

**DOCKETED**

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**Fermata Energy's Comments on Demand Side Grid Support Program proposed draft guidelines CEC Docket #22-RENEW-01**

*Additional submitted attachment is included below.*



**August 5, 2022**

CEC Commissioners and Staff  
California Energy Commission  
Research and Development Division  
1516 Ninth Street  
Sacramento, CA 95814

**Via: CEC Docket #22-RENEW-01**

**Re: Fermata Energy's Comments on Demand Side Grid Support Program proposed draft guidelines CEC Docket #22-RENEW-01**

Dear California Energy Commission,

Fermata Energy LLC, d/ba/ Fermata Energy, is pleased to submit comments on the California Energy Commission's (CEC) Demand Side Grid Support (DSGS) Program proposed draft guidelines in CEC Docket #22-RENEW-01.

Fermata Energy is a leading provider of vehicle-to-everything (V2X) technology that enables vehicle-to-grid (V2G), vehicle-to-building (V2B), and vehicle-to-load (V2L) services. Our V2X technology benefits our users, transforming EV charging from a cost center to a revenue-generating, grid-supporting asset. Fermata Energy is the only company today providing commercial V2X services at multiple sites across the US using light duty vehicles. On average, the monthly electricity bill savings from these deployments are equivalent to the monthly EV lease payment. We have active V2X systems with the City of Boulder (Colorado), Green Mountain Power (Vermont), Roanoke Electric Cooperative (North Carolina), Verizon Newlab 5G Studio (New York), Burrillville Wastewater Treatment Facility (Rhode Island), and the Alliance Center (Colorado). Other customers include unannounced utility customers in Texas, Florida, and California, and several commercial V2B demand charge management, utility demand response, and V2B car share pilots with private partners. Fermata Energy has the first commercially available, UL-certified offboard V2G direct current (DC) electric vehicle (EV) charger for light-duty EVs.

California is a recognized leader on V2G and vehicle grid integration (VGI) technology, with numerous initiatives led by the CEC (e.g., GFO-21-303 - Vehicle-to-Building Technologies for Resilient Backup Power), the investor owned utilities (e.g., PG&E's and SCE's proposed VGI pilots, the new Emergency Load Reduction Program, the proposed emerging market and technology VGI program, and the utilities' proposed dynamic or export rates that help VGI), and the work of the Smart Inverter Operationalizing Working Group (SIOWG) on standards and interconnection.

V2X technology in California has significant potential to provide mobile, dispatchable capacity.

V2X presents a growing yet currently untapped resource to help support grid resilience and reliability. V2X technology at scale can deliver the following benefits:

1. Clean, affordable, and reliable transportation
2. Lower the cost of electricity bills
3. Free backup power solutions that would normally cost tens of thousands
4. of dollars.
5. Enables EV owners to earn revenue from demand response and other services that help integrate and grow renewable energy on the grid

As PG&E's CEO Patti Poppe noted in an October 2021 interview with the *Los Angeles Times*:

*"The electric vehicles on the road in PG&E's service area today have 6,700 megawatts of capacity... But imagine a Flex Alert being averted because we actually leverage the supply that's available in vehicles to power homes and business. Sixty-seven hundred megawatts — that's three Diablo Canyon nuclear power plants. It's on the road today, and we are not using it as a power source. We're only using it as a power draw."<sup>4</sup>*

As Patti Poppe remarked, during PSPS events, V2X technology can provide mobile assets that can be flexibly deployed to provide power for a range of resilience scenarios impacting areas and communities most at risk. V2B and V2G technology can also be very cost-effective for ratepayers compared to stationary storage systems, since the cost of the vehicle has already been paid for.

Fermata Energy and other V2X services providers, including Nuvve, support the DSGS program and its goals of expanding demand flexibility opportunities, similar to ELRP, to Publicly Owned Utilities, municipal utilities, and other load serving entities that cannot currently participate in ELRP. Fermata Energy is in the process of deploying its bidirectional chargers to participate in the ELRP and hopes to do the same in the DSGS program. Given the enormous potential of V2X technology to provide benefits to the grid and ratepayers in California, Fermata Energy recommends the following be included in the DSGS program guidelines:

- Confirm that bidirectional EVSE systems will be included in this program.
- Confirm that bidirectional EVSE systems will be included in the loading order as energy storage along with other zero-emissions resources that may be compensated for export.
- Confirm that resources bidding via structures, such as the Proxy Demand Response (PDR) for DSGS, can be compensated for energy exports. Even if these structures are not formally processing bids for this program, the PDR mechanism is not designed to count or to compensate for exports. ELRP was partly a mechanism to address this structural disincentive.
- Similar to ELRP, allow EVSE installed behind or in front of the meter to participate in the program and be compensated for export.

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<sup>4</sup><https://www.latimes.com/environment/newsletter/2021-10-14/as-california-fires-burn-pge-ceo-promises-fixes-boiling-point>



- In recognizing that the state of technology development for bidirectional charging is not the same as it is for unidirectional charging, the CEC should follow the ELRP and create an exemption allowing UL 1741-certified inverter-based devices to interconnect and participate in the program. In an effort to enroll as much dispatchable capacity as possible, the CEC should not limit participation to devices certified to 1741-SA. We also recommend that the CEC ensure the program remains technology neutral and not require a specific EVSE connector for program eligibility. In addition, ISO-15118 should not be a requirement for EVSE participating in this program.

In closing, Fermata Energy greatly appreciates the work of the Commission and staff in organizing and leading this workshop and appreciates the opportunity to provide feedback to the CEC's efforts to support grid reliability through the DSGS program. As discussions on these topics continue, Fermata Energy would be happy to provide staff with additional feedback on these and other issues related to V2X adoption in California. As a V2X services provider with projects in California and nationwide, Fermata Energy has years of expertise monetizing and studying V2X use cases, and we look forward to sharing our resources and knowledge on this subject with staff to help develop these models. Our Director of Grid Solutions and Strategic Partnerships, Melissa Chan, may be contacted if you would like to discuss further. You may reach her at [melissa@fermataenergy.com](mailto:melissa@fermataenergy.com).

Sincerely,

A handwritten signature in black ink, appearing to read "John Wheeler", with a long horizontal flourish extending to the right.

John Wheeler  
CFO & Co-Founder, Fermata Energy  
[john@fermataenergy.com](mailto:john@fermataenergy.com)