

## DOCKETED

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## THE OFFICE OF RATEPAYER ADVOCATES' COMMENTS ON THE CALIFORNIA ENERGY COMMISSION'S PUBLIC WORKSHOP ON VEHICLE-GRID INTEGRATION RESEARCH

December 19, 2016

The Office of Ratepayer Advocates (ORA) is the independent consumer advocate within the California Public Utilities Commission (CPUC), with a mandate to obtain the lowest possible rates for utility services consistent with reliable and safe service levels, and the state's environmental goals.

ORA appreciates the opportunity to provide comments and recommendations on the California's Energy Commission's (CEC) December 12, 2016 workshop on Vehicle-Grid Integration (VGI) Research.<sup>1</sup> This was the third annual workshop to review the progress of VGI research as called for in the California VGI Roadmap, which is part of the Governor's Zero-Emission Vehicle Action Plan.

ORA is in support of VGI and related research to the extent that VGI services minimize impacts to the grid by avoiding infrastructure upgrades that are needed to support Electric Vehicle (EV) load. The proper integration of EV into the grid can translate into lower grid operation and maintenance costs, which ultimately benefits California ratepayers. However, ORA has concerns over integration costs to implement VGI services. In particular, while San Diego Gas & Electric Company (SDG&E) successfully demonstrated the capability to dispatch aggregated EV and energy storage resources for wholesale market participation,<sup>2</sup> it also revealed that market integration costs far exceeded program benefits. First, the telemetry required to aggregate and enable these resources to provide ancillary service added substantial costs. Second, the limited availability of EV fleets to be dispatched at any time restricted their potential resource benefits. SDG&E indicated it needs to substantially lower integration costs in order to make VGI services a sustainable business case. To that end, ORA recommends more research to explore the economic feasibility of VGI services, such as research on viable telemetric technologies to aggregate dispersed EV and energy storage resources that may yield lower integration costs.

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<sup>1</sup> CEC's Docket Number 16-TRAN-01, SB 350 Transportation Electrification

<sup>2</sup> SDG&E's OPRA (Optimized Pricing and Resource Allocation) Project Multi-Use Application – Use Case #3