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SUBMITTED ELECTRONICALLY

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**Clean Transportation
Technologies and Solutions**

www.calstart.org

RE: Petition to Initiate a Proceeding to Consider Issuance of a Policy Statement on
Electric Utility Rate Design for Electric Vehicle Charging, Docket No. P-2022-3030743

To the Electric Vehicle Rate Design Working Group:

As a U.S.-based nonprofit with offices in New York, Michigan, Colorado, Florida, California, and Europe, CALSTART partners with 300+ member companies to build a prosperous, efficient, clean high-tech transportation industry to mitigate climate change, reduce air pollution, create jobs, and spur technology innovation. Since 1992, CALSTART has developed an unparalleled knowledge base and implementation track-record in cutting-edge technologies to decarbonize medium- and heavy-duty vehicles (MHDVs). Guided by science-based climate targets, galvanized by frontier-expanding solutions of our 300+ member companies, and ground-truthed in design and implementation of market acceleration programs in California and beyond, CALSTART works across the industry to remove barriers to commercialization, production, and success for zero-emission MHDV technologies. CALSTART is the industry standard-bearer for MHDV decarbonization and continues to push the envelope to eradicate diesel pollution, with a goal to reduce greenhouse gas emissions from the commercial vehicle sector by 50% by 2030.

CALSTART is pleased to offer this feedback in response to the general questions posed in the Secretarial Letter.¹ CALSTART has appreciated the opportunity to participate in this EV Charging Rate Design Working Group and hopes, via this participation, can help improve the future of the utility landscape for electric vehicles of all classes in Pennsylvania.

General Questions

1. Should the Commission adopt minimum filing requirements for EV rate design proposals?

- a. Yes. Minimum filing requirements ensure that every proposal from the various Pennsylvania distribution utilities can be reviewed utilizing the same data in the same format. This helps to ensure an orderly, transparent, and efficient process without the need for excessive discovery. With more standard information up-front, the Commission Staff and Intervenor can more readily determine the suitability of a given proposal, cutting down on the procedural time required for rate implementation, which overall saves ratepayer and taxpayer dollars.

¹ <https://www.puc.pa.gov/pdocs/1768315.pdf>

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2. **What goals should the Commission focus on in reviewing utility proposals for EV rates?**
 - a. The Commission should focus on ensuring that EV rates are affordable and competitive with equivalent gasoline prices, aligned with state environmental policy goals, and easy to understand. To the extent possible when balancing the above goals, rates should align with cost causation and avoid excessive bill impacts across all customer classes.
 - b. For commercial and fleet charging rates specifically, CALSTART recommends that the Commission review and approve rates that enable the expansion of investment in commercial fleets to meet Pennsylvania decarbonization targets.
 - c. The Commission should also consider rate design such that it allows for the viability of public charging stations as a business, which benefits EV customers of all rate classes by providing additional opportunities to charge away from home.
3. **Should the EV charging rates be designed as part of the rate otherwise charged to the customer (e.g., a “whole-home” rate), or designed as a standalone EV rate, which requires a separate meter and billing?**
 - a. EV charging can have fundamentally different load and demand profiles and therefore cost-causation profile than standard household or business usage. As such, rate design will need to align with load and demand profiles of the given use cases. “Whole-home” rates may inadvertently shift usage behaviors causing patterns that may be disadvantageous to the system (such as exacerbating peaking behavior and costs) or other Commonwealth policy goals (such as avoidance of excessive grid upgrades). Furthermore, load growth attributable to EV charging is likely to outpace that of more “traditional” usage – sending the proper pricing signals to customers via EV-specific rates can help incorporate this growth in ways to manage their impact and maximize existing grid assets.
4. **Should the rates as designed be default or opt in? Should EV-specific rates be required for those customers participating in other approved utility EV programs?**
 - a. CALSTART recommends rates be designed as opt-in. While rates are generally designed to send pricing signals to the average customer such that they may shift charging behavior to more opportune and cost-effective times, some commercial fleets may not have this flexibility. Other fleets may have abnormal usage patterns, such that they are better served financially by other, potentially non-EV tariffs to charge their vehicles. Such cases are best determined by the customer themselves, where a required tariff may impair EV uptake, and hinder Pennsylvania’s transportation electrification goals.



- 5. Should the EV-specific rates vary by season (summer, winter)?**
- a. CALSTART recommends against seasonal variance. Predictable charging costs reduce risk for those buying EVs for their fleet or who seek to install publicly available charging infrastructure. Seasonally varied demand charges in particular may prove detrimental to adoption of EVs, particularly when estimating cost of use during peak season.
- 6. What opportunities are there for managed charging, and what role should EDC rates play in managed charging?**
- a. Managed charging is beneficial to customers on a case-by-case basis. If offered by a distribution utility, managed charging should be an opt-in feature for commercial fleet EVs due to the variability of the exact use case and flexibility of the fleet (see response to question 4). For public charging infrastructure, managed charging will not make business sense in most scenarios. Drivers using public charging infrastructure are not flexible in their charging needs, and need to top-up in order to continue on to their destination.
- 7. How should rate design for supply and distribution be aligned (if at all)?**
- a. CALSTART recommends that rate design be aligned between supply, transmission, and distribution components. Particularly, CALSTART recommends consideration of “sliding scale” demand and supply charges based on load factor such as those adopted in Massachusetts and New York that would allow for businesses to avoid up-front costs that could jeopardize the business cases associated with fleet electrification.
- 8. How can EV charging be aligned with renewable energy production?**
- a. EV charging may be aligned with renewable production in some EV charging scenarios by utilizing time-of-use rates, managed charging, co-located renewable generation or storage, or any combination of the above. However, as mentioned previously, not all commercial charging scenarios are flexible enough to take advantage of the generally lower cost of wholesale power when it becomes available, nor are all rate schedules exposed to the wholesale power costs the EDC incurs on an hourly basis. Co-located storage and generation is not always an option for fleet customers or public charging infrastructure either due to up-front installation costs, space requirements, or other obstacles. CALSTART recommends giving customers flexibility and multiple options in how they take advantage of the generally lower cost of renewable energy production.
- 9. Should eligibility to participate in utility-offered EV incentive programs be tied to utilization of EV-specific rates?**
- a. Requiring a fleet or public charging facility to participate in an EV-specific rate may be counter-productive in some scenarios. For example, a fleet customer may wish to transition their fleet from ICE to EV and views the



incentive programs as an attractive opportunity to do so. They may analyse their potential future usage patterns and find any cost savings associated with the incentive programs eliminated by the higher cost of charging relative to traditional gasoline because the charging tariff(s) available does not align well with their business case. In such a scenario where their charging times are inflexible, the fleet may choose to not transition, delaying achievement of any state transportation electrification targets.

10. How should low-income and equity considerations be considered for EV-specific rate design?

- a. Many jurisdictions have created EV incentive programs (such as make-ready programs) recognizing the increased barriers to adoption faced by Energy and Environmental Justice (“EEJ”) communities, and applying those EEJ incentives in some fashion towards commercial customers as well. Commercial customers in EEJ communities are facing many of the same issues that residential customers in those same EEJ communities face, while the business owners and employees often reside in those communities. These communities are more likely to face the environmental consequences of Pennsylvania not achieving their renewable energy goals and are generally more in need of incentives and public charging infrastructure to encourage the transition to electric vehicles, particularly among those qualifying under the EEJ definitions as low- and medium-income customers.

Residential Rate Questions 11-17 CALSTART is not addressing.

Commercial, Industrial and Public Charging Rate Questions

18. What types of rate design are optimal for commercial and industrial EV charging?

- a. A wide variety of rate designs have been proposed or deployed across numerous jurisdictions. Generally speaking, Calstart and CALSTART advocate for rates and tariff provisions that lower the initial costs of fleet charging installation, DCFC fast charging stations, and public transportation infrastructure. Rate designs that incentivize voluntary behavior by applying lower demand charges by utilizing off-peak hours for fleets, provide for low-load factor usage adjustments to the demand charge, or allow for fully volumetric rates all help to reduce the up-front initial rate shock and variance that could prevent businesses, schools, or public transit systems from investing in commercial EVs and related infrastructure.

19. Should utilities require a specific separate rate for direct current fast charge (“DCFC”) stations? If so, should the rate designs recognize issues related to demand charges and station economics in periods of low utilization?

- a. CALSTART recommends against requiring DCFC stations to adhere to a sole DCFC rate, and recommend that DCFC stations be allowed to select from all rates available to commercial EV customers. Again, decisions pertaining to that specific station’s use and the economics driving the business case should remain with the



business. Calstart and CALSTART do not oppose and would in fact encourage DCFC pilot rates tailored to the usage patterns that may be unique to these facilities. Further data collection and continued opportunity for review and stakeholder input as provided for in a pilot rate are ideal for this emerging technology.

20. Should the Commission consider specific separate tariffs for workplace, fleet, or electrified public transit?

- a. Yes. As mentioned previously, different businesses and customer types will have different use cases, load profiles, and cost causation, all of which merit unique consideration. Even within different types of workplaces, fleets, or public transit systems, the use cases may vary from customer to customer. Ultimately when the EDCs design rates, they will need to consider the various use cases by each category and structure rates that incent adoption of EVs within their service territory. Similarly, the Commission will need to consider how much and to what level does Pennsylvania wish to promote EV adoption among commercial customer segments and where.

CALSTART appreciates the opportunity to provide the above responses to the Commission's thoughtful questions and pledges to remain engaged throughout this process to advance Pennsylvania's readiness for the transition to zero-emission vehicles.

Respectfully submitted,

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