

February 7, 2018

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Subject: Electric Motor Werks, Inc., Comments on East Bay Community Energy's Demand Response Assessment – Draft Work Product by Optony Inc., issued December 2017

Electric Motor Werks, Inc., ("eMotorWerks") appreciates the opportunity to comment on the East Bay Community Energy ("EBCE") Demand Response Assessment – Draft Work Product. eMotorWerks developed and operates JuiceNet, the leading electric vehicle (EV) cloud-based smart charging platform, and the company is the manufacturer of best-selling and best-rated residential EV charging station, the JuiceBox Pro, through Amazon.com and its own web store, with approximately 30,000 charging stations sold worldwide to date. eMotorWerks embeds the JuiceNet platform in its own residential and commercial EV charging stations, as well as third-party electric vehicle supply equipment (EVSE), including models from AeroVironment, Clipper Creek, Volta, Nayax, and a growing list of other manufacturers. eMotorWerks was acquired by Enel Group, the global utility holding company, in October 2017. eMotorWerks operates within the newly created Enel X division, which includes EnerNOC, the world's leading demand response provider.

eMotorWerks has a unique perspective into the demand response potential from plug-in electric vehicles in EBCE's service territory, as it is one of the largest concentrations of deployed eMotorWerks smart grid charging stations (a.k.a. electric vehicle service equipment, or EVSE) anywhere in the world today. This speaks to the enthusiasm for transportation electrification in EBCE's service territory as well as interest by these prosumers to contribute to decarbonization and stabilization of the electric grid. In addition, the report identifies that those customers with the consistently highest demand ratios¹ as being prime candidate to provide demand response to address or avoid system or local demand peaks. If this demand is highly flexible and likely to cluster with other high demand ratio customers, it would likely increase the attractiveness of this class of customer for demand response participation. Residential customers with Level 2 EVSE correlate very strongly with these criteria.²

eMotorWerks' experience, including from the referenced Sonoma Clean Power EV program³, is that engaging EVSE owners – residential or non-residential – to participate in demand response programs is most successful at the time of purchase of the EV(s) and/or EVSE. Attempts to engage customers well after the time of initial adoption will yield considerably less

¹ Pages 14 - 16

 ² A typical EV owner charging at home can increase household electricity consumption by 50% or more in total and increase non-coincident peak consumption by 2 to 10 times, compared to without an EV.
³ Page 22



conversion to program enrollment and at greater customer acquisition cost. This is particularly important to note and act upon due to the clustering of EV owners, both in terms of geography and energy choices, such as solar and rate plans. These considerations do affect the scope of costs that EBCE will directly manage, but eMotorWerks is pleased to observe EBCE's active interest in addressing local constraints on the transmission and distribution system. Demand response from EV charging is a compelling tool to enlist and one that is unique from traditional demand response, given the electric demand EV charging creates but also the demand flexibility it can provide.

EBCE has major roles to play in accelerating transportation electrification in its territory and across the Bay Area broadly, with its GHG, local air quality and electricity system benefits. These roles could include, but are not limited to, consolidating and organizing available incentives, program design, customer marketing, tariff design, on-bill incentives, etc.

The report astutely points out that EBCE should "lean on the experience of partners" to increase demand response participation and capabilities in the territory. Demand response is a highly specialized service offering that requires dedicated resources and technology to provide a positive customer experience. Replicating or procuring those capabilities to create an inhouse demand response operation should not be under-estimated. In addition, it is important for EBCE to be deliberate and transparent about its ultimate goals for its role in demand response as not to mislead the demand response community into making stranded investments and commitments based on EBCE customer relationships.

eMotorWerks believes that a well-structured demand response vision and program executed by EBCE could go farther than the goals referenced for other CCAs, especially in light of the trajectory EV adoption in the territory. By creating a platform that allows third party providers to flourish in the deployment of distributed energy resources to deliver demand response and related services, EBCE can produce local economic activity, accelerate decarbonization action, manage electricity supply costs, contribute to distribution reliability and reduce risk of load departure resulting from cost or other pressures.

eMotorWerks and its customers are looking forward to working with EBCE management staff to develop and deliver electric vehicle programs that seek local business development, local air quality improvements and demand response at scale as key pillars.

Sincerely,

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