

# REFUEL: SAN DIEGO REGIONAL ALTERNATIVE FUEL COORDINATING COUNCIL

## ELECTRIC SUBCOMMITTEE MEETING

APRIL 16, 2015

MARCH 12, 2015 MEETING SUMMARY

File number 3200900

### 1. LANDSCAPE OF ELECTRIC VEHICLES IN SAN DIEGO

#### *California EV market share*

- As of Q4 2014, PEVs have over a 5% market share, with 1 out of 18 new cars sold being PEVs
  - Light duty vehicle market is greater than 3%

#### *San Diego County Vehicles and Rebates*

- From 2011 to the end of 2014, there were over 120,000 PEVs sold in the state, accounting to over \$90,000 in CVRP rebates
- There are over 10,400 PEVs in San Diego County, accounting to over 7,300 rebates
  - SDG&E commented that there may be closer to 15,000 PEVs in San Diego County
- There are areas in San Diego County with a higher rate of adoption as shown by the CVRP data
  - Includes: La Jolla, central San Diego, Caramel Valley
- Car2go has improved travel and experimenting with battery recycling
  - 400 new car2go vehicles are coming to San Diego
  - Worked with Sofia Lofts and The Point apartments in Pacific Beach to add more charging stations because Pacific Beach has a huge car2go membership.
  - Car2go will work with Refuel member on case study

#### *Number of Charging Stations*

- There is a need to make more of an impact with EVSE in Multi-Unit Dwellings (MUDs)
- There are over 500 level 2 charging stations and 20 DCFC sites (16 CHAdeMO and 4 CHAdeMO & Combo Connector Standard) – according to the Alternative Fuel Data Center station locator
  - Actual number may be a little higher
  - Three Tesla supercharger sites are coming to San Diego region
- SDG&E may have access to data from PlugShare, a web app of crowd-sourced charging station data. May be available to regional agencies through a purchase.
- The ratio of cars to EVSE is quite low; if there are over 10,000 PEVs but only 500 charging stations, that is a ratio of 20:1.
  - As the range of vehicles increases, then maybe the number of chargers available will not be an issue.

- Mike Evans (San Diego Regional Chamber of Commerce) noted hearing about the San Diego Association of Governments (SANDAG) board retreat in which hydrogen fuel cells were promoted by car manufacturers.
- On April 2, 2015, CSE will hold a workshop with the Fuel Cell Partnership (FCP) where representatives from auto manufacturers will be present to discuss Fuel Cell Electric Vehicles (FCEV). Invites will be sent out via email.

#### *Public Fleet Pilot Project*

- There has been a barrier getting PEVs into government fleets
  - SDG&E has over 40 PEVs in its fleet
  - UCSD probably has the largest number of PEVs in its fleet
  - Usually no procurement incentive because of the initial high cost of PEVs
- The areas eligible for the Public Fleet Pilot Project in the San Diego region are: Cities of Vista, City of San Marcos, City of El Cajon, City of San Diego (South), National City, and Chula Vista.
  - These are determined by the CalEnviroScreen, a tool developed by CalEPA /Office of Environmental Health Hazard Assessment.

#### 2. UPDATED BARRIERS TABLE

Many of these barriers have been carried over from the Regional Electric Vehicle Infrastructure (REVI) working group.

#### *Lack of Public Knowledge*

- Work to educate dealers on PEVs through PEV implementation work

#### *PEV Implementation*

- Create toolkit to assist cities with installation of charging stations

#### *Workplace Charging*

- Expand charging opportunities through PEV implementation work

#### *PEV in Government Fleets*

- Determine which cities are eligible for extra CVRP funding through the Public Fleet Pilot Project

#### *EVSE at Multi-Unit Dwellings*

- Expand charging opportunities through PEV implementation work
- Working on case studies to provide more outreach

#### Questions and feedback:

- There is a question about how much it costs to replace a battery once it wears out.
  - For a Nissan, a vehicle owner would pay \$6,000 to replace the battery, and that price includes the cost of labor

- There are some cases in which an extra warranty exists to replace the entire battery, rather than only covering specific battery cells that need to be replaced
- Need to remove all uncertainties when it comes to battery life, warranty, and afterlife.
- Large car manufacturers are looking at energy storage on the electric grid as a secondary use for the battery.
  - This type of use is being tested at UCSD
- How PEVs integrate with the grid needs to be addressed
- In regards to SB 880 and AB 2565, HOA and rental communities are supposed to allow individuals to install their own charging stations
  - Caveat to the legislation is that there needs to be a \$1 million liability coverage with the HOA as an additionally insured
    - Few reports that insurance companies will *not* add an HOA under the insurance policy
    - Need more case studies regarding the complexities of implementing SB 880 and AB 2565.

### 3. UPDATES FROM JURISDICTIONS

#### County of San Diego (Rich Grudman)

- The County wanted to install EVSE throughout County buildings, but did not have the funding to do so.
- Applied for and received a \$500,000 grant from the Energy Commission.
- The County sent out an RFP where vendor installs and owns their own equipment in return for a license to use County real estate
- Developed a partnership with ChargePoint, who has installed 10 EVSE already, plus another 10, and another 9 to be installed by the end of 2015
- Most of the infrastructure installed has been Level 2 and some DCFC.
- Employees pay to charge: \$0.30/kWh on Level 2 charging structures; \$0.50/kWh on DCFC
- Fees increase when drivers stay plugged in after the car is done charging.

#### SANDAG (Susan Freedman)

- SANDAG implemented EVSE at two transit station sites: Del Lago and Sabre Springs
- 10 Level 2 charging stations were installed at the Sabre Springs Transit Station
- Most usage was from Monday-Thursday
- Unsure of who is using the charging stations from looking at the data
- In November, fees increased to \$2/hr, and charging from transit users dropped dramatically
  - Only seven total charging session in February.
- SANDAG will look at charging per kWh

#### City of San Diego

- The City is moving forward with OpConnect to install up to 41 charging stations at park and recreation locations. Funding is thanks to the same Energy Commission grant from which the County received funding.
- The City has also identified a new vendor to take over the management of its existing charging stations, and the RFQ includes a piggyback clause so other jurisdictions may follow suit.

#### 4. BRIEFING ABOUT ENERGY COMMISSION INFRASTRUCTURE WORKSHOP

The subcommittee was informed that \$10 million in funding for PEV infrastructure will be released in early summer/late spring by the Energy Commission.

- The region should gather strategies and best practices from past grantees (i.e., the County and City of San Diego) to successfully apply.

#### **Attendees/Call-in Participants:**

- Nilmini Silva-Send, University of San Diego Energy Policy Initiatives Center
- Chris Schmidt – CalTrans District 11
- William Berry – car2go
- Joel Pointon – San Diego Gas & Electric (SDG&E)
- Rich Grudman – County of San Diego
- Jeff Wyner – City of Escondido
- Mike Evans – San Diego Regional Chamber of Commerce
- Randy Schimka – SDG&E
- Mo Lahsaie – City of Oceanside
- Susan Freedman – San Diego Association of Governments (SANDAG)
- Anna Lowe – SANDAG
- Michelle Martinez – SANDAG
- Kevin Wood – Center for Sustainable Energy (CSE)
- Jessica Jinn – CSE