

Informational Resources and Budgeting for EVSE

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DGS Experience with EVSE

- 63 EVSE installed through CEC grants
- 150-200 additional - CEC agreements
- Developing expertise in EVSE in order to offer design services to other State agencies
- Involved with the policy formation for EVSE

Publications

Developed by the Governor's
Office of Planning & Research

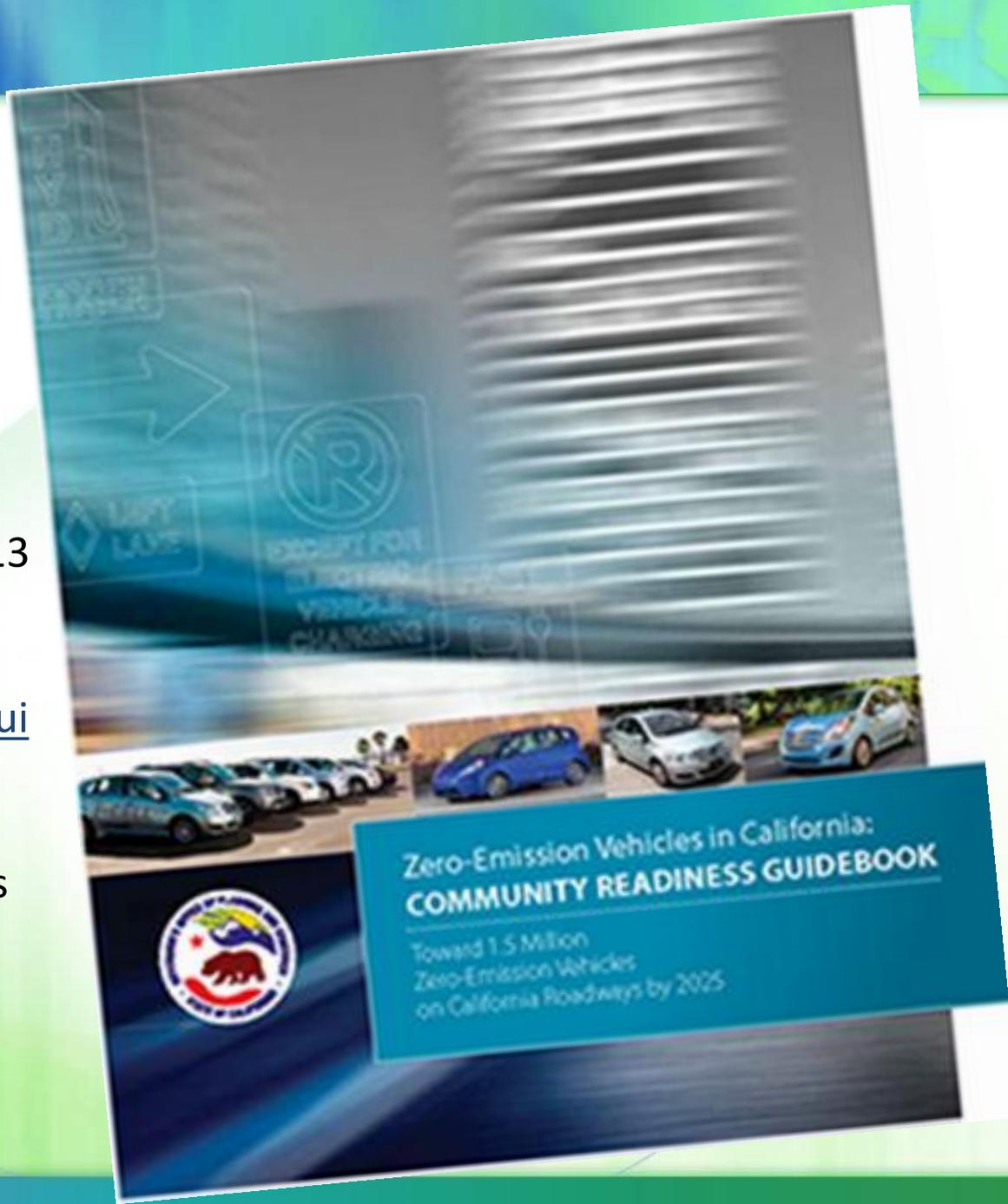
Collaboration of 40+ experts

176 pages, released Fall of 2013

Available for download at:

http://opr.ca.gov/docs/ZEV_Guidebook.pdf

Wealth of information for ZEVs



Community Readiness Guidebook

- **Three main sections:**
 - Background information on ZEVs
 - Recommendations for local communities
 - Practical tools & templates



Community Readiness Guidebook

● **Contains:**

- State's ZEV goals
- Benefits of ZEV
- Laws & codes
- Zoning
- Infrastructure needs
- Accessibility
- Funding & financing
- Needs assessment
- Technical overview
- Fuel Cell technology
- Hydrogen fueling
- Building codes
- Permitting
- Working with utilities
- Signage
- Greening Fleets
- Economic benefits
- Practical tools
- Templates
- Extensive reference Section



DGS Guidance Document

- DGS created the ***EVSE GUIDANCE DOCUMENT*** to complement the ZEV Community Readiness Guidebook and expand the information.



DGS Guidance Document

- **Augments the public oriented *ZEV Community Readiness Guidebook***
 - **Expands information about EVSE**
 - **More specific to state government**
 - **Outlines requirements for state agencies**
 - **Available on the DGS Green California Website :**
<http://www.green.ca.gov/Transportation.aspx>

DGS Guidance Document

- **Technology**
- **Different types of EVSE**
- **Facility evaluation & planning**
- **Design process**
- **Budgeting & procurement**
- **State specific requirements**
- **Data collection & reporting**
- **EVSE business models**
- **Utility assistance**



Fees for Electric Vehicle Charging

- “In the opinion of this administration, charging fees for energizing employee owned electric vehicles is optional and free charging is not a “gift of public funds.” Each agency can establish their own policy and rate regarding the use of EVSE.”



Budgeting for EVSE

- Budget components
 - The EVSE device itself
 - Infrastructure improvements
 - On-going costs



Budgeting EVSE

● **EVSE Device itself**

- Level 1 - \$500 to \$1,000
 - Level 2 – Basic - \$500 to \$2,600
 - Level 2 – Smart - \$4,500 to \$17,000
 - DC Fast Charging - \$19,000 to \$40,000
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- Pricing is trending downward as the competition increases

Budgeting EVSE

- **Electrical infrastructure improvements**
- Your results may vary, depending on the facility
 - Level 1 or 2 at existing wiring - \$200 to \$400
 - Level 1 or 2 -moderately complex - \$5,000 to \$10,000
 - DC Fast Charging - \$100,000 to \$200,000
 - Additional expenses may be needed for site improvements (i.e. striping, signage, access compliance and others)
 - Best approach is to have an engineer or contractor evaluate each location.

Budgeting EVSE

- **On-going annual costs**

- **All EVSE**

- May need maintenance and inspection services
- Increased electrical usage

- **Smart EVSE** (depending on the business model chosen)

- Network access fees – approx. \$250/year per cord
- Swipe fees – percentage or flat rate (if allowed)
- Subscription fees for certain providers
- Internal fiscal monitoring associated with fees
- Parking enforcement

Planning Process

- **Conduct a needs assessment of EVSE**
- **Evaluate the electrical service & capacity**
- **Determine the location at the site**
- **Contact the local utility for assistance**
- **Engineering & approvals**
- **Contracting & installation**

- **On-going maintenance & web access**
- **Parking policies**

Overall advice for public agencies

- Create a master plan of EVSE for your agency
- Start well in advance (12-18 months) before vehicles arrive
- Budget for planning, installation & on-going costs
- Seek funding assistance
- DGS is available for design assistance to the State agencies



Thank you

*This Is What The End
Of Gasoline Looks Like*

ZERO Emission