

Date of Hearing: April 25, 2022

ASSEMBLY COMMITTEE ON TRANSPORTATION

Laura Friedman, Chair

AB 2700 (McCarthy) – As Amended April 7, 2022

SUBJECT: Transportation electrification: electrical distribution grid upgrades

SUMMARY: Requires electrical corporations to use all available data to project future electric vehicle (EV) charging requirements to ensure that their distribution systems are upgraded at the times and locations necessary to support the level of EV charging anticipated by various state goals, regulations, and regional plans. Specifically, **this bill:**

- 1) Requires the State Air Resources Board (CARB) to annually gather and share fleet data from entities subject to its regulations with electrical corporations and local publicly owned electric utilities to help inform electric grid planning efforts, including but not limited to, all of the following data:
 - a) The vehicle fleet size and composition, including battery electric, hybrid or fuel cell;
 - b) The fleet location; and,
 - c) The total anticipated charging capacity at each fleet location.
- 2) Requires electric corporations (investor-owned utilities or IOUs), and governing boards of local publicly owned utilities (POU), to use all available data to project future EV charging requirements to ensure that their distribution systems are upgraded at the times and locations necessary to support the level of EV charging anticipated by the following policies:
 - a) Executive Order (EO) B-48-18;
 - b) EO N-79-20;
 - c) The Energy Resources Conservation and Development Commission's (CEC) integrated energy policy report;
 - d) The CEC's EV Charging Infrastructure Assessment;
 - e) CARB's regulations;
 - f) Air quality management plans;
 - g) The Transportation Agency's (CalSTA) Climate Action Plan for Transportation Infrastructure (CAPTI);
 - h) Regional seaport plans;
 - i) Regional transportation plans; and,
 - j) Sustainable communities strategies.

- 3) Requires CPUC, in reviewing electrical corporation proposals, to ensure proposed investments are consistent with preparing the electric grid for the achievement of the state's goals and regulations.
- 4) On or before January 1, 2024, requires CPUC to do both of the following, to the extent that there are any permitting or licensing requirements for transmission or distribution grid upgrades necessary to support the level of EV charging anticipated by the state's transportation electrification (TE) goals and regulations:
 - a) Expedite existing permitting and licensing processes to ensure that electrical corporations can meet the requirements; and,
 - b) Direct electric corporations to develop an expedited process for grid interconnection for TE.

EXISTING LAW:

- 1) Defines "TE" as the use of electricity from external sources of electrical power, including the electrical grid, for all or part of vehicles, vessels, trains, boats, or other equipment that are mobile sources of air pollution and greenhouse gases and the related programs and charging and propulsion infrastructure investments to enable and encourage this use of electricity.
- 2) Requires CARB to identify and adopt appropriate policies, rules, or regulations to remove disincentives preventing retail sellers and local publicly owned electric utilities from facilitating the achievement of GHG emission reductions in other sectors through increased investments in TE.
- 3) Requires CPUC, in consultation with CARB and CEC, to direct electrical corporations to file applications for programs and investments to accelerate widespread TE to reduce dependence on petroleum, meet air quality standards, achieve the goals set in the Charge Ahead California Initiative (1 million zero- and near-zero-emission vehicles by January 1, 2023), and reduce emission of GHGs to 40% below 1990 levels by 2030 and to 80% below 1990 levels by 2050.
- 4) Requires TE programs proposed by electrical corporations to seek to minimize overall costs and maximize overall benefits.
- 5) Requires CPUC to approve, or modify and approve, programs and investments in TE, including those that deploy charging infrastructure, via a reasonable cost recovery mechanism, if specified conditions are met.
- 6) Requires CEC, working with CARB and CPUC, to prepare a statewide assessment of the EV charging infrastructure needed to support the levels of EV adoption required for the state to meet its goals of putting at least five million zero-emission vehicles (ZEVs) on California roads by 2030, and of reducing emissions of GHGs to 40% 1990 levels by 2030.
- 7) Requires CEC, beginning November 1, 2003, and every two years after, to adopt an integrated energy policy report containing an overview of major energy trends and issues facing the state, including supply, demand, pricing, reliability, efficiency, and impacts on public health and safety, the economy, resources, and the environment.

- 8) Requires each Metropolitan Planning Organization to prepare a Sustainable Communities Strategy as a part of the Regional Transportation Plan. Sustainable Communities Strategies set forth a forecasted development pattern for the region, which when integrated with the transportation network, and other transportation measures and policies, will reduce GHG emissions from automobiles and light trucks to achieve, if feasible, the GHG emissions reduction targets approved by CARB.

Referenced EOs:

- 1) EO B-48-18 orders for all state entities to work with the private sector and all appropriate levels of government to:
 - a) Put at least five million ZEVs on California roads by 2030.
 - b) Spur the construction and installation of 200 hydrogen fueling stations and 250,000 ZEV chargers, including 10,000 direct current fast chargers, by 2025.
- 2) EO N-19-19 (CAPTI) orders CalSTA to leverage the more than \$5 billion in annual state transportation spending for construction, operations, and maintenance to help reverse the trends of increased fuel consumption and reduce GHGs associated with the transportation sector.
- 3) EO N-79-20 orders that the following shall be goals of the state, and directs CARB to develop regulations meeting these goals:
 - a) 100% of in-state sales of new passenger cars and trucks will be zero-emission by 2035.
 - b) 100% of medium- and heavy-duty vehicles in the state be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks.
 - c) Transition to 100% zero-emission off-road vehicles and equipment by 2035 where feasible.

FISCAL EFFECT: Unknown

COMMENTS:

The transportation sector generates 40% of California's GHG emissions, which includes both the light-duty (passenger fleet) and medium- and heavy-duty fleets. While cleaning up the entire transportation sector is important, efforts to improve the heavy-duty vehicle fleet are a high priority because this sector contributes greatly to GHG emissions as well as produces a variety of smog-forming pollutants such as oxides of nitrogen, particulate matter, reactive organic gasses, and other toxic air contaminants that contribute to poor air quality and associated health impacts. These heavy-duty vehicles operate predominantly along major corridors and at freight hubs (such as ports and warehousing districts). As regulations such as CARB's Advanced Clean Trucks and Advanced Clean Fleets move these vehicles toward decarbonization, including through electrification, the state is simultaneously working to provide those ZEVs with the electric infrastructure required.

With regard to electrical corporations, often referred to as investor-owned utilities (IOUs), projects that aim to support increased demand on the state's electric infrastructure are evaluated

through public regulatory processes overseen by the CPUC. CPUC's activities in supporting ZEVs fall into four main categories: electricity rates and costs of fueling, charging infrastructure deployment and incentives, vehicle-grid integration policy and pilots, program evaluation and interagency coordination. Within its charging infrastructure deployment activities, CPUC has authorized \$1.53 billion of ratepayer funding to support charging infrastructure programs across the IOUs. Of this amount, nearly \$1.23 billion is remaining, or "available," because most of these projects are in the implementation or design phase. CPUC is also engaged in reforming the IOUs' distribution planning processes to account for high levels of electrification and the impacts on the distribution grid through a proceeding known as the "High Distributed Energy Resources" or "High DER" proceeding (R.21-06-017).

With regard to POUs, there are no statewide regulations governing their planning and spending on distribution infrastructure or TE.

Fleet data: There is no formalized definition of fleet data and, interpreted broadly, this may include passenger vehicle fleets, off-road fleets such as forklifts, school buses, medium-duty trucks, heavy-duty trucks, etc. Electrification of some of these fleets may be more impactful to the distribution system than others, while some of these fleets may already be well-accounted for in existing distribution planning. For example, light-duty passenger fleets would likely be captured in the new EV registration data that IOUs track.

CARB data on existing fleets may not adequately provide the forecasting information needed to meet grid planning and resource needs. CARB does not project future fleet data, but rather collects certain current data on fleets. Amendments from the Utilities and Energy committee will require IOUs to incorporate fleet data and other available data into its distribution planning processes, instead of into its future projections, as is currently written in this bill.

CARB may not currently collect the type of data needed to implement the bill. CARB regulations would need to be amended to receive the data needed to implement this bill and also to make clear that the data has to be shared. Additionally, CARB may need to process this data to remove confidential business information and personally identifying information. The author should continue working with CARB, CEC, and fleets to determine how best to achieve the goals of this bill. Perhaps CARB is already collecting data that could serve similar purposes without having to amend existing regulations. Or perhaps there is another mechanism where fleets can share data with IOUs and POUs related to their transportation electrification needs.

Amendments needed: Due to timing, this committee will be incorporating amendments discussed, and agreed upon, in Utilities and Energy Committee. For this committee's purposes, *the author may wish to amend the bill to:*

- 1) *Clarify that the fleet data collected by CARB is for the medium- and heavy-duty sector, including off-road applications.* The passenger vehicle sector will have different considerations and will not require the same planning processes. (see above)
- 2) *Remove CAPTI as one of the named policies.* CAPTI will not include information about overall charging needs, and therefore won't be helpful in IOUs and POUs TE planning.

According to the author, "California leads the nation in setting and maintaining air quality and emissions standards. However, the transportation sector remains the primary driver of pollution

and GHG emissions in the state. Transitioning to ZEVs is critical to protect public health and stem the effects of climate change, but it will put new demands on California's electrical grid. [This bill] is a common-sense step that aligns California's grid planning efforts with the state's ZEV, air quality, and climate goals."

In support, Amply Power writes, "The uncertain timing and complex application process for EV charging projects compounded by slow utility service upgrades can delay and discourage EV adoption by fleets. That is why when planning for electrification, fleets are placing equal priority on their plan for charging infrastructure and strategy. Utilities need to make the process of connecting to the grid simpler and more transparent and be ready to support this wholesale transformation of goods and people movement. Today's slow, one-off interconnection approach will not scale. A new systematic approach to interconnecting fleets is essential if California is going to meet its EV and climate goals. Modification to the current utility processes can help to streamline EV charging interconnection and ensure chargers are installed at the rate needed to meet the state's EV adoption and GHG reduction goals."

In opposition, the California Municipal Utilities Association writes, "We appreciate that the bill facilitates the sharing of fleet data between the state and POU's to inform grid planning efforts. This could be helpful information. However, the language in the bill may impose a new annual reporting requirement for fleet operators, which include CMUA's POU and water agency members. There is considerable work already underway on the Advanced Clean Fleets Rule at CARB, and we are interested in a discussion about ensuring [this bill]'s reporting requirements are not overly burdensome and don't conflict with ongoing regulatory discussions. We also welcome discussions about other ways to support the deployment of EVs in conjunction with providing affordable, reliable, and clean electricity through POU distribution grids, such as streamlining regulatory and environmental permitting for system upgrades, providing direct financial assistance for needed upgrades, and working with the federal government to address supply chain issues."

Double referral: This bill passed out of the Utilities and Energy committee on 4/20 with a 13-0 vote with the author agreeing to make amendments in this committee. See the Utilities and Energy policy committee analysis for additional details.

Previous legislation: SB 350 (de Leon), Chapter 547, Statutes of 2015, (The Clean Energy and Pollution Reduction Act of 2015), requires CPUC, in consultation with CARB and CEC, to direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, achieve the goals set forth in the Charge Ahead California Initiative, and reduce emissions of GHGs to 40% below 1990 levels by 2030 and to 80% below 1990 levels by 2050. SB 350 also requires that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50% by December 31, 2030, as provided.

REGISTERED SUPPORT / OPPOSITION:

Support

Amply Power
Coalition of California Utility Employees
Edison International and Affiliates, Including Southern California Edison

LAANE (Los Angeles Alliance for A New Economy)
Natural Resources Defense Council (NRDC)
Sierra Club

Opposition

California Municipal Utilities Association (oppose unless amended)

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