

SAN DIEGO REGIONAL ELECTRIC VEHICLE INFRASTRUCTURE WORKING GROUP

MEETING NOTICE AND AGENDA

Date: Thursday, February 21, 2013

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

Location: San Diego Gas & Electric Energy Innovation Center
4760 Clairemont Mesa Blvd.
San Diego, CA 92117

Staff Contact: Tyler Petersen
Tel: (858) 244-4876
Email: tyler.petersen@energycenter.org

AGENDA HIGHLIGHTS

- **REGIONAL READINESS PLAN DEVELOPMENT**
- **PRIORITIZATION OF REVI BARRIERS**
- **EVGO PRESENTATION**

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, February 21, 2013

MEETING ITEMS

ACTION

1. WELCOME AND INTRODUCTIONS

+2. SUMMARY OF THE JANUARY 17, 2012 MEETING

APPROVE

The San Diego Regional Electric Vehicle Infrastructure Working Group (REVI) is asked to review and approve the meeting summary.

3. ANNOUNCEMENTS AND PUBLIC COMMENTS

INFORMATION

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.

REPORTS

+4. REGIONAL PEV READINESS PLAN DEVELOPMENT

**A. Barrier 7: Regional Planning for Public EVSE Siting AND
Barrier 9: Public Agency EVSE Installations**

DISCUSSION

In support of the development of a regional EVSE plan, staff has developed draft technical criteria and a request for proposal (RFP) template for public EVSE installations. In preparation of these documents, staff referenced RFP examples and proposal evaluation criteria from other public agencies that have completed the procurement process for EVSE installations. The attached documents leverage the work by the cities of Chula Vista and Long Beach that have undertaken similar installations. REVI members are asked to review both documents and provide input to help make this a useful template.

B. Barrier 1: Permitting and Inspection

ACCEPT

At the January 17 meeting, REVI members were given the opportunity to discuss and provide input on the content of the permitting and inspection guideline documents. These documents provide a template for San Diego jurisdictions to streamline the electrical permitting process for Electric Vehicle Supply Equipment (EVSE) installations. The permitting and inspection best practice document leverages similar residential EVSE permitting guidelines created by the cities of San Diego and Oceanside. REVI will be asked to accept this document as a regional best practice for inclusion in the regional PEV readiness plan.

+5. PRIORITIZATION OF REVI BARRIERS

DISCUSSION

- A. In response to last month’s discussion, the “Barrier and Solutions” table displays priorities based on the near-term needs for regional readiness. The table also includes an “Action Items” column that will include items for REVI to address during its next meeting. REVI members are asked to review the draft Regional PEV Barriers table and provide input to help make this a useful tool.
- B. The second attachment for Item 5 is a draft flow chart of the REVI barriers. SANDAG organized this flow chart based on the near-term needs of EVSE siting that involve local government and other regional agencies. The REVI is asked to provide feedback on the flowchart and offer suggestions.

+6. EVGO PRESENTATION

INFORMATION

Jill Brant, eVgo, will provide information on the regional developments for the statewide EVSE DC Fast Charging infrastructure plan. eVgo, a subsidiary of NRG Energy Inc., has investments of approximately \$150 million to provide hundreds of eVgo Freedom Station public fast-charging sites along with individual charging stations at offices, multi-family communities, schools and hospitals across multiple networks in California. Ms. Brandt will discuss the project timeline and upcoming opportunities in the San Diego region.

+7. REGIONAL PEV ACTIVITIES SINCE LAST REVI MEETING

INFORMATION

A status report on PEV-related developments since the January REVI meeting is provided. The report includes an update on electrical vehicle supply equipment (EVSE) installed and a summary of the EVITP training for municipal staff held on January 29, 2013.

8. NEXT MEETING

INFORMATION

The next REVI meeting is scheduled for Thursday, March 21, 2013 at the SDG&E Energy Innovation Center, 4760 Clairemont Mesa Blvd., San Diego, CA 92117

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

3200800

January 17, 2013 MEETING SUMMARY

ITEM #1: WELCOME AND INTRODUCTIONS

Chair Susan Freedman, San Diego Association of Governments (SANDAG), called the meeting to order at 1:10 p.m. She welcomed everyone to the San Diego Regional Electric Vehicle Infrastructure Working Group (REVI) and introductions followed.

ITEM #2: SUMMARY OF THE NOVEMBER 8, 2012 MEETING

Joel Pointon, San Diego Gas and Electric (SDG&E), proposed the following edits to the meeting summary: the website address in section 6A of the November 8, 2012 Meeting Summary to read, www.pevcollaborative.org, and the addition of language identifying that the Plug-in Electric Vehicle Collaborative (PEVC) will be issuing a Request for Proposal (RFP) focused on developing the case studies that will highlight multi-unit dwelling (MUD) installations. The PEVC expects the project to be complete by June 2013.

Randy Shimka, SDG&E, motioned to approve the November 8, 2012 meeting summary with the changes proposed by Mr. Pointon. Micah Mitrosky, IBEW Local 569, seconded the motion. Motion carried without opposition.

ITEM #3: ANNOUNCEMENTS AND PUBLIC COMMENTS

David Almeida, California Center for Sustainable Energy (CCSE), recommended that the REVI group move to monthly meetings due to the amount of barriers that need to be discussed within the project timeframe. He indicated that REVI members will have an opportunity to provide input on this requested change during Agenda Item #8: Next Meeting.

Mr. Pointon announced that the 2013 National Plug-in Day will take place on September 30, 2013. This year, along with the seminar, there will be a full plug-in day available to the public which will take place on September 29, 2013. The location of the event is TBD.

Mr. Pointon also announced that the next MUD Vehicle Charging workshop will be held at the Energy Innovation Center (EIC) on February 26, 2013. This next workshop will feature case studies of Electric Vehicle Supply Equipment (EVSE) installations at MUDs in the San Diego region. These case studies will be discussed during the second half of the workshop. The SDG&E MUD workshops will now include case study presentations going forward.

Ms. Freedman announced that Mr. Almeida is moving on from his current position of Program Manager of the REVI working group. Ms. Freedman thanked Mr. Almeida for all the great work he has done.

Mr. Almeida stated that he has recently taken a position with CCSE working on policy development which includes a transportation element. Mr. Almeida announced that Tyler Petersen, CCSE, will be taking over his staffing of the REVI working group moving forward.

ITEM #4: REGIONAL PEV ACTIVITIES SINCE LAST REVI MEETING

Mr. Almeida highlighted that the regional update includes updated installation numbers of public EVSE in the San Diego region installed under the EV Project and a new online tool that tracks PEV adoption in California through the Clean Vehicle Rebate Project (www.energycenter.org/projectstatistics) offers raw data and GIS information.

Mr. Almeida announced the release of the San Diego Regional PEV Readiness Assessment which is available on the CCSE *Plug-In & Get Ready* website (www.energycenter.org/pluginready). This assessment includes REVI member feedback, which shaped the recommendations provided in the assessment. Mr. Almeida encouraged the group to review the regional assessment and distribute it to all relevant parties and interested stakeholders.

Ms. Mitrosky recommended the inclusion of a section in the regional update regarding the impact electric vehicles have had on the electrician industry. She further explained that the PEV industry has put many electricians to work and she believes this impact should be identified and highlighted. Randy Walsh, San Diego Electric Vehicle Network, asked if a report existed that included statistics for this type of information. Ms. Freedman responded that SANDAG may have an economic tool that may provide further information. She will review this tool prior to the next REVI meeting.

Mr. Pointon announced that there is a free National Alternative Fuel Training Consortium (NAFTC) online training for first responders. Mr. Almeida asked Mr. Pointon to send him the information regarding the NAFTC online training and he will forward this information to the group. Mr. Walsh commented that tracking program participation in the region would be valuable to gauge how many individuals actually complete the course after receiving the invite.

ITEM #5: ELECTRIC VEHICLE INFRASTRUCTURE TRAINING FOR LOCAL GOVERNMENT

Mr. Petersen described the Electric Vehicle Infrastructure Training Program (EVITP) for Municipal Staff that is scheduled for January 29, 2013 from 9:00am to 4:00pm. This national program will include presentations on EV code standards and safety guidelines, site assessment and load calculation procedures. The one-day seminar will be taught by an EVITP-certified instructor and include presentations from local municipal staff and EVSE providers on regional EV infrastructure projects. The workshop is free and will be held at the Energy Innovation Center. Mr. Petersen encouraged REVI members to pass this training invitation along to necessary staff.

ITEM #6: REGIONAL PEV READINESS PLAN DEVELOPMENT

A. BARRIER 1: PERMITTING AND INSPECTION

Mr. Almeida introduced the *Electric Vehicle Charging Station Guidelines* document that has been developed to streamline the permit and installation process of residential PEV charging stations, or Electric Vehicle Supply Equipment (EVSE). He explained that the guide can be used by jurisdictions in the San Diego region as a template to provide clear information on residential EVSE permitting requirements to homeowners and electrical contractors. Jurisdictions are encouraged to use this document directly or modify it to reflect the specific requirements of their agency.

Mo Lahsaie, City of Oceanside, commented that he will forward this guideline to his colleagues. The guideline was created leveraging a similar document written by the City of Oceanside's Building Division.

Mr. Pointon added that the EVITP seminar on January 29, 2013 will cover the City of San Diego permitting guidelines. Mr. Pointon also stressed the importance of notifying the utilities when PEV chargers are being installed. Drivers charging vehicles such as the new Toyota Rav4 or Tesla Model S at home will inevitably impact the grid for these vehicles have energy transfer rates of 9.6kW and 19.2kW, respectively, especially if charging takes place in neighborhood clusters.

Mr. Almeida commented that the permitting and inspection guideline (in Word format) will be sent to the group. Additionally, he encouraged municipalities to review and provide initial feedback on the document. Staff will follow up with REVI members at a later date to see what steps have been taken with this information. Ms. Freedman included the benefit of receiving REVI feedback will be to identify the areas for improvement so that this document can be easily implemented across all municipalities.

Chris Schmidt, Caltrans, asked if there is a best practice for DC fast charging. Mr. Almeida responded that the residential sector is of higher priority right now. Ms. Freedman added that once the residential best practice is refined, it will most likely carry over to the development of a commercial best practice as well. Mr. Pointon commented that currently the Nissan LEAF and Mitsubishi i-MiEV are the only vehicles that are capable of charging using a DC fast charging station. He also commented that the business case for DC fast charging is problematic, with an approximate \$40,000 unit-cost and associated demand charges.

Mr. Almeida directed the group to PEV outreach document and explained that this outreach document is designed to help new PEV drivers decide whether to install a Level 2 charging station at their home. He encouraged REVI members to make this document available on municipal permitting counters and municipal websites.

Ms. Mitrosky recommended changing the term "qualified electrical contractor" in the guide to specifically state that the consumer should contact a properly licensed C-10 electrical contractor. Ms. Mitrosky also recommended that the document include the Contractors State License Board website (www.cslb.ca.gov) where consumers can verify contractor licensing. Ms. Mitrosky offered to send this information to Mr. Almeida to distribute to the group. She also offered to research and find out if there is a list of qualified, C-10 electricians in the area that consumers can reference. Mr. Almeida stated that this document will be forwarded to the group for their review.

This information can be found on the *Plug-In and Get Ready* website at: www.energycenter.org/pluginready. This website also includes REVI information (e.g. meeting agenda's and summaries), homeowner information, business information, installer information and cities/government information. There is also a blog on the website under "Lessons Learned" that is updated regularly with industry and event updates.

B. BARRIER 9: PUBLIC AGENCY EVSE INSTALLATIONS

Ms. Freedman directed the group to a copy of the City of Chula Vista's informal request for quotes for turnkey EVSE and the subsequent City Council item to approve EVSE installations in the city.

Allison King, SANDAG, commented that four different companies submitted proposals in response to Chula Vista's request, and ECOtality was selected. She added that all public installations are scheduled to be complete by end of Q1 2013. Mr. Schmidt asked how the city evaluated these proposals and commented that a template for the means to request and a means of how to evaluate vendor proposals would be helpful.

Peter Livingston, County of San Diego, commented that the County is working on submitting a similar request for proposal (RFP). Mr. Livingston added that the County has used a similar model to the City of Long Beach. He explained that the County has specific locations earmarked and they are investigating whether trenching will be needed and compiling sketches of each site. When the planning is complete, the County will submit a phase one request which will be a no-cost turnkey model.

Mr. Almeida asked the group what our next steps should be and asked if the group is interested in proceeding with identifying this information. Ms. Freedman suggested staff work to compile information on best practices or a template for an EVSE RFP, the level of effort of staff necessary for preparing these documents, and criteria used to evaluate proposals.

Mr. Almeida stated that staff will gather this information and create a best practices document leveraging the existing efforts of the City of Chula Vista and the County of San Diego.

ITEM #7: REVI COORDINATION WITH CALIFORNIA ENERGY COMMISSION STATEWIDE INFRASTRUCTURE PLAN

Mr. Almeida informed the group of an upcoming Statewide PEV Infrastructure Workshop on January 30, 2013 in Sacramento. REVI and similar regional groups are currently developing PEV readiness plans, and the California Energy Commission (CEC) is creating a statewide PEV plan to complement the regional efforts. Mr. Almeida will be moderating a panel during the January 30 workshop and has created a brief one pager describing the workshop. Mr. Almeida asked the group about how the statewide plan and the San Diego regional plan can support each other.

REVI Members provided the following comments:

- Mr. Pointon suggested that the state leverage efforts done on the national stage.
- Ms. Mitrosky recommended a focus on workforce training, and commented that the goal should be to have standardization of workshop training across the state.
- Ms. Freedman suggested that important information on PEV planning be hosted on sites like CCSE's *Plug-In and Get Ready* since most people would not think to look for this information on their local government's webpage but instead will search for a specific site.
- Mr. Grim encouraged coordination with the Governor's Office of Planning and Research as they are currently developing PEV best practices and guidelines.
- Mr. Schmidt recommended that information on PEV planning and PEV policies come from a single source. He explained that there are many different programs from multiple state agencies, so it would

be beneficial to have a better understanding of all of the programs and how they relate. Mr. Schmidt informed the group that a new state transportation agency will be created, and suggested that this new agency may be appropriate to incorporate electric transportation initiatives.

- Mike Cully, car2go, recommended we focus on consistency across the state in regards to PEV barriers such as permitting, parking, and building codes.
- Ms. Valverde commented that the state should focus on interoperability as this will be the driving factor for the industry.

ITEM #8: NEXT MEETING

Mr. Almeida requested the group's opinion on changing from bi-monthly meetings to monthly meetings. The group agreed to host monthly meetings. Meetings will be held on the third Thursday of each month from 1:00 p.m. to 2:30pm at the SDG&E Energy Innovation Center. The next meeting is scheduled for February 21, 2013.

ITEM #9: MATTERS FROM MEMBERS

Mr. Pointon wanted to notify the group that ECOtality laid off a significant amount of their staff last week. Mr. Pointon stated that this is important to note for any entity currently in contracting with ECOtality.

ITEM #10: ADJOURNMENT

The meeting was adjourned at 2:38 p.m.

REVI Voting Member Attendance January 17, 2013

REPRESENTATION		NAME	MEMBER / ALTERNATE	ATTENDING
South County Subregion	City of Chula Vista	Brendan Reed	Member	No
	City of Imperial Beach	Chris Helmer	Alternate	No
North County Coastal Subregion	City of Del Mar	Ramsey Helson	Member	No
	City of Oceanside	Mo Lahsaie	Alternate	YES
North County Inland Subregion	City of Escondido	Kathy Winn	Member	No
	Vacant	Vacant	Alternate	-
East County Subregion	City of Santee	Kathy Valverde	Member	YES
	City of La Mesa	Scott Munzenmaier	Alternate	No
City of San Diego		Jacques Chirazi	Member	No
		Vacant	Alternate	-
County of San Diego		Peter Livingston	Member	YES
		Vacant	Alternate	-
San Diego Association of Governments		Susan Freedman, Chair	Member	YES
		Allison King	Alternate	YES
San Diego Regional Airport Authority		Paul Manasjan	Member	No
		Brett Caldwell	Alternate	No
Caltrans, District 11		Chris Schmidt	Member	YES
		Vacant	Alternate	-
Unified Port District of San Diego		Michelle White	Member	No
		Jenny Lybeck	Alternate	YES
San Diego Gas & Electric		Joel Pointon	Member	YES
		Randy Shimka	Alternate	YES
California Center for Sustainable Energy		Mike Ferry, Vice Chair	Member	YES
		Colin Santulli	Alternate	No
University of California, San Diego		Dave Weil	Member	No
		Jim Ruby	Alternate	No
Miramar College, Advanced Transportation Technology and Energy Program		Greg Newhouse	Member	No
		Vacant	Alternate	-
San Diego Electric Vehicle Network		Randy Walsh	Member	YES
		Vacant	Alternate	-
National Electrical Contractors Association		Karen Prescott	Member	No
		Tim Dudek	Alternate	No
International Brotherhood of Electrical Workers Local 569		Micah Mitrosky	Member	YES
		Vacant	Alternate	No

Others in Attendance

Bill Cecil, City of Coronado

Nick Cormier, San Diego Air Pollution Control District

Mike Cully, Car2Go

Jamie Edmonds, EV Owner, Firefighter

Mike Grim, City of Carlsbad

David Powell, U.S. Navy

Martin Reeder, City of National City

Matthew Virgen, City of National City

Anna Lowe, SANDAG

David Almeida, CCSE

Tyler Petersen, CCSE

Jessica, Thoma, CCSE

REQUEST FOR PROPSAL (RFP) OUTLINE:

Outline for Public Agency RFP to Install and Operate Electric Vehicle Charging Infrastructure

The following is an example Request for Proposal (RFP) outline that provides recommended headings and proposal language to assist in the issuance of an RFP for Electric Vehicle Charging Stations. In the outline, a brief summary is provided for each section and this information should be customized for each individual RFP. While this outline is written as if a city were issuing the RFP, please make note that this template can be altered for any public agency.

1. Overview of the Project

- Requesting proposals from vendors to fully fund, install, operate, maintain and market electrical vehicle (EV) charging stations, also known as Electric Vehicle Supply Equipment (EVSE), on municipally-owned property for public use.

2. Acronyms/Definitions

- A glossary of the necessary acronyms and definitions used throughout the RFP (e.g. “Vendor” – Organization/individual submitting a proposal in response to this RFP)

3. Scope of Project

- Provide attractive and well-maintained electric vehicle charging stations with the intent to expand as the demand for these charging stations increases.
- The vendor will be required to provide the electricity for the EVSE at their cost and must establish a service charge and method of collection to recoup these costs as well as any operating profit for the vendor. This may also require the installation of sub meters at the cost of the vendor. The City will provide the required parking spaces to accommodate the charging stations within the parking facilities at no cost to the vendor.
- Provide site plans for requested installation locations (if applicable)

4. Submittal Instructions

- RFP timeline, point of contact, and submittal instructions

Proposal Format:

Vendor Information:

- The legal name of the vendor, address and telephone number.
- The structure of the organization (i.e., sole proprietorship, partnership, corporation, etc.) including state of formation.
- The name, address and telephone number of the person to whom correspondence should be directed.
- The year the company was established as currently being operated.
- A certified financial statement, including, but not limited to a Dun and Bradstreet rating.

Vendor Background & California Work Experience:

- A list of all California communities where the vendor has provided and maintained publically-available EVSE at any time during the last five years, if applicable. Please list communities with active charging stations and communities where charging stations have been removed. Also include the following information for each community:
 - Name of the organization that contracted with you for EVSE sites. Please include the name of a contact person and phone number.
 - Was the contract/franchise exclusive or nonexclusive?
 - Number of EVSE provided.
 - Time period that the EVSEs were installed.
 - Reporting sales & usage (sample reports)
- Please list any California public agencies that have chosen to cancel or not renew EVSE contracts with your firm during the last five years. Show names of organizations and names and phone numbers of persons who can be contacted.
- Demonstrate an understanding of City processes, required permits, permit costs, licenses, and procedures for this type of project.

RFP Installation Information:

- Proposed rate structure and method of payment collection (i.e. the use of the main meter or sub meters)
- A written and pictorial description of the proposed EVSE design, including:
 - Comprehensive specifications (including make, manufacturer, & model numbers of equipment)
 - Delivery & proposed installation scheduleThe submission of more than one charging station is permitted, however, if the selection of any particular design would result in a change to the proposed rate structure and method of collection, those changes must be noted.
- Description of the proposed EVSE maintenance program including the location of maintenance facilities, number of staff that will be available for municipal maintenance, and anticipated response times.
- Description of ability & staff expertise to provide services including marketing, installation, monitoring, & maintenance of EVSE
 - Quality control/safety features
- Financial incentives to the City (if applicable)

Additional Items:

- The proposal must be signed by the individual(s) legally authorized to bind the vendor.
- If complete responses cannot be provided without referencing supporting documentation, such documentation must be provided with the proposal and specific references made to the tab, page, section and/or paragraph where the supplemental information can be found.

5. Proposal Evaluation & Award Process

- Proposals will be evaluated based on the following criteria:
 - Current and past vendor performance in similar contracts with other public agencies.
 - Financial stability of the proposer as reflected in a certified financial statement or other certified statement, including but not limited to a Dun and Bradstreet financial rating.
 - Rate structure and method of payment collection (i.e. the use of the main meter or sub meters).
 - Maximum public benefit (in terms of affordability & customer support)
 - Strength, quality, durability, advanced technology, future flexibility, and aesthetic appeal of proposed charging stations.
 - Proposed maintenance, repair and replacement schedule including response times for malfunctioning equipment. (i.e. proposer's proximity to the City and number of proposer's employees performing maintenance functions).
 - Possible commitment to providing additional EVSE at other City owned parking facilities (desirable but not required).
 - Proposers marketing strategy
 - Overall monetary return to the City (if applicable)
- Please reference attached *RFP Criteria Review Template*

6. Project Specifications

- Provide installation site plans (if applicable [for reference, please see Exhibit A of the City of Long Beach RFP No. PW12-016])

7. Subcontractor Information and Business License

- Does this proposal allow/include the use of subcontractors (if applicable [for reference, please see section 7.1 of the City of Long Beach RFP No. PW12-016])?

8. Cost

- N/A

9. Terms, Conditions and Exceptions

- Length of contract with extension option.

REQUEST FOR PROPSAL (RFP) EVALUATION CRITERIA:

Evaluation criteria for proposals to Install and Operate Electric Vehicle Charging Infrastructure

Proposals shall be consistently evaluated based upon the following criteria (in no particular order of importance):

- Current and past vendor performance in similar contracts with other public agencies.
- Financial stability of the proposer as reflected in a certified financial statement or other certified statement, including but not limited to a Dun and Bradstreet financial rating.
- Rate structure and method of payment collection (i.e. the use of the main meter or sub meters).
- Maximum public benefit (in terms of affordability & customer support)
- Strength, quality, durability, advanced technology, future flexibility, and aesthetic appeal of proposed charging stations.
- Proposed maintenance, repair and replacement schedule including response times for malfunctioning equipment. (i.e. proposer’s proximity to the City and number of proposer’s employees performing maintenance functions).
- Possible commitment to providing additional charging stations at other City owned parking facilities (desirable but not required).
- Proposers marketing strategy
- Overall monetary return to the City (if applicable)

Disclosure Info:

- Proposals shall be kept confidential until a contract is awarded.
- The City reserves the right to request clarification of any proposal term from prospective vendors.
- Selected vendor(s) will be notified in writing. Any award is contingent upon the successful negotiation of final contract terms. Negotiations shall be confidential and not subject to disclosure to competing vendors unless and until an agreement is reached. If contract negotiations cannot be concluded successfully, the City reserves the right to negotiate a contract with another vendor or withdraw the RFP
- Any contract resulting from this RFP shall not be effective unless and until approved by the City Council.

ELECTRIC VEHICLE CHARGING STATION INSTALLATION

GUIDELINES:

Streamlining the Permitting and Inspection Process of Residential Electric Vehicle Charging Stations¹

Purpose





This guideline has been developed to streamline the permit and installation process of residential plug-in electric vehicle (PEV) charging stations, also known as Electric Vehicle Supply Equipment (EVSE). This guide can be used by jurisdictions as a template to provide clear information to homeowners and electrical contractors as to residential EVSE permitting requirements. Jurisdictions within the San Diego region are encouraged to use this document directly or modify it to reflect the specific requirements of their agency.

How can I charge my plug-in electric vehicle at home?

The type of PEV a person chooses to purchase may determine the way they charge their vehicle. First, a homeowner may plug their vehicle into a conventional 120-volt household outlet (three-pronged outlet) or install a 240-volt circuit for faster charging. PEVs come with a 120-volt charging cord that enables PEV owners to charge their PEV with a conventional 120-volt outlet. This is a very practical solution for owners of plug-in hybrid electric vehicles (PHEV), such as a Toyota Plug-in Prius or Chevrolet Volt.

On the other hand, a person that purchases a battery electric vehicle (BEV) like a Nissan LEAF may choose to charge using a Level 2 charging station. Level 2 charging stations use 240 volts, which takes about half the time to charge compared with 120 volts. Level 2 charging generally requires the installation of a dedicated circuit and a charging station at your home (usually in the garage). In this case, the homeowner will be required to obtain a permit from their local jurisdiction.

The table below illustrates the charging time associated with the most popular BEV and PHEV on the market today, the Nissan LEAF and the Chevrolet Volt.

Charging Level	Power Supply	Charger Power	Miles/Hour of Charge	Type of PEV	
				 Nissan LEAF	 Chevrolet Volt
Level 1 	120 VAC	1.4 kW (onboard charger)	~3–4 miles	~17 hours	~9 hours
Level 2 	240 VAC	3.3 kW (onboard charger)	~8–10 miles	~7 hours	~3 hours
		6.6 kW (onboard charger)	~17–20 miles	~3.5 hours	~1.5 hours

Source: California PEV Collaborative

¹ Adapted from the City of Riverside's *ELECTRIC VEHICLE (EV) CHARGER INSTALLATION GUIDELINES* and the City of Oceanside's *Residential Electric Vehicle Charger Guidelines*.

What information do I need to provide to the City in order to obtain a permit?

The table below identifies the supporting documentation required to obtain a permit for the installation of a residential EVSE.

Supporting Documentation	Description
Site Plan	Identify the complete layout of existing parking spaces and proposed location of EVSE parking space(s) with respect to existing building and structures.
Electrical Load Calculations	Home electrical load calculation that estimates if an existing electrical service will handle the extra load from a residential EVSE and wiring methods based on the California Electrical Code (See sample load calculation attached).
Electrical Plans	Single line diagrams showing the system, point of connection to the power supply and the EVSE. (See sample electrical plan attached)
EVSE Information	The EVSE manufacturer's installation instructions and charger specifications.

(Note: Jurisdictions may need to modify this list to reflect their specific requirements)

In most cases, homeowners or contractors simply need to submit the documentation outlined above to the local permitting office (usually the building and safety division,) for review and permit issuance. PEV owners and contractors are encouraged to check their local jurisdiction's permitting website to see if this process is available online. If not, they will likely need to visit the permitting office for an over-the-counter review and permit issuance.

If all of the information is provided and the proposal complies with the applicable codes, the review and approval process occurs shortly thereafter. It is important to note that load calculations per California Electrical Code, Article 220, are required if the existing service panel is rated less than 200 amps. Electrical panel upgrades and electrical wiring shall be in conformance with the current edition of the California Electrical Code (CEC).

Do I need to get my home charging station inspected by the City?

All jurisdictions in the San Diego region require an inspection of an installed EVSE. When the installation is complete, an inspection of the work is scheduled with the Building Inspector upon request. Generally, inspections occur less than one week after the request. Typically, the homeowner will need to be present during the inspection so that the Inspector can access the location of the home charging station. Please see the attached *EVSE Inspection Checklist*, which has been designed to serve as a guide or basis for local Building Inspectors. This checklist has been endorsed by the National Electrical Contractors Association.

How do I install a home charging station?

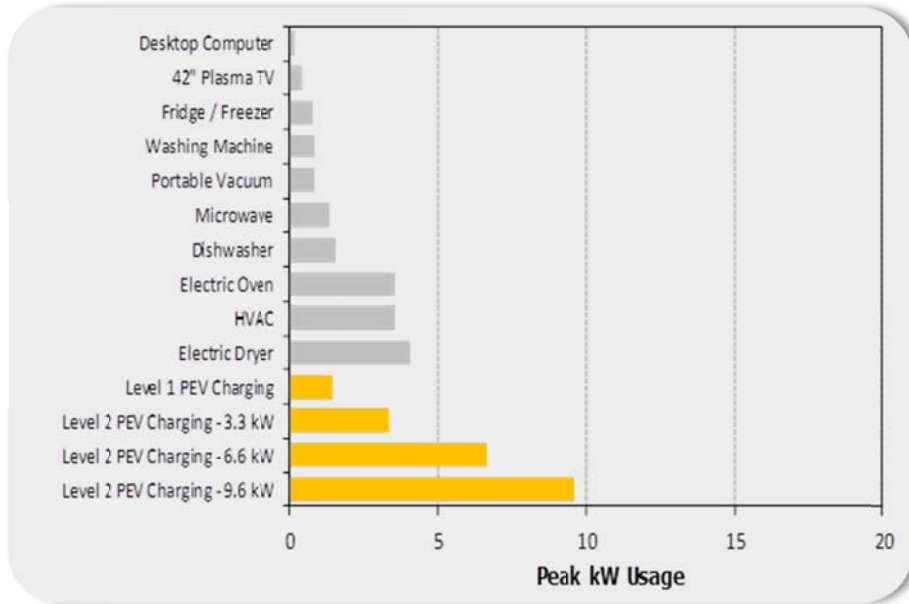
Installing a residential EVSE may require changes to the home's electrical wiring and utility electricity rates.

- For a step-by-step installation guideline, please view the attached *Plug-in and Get Ready* document. For more information on PEV charging stations currently available on the market, visit www.GoElectricDrive.com.
- Home owners interested in taking advantage of reduced rates from San Diego Gas & Electric (SDG&E), should visit (www.sdge.com/ev).

When installing a home charging station, PEV owners are encouraged to choose a local electrical contractor with the proper expertise, information, tools and training with installing EVSE to ensure a high quality and efficient installation experience. Please reference the wiring methods based on the California Electrical Code attached.

Why would SDG&E need to know about your home charging station?

SDG&E needs to be able to accurately track the number of PEV charging stations installed to properly plan for local increases in electricity demand due to PEV charging. SDG&E's Clean Transportation Program has created the figure below that displays the significant load difference of a residential EVSE as compared with typical household appliances.



Source: San Diego Gas and Electric

According to SDG&E, a PEV charging at 9.6kW may double or triple a household's prior peak load. The combined effect of several chargers in the same area could result in overloads on utility secondary wires and transformers. Therefore, utility notification is an important component of providing safe, reliable electricity to all SDG&E customers. Additionally, PEV owners who notify SDG&E of a residential EVSE installation will be informed of SDG&E's PEV time-of-use rates (EV TOU). These rates provide a significantly lower cost of electricity for PEV owners that charge during the night, when demand is lower.

Progress on Regional PEV Barriers

Barriers/Solutions Being Addressed by Statewide Department of Energy PEV Project and REVI

Priority: High Medium Low

Barrier	Progress on Solutions – Preparation of Guidance Materials	Action Items
<p>1. Permitting/Inspection Lack of streamlined permitting and inspection processes and inconsistent (high) costs across jurisdictions.</p>	<ul style="list-style-type: none"> • Discussed by REVI at 5/17/12 meeting. • Discussed locally at PEV Workshop at CCSE on 6/14/12. • REVI provided feedback on barrier assessment on 11/8/12, CCSE incorporated feedback into revised DOE PEV Readiness Assessment. • Permitting and inspection guideline distributed to REVI members at 1/17/13 meeting. 	<ul style="list-style-type: none"> • REVI members to distribute permitting and inspection guideline to internal municipal staff.
<p>2. Building Codes Lack of standard building codes that accommodate charging infrastructure or dedicate circuits for charging infrastructure in new construction and major renovations.</p>	<ul style="list-style-type: none"> • Discussed by REVI at 5/17/12 meeting. • Discussed locally at PEV Workshop at CCSE on 6/14/12. • REVI provided feedback on barrier assessment on 11/8/12, CCSE incorporated feedback into revised DOE PEV Readiness Assessment. • REVI to discuss factsheet at future meeting. 	<ul style="list-style-type: none"> • N/A
<p>3. Zoning and Parking Rules Lack of standard regional ordinances that facilitate the installation and access to publicly available charging infrastructure.</p>	<ul style="list-style-type: none"> • Discussed locally at PEV Workshop at CCSE on 6/14/12. • REVI provided feedback on barrier assessment on 11/8/12, CCSE incorporated feedback into DOE PEV Readiness Assessment. • REVI to discuss factsheet at future meeting. 	<ul style="list-style-type: none"> • N/A
<p>4. Training and Education for Municipal Staff and Electrical Contractors Lack of knowledge about PEVs and EVSE</p>	<ul style="list-style-type: none"> • Discussed locally at PEV Workshop at CCSE on 6/14/12. • Included in revised DOE PEV Readiness Assessment. Discussion of inclusion of these materials in the Regional PEV Readiness Plan at a future meeting. • Special training on PEV infrastructure for municipal/agency staff was held on Jan 29, 2013 at the Energy Innovation Center. • The NAFTA is offering a free online electric drive vehicle first responder training program. 	<ul style="list-style-type: none"> • REVI members are encouraged to distribute the free online Electric Drive Vehicle First Responder Training invitation to the appropriate parties.

Barriers/Solutions Being Addressed by Statewide Department of Energy PEV Project and REVI

Priority: High Medium Low

Barrier	Progress on Solutions – Preparation of Guidance Materials	Action Items
<p>5. Lack of Public Knowledge of PEV and EVSE Municipal outreach to Local Residents and Businesses</p>	<ul style="list-style-type: none"> Discussed locally at PEV Workshop at CCSE on 6/14/12. Discussed CVRP PEV owner survey results at 9/20/12 REVI meeting. Included in revised DOE PEV Readiness Assessment. REVI will discuss the inclusion of these materials into the Regional PEV Readiness Plan at a future meeting. 	<ul style="list-style-type: none"> N/A
<p>6. EVSE at Multi Unit Dwellings Consumer lack of knowledge regarding EVSE installation in these buildings. Need to educate and work with HOAs to identify and find solutions to unique building challenges.</p>	<p><i>Region is recognized leader on this issue.</i></p> <ul style="list-style-type: none"> REVI guidance materials are to complement SDG&E efforts and materials. Discussed by REVI at 5/17/12 and 7/19/12 meetings. Draft guidance materials were included in 7/19/12 meeting. Discussed CEC Funding for Multicharge project on 9/20/12 Members suggested working on this concurrently with state’s PEVCC multi-family dwelling (MUD) working group, co-chaired by Joel Pointon, SDG&E MUD working group to develop case studies starting with installations in San Diego. REVI to re-engage at future meeting when draft PEVC materials are available. SDG&E holds monthly MUD workshops including one that was expressly for REVI. SDG&E produced fact sheet on EVSE install process for MUDs. 	<ul style="list-style-type: none"> The next SDG&E multi-unit dwelling vehicle charging workshop is on Feb. 26, 2013 at the Energy Innovation Center. REVI members are encouraged to advertise the workshop to members of the public, and also identify and recruit appropriate parties to attend.

Barriers/Solutions Being Addressed by Statewide Department of Energy PEV Project and REVI

Priority: High Medium Low

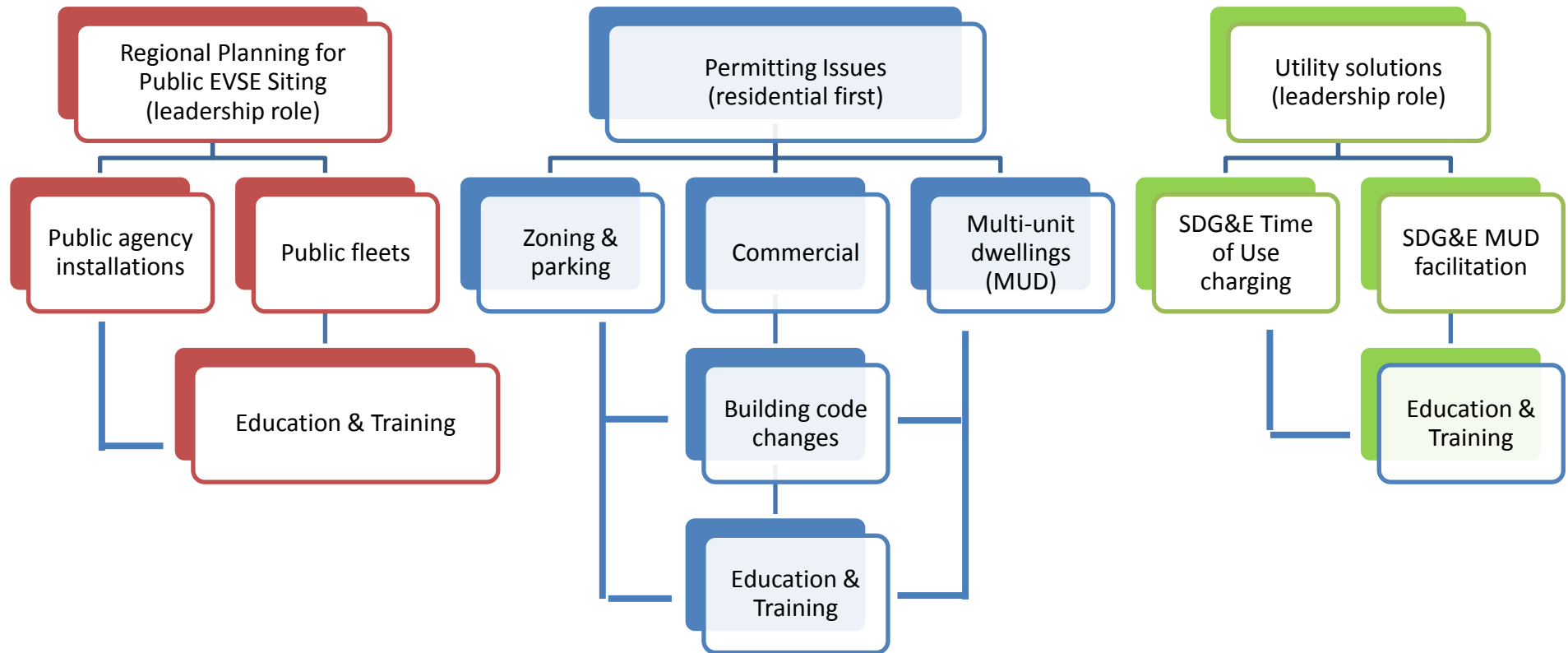
Barrier	Progress on Solutions – Preparation of Guidance Materials	Action Items
<p>7. Regional Planning for Public EVSE Siting Regional land use and transportation plans served as a basis to identify optimal public EVSE sites. In rollout of EV Project, experience was different from planning. Alternate approaches have been taken to increase public EVSE hosts and sites.</p>	<p><i>Region is recognized innovator on this issue.</i></p> <ul style="list-style-type: none"> • SANDAG to bring REVI documentation of initial EV Project approach to identifying optimal sites for publicly accessible EVSE using weighted criteria based on local land uses and transportation network. SANDAG produced regional maps of optimal Level 2 and DC Fast Charge sites with input from local EV Project stakeholder group. • Course corrections and alternative approaches to be discussed at future meeting. 	<ul style="list-style-type: none"> • N/A
<p>8. On Peak Charging – TOU Utility Rates A. Need to discourage charging when electricity supplies are in high demand and cost more. Support of time of use (TOU) pricing. B. High demand charges that impact EVSE host utility bills. Expensive metering options to access TOU rates.</p>	<p><i>Region is recognized leader on TOU PEV rates.</i></p> <p>A. Local standout area for solution/ use of TOU rates that encourage off-peak charging. SDG&E holds regular workshops on EVSE hosting and PEV Rates.</p> <p>B. Question for REVI: Is this a regional barrier to hosting EVSE? This was initially identified as a barrier in 2010.</p>	<ul style="list-style-type: none"> • N/A
<p>9. Public Agency EVSE Installations Contracting issues have stalled many public agencies from taking part in The EV Project. Need to identify common project barriers and find solutions.</p>	<ul style="list-style-type: none"> • Discussed by REVI at 9/20/12 and 11/8/12 meetings, special add-on meeting held 9/26/12. • At the 1/17/13 meeting, REVI members requested a template be provided for RFP preparation work and review criteria. 	<ul style="list-style-type: none"> • SANDAG and CCSE to compile RFP examples and proposal review/evaluation criteria from agencies that have completed the procuring process for public agency EVSE installations.

Barriers/Solutions Being Addressed by Statewide Department of Energy PEV Project and REVI

Priority: High Medium Low

Barrier	Progress on Solutions – Preparation of Guidance Materials	Action Items
<p>10. Commercial and Workplace Charging Lack of understanding regarding benefits and approaches to understanding workplace charging.</p>	<ul style="list-style-type: none"> Commercial installation issues discussed by REVI at 7/19/12 meeting. CEC Funding for workplace/commercial charging discussed at 9/20/12 meeting. To be continued at future REVI meeting(s). 	<ul style="list-style-type: none"> N/A
<p>11. PEVs in Government Fleets Procurement justification needed for local public fleets. Need to describe PEV benefits, including role in reducing municipal GHGs for Climate Action Plans.</p>	<ul style="list-style-type: none"> Initial research on incorporation of EVs in Climate Action Plans underway 	<ul style="list-style-type: none"> N/A

Prioritization of San Diego REVI Barriers



eVgo DC Fast Charge Infrastructure Project for San Diego

eVgo, a subsidiary of NRG Energy Inc., has investments of approximately \$150 million to provide hundreds of eVgo Freedom Station public fast-charging in California. Along with the installation of a statewide DC fast charging network, eVgo intends to create a comprehensive electric vehicle ecosystem which will include individual Electric Vehicle Supply Equipment (EVSE) installations at multi-family residences, single-family residences, workplaces, retail locations, “On-the-Road” locations, and community and public locations.

San Diego will be the first California market to receive the DC fast charging infrastructure.

The Freedom Station sites have L2, DC, and the make ready for a second DC charger. Based on the investments, eVgo is responsible to cover the installation and maintenance for each site. eVgo is currently in the prospecting phase and design for the California market, which will require building a line of communication with local municipalities to effectively and efficiently install as many EVSE’s throughout California as possible.

San Diego municipalities are also encouraged to visit the eVgo website and register sites for public infrastructure, <https://www.evgonetwork.com/request-charging-station/>

To find out how you can help move these installations forward, contact Jill Brandt at eVgo: jill.brandt@nrgenergy.com

PEV READINESS REGIONAL UPDATE - January 2013-February 2013

- **San Diego City Council Public EVSE Installation Project Update**
Jacques Chirazi to update REVI members at the meeting on the City of San Diego's installations.

- **The EV Project - regional update of EV charging station installations**
 - Blink Network Map: www.blinknetwork.com/locator.html
 - 395 functional commercial Level 2 Blink stations in 107 locations
 - 309 publicly accessible Level 2 Blink stations (not including workplace and fleet chargers)
 - 170+ in permitting/installation phase (not including City of San Diego and City of Chula Vista installations)
 - 3 operational DC Fast charging stations, 2 in permitting/installation
 - Over 850 residential charging units

- **Summary from January 29, 2013 EVITP Training**
Summary begins on the next page.

Electric Vehicle Infrastructure Training Program (EVITP) Summary

On January 29, 2013, at SDG&E's Energy Innovation Center, there was a great turn-out for the Electric Vehicle Infrastructure Training Program (EVITP) seminar. Participants from electrical contractors, planners to inspectors and government officials all came by to learn more about Electric Vehicle (EV) infrastructure and upcoming public charging station projects in the San Diego region.

The following presentations were given during the course of the seminar:

- Introduction to EV Infrastructure Training and Instructors (Bernie Kotlier, EVITP)
- EV Codes and Standards (Rubio Rubio, EVITP)
- Site Assessments, Load Calculations, and Safety (Rubio, Rubio)
- EV Permitting (Bernie Kotlier and Tyler Petersen, CCSE)
- Introduction to Utility Notification (Bernie Kotlier)
- San Diego Gas & Electric Utility Presentation (Joel Pointon, SDG&E)
- "PEV-Ready" Policy Recommendations (Tyler Petersen)
- City of San Diego (Martin Montessoro, Development Services Department)
- City of Chula Vista (Andrew McGuire, Sustainable Communities Outreach Program)
- NRG Energy, eVgo San Diego Project (Jill Brandt)
- Charge Point America, MultiCharge San Diego project (Michael Jones)
- ECOTality (Andy Hoskinson)
- The California Fleets and Workplace Alternative Fuels Project, San Diego (Kevin Wood, CCSE/San Diego Regional Clean Cities)

Attendees were given presentations that ranged from EV codes and standards, and information about on-site assessments to load calculations and safety guidelines for the installation of charging stations. Attendees learned about how and where electricians can be trained to properly install Electric Vehicle Supply Equipment (EVSE), the best practices of EVSE permitting and inspection, how cities can best accommodate EVs in their new policy, and what new EV projects are taking root in the San Diego region.

eVgo presenter, Jill Brandt, stated that San Diego will be the first region in California to see eVgo's "Freedom Stations", which will include a DC Fast Charger and level 2 charging options. ChargePoint America presenter, Michael Jones, provided audience members with an overview of the Multi-Charge San Diego project, which will install approximately 200 level 2 EVSE charging stations at multi-family locations within the County of San Diego. The project will also create a Load Research Monitoring pilot program that will provide data on load management and demands on transformers to aid utilities in developing capital infrastructure plans.

Additionally, during lunch time, attendees got a chance to look at EVs on display, such as the all-electric Toyota RAV-4 and the Ford C-MAX plug-in hybrid, and browse samples of charging equipment as well.

Lessons Learned

With the wide variety of presentations given from experts across the industry, the following are significant outcomes and lessons learned that attendees walked away with:

- The EVITP representatives highlighted the importance of having properly trained electricians to install EVSE's.
- With the assistance of Bernie Kotlier, Tyler Petersen of CCSE identified the need to streamline the permit and inspection process of residential EVSEs.
- Joel Pointon of SDG&E identified the importance of utility notification of an EVSE installation.
- Martin Montessoro and Andrew McGuire provided a municipality perspective and highlighted the internal benefit of adopting EVSE permitting and inspection best practices.
- Representatives from ECOTality, eVgo and ChargePoint displayed their businesses and identified their next steps towards the installation of EVSE's across San Diego County through projects such as the Multi-Charge San Diego project, The EV Project and "Freedom Station" installations.

- With the framework already in place in Houston Texas, eVgo highlighted the potential for a large amount of multi-unit dwelling installations across San Diego County.

Electric Vehicle Infrastructure Training Program (EVITP) Presentations

Introduction to EV Infrastructure Training and Instructors <i>EV Codes and Standards/Site Assessments, Load Calculations, and Safety Guidelines</i>	
Description	<p>The EVITP program is a structured platform for delivering training and certification for the installation of (EVSEs) in and around Residential, Commercial & Public Facilities. EVITP is a non-profit, volunteer, EV industry, collaborative training program that addresses the technical requirements, safety imperatives, and performance integrity of industry partners and stakeholders.</p> <p>The EVITP provides training on EV codes and standards, will teach electricians how to properly complete a site assessment and load calculation while highlighting safety as a top priority.</p>
Key Items	<p>The detailed EVITP program provides assurance that trained electricians will have the knowledge and skill to properly install an EVSE. Although all EVSE installations must be completed by a California State Licensed electrician, it currently is not a requirement that the electrician be EVITP certified.</p> <p>With the amount of detail and the associated skills needed to complete an EVSE installation, it is highly encouraged that all electricians working in the electric vehicle industry receive this training.</p>
Next Steps	<p>If you are interested in locating an EVITP certified electrician, please contact Bernie Kotlier directly to receive a list of contractors who employ these electricians.</p> <ul style="list-style-type: none"> • Bernie Kotlier, EVITP • lmccenergy@gmail.com

Permitting for Electric Vehicle Supply Equipment (EVSE) Installations*	
Description	<p>The typical cost of a residential EVSE installation ranges from \$300 to \$1,900 in California, according to Mr. Kotlier. Associated permit fees typically contribute to 5% - 20% of the total cost of the installation. According to national data from SPX, permit fees have ranged from \$0 to \$625, with the average permit fee in California among the highest in the nation.</p>
Key Items	<p>Because of the high and unpredictable cost of permits, it is imperative that the industry work to standardize processes in an attempt to provide consistency throughout all the different regions. According to the Plug-In Electric Vehicle Collaborative, a “Best Practice” permitting process for EVSEs would include the following elements:</p> <ol style="list-style-type: none"> 1. A Unique Permit Application 2. Online (if available) or Over-the-Counter Permit Process 3. Template Based Forms 4. A Unique EVSE Permit Fee 5. Avoid Electrician Required Attendance at Inspection 6. Develop Outreach and Training Plans
Next Steps	<p>For more information, please go to www.energycenter.org/pluginready for more information jurisdiction issuance time and permit cost for EVSE installations in the San Diego region.</p>

**EVSE is also referred to as electric vehicle supply stations*

Introduction to Utility Notification/San Diego Gas & Electric Utility Presentation	
Description	While using electricity as a source to fuel electric vehicles, it is important that the utility be notified when an EVSE is being installed in their territory. As the infrastructure for EV's continues to grow, the demand on the grid will grow as well.
Key Items	<p>It is important that customers are aware of the different EV rates that are provided by the utility. San Diego Gas & Electric customers who have an EV can sign up for an Electric Vehicle Time-of-Use (EV-TOU) rate and receive lower rates for charging their vehicle during off-peak hours, between midnight at 5 A.M. EV-TOU rates are offered to encourage customers to limit daytime usage of electricity, when demand for electricity is highest.</p> <p>By opening up the communication lines between customers who install an EVSE and the utility, customers have a greater opportunity for learning about all the available electricity rates for EV owners.</p>
Next Steps	Download a copy of the For more information, please go to www.energycenter.org/pluginready

San Diego PEV Readiness Assessment & City PEV Projects Updates

"PEV-Ready" Policy Recommendations	
Description	<p>The San Diego Regional PEV Readiness Assessment was recently released. This assessment evaluates the regional state of PEV readiness focusing on five core issues:</p> <ol style="list-style-type: none"> 1. Zoning & Parking 2. Streamline Permitting and Inspection 3. Building Codes 4. Training and Education 5. Outreach to Local Businesses and Residents
Key Items	<p>Based on the research conducted, the following recommendations have been proposed:</p> <ul style="list-style-type: none"> • Implement consistent general service and regulatory signage for PEVs • Expand safety training for emergency first responders • Adopt/update rewiring for EVSE in residential and nonresidential new construction • Develop a PEV resources page on regional municipal websites
Next Steps	The complete assessment can be found at the following site: www.energycenter.org/pluginready

City of San Diego, Development Services Department	
Description	Martin Montessoro from the City of San Diego’s Development Services Department presented to the group the city’s Technical Policy 11B-1 along with a guide on “How to Obtain a Permit for Electric Vehicle Charging Systems”. The City of San Diego is one of the first in the San Diego region to issue such policies.
Key Items	<p>Technical Policy 11B-1, “Accessibility to Electrical Vehicle Charging Stations” was issued on April 19, 2012. The City of San Diego’s policy applies to the installation of EV Charging Stations in both new and existing construction and is currently available for review. The policy also includes information on accessibility standards.</p> <p>The “How to Obtain a Permit for Electric Vehicle Charging Systems” is an informational bulletin that describes the permitting and inspection process for the installation of an Electrical Vehicle Charging system (EVCS) on an existing site or building.</p>
Next Steps	<p>The Technical Policy 11B-1 can be found at the following site: https://www.sandiego.gov/development-services/pdf/industry/tpolicy11b1.pdf</p> <p>The “How to Obtain a Permit for Electric Vehicle Charging Systems” can be found at the following site: http://www.sandiego.gov/development-services/pdf/industry/infobulletin/ib187.pdf</p>

City of Chula Vista	
Description	In September of 2012, the City of Chula Vista submitted an informal request for quotes for a turn-key electric vehicle charging stations. The informal request for quotes were seeking service-oriented vendors to fully fund, install, operate, maintain, and market electric vehicle (EV) charging stations at municipal parking lots for public use.
Key Items	After reviewing the submittal proposals, the City of Chula Vista awarded ECOtality with this project with whom they are currently working with to install EVSEs at the 24 potential sites.

San Diego Regional Electric Vehicle Infrastructure Projects

NRG Energy, eVgo San Diego Project	
Description	<p>eVgo, a subsidiary of NRG Energy, has committed to build hundreds of eVgo Freedom Station sites and the infrastructure for thousands of individual eVgo Level 2 charging stations throughout the state. These installations will take place at offices, multi-family communities and more throughout major metropolitan cities California.</p> <p>Each eVgo’s Freedom Station site have installed – one L2 station, one DC fast charging station and one “pre-install” for a second DC fast charger.</p>
Key Items	eVgo is just getting started in the California market so in order to install these chargers throughout the state, eVgo will need to make connections with local municipal staff and become educated on the permitting processes and build the necessary network in order to identify potential installation sites.
Next Steps	In order to expedite these installations, it is important for eVgo to connect with municipal staff to learn the permitting process for their respective jurisdiction and streamline the DC fast charger installations. At events such as this, eVgo was able to make these connections.

Charge Point America, MultiCharge San Diego Project	
Description	Charge Point America received a California Energy Commission EVSE Infrastructure Grant for \$499,512 plus matching commitments. The program will begin in Q2 of 2013 through community outreach and request for applications. These installations are expected to begin in Q3 2013 and complete in Q2 2014.
Key Items	For this project, Charge Point is expecting to install approximately 200 L2 EVSE charging stations at multi-dwelling unit (MDU) locations within the County of San Diego. Additionally, with this funding, a Load Research Monitoring pilot program is being created in order to provide data on load management and demands on transformers to aid utilities in developing capital infrastructure plans.
Next Steps	Charge Point America highlighted the importance of collaborating with the City of San Diego, SDG&E and The San Diego Association of Governments in order to streamline the permitting process for installing EVSE infrastructure at MDU locations.

ECotality, MultiCharge San Diego Project	
Description	Managing the largest deployment of electric vehicles and charging infrastructure in history, ECotality provided a summary and update on The EV Project. In August 2009, ECotality was awarded a \$99.8 million dollar grant from the U.S. Department of Energy which launched in October of 2009. As of today, more than 300 Blink stations have been installed in San Diego through The EV Project subsidies.
Key Items	The EV Project has given the industry a great jump start to the installation of EVSEs; however, it has also exposed barriers in the San Diego market that will need to be continually addressed in order to expand the PEV market.
Next Steps	The EV Project is in the process of completing the installations for its subsidy program in the San Diego region. The next steps will study the utilization of the charging stations in its network. These studies will likely be published as white papers on the EV Project website by Q4 2013.

The California Fleets and Workplace Alternative Fuels Project, San Diego	
Description	The California Fleets and Workplace Alternative Fuels Project are multiple efforts aimed at eliminating the barriers to deployment of alternative fuel vehicles. Best practices, training initiatives and market development and outreach are just a few steps that are being taken to reach the program goals.
Key Items	In order to reduce barriers, best practice toolkits are being created for the permitting of Natural Gas stations, hydrogen stations and fleet deployment of alternative fuel infrastructure. Additionally, it is imperative that training needs around alternative fuel and advanced technology vehicles be assessed and the appropriate trainings be coordinated.
Next Steps	At the first part of this year, the project is really focusing on training needs and assessments. Moving into the summer months, the focus will shift onto best practices development. In the Fall of this year, the program focus will transition to trainings and best practice workshops.