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Comment Received From: Hannah Goldsmith

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CaETC Comments Re IRP Workshops on Transportation Electrification

Additional submitted attachment is included below.



May 19, 2017

California Energy Commission
1001 I St.
Sacramento, CA 95814

Re: IEPR Commissioner Workshops on Integrated Resource Plans – Light-, Medium-, and Heavy-Duty Vehicle Sectors

The California Electric Transportation Coalition (CalETC) appreciates the opportunity to comment on the California Energy Commission's (CEC's) Integrated Energy Policy Report (IEPR) Commissioner Workshops on the Publicly-Owned Utilities' (POUs') Integrated Resource Plans (IRPs) on April 18th and April 27th, 2017, focused on the light-, medium-, and heavy-duty vehicle sectors; and the CEC's draft *Transportation Electrification Guidance for POU's Integrated Resource Plans (Guidance)*.

CalETC is a non-profit association promoting economic growth, clean air, fuel diversity and energy independence, and combating climate change through the use of electric transportation. CalETC is committed to the successful introduction and large-scale deployment of all forms of electric transportation including plug-in electric vehicles of all weight classes, transit buses, port electrification, off-road electric vehicles and equipment, and rail. Our board of directors includes: Los Angeles Department of Water and Power, Pacific Gas and Electric, Sacramento Municipal Utility District, San Diego Gas and Electric, Southern California Edison, and the Southern California Public Power Authority. Our membership also includes major automakers, manufacturers of zero-emission trucks and buses, and other industry leaders supporting transportation electrification.

We support the efforts of the CEC to promote the adoption of zero-emission vehicles (ZEVs) and equipment. Although California is leading the nation in ZEV adoption, our state still has a long way to go to reach the goals in the Governor's Executive Order B-16-2012: 1.5 million ZEVs on California roads by 2025 and zero-emission vehicle infrastructure able to support 1 million vehicles by 2020. In addition, the state must implement SB 1275 (De León, 2014) and SB 1204 (Lara, 2014), which set targets for the deployment of 1 million zero- and near-zero-emission vehicles by 2023, access to these vehicles by disadvantaged and low- and moderate-income communities, and deployment of zero- and near-zero-emission medium- and heavy-duty vehicle technologies.

As pertinent to the Integrated Resource Planning process, SB 350 (De León) [Chapter 547, Statutes of 2015] authorizes utilities to implement transportation-electrification programs and investments, and recognizes the need for widespread transportation electrification in order to reach many of the state's goals, such as reducing petroleum use, meeting air-quality standards, improving public health, and achieving greenhouse-gas emissions reductions. Achieving widespread electrification

will require state agencies, automakers, third-party charging providers, electric utilities, and a broad coalition of stakeholders to work collaboratively to advance the market for plug-in electric vehicles (PEVs).

With this in mind, we respectfully submit the following comments for your consideration:

Recommended Information to Include in the IRPs

We support the intention of the *Guidance* to point out key topics that the POUs can consider as they analyze, prepare for, and plan how they will accommodate and encourage widespread transportation electrification in their service territories. We agree that it will be important for the POUs to consider:

- The characteristics of their unique service territories, e.g., recognizing which transportation types are present in the area, and how investments and programs are prioritized to account for these transportation types and the associated emissions.
- How POU programs will align with or leverage other sources of funding or other pilot/research programs.
- How to evaluate effectiveness of planned investments and projects.
- How investments and programs align with statewide goals and policies.
- Education and outreach, to inform customers of the transportation-electrification programs available.

Recommended Data Collection

Overall, as relating to the data provisions of the *Guidance*, we recommend the Energy Commission develop the proposal with the intention of incorporating information from POU IRPs into the Commission's own transportation-electrification planning efforts to support coordination and alignment of POU and state efforts to advance EV adoption.

We agree that it will be important for the Energy Commission to see the data used by the POUs to plan their transportation-electrification programs and investments, and we recommend that this be the level of data requested in the *Guidance*.

The Energy Commission should ensure flexibility in the *Guidance* as not all POUs use or have the resources to provide all of the data currently requested. We agree with the comment made by Bill Van Amburg, of CalStart, at the April 27th Workshop, that this process should allow for POUs to work collaboratively with the Energy Commission to aggregate data across utilities. This process should allow for the utilities that already have extensive lessons learned to inform other utilities as they plan their programs, but should not require each utility to provide extensive data that they may not have or may not be able to develop at this time.

CalETC also agrees with the comments made by the Joint-POUs, specifically that the request for detailed data in the *Guidance* is premature, and potentially unwarranted, in light of the CEC's task to review and evaluate whether the POUs have exercised their discretion consistently with SB 350 and the policy of the state to encourage transportation electrification. We agree with the Joint POUs recommendation that the *Guidance* state explicitly that the recommended information is optional in recognition of the broad discretion afforded by the statute to POUs in conducting resource planning for EV load. The CEC has authority to request additional information from a POU should an IRP rely on data not included, and we recommend that the CEC explain why additional data is important or necessary if seeking further explanation from a POU.

CalETC submitted comments on the CEC's proposed Title 20 data collection regulations on December 12, 2016 [attached], as relating to transportation electrification, and echoes those comments in this proceeding. Namely, we recommend the CEC consider the following points as relating to data collection:

- Understanding PEV market basics is essential to accelerate adoption—at this stage, more important than informing forecasting and optimizing charging behavior—to help achieve a viable market and achieve California's and the Governor's near-term goals.
- The CEC should first start with the specific problems that need to be solved or questions that need to be answered, come up with potential solutions, and then determine what the necessary data is in order to achieve the desired solution.
- We encourage the CEC to recognize what sources of data utilities have ready access to and those sources that are not currently under utility purview.
- Given that charging-station and PEV data is already being collected in multiple forums, we recommend that the CEC convene and lead an electric-vehicle-data working group to bring together data experts and compare and understand existing data, and determine what gaps need to be addressed.

Recommended Vehicle-Grid Integration (VGI) and Coordination with Distributed Energy Resources

CalETC supports the CEC's recommendation that POUs include in their IRPs a description of how transportation-electrification programs and investments are coordinated with grid conditions and distributed-energy resource planning. We support current and proposed efforts by utilities to provide pricing information, either through simple time-of-use rates or potential new technologies, to encourage them to charge at off-peak times or times when there is a high volume of renewable energy on the grid. When it comes to more complex VGI solutions, like communications standards, we recommend keeping the IRP focus on near-term, flexible solutions, recognizing there are multiple pathways to promote competition and achieve low-cost solutions.

CalETC Research

During the April 27th workshop, we were asked to summarize the data CalETC collects relating to planning for transportation electrification in the medium- and heavy-duty sectors. Please find brief

descriptions of the two relevant research areas I discussed during the workshop, as well as links to the final reports.

- CalETC's Transportation Electrification Assessments, phases 1-3 look at environmental and societal benefits of PEVs, and grid impacts. Phase 3, part A, released January 2016, looked specifically at commercial and non-road vehicles. This report includes adoption scenarios, energy consumption forecasts, and load profiles of multiple medium- and heavy-duty technologies including trucks, buses, forklifts, as well as truck-stop electrification and electric truck refrigeration technologies. Overall, the report, using the total resource cost test and societal cost test, found that all market segments analyzed showed significant per vehicle or facility net benefits, and economic and societal benefits for California as a whole. Please find the report here: <http://www.caletc.com/wp-content/uploads/2016/08/California-Transportation-Electrification-Assessment-Phase-3-Part-A-1.pdf>.
- CalETC also engages in other research. For example, in collaboration with Plug In America, we recently released a report which evaluated methods to encourage PEV adoption—a review of reports on PEV incentive effectiveness for California utilities. Please find the report here: <http://www.caletc.com/wp-content/uploads/2016/10/PIA-Incentive-Survey-Paper-CS5-final-cosmetic.pdf>.

Thank you for your consideration. Please do not hesitate to contact me should you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Hannah Goldsmith". The signature is written in a cursive style with a large initial "H".

Hannah Goldsmith, Project Manager
California Electric Transportation Coalition

Attachment: CalETC Comments on CEC Updated Title 20 Data Collection Regulations, December 12, 2016.

Attachment



December 12, 2016

California Energy Commission
Docket #: 16-OIR-03
1516 9th Street
Sacramento, CA 95814

Re: Title 20 Data Collection Regulations, Proposed Language Discussed at the November 16, 2016 Commissioner Workshop

The California Electric Transportation Coalition (CalETC) appreciates the opportunity to comment on the California Energy Commission's (CEC's) Revised Proposed Title 20 Data Collection Regulations Discussed at the November 16, 2016 Commissioner Workshop, specifically the provisions regarding Electric Vehicle Supply Equipment/Charging Stations.

CalETC is a non-profit association promoting economic growth, clean air, fuel diversity and energy independence, and combating climate change through the use of electric transportation. CalETC is committed to the successful introduction and large-scale deployment of all forms of electric transportation including plug-in electric vehicles, transit buses, port electrification, off-road electric vehicles and equipment, and rail. Our board of directors includes: Los Angeles Department of Water and Power, Pacific Gas and Electric, Sacramento Municipal Utility District, San Diego Gas and Electric, Southern California Edison, and the Southern California Public Power Authority. Our membership also includes major automakers, manufacturers of zero-emission trucks and buses, and other industry leaders supporting transportation electrification.

We support the efforts of the CEC to promote the adoption of plug-in electric vehicles (PEVs) and equipment. Although California is leading the nation in PEV adoption, our state still has a long way to go to reach the goals in the Governor's Executive Order B-16-2012: 1.5 million zero-emission vehicles on California roads by 2025 and zero-emission vehicle infrastructure able to support 1 million vehicles by 2020. In addition, the state must implement SB 1275 (De León) [Chapter 530, Statutes of 2014] and SB 1204 (Lara) [Chapter 524, Statutes of 2014], which set targets for the deployment of 1 million zero- and near-zero-emission vehicles by 2023, access to these vehicles by disadvantaged and low- and moderate-income communities, and deployment of zero- and near-zero-emission medium- and heavy-duty vehicle technologies.

The CEC projected that in 2017, California will need to add 32,429 public and private (workplace and fleet) level 2 charging stations and 289 direct current fast chargers (DCFCs).¹ This figure represents what is needed if consumers utilize public charging with a high rate of public access. In 2018, California will need to add 40,239 level 2 charging stations and 364 DCFCs, to accommodate high public access.

We understand and appreciate the necessity for the CEC to use data to support the implementation of SB 350 (De León) [Chapter 547, Statutes of 2015], AB 802 (Williams) [Chapter 590, Statutes of 2015], and to achieve improved energy analytics for California. CalETC and its member utilities would like to work with you to ensure that any data the CEC is seeking to collect regarding transportation electrification is legally permissible, technically feasible, and will effectively achieve improved and useful energy analytics.

We appreciate the opportunity to provide the following comments:

While it is important to collect charging-station data to inform forecasting and optimize charging behavior, the PEV market is still in the very early stages. The main purpose for collecting this data under SB 350 (De León) [Chapter 547, Statutes of 2015] is to further transportation electrification. Understanding PEV market basics is essential to accelerate adoption—at this stage, more important than informing forecasting and optimizing charging behavior—and helps make a sustainable business case for charging-station companies, automakers, and others investing in this technology. We'd be happy to discuss with you the type of PEV market data that is needed to accelerate PEV adoption, and how this data could be most effectively collected.

Putting requirements on charging-station providers and owners to provide intensive information will likely result in increased cost and market stagnation at a time when California must cultivate the market to get more PEVs on the road and achieve state-policy goals. Furthermore, imposing financial penalties on charging station owners and operators for not complying with the reporting requirements will likely deter many businesses from deploying charging infrastructure in the first place. We encourage the CEC to consider the potential effects of these data-collection regulations on the burgeoning market, and ensure that the regulations will help accelerate the market for PEVs, not hinder PEV adoption or charging-station installation.

Additionally, we believe the exact purpose of the regulations, the problem that the CEC seeks to solve, is still unclear. The CEC should first start with the specific problems that need to be solved or questions that need to be answered, and then come up with potential solutions and what data will lead us there. We would be happy to provide input on how to best solve questions regarding forecasting, PEV-load flexibility, utilization of distributed and renewable energy resources, the effect of time-of-use rates, etc. Generally, the utilities are experiencing departing load due to energy

¹ Orenberg, Jacob. 2016. *2016-2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program*. California Energy Commission, Fuels and Transportation Division. Publication Number: CEC-600-2015-014-CMF. P. 42.

efficiency and other measures, which lessens concerns about PEV charging load and behavior. The main problem to solve is how to achieve expanded transportation electrification, which these regulations will not solve.

We encourage the CEC to also recognize what sources of data utilities have ready access to and those sources that are not currently under utility purview. For example, today, utilities do not know when a customer purchases a PEV or installs a home charger unless that customer self identifies through participation in a particular PEV rate or another program. Many utilities that currently own charging stations do not collect hourly consumption data and could not supply individual, hourly charging-station data on a daily basis for hundreds or thousands of charging stations. CalETC and its utility members would be happy to work with you to determine what level of utility data is practical and feasible to collect and report.

Given that charging-station and PEV data is already being collected in multiple forums, we continue to recommend that the CEC first convene and lead an electric-vehicle-data working group to bring together data experts and compare and understand existing data, and determine what gaps need to be addressed. The working group could use data from: The National Renewable Energy Laboratory Alternative Fuels Data Center database, CEC Alternative and Renewable Fuel and Vehicle Technology Program grant reporting, California Air Resources Board grant reporting and Low Carbon Fuel Standard reporting, data of the sort that companies like ChargePoint already provide to research institutions, and data compiled by the Department of Energy or other federal agencies (such as within the recently convened White House Electric Vehicle Datathon). In addition, the Low Carbon Fuel Standard program is undergoing changes that will likely result in reporting of additional charging station data in 2018, and utilities are required to post in 2017 the available capacity of all distribution circuits, which will make placing charging stations easier. Appropriate data experts to include in such a working group would include those from national labs, universities, utilities, research organizations like the Electric Power Research Institute, appropriate state agencies like the California Air Resources Board and the California Public Utilities Commission, and others with access to PEV and charging-station data.

At the very least, we urge the CEC to collaborate more closely with other state and federal agencies that are involved in collecting charging-station data. The California Public Utilities Commission, California Air Resources Board, California Department of Motor Vehicles, U.S. Department of Energy, and other agencies are already collecting—and are planning new regulatory efforts to collect—PEV and charging-station data. This data could be more effectively collected, the collection process could be streamlined, and the agencies could avoid over-regulating data collection if the agencies work together. We are pleased to see that CEC staff are contemplating such an inter-agency working group to streamline the collection of vehicle-grid integration data.

We believe that a voluntary program would yield enough data to inform demand forecasting and result in improved energy analytics, on top of the data currently available. A voluntary approach would allow for those charging-station owners and operators that have adequate resources and

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Re: Title 20 Data Collection Regulations, Proposed Language Discussed at the November 16, 2016 Commissioner Workshop

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capabilities to supply data, but would not overly burden owners and operators that do not have the resources or capabilities to supply the kind of data required in the proposed regulations. Such an approach, which would yield useful representative data samplings, could be developed through a working group like the one described above.

We would be pleased to work with you to determine what data is already available, and how best to gather the kind of data that is not available, to support the CEC's implementation of SB 350, AB 802, and to achieve improved energy analytics.

Thank you for your consideration. Please do not hesitate to contact us should you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Hannah Goldsmith". The signature is written in a cursive style with a large initial "H" and "G".

Hannah Goldsmith, Project Manager
California Electric Transportation Coalition