

# SUPPORTING TRANSPORTATION ELECTRIFICATION: ZERO-EMISSIONS VEHICLES (ZEVS) AND INFRASTRUCTURE

Let AESC Help You Maximize the Benefits and Minimize the Risks Associated with the Rapid Growth of Electric Vehicles in Your Service Territory

AESC has years of experience working with the utilities, municipalities and regulatory bodies that built the foundation for this transition. Our expertise makes us uniquely qualified to support the challenge of seamless ZEV infrastructure integration and strategic load management.

## POLICY, STRATEGY, PLANNING, READINESS ... KNOWING WHERE YOU'RE HEADED STARTS WITH KNOWING THE ROAD BENEATH YOU

Our plans and recommendations always begin with a comprehensive initial assessment and report to determine our client's goals and objectives. From there, our recommendations may include the following components:

Utility-Specific Readiness Plans and Load Management Strategies

Designed in accordance with the CA PEV Collaborative Readiness Toolkit.

Infrastructure Implementation Plans
Includes specific actions such as charging site selection and optimization analysis, and future proof planning for the ZEV ecosystem and considerations of component interoperability.

Marketing and Communications Plans
Includes general consumer awareness education, marketing and outreach plans and assets, and assistance with deployment.

Rate Assessment and Program Incentives

AESC will research grant and private funding opportunities, and provide recommendations on EVSE rebates and incentives, as well as provide various charging rate scenarios according to transactive pricing models.

Expert Network Development and Support

Assisting in developing an expert advisor network including equi

**Business Innovation Services** 

Assisting in developing an expert advisor network including equipment installers, property ownership experts, OEMs, financing and ZEV infrastructure experts, among others.

Tracking industry innovations and developing revenue generation success metrics and economic impact models as needed.



#### **PUTTING OUR EXPERIENCE TO WORK**

#### STATEWIDE ZEV STRATEGIC ROADMAP

Through a competitive grant with the California Energy Commission (CEC), AESC delivered the strategic ZEV Infrastructure Roadmap and Action Plan defining the goals and actions necessary to support the level of vehicle growth mandated by the Governor's Executive Order B-16-2012.

Read the action plan here:

http://www.energy.ca.gov/2015publications/CEC-600-2015-015/CEC-600-2015-015.pdf

#### INTERACTIVE MANAGEMENT OF ZEV LOADS

AESC is leading an unprecedented field study that analyzes the impact of an intelligent device that monitors, tracks and manages the interaction of ZEVs with a home's photovoltaic system, along with other major systems such as pool pumps and HVAC. The purpose of this effort is to develop solutions that will help residential customers manage demand interactively and help utilities understand opportunities for transactive energy environments.

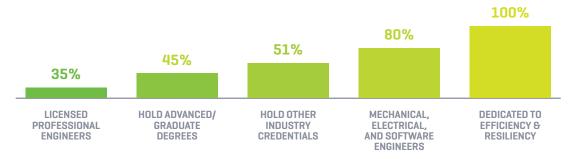
#### **ACHIEVING NET ZERO WITH ZEV INFRASTRUCTURE**

AESC worked with UCSD and CEC to plan and execute the deployment of a ZEV demonstration fleet and workplace charging stations for the purpose of assessing the impact of Level 2 and DC Fast Charger operations on the campus micro-grid and Net Zero goals.

AESC is collaborating with UCSD and the CEC to oversee a measurement and verification project for future vehicle-to-grid integration. The project will provide key data in understanding the impact of vehicle-to-grid in the real world.

### **AESC: EXPERTS IN ZEV INTEGRATION, ENGINEERING AND M&V**

The AESC team includes mechanical, electrical and software engineers with decades of combined experience as whole-systems experts. We are passionate about energy engineering and are dedicated to providing the support necessary for our nation's adoption of ZEV and the electrification of transportation infrastructure.



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