

SAN DIEGO REGIONAL ELECTRIC VEHICLE INFRASTRUCTURE WORKING GROUP

MEETING NOTICE AND AGENDA

Date: Thursday, July 19, 2012

Time: 1:00 p.m. to 2:30 p.m.

Location: California Center for Sustainable Energy
8690 Balboa Ave, Suite 100
San Diego, CA 92123-1502

Staff Contact: David Almeida
Tel: (858) 244-1190
Email: david.almeida@energycenter.org

AGENDA HIGHLIGHTS

- **WORKING DRAFT REVI DOCUMENT - BREAKING DOWN BARRIERS: EVSE INSTALLATION IN MULTI-UNIT DWELLINGS**
- **ROUNDTABLE ON COMMERCIAL INSTALLATION ISSUES**

In compliance with the Americans with Disabilities Act (ADA), CCSE will accommodate persons who require assistance in order to participate in San Diego REVI meetings. If such assistance is required, please contact CCSE at (858) 244-1177 at least 72 hours in advance of the meeting.



SAN DIEGO REVI

Thursday, July 19, 2012

ITEM #		RECOMMENDATION
1.	WELCOME AND INTRODUCTIONS	
+2.	SUMMARY OF THE MAY 17, 2012 MEETING The San Diego Regional Electric Vehicle Infrastructure Working Group (REVI) is asked to review and approve the May 17, 2012 meeting summary.	APPROVE
3.	ANNOUNCEMENTS AND PUBLIC COMMENTS Members of the public shall have the opportunity to address San Diego REVI on any issue that is not on this agenda. Public speakers are limited to three minutes or less per person. REVI members may provide information and announcements under this item.	INFORMATION

REPORTS

+4.	PEV READINESS REGIONAL UPDATE - JULY 2012 Staff will provide a brief status report on PEV-related developments since the May REVI meeting. The regional update is attached to this agenda and addresses: The EV Project, San Diego Airport chargers, Tesla Model S sedan, Clean Vehicle Rebate Program, and PEV Readiness Workshop.	INFORMATION
+5.	WORKING DRAFT REVI DOCUMENT - BREAKING DOWN BARRIERS: EVSE INSTALLATION IN MULTI-UNIT DWELLINGS Through workshops and fact sheets, SDG&E has been educating property managers and residents as to challenges faced in siting EV chargers at multi-unit dwellings (MUD). The attached REVI document is meant to complement existing SDG&E activities by focusing on issues the utility cannot address: "customer side of the meter" challenges. It is based on REVI member feedback, SDG&E MUD workshops, and research from existing PEV Readiness Guidelines. REVI members are asked to review the draft and provide input to help make this a useful document that answers some of the common challenges for MUDs.	DISCUSSION

6. ROUNDTABLE ON COMMERCIAL INSTALLATION ISSUES DISCUSSION

REVI members and industry representatives directly involved with the installation process for EV charging stations at commercial sites will share challenges and successes they have experienced in the field, and what they believe the REVI can do to assist in this area. The Chair will then kickoff discussion about action(s) the REVI could undertake to encourage and/or simplify commercial installations.

+7. REVI GOALS ADOPTED INFORMATION

Following the last REVI meeting, staff distributed a REVI Goals Survey to voting members. The majority of voting members selected Goal 4 to read as follows, "To identify funding opportunities, tax benefits, and other potential incentives that promote PEV and EVSE deployment and support economic development in the region." The attachment lists the four adopted REVI goals.

8. NEXT MEETING INFORMATION

The next REVI meeting will be at CCSE from 1:00pm-2:30pm on Thursday, September 20, 2012. Topics will include a discussion on the lengths the region has come in establishing a PEV market, follow-up from the commercial installation discussion, and progress on the MUD guidance document.

9. MATTERS FROM MEMBERS INFORMATION

REVI members are encouraged to discuss additional topics of general interest.

10. ADJOURNMENT

+ next to an item indicates an attachment

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MAY 17, 2012 MEETING SUMMARY

ITEM #1: WELCOME AND INTRODUCTIONS

Vice Chair Mike Ferry, California Center for Sustainable Energy (CCSE), called the meeting to order at 1:07 p.m. He welcomed everyone to the second meeting of the San Diego Regional Electric Vehicle Infrastructure Working Group (REVI) and introductions followed.

ITEM #2: SUMMARY OF THE MARCH 15, 2012 MEETING

Paul Manasjan, San Diego Regional Airport Authority, motioned to approve the meeting summary from March 15, 2012, Randy Walsh, Meissner Jacquét Investment Management Services, seconded the motion. Motion carried without opposition.

Brendan Reed, City of Chula Vista, requested that Chris Helmer, City of Imperial Beach, be added to the membership list as the alternate for the South County representative. Mr. Helmer agreed to be the South County alternate. Joel Pointon, San Diego Gas & Electric (SDG&E), requested that Randy Shimka, SDG&E, replace Greg Haddow, SDG&E, as the alternate member for SDG&E.

ITEM #3: ANNOUNCEMENTS AND PUBLIC COMMENTS

David Almeida, CCSE, announced the launch of the Plug-In Ready website which can be found at www.energycenter.org/pluginready. This website will house meeting information and agendas as well as any best practices produced related to REVI. Mr. Almeida went on to described that the website will be a source of information related to PEV readiness and includes sections for businesses, homeowners, infrastructure installers as well as municipalities.

ITEM #4: PLUG-IN ELECTRIC VEHICLE READINESS WORKSHOP

Mr. Almeida announced the Plug-in Electric Vehicle (PEV) Collaborative Workshop planned for June 14, 2012 from 10:00 a.m. to 4:00 p.m. at CCSE. He described the workshop as an opportunity for local government staff to learn the tools and resources available to make their communities PEV ready. Mr. Almeida stated that the workshop will cover the five core areas to promote PEV infrastructure in communities which includes: 1.) zoning and parking, 2.) building codes, 3.) permitting and inspection, 4.) training and education, and 5.) outreach to PEV consumers. Mr. Almeida also mentioned that the workshop will include panel discussions related to PEV/EVSE incentives available and the benefit of workplace charging. He also emphasized that if members are only able to attend part of the workshop, to try to make it to the morning half Mr. Walsh asked for clarification on the PEV collaborative and CCSE's role in the workshop. Mr. Almeida clarified that the workshop is a joint effort and that CCSE is the lead on San Diego regional efforts under the PEV collaborative.

ITEM #5: SAN DIEGO REVI FORMATION DOCUMENTS

Mr. Ferry introduced the item. Mr. Almeida commented that REVI members provided feedback on the Draft Mission Statement, Draft Goals, and Draft Charter at the last meeting and staff had also reached out to all members during the last two months to gain additional input on these documents.

A. REVI Mission Statement

Mr. Ferry read aloud the staff recommended, proposed REVI Mission Statement. Mr. Walsh suggested the mission statement include language regarding promoting the adoption of PEVs and electric vehicle supply equipment (EVSE) as well. Mr. Reed suggested the addition of the word “promote” before “the widespread deployment.”

Allison King, San Diego Association of Governments (SANDAG), motioned to approve the Mission Statement with Mr. Reed’s edits. Mr. Manasjan seconded the motion. The motion carried without opposition. The adopted REVI Mission Statement is as follows:

To facilitate and develop a San Diego regional plug-in electric (PEV) readiness plan that identifies, reduces or resolves barriers to promote the widespread deployment of private and public electric vehicle supply equipment (EVSE); thereby showcasing the San Diego region as a national leader in PEV readiness.

B. REVI Goals

Mr. Ferry read aloud the staff recommended proposed REVI Goals and asked members for additional comments.

Comments, questions, and discussion were as follows:

- Mr. Pointon asked for clarification regarding the references to “best practices,” he asked if the REVI group would define the best practices during the process of creating the plan. Mr. Almeida suggested that REVI and staff work to develop a method for identifying best practices. Mr. Pointon and other members agreed that this process would be helpful. Mr. Almeida stated staff would establish this process and provide it to the group before the next meeting.
- Micah Mitrosky, International Brotherhood of Electrical Workers (IBEW) Local 569, suggested the addition of a reference to promoting skilled, middle-class jobs. Greg Newhouse, Miramar College Advanced Transportation Technology and Energy Program, and Kathy Valverde, City of Santee, agreed with the inclusion of a reference to jobs, but did not want to limit it to skilled, middle class. Mr. Manasjan commented that the whole regional economy can benefit from PEV technology.
- Mr. Walsh commented that he had concerns with the reference to funding. Mr. Reed and Mr. Manasjan explained the importance of identifying funding in order to implement the REVI Readiness Plan and also the opportunities to collaborate amongst REVI members in order to leverage funding opportunities. Karen Prescott, National Electrical Contractors Association (NECA), agreed with Mr. Reed and Mr. Manasjan, stating that identifying funding opportunities could make the group more effective. Kathy Valverdes, City of Santee also supported the inclusion of language referencing funding, however mentioned that the group could keep the language broad. Ms. Valverdes went on to emphasize the importance of additional funding for government agencies due to current resource constraints.

Mr. Ferry suggested in the interest of time for the group to discuss the REVI Charter and re-visit the goals if time allowed at the end of the meeting. Mr. Almeida commented that staff would incorporate the members' comments into the goals and organize an online vote to approve them before the next REVI meeting.

C. REVI Charter

Mr. Reed suggested staff revise the first sentence of the REVI Charter to match the adopted REVI Mission Statement. With that edits, Mr. Reed motioned to approve the REVI Charter. Mr. Newhouse seconded the motion. The motion carried without opposition.

ITEM #6: PEV CHARGING AT MULTI UNIT DWELLINGS

Mr. Pointon presented an overview of EV charging at multi-unit dwellings (MUDs) and highlighted key challenges.

Following the presentation, Karen Prescott, NECA, asked if the process for the EV charging installation was similar for single-family residential. Mr. Pointon, responded that the process is similar, but less complex since they do not face challenges with homeowner associations and community property. Jim Byrne, Metropolitan Transit Systems, asked if the insurance policy required under SB 880 for charging stations at MUDs also applies to single-family. Mr. Pointon clarified that the insurance policy only applies to MUDs.

Mr. Pointon also commented that the first permits for charging stations at MUDs are going through right now, so he will update the group on the progress.

ITEM #7: CITY OF SAN DIEGO PEV CHARGING INFORMATION BULLETINS

Ms. Prescott introduced the City of San Diego's Information Bulletin 187, which describes how to obtain a permit for Electrical Vehicle Charging Systems. She emphasized that the Information Bulletin was a great first step in creating a process to follow for EVSE installations. She commended the City staff for working with NECA in producing the document.

Jacques Chirazi, City of San Diego Mayor's Office, introduced the City of San Diego's newly released Technical Policy 11B-1, which addresses accessibility to electrical vehicle charging stations. Mr. Chirazi explained that the City used the State Architect guidance document "Interim Disabled Access Guidelines for Electrical Vehicle Charging Stations" in developing the technical policy. He also explained the City's effort to describe creative solutions to alleviating the accessibility requirements, for example, placing the charging station between a regular parking spot and an accessible parking spot so that customers in either spot can use it. Mr. Chirazi also commented that the policy applies to public charging stations and not private fleets. He also mentioned that the City of La Mesa is planning to use the City of San Diego's document as they create their own policy.

Andy Hoskinson, Ecotality, commented that the documents the City has produced have been tremendously helpful in efforts to complete installations, as they provide consistency in design. He suggested that all of the local governments look to these documents as best practices for their own jurisdictions.

Randy Walsh, Meissner Jacquet Investment Management Services commented that both the Information Bulletin and the Technical Policy 11B-1 should be shared with local governments, emphasizing that local governments make these documents available to their respective permitting and inspection counters.

ITEM #8: NEXT MEETING

Mr. Ferry announced that the next meeting is scheduled for Thursday, July 19, 2012. He also commented that some representatives from the local governments will be attending a conference in Los Angeles on that day and will be unable to attend the July meeting.

ITEM #9: MATTERS FROM MEMBERS

Mr. Newhouse announced that first responder training will be held on June 1, 2012. He said the details are still in the works, but he would send information to staff to distribute to the REVI email list.

Mr. Walsh suggested each REVI meeting include a summary of progress in the region, for example, an update from Mr. Hoskinson on installations and an update from Mr. Newhouse on workforce training.

ITEM #10: ADJOURNMENT

The meeting was adjourned at 2:30 p.m.

PEV READINESS REGIONAL UPDATE - July 2012

A regional update will be included in each REVI Agenda.

- **The EV Project - regional update of car charger installations**
 - Blink Network Map: www.blinknetwork.com/locator.html
 - 220 publicly accessible Level 2 Blink stations are operational
 - 93 in permit process
 - 42 in installation process
 - 3 DC Fast Chargers are scheduled to begin the installation process by the end of the month:
 - Santa Ysabel –installation process is underway, scheduled to be operational by August.
 - Escondido, Best Western Hotel – one DC and one Level 2 have been permitted.
 - Highway 905, Valero gas station (South Bay) – scheduled for installation in early August.

- **San Diego Airport Chargers**
 10 Level 2 Blink stations are scheduled for installation in August 2012. In addition, the Terminal 2 parking expansion includes plans for up to 30 charging stations.

- **Tesla Model S in San Diego**
 The Tesla Model S sedan has been released and over 200 were reserved in the San Diego region. The Model S is a battery electric vehicle with a 20kw battery (much higher charging draw than the 2012 Nissan LEAF’s 3.3kw battery). Coordination between Tesla dealerships and SDG&E will be essential to ensure the local distribution network can accommodate the increased load and that customers learn of the EV time of use (TOU) rates that promote off-peak charging.

- **Clean Vehicle Rebate Project (CVRP) Regional Report**
 The CVRP has received 8,560 applications statewide since 2009. Of that total, 1,226 applications (roughly 15%) came from San Diego County. Since the May REVI meeting, two new electric vehicles have been introduced to the San Diego market - the Tesla Model S and the Ford Focus Electric. The table below showcases the rebates issued in San Diego County by vehicle type as of July 12, 2012.

San Diego Update: Rebates by Vehicle Type	Total Rebates for San Diego Region
Light Duty Zero Emissions Vehicles	1086
Plug-In Hybrid Electric Vehicles	127
Zero Emissions Motorcycles	10
Neighborhood Electric Vehicles	3
Total	1,226

- **PEV Readiness Workshop**

On June 14, the California PEV Collaborative and CCSE hosted a PEV Community Readiness Workshop for local governments in the region. Commissioner Carla Peterman, California Energy Commission, was the keynote speaker and Mayor Jerome Stocks, City of Encinitas, kicked off the event. Local experts presented on building codes, permitting/inspection, parking/zoning, training and outreach. Over 60 participants representing many jurisdictions attended. Presenters included ECOtality, the cities of Chula Vista and San Diego, SDG&E, Qualcomm, Car2Go, General Motors, Plug-In America, and the workshop hosts.

Breaking Down Barriers: EVSE installation in Multi-unit Dwellings

A quick reference guide for installing electric vehicle charging stations at condos, apartments and community living areas

Each multifamily development has its own unique set of circumstances and challenges to address. Below are some of the most common challenges and ways that local apartment buildings, HOAs and condos have addressed them. Please note that this document is designed to be used in conjunction with SDG&E's fact sheet on installing PEV charging stations in multi-unit dwellings titled, *Prepping Multi-Units for Plug-in Vehicles*. The SDG&E factsheet is available here: <http://sdge.com/sites/default/files/documents/Prepping%20for%20EVs%20Condos.pdf>

Policy Considerations

Identify any existing rules in the covenants, conditions and restrictions ("CC&Rs") that could affect the installation of charging stations in common areas and private areas.

(Input needed from SDG&E regarding examples from what's been heard at MUD workshops and/or from additional REVI Stakeholders)

Legislation has been adopted in California to reduce barriers to the installation of EVSE in multi-unit dwellings. Specifically, SB 880 prohibits common interest developments (e.g. Condo/apartments) from restricting the installation of an EVSE in a deeded/contracted parking space. However, the legislation states that common interest developments may impose reasonable restrictions on EVSE and delineates certain requirements for the HOA's approval process for EVSE, with the approval subject to the homeowner's agreement to comply with the list of provisions in the legislation. A complete version of this bill can be found here: http://www.aroundthecapitol.com/Bills/SB_880/20112012/

Determining Additional Demand for EVSE Installations

Consider surveying tenants on their interest in purchasing a PEV. This data will aid in the number of PEV chargers and/or conduit to install and in what layout(s).

(Input needed from REVI Stakeholders to provide 2 or more practices being used today)

Allocating Costs

Determine how EV charger installation, operations, maintenance, insurance, and electricity bills will be paid.

(Input needed from REVI Stakeholders to identify 2-3 varying examples where individual car owner pays, property management pays, or shared expense over HOA (or equivalent association). Examples could include:

Example 1. Charger located in assigned spot

Example 2. Common area charger for residents only

Example 3. Common area charger for residents and general public

Siting Infrastructure

Identify the location and type of electric metering and wiring in the parking area. Determine if existing supply is adequate and whether a meter/panel upgrade is needed. If an upgrade is required, consider the capacity needed to accommodate additional PEV chargers in the future.

Power supply needed for EVSE installations:

- Upstream distribution needs to be rated at 125% of max current of the tested unit
 - For example, for a 30amp unit, cables are rated for 40amp
- *(Input needed from REVI Stakeholders)*

General cost of meter upgrade:

- *(Input needed from REVI Stakeholders)*

Assigned vs. unassigned parking spaces:

Consider which assigned and unassigned parking spaces could accommodate PEV charging equipment. Key factors include:

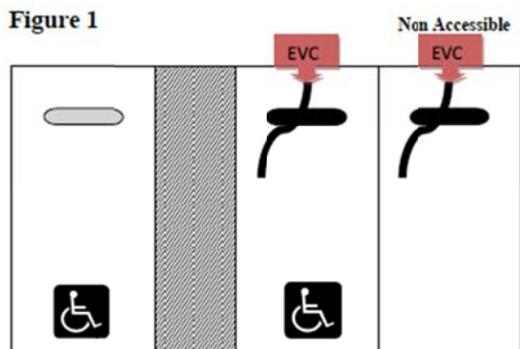
- Proximity to electric meter: trenching through concrete is a high cost item. Soft landscapes or locations near the electric meter are preferred.
- Location for charging stations and bollards (short vertical post) to ensure EVSE cord is not a tripping hazard
- *(Input needed from REVI Stakeholders)*

Accessibility to EVSE(s):

The City of San Diego has released accessibility guidelines, which are a good reference for all jurisdictions in San Diego County. (<http://www.sandiego.gov/development-services/industry/pdf/tpolicy11b1.pdf>)

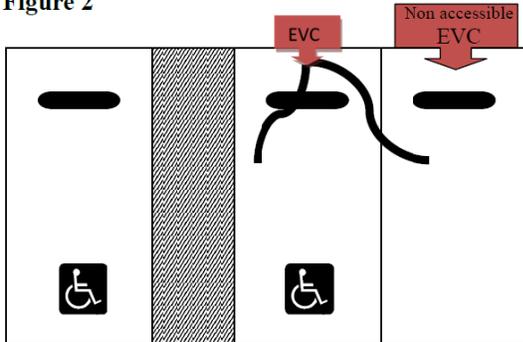
The City of San Diego outlines three options which are described below:

Example 1: Two EVSE, one accessible installation directly adjacent to a non-accessible space. This potentially could a higher cost installation compared to the Example 2 and 3.



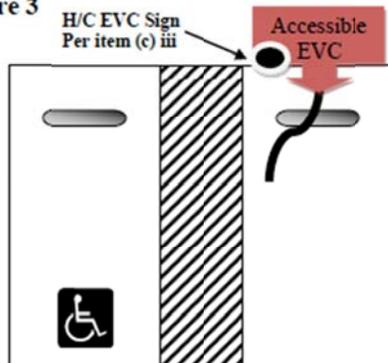
Example 2: One EVSE installed in an ADA accessible spot with the capability to reach vehicles parked in both the ADA accessible space and the adjacent non-accessible space. This configuration may be lower cost compared to Example 1.

Figure 2



Example 3: One EVSE installed in a space designed to meet ADA requirements, but not marked as an ADA space. In this case there needs to be signage that states *“Parking for EV Charging Only; This Space Designed for Disabled Access; Use Last.”* This configuration may be lower cost compared to Example 1.

Figure 3



Potential Installation Scenarios:

- Example 1. Installing EVSE at dedicated spot for one PEV owner.
 - Example 2. Installing multiple EVSE for use for multiple PEV owners.
 - Example 3. Installing EVSE(s) and installing conduit for future EVSEs, if desired.
- (Input needed from REVI Stakeholders)*

Additional Resources

- For general information on vehicles, chargers, and available incentives:
www.goelectricdrive.com (National)
- www.DriveClean.ca.gov/pev (California)
- www.energycenter.org/pluginready (San Diego)

ADOPTED REVI GOALS

- 1.** To develop a regional electric vehicle infrastructure working group to create a regionally-accepted comprehensive PEV Readiness plan that leverages initial PEV Readiness/EVSE planning already undertaken and addresses emerging barriers and complexities, through clear and easy to read best practices and recommendations for the major components of San Diego's regional PEV readiness plan.
- 2.** To develop an on-going, coordinated, institutional body that functions as a strategic clearinghouse and outreach entity, to efficiently and effectively communicate best practices across all 19 jurisdictions and to diverse stakeholders involved in PEV readiness.
- 3.** To provide consistent messages across jurisdictions, agencies, dealerships, consumers, companies, educational institutions, EVSE installers, and others about PEVs and EVSE.
- 4.** To identify funding opportunities, tax benefits, and other potential incentives that promote PEV and EVSE deployment and support economic development in the region.