast

The IEPR is a biennial statewide assessment of energy policy issues for California, with updates offered in between years. This makes the IEPR largely an annual effort. The IEPR covers a variety of emerging and critical topics that the state faces. A regular component of the IEPR and its updates is the CED, a set of several forecast products that evaluate statewide electricity and gas demand for approximately the next 15 years. The CED includes annual energy demand and 8,760 hourly load shapes for each year, as well as various scenarios for different planning efforts. The results are used to inform planning for Investor-Owned Utilities (IOU), other CPUC-jurisdictional load-serving entities (Community Choice Aggregators and Direct Access providers), and CPUC. This includes planning for integrated resource planning (IRP) as well as the distribution planning process (DPP) for IOUs and the CPUC. The California Independent System Operator (CAISO) also considers the results for transmission planning purposes.

1.2 Transportation Energy Demand Forecast (TEDF)

The CEC completes the TEDF annually as part of the IEPR and is a subcomponent of the CED. Results of this assessment are used as a distinct energy and load source for the CED, with their own 8,760 hourly load shapes. The TEDF incorporates policies, programs, and regulations, such as those from CARB, to inform vehicle and related TEDFs and scenarios. Results of the TEDF feed into the biennial Assembly Bill (AB) 2127 assessments as well as the CED.

1.3 Joint Agency Steering Committee (JASC)

The CPUC, CEC, CARB, and CAISO participate in JASC. The CEC, CAISO, and CPUC each lead critical, interdependent forecasting, planning, and procurement processes that ensure future electric system reliability while supporting environmental goals. These processes include the CEC IEPR, the CAISO Transmission Planning Process (TPP), the CPUC IRP, and the DPP of the IOUs.

The goal of JASC is to coordinate consistent use of a "single forecast set" across agency planning and procurement processes through creating and ensuring transparency, collaboration, and issue resolution. JASC works to align agency planning and procurement process by establishing clear expectations among agencies and stakeholders regarding the timing and flows of information, study results and other interdependencies between processes.

1.4 Distribution Planning Process

AB 327 (Perea, Stats. 2013, Ch. 611) and Public Utilities Code Section 769 requires the CPUC to develop a process for the IOUs to identify optimal locations for the deployment of distributed resources on the grid and any additional utility spending necessary to integrate cost-effective distributed resources into distribution planning consistent with the goal of yielding net benefits to ratepayers. The CPUC's High Distributed Energy Resource (DER) Grid Planning Proceeding seeks to improve utility DPPs with respect to preparing for and integrating DERs, including EVs and chargers, onto the electric grid. Through the High DER proceeding, the CPUC will consider proposals to refine the annual utility filings and the underlying utility DPPs in part to support meeting California's ZEV adoption and 100 percent clean energy goals in a manner that maximizes the societal value of these resources.

1.5 Integrated Resources Planning Process

Senate Bill (SB) 350 (De León, Stats 2015, Ch. 547), directed the CPUC, in coordination with the CEC and CARB, to develop an IRP process to ensure that California's electric sector meets its GHG reduction goals while maintaining reliability. As part of IRP, the CPUC also transmits resource portfolios to the CAISO for its annual TPP. The CAISO uses these portfolios as part of its TPP analysis to identify and approve system level transmission solutions and upgrades needed for reliability, policy-driven, or economic reasons. In February 2023, the CPUC transmitted an updated version of the higher transportation electrification portfolio as a base case for the 2023-2024 TPP. This portfolio models the new resources needed out to 2035 to meet a future load scenario developed by the CEC, considering the policy and market drivers pointing towards higher levels of transportation electrification.

2 Charging and Fueling Station Infrastructure Planning

A big part of ensuring the state has the infrastructure needed to serve a growing market of ZEVs is assessing the need for infrastructure, including the number of stations needed, their locations and timing. The signing agencies are engaged in a comprehensive set of planning and assessment activities described below.

- **California ZEV Infrastructure Plan (ZIP).** Authored by the CEC, supports decision-making by State agencies and stakeholders, and public discussions of ZEV infrastructure policies and funding needs. The ZIP incorporates State agency plans and information needs for future decisions.

- AB 2127 (Ting, Stats. 2018, Ch. 365) – **Periodic assessment of charger infrastructure needs.** The AB 2127 EV Charging Infrastructure Assessment p**rojects** the number of chargers needed to support California's plug-in EVs.
- SB 1000 (Lara, Stats. 2018, Ch. 368) – **Equitable charging assessment.** SB 1000 requires the CEC to assess whether charging stations are disproportionately deployed by population density, geographical area, or population income level, including low-, middle-, and high-income levels.
- SB 671 (Gonzalez, Stats. 2021, Ch. 769)– **Identification of priority freight corridors and zero-emission freight infrastructure needs.** The California Transportation Commission (CTC) in coordination with CARB, CPUC, CEC, Caltrans, and the Governor's Office of Business and Economic Development (GO-Biz) is conducting a Clean Freight Corridor Efficiency Assessment, including identifying corridors that would be priority candidates for the deployment of medium- and heavy-duty ZEVs, as well as projects that would begin to build zero-emission freight infrastructure.
- AB 2700 (McCarty, Stats. 2022, Ch. 354) – **Fleet data gathering and sharing with utilities.** AB 2700 requires CEC, in collaboration with CARB, CPUC, and other relevant stakeholders, to annually gather from state agencies, specified entities' fleet data for on-road and off-road vehicles in the medium- and heavy-duty sectors and share that data with electrical corporations and local publicly owned electric utilities to help inform electrical grid planning efforts.
- SB 643 (Archuleta, Stats. 2021, Ch. 646) – **Periodic assessment of hydrogen infrastructure needs.** SB 643 requires CEC, in consultation with CARB and CPUC, to prepare a statewide assessment of the fuel cell EV fueling infrastructure and fuel production needed to support the adoption of zero-emission trucks, buses, and off-road vehicles.
- SB 1251 (Gonzalez, Stats. 2022, Ch. 372) – **Zero-Emission Vehicle Equity Advocate.** SB 1251 establishes the Zero-Emission Vehicle Equity Advocate in GO-Biz. The bill requires GO-Biz to steer the development of a shared, cross-agency definition of equity, and to set an equity agenda for the deployment of light-, medium-, and heavy-duty ZEVs, the supporting infrastructure, and workforce development.

3 Charging and Fueling Station Development

As described more comprehensively in the ZIP, many government and private entities are taking action to accelerate ZEV station deployment. State budgets have allocated significant funding for ZEV charging/fueling station investments, led by the CEC, and the CPUC has authorized billions of dollars in investments by IOUs. State agencies intend to coordinate these efforts to ensure they are complementary to one another and to private investments. Further, state agencies share lessons learned and process improvements. The examples below are some of the larger projects in progress.

3.1 Energy Infrastructure Incentives for Zero-Emission Commercial Vehicles (EnergIIZE). The EnergIIZE Project, funded by CEC, incentivizes infrastructure equipment for medium-duty/heavy-duty (MD/HD) ZEVs operated and domiciled in California. CARB and CEC are working to align funding from CARB's MD/HD vehicle incentive project, the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project, with CEC's EnergIIZE Project.

3.2 Joint solicitations. CARB and CEC collaborated on joint solicitations for the Zero-Emission Drayage Truck and Infrastructure Pilot Project, where CARB provided funding for vehicles and CEC funded fueling infrastructure and workforce training.

3.2.1 CARB and CEC staff are currently coordinating solicitation efforts for emerging opportunities funding for zero-emission aviation, locomotive, and marine sectors.

3.3 MD/HD Innovative EV Charging and Hydrogen Refueling Solutions for MD/HD Applications. CEC solicitation for projects that demonstrate transformative technology solutions and work to accelerate the successful commercial deployment of EV charging and hydrogen refueling for and MD/HD applications.

3.4 MD/HD Blueprints and Implementation. The CEC offers grant funds for planning "blueprints" that will identify actions and milestones needed for implementation of MD/HD ZEVs and the related electric charging and/or hydrogen refueling infrastructure.

3.5 MD/HD Corridor Charging and Fueling Opportunities. The CEC plans to release a solicitation for MD/HD charging and hydrogen refueling infrastructure projects on designated corridors. The proposed concept would further the goal of a convenient and accessible network of charging and refueling infrastructure for fleets and operators. An existing and ongoing funding opportunity for medium- and heavy-duty ZEV infrastructure is the CTC's Trade Corridor Enhancement Program (TCEP). TCEP provides approximately $400 million a year in funding for freight infrastructure projects, and ZEV MD/HD infrastructure projects are among those that are eligible to compete for funding each cycle.

3.6 Light Duty Charger Rebates. The CEC has launched three large block grant projects to offer rebates for the installation of chargers for light-duty EVs. These projects are designed for rapid deployment of chargers and allow applicants to reserve funding through a simplified, standardized application.

3.7 Light Duty Future Funding Opportunities. Several competitive CEC grants for light-duty charging are anticipated for release in 2023 and beyond.

3.8 Federal Funding.

National Electric Vehicle Infrastructure (NEVI). The 2021 Infrastructure Investment and Jobs Act (IIJA) created federal programs to invest in charging infrastructure. One of those programs is the NEVI Formula Program which will be administered by Caltrans and CEC.

It will deploy an anticipated $384 million to California to build out fast chargers along alternative fuel corridors.

Hydrogen Hubs. The IIJA appropriates $8B over five or more years to establish at least four regional hydrogen hubs. The Hubs will create a network of clean hydrogen producers, consumers, and infrastructure to deliver clean hydrogen at a cost of $2/kg by 2026 and $1/kg by 2031. To respond to this opportunity, the State—led by GO-Biz and in collaboration with other state agencies—co-founded a public-private partnership, the Alliance for Renewable Hydrogen Energy Systems, to serve as the applicant and organizer for a statewide hydrogen hub.

3.10 Transportation Electrification Framework. SB 350 required IOUs to submit, and the CPUC to approve or modify and approve, applications to support widespread transportation electrification. Over $1.8 million has been authorized to date as a result of SB 350 for light-, medium-, and heavy-duty charging infrastructure. To organize and streamline these investments going forward, the CPUC adopted a funding cycle approach which authorizes up to an additional $600 million for 2025-2030, with the option to extend to a total of $1 billion.

3.11 Low Carbon Fuel Standard (LCFS) Holdback Programs. The IOUs, as well as the publicly-owned utilities, implement a portion of CARB's LCFS regulation. The current investor-owned utility programs focus on infrastructure and equity.

4 Principles of Coordination and Cooperation

As illustrated in the many programs described above, the signing agencies are engaged in a broad portfolio of actions to support the implementation of ZEV infrastructure, and these actions are done in coordination and consultation with each other. Our shared goals of achieving California's transition to ZEVs is progressing and will be successful because agencies are committed to working closely together to the extent feasible under the mandates given to each agency for adopting and implementing policies and programs. To highlight this commitment, the agencies signed on to this Statement of Intent are committed to the following principles of cooperation and coordination related to supporting the development of ZEV fueling infrastructure:

4.1 Equity

The signed agencies are committed to ensuring equity is a consideration in our decision-making process. A principle of this Statement of Intent includes a commitment to continue working together to endeavor that our programs and policies around zero-emission charging and fueling infrastructure consider the needs of priority populations. Using the GO-Biz ZEV Equity Advocate as lead coordinator, agencies will endeavor to work together on shared staff understandings of equity and set equity agendas for deployment of light-, medium- and heavy-duty ZEVs and infrastructure, where appropriate.

4.2 Communication

Regular communication at all levels between agencies is critical for ensuring analysis and policy development are informed by each agency's programs and priorities. In addition to regular communications, interagency workgroups support many assessments and reports. Additional interagency workgroups will be formed for specific joint programs as needed. This communication commitment recognizes that some agencies can only act by formal decision.

4.3 Sharing Data and Analysis

Robust data sharing among agencies improves outcomes and consistency among programs. Examples of data sharing and linked program analysis include CARB's vehicle technology and vehicle forecasts generated for the State Implementation Plan Strategy and Climate Change Scoping Plan shared with energy agencies for forecasting of energy and infrastructure needs. Where feasible, agencies share pre-publication review of reports and analyses to facilitate consistency across agency programs, recognizing that some agencies may not share pre-decisional material.

4.4 Joint Stakeholder Engagement

Over the last year, agencies have held a number of stakeholder workshops and workgroup meetings with representation from the signing agencies. These meetings have resulted in productive engagement with stakeholders. Our stakeholders have appreciated being able to receive answers and provide feedback about the portfolio of programs impacting zero-emission charging and fueling infrastructure by having representatives of relevant agencies participating in topic-specific meetings. As applicable, agencies will include representatives from partner agencies when hosting stakeholder workgroups, workshops and when applicable, board or commission meetings. Including staff from partner agencies increases the opportunity for stakeholder engagement across multiple programs and benefits stakeholders by providing more direct communication on complex issues surrounding zero-emission infrastructure.

4.5 Joint Planning

The signed agencies are committed to collaborating on transportation electrification infrastructure planning efforts. The agencies recognize the different roles each play on infrastructure needs assessment, forecasting and funding authorization, and commit to aligning processes whenever feasible and collaborating to support infrastructure deployment.

4.6 Joint Solicitations

CARB and CEC plan to coordinate funding opportunities for future projects. Coordination of solicitations enables flexible adjustment of funding to match category needs, aligns grant terms and conditions to facilitate agreements with both CARB and CEC and allows review of grant applications by both agencies to align projects, where appropriate.

We have a strong foundation of success and many lessons to build upon. State agencies will continue to support and lead the market as it grows and addresses challenges to ensure a rapid and equitable transition.

5 Scope

This agreement is made for the sole and mutual benefit of the partners. No party and no other person or entity shall have any rights or remedies under or by reason of this agreement. Nothing in this agreement may be the basis of any interparty or third-party challenges or appeals. The partners recognize that despite reasonable efforts, because of varying programs, authority, and priorities, some of the recommendations shared or developed under this agreement may not result in actionable items.

This agreement does not involve the exchange of funds, nor does it establish any express or implied obligation by either party to incur any costs or make any payments now or in the future. If either party decides to bear any costs relating to the activities under the agreement, such decision is subject to the availability of its own funds or resources and further subject to subsequent formal approval by the party.

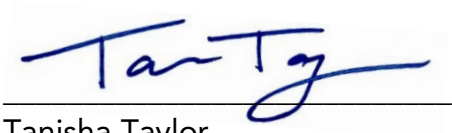
Each party acknowledges that nothing in this agreement shall be interpreted as a delegation of the decision-making authority or responsibilities of the signing agencies, or as a prior approval or pre-determination of any matter that is otherwise subject to either the enabling authority of the signing agencies or any other applicable state or federal law. Further, nothing in this agreement shall be interpreted to permit the exchange of confidential information between the parties, or to establish a joint interest or nondisclosure agreement. The parties shall use their established laws, policies, and procedures regarding confidentiality or non-disclosure for any data or information as appropriate.

6 Agreeing Agencies

Steven S. Cliff, Ph.D.
Executive Officer
California Air Resources Board

Toks Omishakin
Secretary
California State Transportation Agency

Drew Bohan
Executive Director
California Energy Commission



Tanisha Taylor
Interim Executive Director
California Transportation Commission

Rachel Peterson
Executive Director
California Public Utilities Commission

Tony Tavares
Director
California Department of Transportation

Ana M. Lasso
Director
California Department of General Services

Dee Dee Myers
Senior Advisor to Governor Gavin Newsom
Director of the Governor's Office of
Business and Economic Development