

Green Purchasing Webinar Series

Leading the Charge:
Electric Vehicle and Charging Station State Contracts



DECEMBER 19, 2016 12:00 - 1:00 PM EST

Thank you for joining us today to learn more about California and Washington's Electric Vehicle and Charging Station State Contracts.

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Electric Vehicle and Charging Station State Contracts



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- To receive **one hour of UPPCC Certification Credit** for attending today's webinar, please email Elena Moreland at emoreland@naspo.org to receive your certificate of participation.

Speakers

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NASPO ValuePoint



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*Procurement
Engineer*
State of California

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*Senior Electronic Data Processing
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State of California

Moderator

Elena Moreland
NASPO Senior Policy Analyst



State of California

Mark Wriston
Procurement Engineer
Department of General Services

Dion Campos
Senior Electronic Data Processing Acquisition Specialist
Department of General Services
Procurement Division - Contract Management Section

Assembly Bill 236

The passage of AB 236 in 2007, established Public Resource Code 25722.6 which mandates that vehicles be evaluated and ranked by total cost of ownership and environmental impacts on all passenger cars and light-duty vehicles.

Executive Order (EO) B-16 12

- Issued on March 23, 2012, by Governor Brown.
- Ordering “California’s state vehicle fleet increase the number of its zero-emission vehicles through the normal course of fleet replacement”

Executive Order (cont.)

- 10 percent of fleet purchases of light-duty vehicles be zero-emission by 2015.
- 25 percent of fleet purchases of light-duty vehicles be zero-emission by 2020.
- Does not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

Executive Order (cont.)

- EO B-16-12 also established a goal that “by 2020 the State’s zero-emission vehicle infrastructure will be able to support up to one million vehicles.”

Fleet Vehicle History

2011 Contract

- Nissan Leaf, first Electric Vehicle (EV)
- Chevrolet Volt, first Plug-In Hybrid Electric Vehicle (PHEV)

2016 Contract

- Toyota Mirai, First Hydrogen Fuel Cell Vehicle (FCV)

Fleet Vehicle Contracting

Specification

- Defines minimum requirements (A/C, Automatic Transmission, etc.)

Fuel Economy Guide (EPA & DOE)

- Used for vehicle classes (compact, midsize, large, etc.)
- Mileage (fuel cost), EV Range, etc.

Fleet Vehicle Contracting

Evaluation Methodology


- Costs (Purchase Price, Fuel Cost, and Maintenance Plan Price)
- Environmental (GHG, SMOG, Window Glazing, Indoor Air Quality)

2016 Fleet Contract

Fuel Cell Vehicle (FCV)

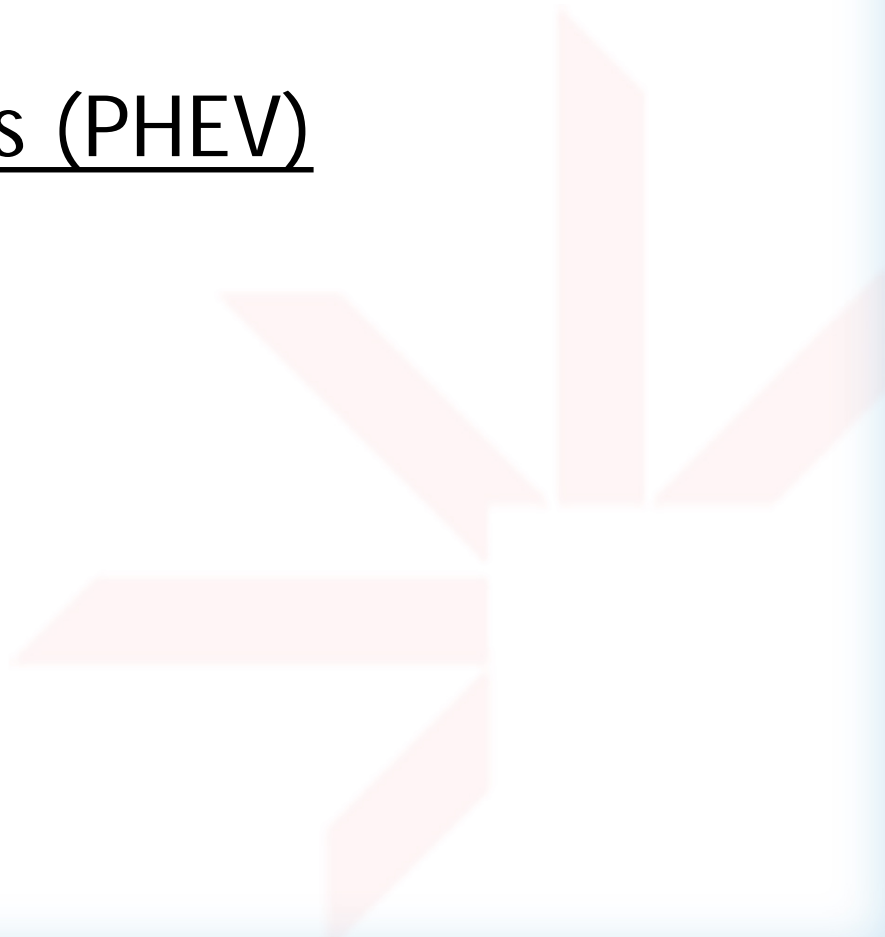
- Toyota Mirai

Electric Vehicles (EV)

- Ford Focus
 - Nissan Leaf
 - Kia Soul
- 

2016 Fleet Contract (Cont.)

Plug-In Electric Vehicles (PHEV)

- Chevrolet Volt
 - Ford C-Max
 - Hyundai Sonata
- 

Electric Vehicle Supply Equipment (EVSE) Technology Goals

- Governor Schwarzenegger released a Green Building Initiative for California, Executive Order S-20-04 with goals to reduce energy use by 20%.
- Executive Order B-18-12 Green Building Action Plan rescinded EO S-20-04. It's ordered that State agencies identify and pursue opportunities to provide electric vehicle charging stations, and accommodate future charging infrastructure demand, at employee parking facilities in new and existing buildings.
- The State has identified several technologies goals that will be used, establish Statewide Contracts for: Basic, Smart, Solar Panel Mobile Networked and Non-Net Worked EVSE's.
- Support Environmentally Preferable Purchasing (EPP) as mandated by the California Public Contract Code (PCC), Chapter 6, Sections 12400-12404.

California EVSE Solicitation Goals

The State of California goals were to create competitive procurements to establish numerous EVSE contracts categorized as:

- Basic Single and Dual EVSE - Level 1, 2 and DC Quick
- Smart Single and Dual EVSE - Level 1, 2 and DC Quick
- Solar Mobile EV ARC - Level 1, 2 and DC Quick

Statewide Smart and Solar Mobile EVSE Contracts provide:

- Group 1 - Smart EVSE complete turnkey solution that completely provides all core hardware, network services, planned maintenance services, repair services, installation.
- Group 2 - Smart EVSE core network services, planned maintenance services, repair services.
- Group 3 - Smart EVSE hardware, installation.

Electric Vehicle Supply Equipment (EVSE) Source Impact on Emissions

- The source of power for EVSE has an impact on both ownership expense and the environmental benefits.
- Hydro-electric, solar and wind energy sources can also extend the environmental benefits by significantly reducing the CO₂ contribution associated with conventional electrical power generation.

Introduction and Understanding Electric Vehicle Supply Equipment (EVSE) Technology

BASIC AND NETWORK EVSE (CHARGERS)

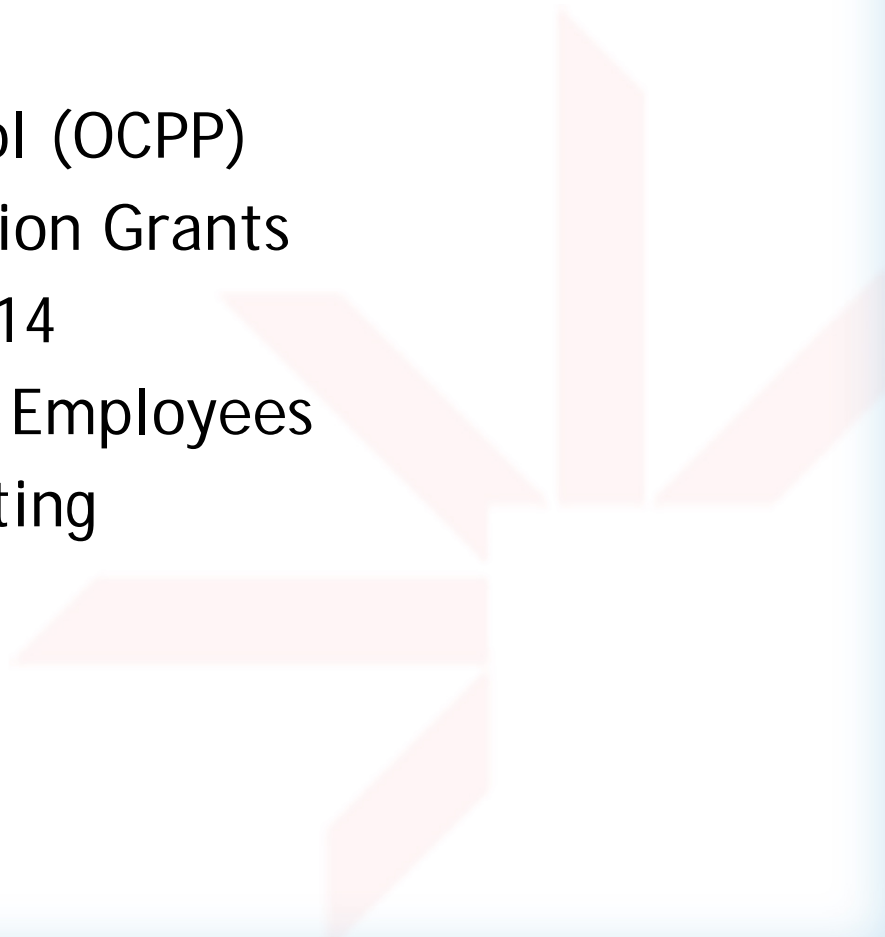
- Non-Networked or Basic chargers (Dumb Charging) have the same amount of power output, but don't offer the features and benefits of a networked unit.
- Networked or Smart chargers communicate via Cellular, Wifi and Ethernet to a network that monitors the unit to provide usage data and Fee's.
- EVSE delivers electrical energy from an electricity power source that provides the AC or DC supply to the electric vehicle that is needed to charge the vehicle's batteries.

Introduction and Understanding Electric Vehicle Supply Equipment (EVSE) Technology

EVSE Level 1, 2 and DC Fast Charger

- AC Level 1 Charging Level 1 provides charging from a standard residential 120-volt AC outlet.
- AC Level 2 Charging Level 2 equipment provides charging using 220-volt residential or 208-volt commercial AC electrical service.
- DC Fast Charging (DCFC) DCFC equipment requires commercial grade 480-volt AC power service.

Electric Vehicle Supply Equipment (EVSE) Technology Planning and Challenges

- Open Charge Point Protocol (OCPP)
 - California Energy Commission Grants
 - Gift of Public Funds GC 8314
 - Usage Fees Charging State Employees
 - Data Collection and Reporting
- 

Electric Vehicle Supply Equipment (EVSE) Station Network Connectivity

- Network-ready - include hardware/software to communicate with a network management system (NMS)
- Uses Open Charge Point Protocol (OCPP 1.5 or later) to communicate with a NMS
- Available as a “gateway” (a.k.a hub) and as a “non-gateway” (node) type
- “Gateway” stations communicate directly with a NMS
- “Non-gateway” stations communicate with the NMS via the “gateway” stations

Electric Vehicle Supply Equipment (EVSE) Payment Acceptance

The Smart EVSE stations can be equipped with a Magnetic Card Reader and Smart Card Reader (American Express, Discover, Mastercard, Visa) debit cards and major fuel cards to accept payments and perform as follows:

- Be Payment Card Industry Data Security Standard (PCI DSS) compliant.
- Compatible and able to interface with the current California State EPAY systems.
- Be bi-lingual, allowing users to interact in English or Spanish.
- Be compatible with contactless credit cards.
- Ensure compliance with the state's fiscal policies and internal control procedures.

APPLICABLE LAWS and INDUSTRY STANDARDS

- UL Subject 2594, Electric Vehicle Supply Equipment
- UL 2231, Standards for Personnel Protection Systems in EV Charging
- UL 62, Flexible Cords and Cable (Including EV Cable)
- UL 50E, Electrical Enclosures, Environmental Considerations
- UL991, Safety Controls Employing Solid State Devices (If Used)
- UL 1998, Software in Programmable Components (If Used)
- NFPA 70, National Electrical Code Article 625, EV Charging Systems
- SAE J1772, Practice Electrical Vehicle & Plug-In-Hybrid Electric Vehicle Conductive Coupler
- EMI Compliance, FCC Part 15 Class A or B
- ISO Standards, 14443, 18092

Solicitation and Evaluation/Selection Process

- The State assembled a Solicitation Team of Subject Matter Experts (SMEs).
- Awards were made to the bidder who earned the highest points by Group and to any other bidder who scored within 20% of the highest points scored within each Group.

Awards - Basic EVSE

Contractor	Level 1	Level 2
Broadband Telecom Inc.	X	X
Pacific Lighting Management	X	X

Awards Smart EVSE

Contractor	Turnkey	Network Services	Hardware and Services
BTC Power	X	X	X
EV Connect		X	
OP Connect		X	X
Pacific Lighting Management			X
Saturn Electric	X		X
ABM		X	
Charge Point		X	
Clean Fuel Connection			X

Awards Solar Mobile Arc



EV ARC
Single Plug

EV ARC
Dual Plug

EV ARC
Accessories



Additional Information

- Public Works components that are NOT incidental to the overall project requirements are not be included in this Contract.
- Infrastructure must be in place prior to installation
- Decide what type of charger best suits the application
- Mix and match multiple contracts
- The total amount of EVSE sold on contract:
 - \$113,482.17 total spend for Basic Wall EVSE, Floor Mount EVSE and Misc
 - \$2,235,605.00 total spend for Smart Wall EVSE, Floor Mount EVSE and Misc
 - \$755,080.00 total spend for Solar Mobile Arc Units



Philip Saunders

Governor's Announcement

GOVERNOR INSLEE'S ANNOUNCEMENT

“Today, I am announcing a new initiative to accelerate adoption of electric vehicles in public and private fleets. This **“Washington State Electric Fleets Initiative”** will ensure that at least **20% of all new state passenger vehicle purchases are electric vehicles by 2017**. I am taking this action today to help fleets scale up their use of EVs, and to **‘double-down’ on the 10% EV fleet target established by the Pacific Coast Collaborative**.

“We won’t **defeat climate change** unless we use all of the tools we have available—and that includes what we buy in the market place for our daily use. All institutions need to focus their procurement policies and practices on low-carbon options, as these investments will **save money, protect public health, and secure our long-term future.**”

—Governor Jay Inslee

Background

BACKGROUND

Fleet operations are well suited to expanding the use of **electric vehicles** because they can utilize centralized charging, often have predictable routes and typically focus on life-time vehicle costs.

Fleets can also have a **big impact**. More than 42,000 vehicles were sold to fleets in California, Oregon and Washington in 2013.



Washington state is already a **leader in electric vehicles** thanks to generous **state incentives** like a sales tax exemption and EV infrastructure bank. In fact, Washington is helping lead the pack in **EV market share** nationwide. Washington state has nearly 13,000 EVs on the road today—that's more than three electric vehicles per 1,000 registered vehicles.

A Joint Public-Private Fleet Procurement of Electric Vehicles will **leverage government procurement power, save taxpayer dollars** over time due to lower life-cycle costs, reconcile state agency purchase practices with **current law**, and help **accelerate EV awareness and adoption** throughout the state and beyond.

Action Steps

ACTION STEPS

The final term of the state's current vehicle procurement contract expires January 1, 2017, so there is a unique opportunity over the next weeks and months to shape future outcomes. Washington will solicit proposals from electric vehicle manufacturers in early 2016. The existing vehicle funding and replacement schedule will be leveraged to deliver this initiative, and no additional resources will be required.

The following action steps outline how this joint procurement will be accomplished in short order:

1. **Convene** a "Washington State Electric Fleets Initiative" Design Team that includes public and private sector members to draft the solicitation, criteria and implementation plans for a new state master contract.
2. **Invite** other states and public and private fleets to participate in the procurement.
3. **Issue** a competitive solicitation and **review** proposals through an independent review panel.
4. **Award** one or more contracts with a guaranteed minimum purchase commitment.

Vehicles

Contract 05013

- Contract Automobile Request System (CARS) used by WA State as a web-based ordering system for automobile ordering.
- Automobiles Category Two-Electric, Hybrid & Alternative Fuel
- Multiple Manufacture's vehicles able to be added with new technology clause in contract.
- Currently WA State has contracted the Chevy Bolt \$29,555, Nissan Leaf \$20,734, and Ford Focus \$26,915 to name a few. New contract to come 2017 with more options.

Contract 09214

- WA State also has a Heavy Duty Bus contract with Electric Bus options with Proterra, BYD, and Green Power Motor Company that uses FTA provisions which multiple other States leverage to purchase off contract.

Electric Vehicle Supply Equipment (EVSE)

Contract 04016

- Statewide contract 04016 works with a collaboration effort of personnel to mainly include the Contract Vendor, DES Contract Specialist/Coordinator, DES Fleet Manager, and DES Real Estate Services.
- Customers are required to contact Department of Enterprise Services (DES) Real Estate Services and the responsible Fleet Manager before any installation takes place
- Contract 04016 is composed of Full Turnkey providers, Hardware Only, Portable Generators, and Solar.
- Multiple Vendors were contracted with their complete catalogs which created certified Office Minority and Women's Business Enterprises (OMWBE) Women, Minority, Veteran, socially and economically disadvantaged and Small Business opportunities throughout WA State.

Washington State Team

- Charles Knutson (Executive Policy Advisor Office of Jay Inslee)
- Dan McConnon (Director State Efficiency and Environmental Performance)
- Stew Henderson (Process Improvement Manager State Efficiency & Environmental Performance DES)
- Cheral Manke (DES Chief Procurement Officer)
- Cynthia Shaw (DES Transportation Supervisor)
- George Carter (DES Fleet and Parking Services Manager)
- Tonia Buell (Washington State Department of Transportation)
- Peter Moulton (Washington State Department of Commerce)
- Andrea Pratt (City of Seattle)
- Chris Bast (Seattle City Lights)
- Kimberly Cline (Puget Sound Clean Air)
- Scott Dewees (Project Manager, Energy & Sustainability Port of Seattle Sea-Tac Airport)
- Linda Kent/Jennifer Reynolds (DES Communications)
- Richard "Rick" Teebay (Office of Sustainability County of Los Angeles, CA)

Zero Emission Vehicle Project

The State of California, in cooperation with NASPO ValuePoint, is leading a multi-state Zero Emission Vehicle (ZEV) Project

OBJECTIVE: Obtain best possible pricing and increase nationwide adoption of ZEV

Zero Emission Vehicle Project

The State is assisted by a non-profit organization acting as a Research Project Team

They are gathering data from multiple sources, including:

State Fleet Operations

Counties

Municipal Partners

Auto Dealerships

Zero Emission Vehicle Project

NASPO ValuePoint is putting together a Sourcing Team to assist the California with developing and evaluating the solicitation. They will also help with the ongoing contract administration

The Sourcing Team will be a mixture of procurement officers and subject matter experts from multiple states.

Zero Emission Vehicle Project

So far the Sourcing Team has members from:

Colorado

Minnesota

Florida

Washington

Hawaii

We are looking for additional team members that either have purchasing or management experience with a state equipment fleet program

Zero Emission Vehicle Project

Several States have ZEV contracts but we want to establish a single contact that encompasses all states

This initiative has been in the formulation process for quite a while and is temporarily paused because California recently lost their Contract Lead and her manager to promotions outside of the State Procurement Office.

Zero Emission Vehicle Project

IMMEDIATE NEEDS:

While California resolves their staffing issues, we will continue to build a strong Sourcing Team

If you are interested in joining the Sourcing Team or know someone you would like to suggest, please contact me at:

tfosket@naspovaluepoint.org

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