

**DOCKETED**

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*Comment Received From: Dana Boudreau*  
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**General comments on workshop topics**

*Additional submitted attachment is included below.*



**MEMO**

July 31, 2019

**To:** Tim Olson  
**From:** Dana Boudreau

**Subject:** CEC IEPR workshop comments, 7/18/19

Dear Mr. Olson, thanks for the opportunity to participate in the Workshop on Clean Transportation Program Benefits Report and Successes for 2019 IEPR. This memo provides comments for the record.

**What are the unique characteristics of our project?**

The unique characteristics of our projects mirror the nature of the Redwood Coast Energy Authority:

- **Dedicated focus:** Our joint power agency, originally formed as a regional energy office, focuses exclusively on energy projects, with a dedicated mission, funds, and staff.
- **Regional independence:** The rural geographically isolated region is “at the end of the line” for the state, resulting in a population with generally strong independence and self-sufficiency.
- **Disciplinary connections:** We have a serendipitous combination of a regional energy office, university, and energy research center in our main population center.

**How did we achieve our goals?**

To be successful our agency must engage with a rural population, and our approach is to:

- Develop community awareness and education so that an informed populace can understand and share in program benefits.
- Repeatedly and transparently offer services with visible benefits, to earn social capital.
- Find ways to remove barriers, such as time, money, and complexity. For example, streamline paperwork, lower cost of entry and/or participation, and handle the research and analytical tasks for constituents.
- Stick to program basics: plan, implement, operate, evaluate, and expand or adjust as needed.

The main driver was a thoughtful, iterative program process. This consistent framework grew experience and capacity over time among decision makers, technical experts, and community participants. Access to a local university with environmental disciplines also created a healthy channel for students to gain real-world experience and build a clean energy workforce.

From an economic perspective, our not-for-profit model allowed us to build a publicly accessible network that includes sites with good economics, and those with poor economics but high perception value such as outlying locations. These outliers are critical to reduce range anxiety but are unlikely to be of interest to private businesses.

Finally, we retained our focus on a successful, predictable customer experience. For our public EVSE network, a dedicated team strives for high station uptime, favorable and consistent pricing, and straightforward self-service backed up with good customer support. Directional signage was a subtle but

essential awareness tool to help reassure existing EV drivers but also build awareness among the general population.

### **What are options to replicate our success?**

The regional energy office is an excellent model to establish a network of localized decision makers and technical experts to coordinate and deliver key state initiatives into selected territories. For example, RCEA got their start with the foresight of the California Public Utilities Commission and the Local Government Commission following the 2001 energy crisis.

Community Choice Aggregation programs (CCAs) share many of the attributes of our regional energy office mission and may prove to be a natural evolution of a regional energy office to deliver California Energy Commission (CEC) initiatives. In parallel to CCA efforts within their communities, the CEC can recognize and sustain CCA values through regulatory processes.

Efforts to streamline common activities can reduce duplicative efforts. For example, identify and standardize generic processes and tools for rebates, approvals, permitting, technical research, and implementation. Specific opportunities are to focus first on government-imposed requirements. For example, certify technology through the California General Services Administration, or have suppliers offer bulk discounts on specified configurations (economy of scale).

Also, explicitly fund new technology risk through government channels. An example of this lesson is the initial biodiesel rollout, where storage facilities bore the cost of expensive tank leakage and repairs resulting from fuel distribution practices and cross-contamination. The fuel distribution and storage sectors now bring a degree of aversion as they learn about other state-level initiatives. This early adoption risk can be partially addressed through information clearinghouses, certification, and standards.

### **The state is now aiming for 5M advanced fuel vehicles: how do we plan to achieve our share?**

Based on NREL projections, our region needs about 400 public EVSE by 2030 and currently we have about 40. We believe that linear annual expansion will help us meet the 2030 target if funding stays consistent in the next decade. Overall our goal is to emphasize persistent, reliable locations to support a confident, active community of EV drivers. Without maintenance funds we foresee heightened levels of attrition and driver frustration, so reliable operating funds are important. An initiative similar to the Department of Energy's SunShot program, which sought to reduce solar installation costs, could be designed to help drive down both installation but also routine operation and maintenance costs.

### **What are some challenges that may affect future success?**

We see transportation as roughly half of the decarbonization challenge for our region, but funding has yet to equivalently scale for transportation. We're working to maintain continuity on efforts while monitoring future growth opportunities.

Other challenges include:

- CALeVIP looks to be a promising mechanism to accelerate regional funding deployment, but care must be taken so that state-level funding doesn't get exclusively siloed into specific sectors, such as hotels, where EVSE may become more of a guest amenity rather than a public asset. One potential solution is to set aside a public-sector percentage.

- ADA is an essential societal policy, but small parking lots and ADA space requirements preclude the majority of rural EVSE siting opportunities.
- CalEnviroScreen is a powerful tool but needs to be applied judiciously since it specifically targets disadvantaged communities with environmental degradation. If a program also needs to reach disadvantaged communities in clean environments, a different tool is necessary.
- Recurring costs are a challenge. A proliferation of monthly service fees add up quickly for cellular services, network managers, payment processors, and service agreements. These recurring service costs can result in a monthly break-even point where locations would be cheaper to operate as dumb stations dispensing electricity at no cost to end users.
- Rapid technology turn-over leads to early obsolescence and potential decommissioning costs at existing locations. For example, the transition from 3G to 4G cellular service can require extensive upgrades to on-premise modems and payment modules. Multiple unplanned technology upgrades within an EVSE's normal effective useful life can invalidate lifecycle cost projections, and potentially lead to abandoned sites.
- The California electrical grid is generally constrained, particularly for communities built before 1974 energy regulations and in mild coastal climates where air conditioning hasn't driven capacity upgrades. Utilities are also currently challenged with safety and liability issues, limiting their attention for electrification enhancements.

#### **Do we see any cost reductions on the horizon?**

The low carbon fuel standard is a great mechanism as an interim funding pipeline, particularly to cover operation and maintenance expenses of EVSE delivering the actual carbon savings. However, private industry is currently best positioned to benefit based on program design.

Access to a state data clearinghouse, particularly for vehicle registration and vehicle miles travelled, would help lower program evaluation and monitoring costs and allow more universal regional tracking. More granular data will better improve targeted activities to influence and place stations where they best mirror EV ownership patterns.

Credit card payment systems, while ubiquitous, come with layers of recurring fees. Emerging digital mobility payment systems may help to reduce payment transaction costs.

New construction with code-driven electrification features will ease overall implementation costs for future initiatives.

Simpler EVSE mechanical designs with fewer moving parts equal less maintenance, repairs, and downtime. However, EVSE and network management with robust electronic diagnostics, accurate error codes, and remote reset capability greatly reduces field visits and station downtime. This is particularly important for site hosts with limited availability and technical knowledge.

Sincerely,

Dana Boudreau  
Director of Operations