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The Plug-in Electric Vehicle Market

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September 9, 2011

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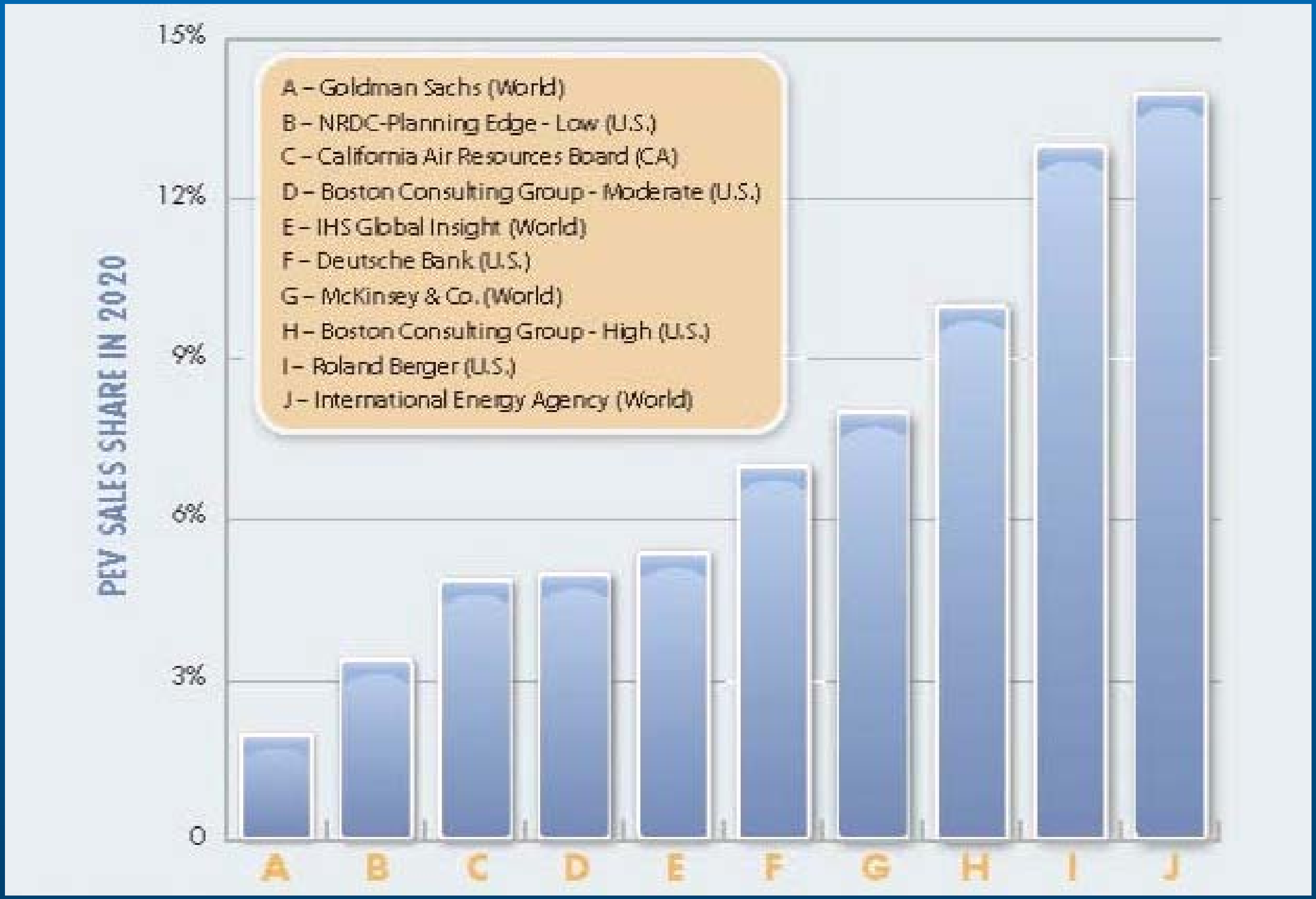
What Is The Future For PEVs?



“Taking Charge – Establishing California Leadership in the Plug –In Electric Vehicle Marketplace”, *California Plug-In Electric Vehicle Collaborative, December 2010*
http://www.evcollaborative.org/

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SDG&E's Situation

- The EV Project – Ecotality installing 1,500 public and 1,000 home charging units
- SDG&E rate experiment
- Car2Go announces first all-electric car sharing program starting Dec 2011
- Several vehicle manufacturers plan to launch PEVs in California

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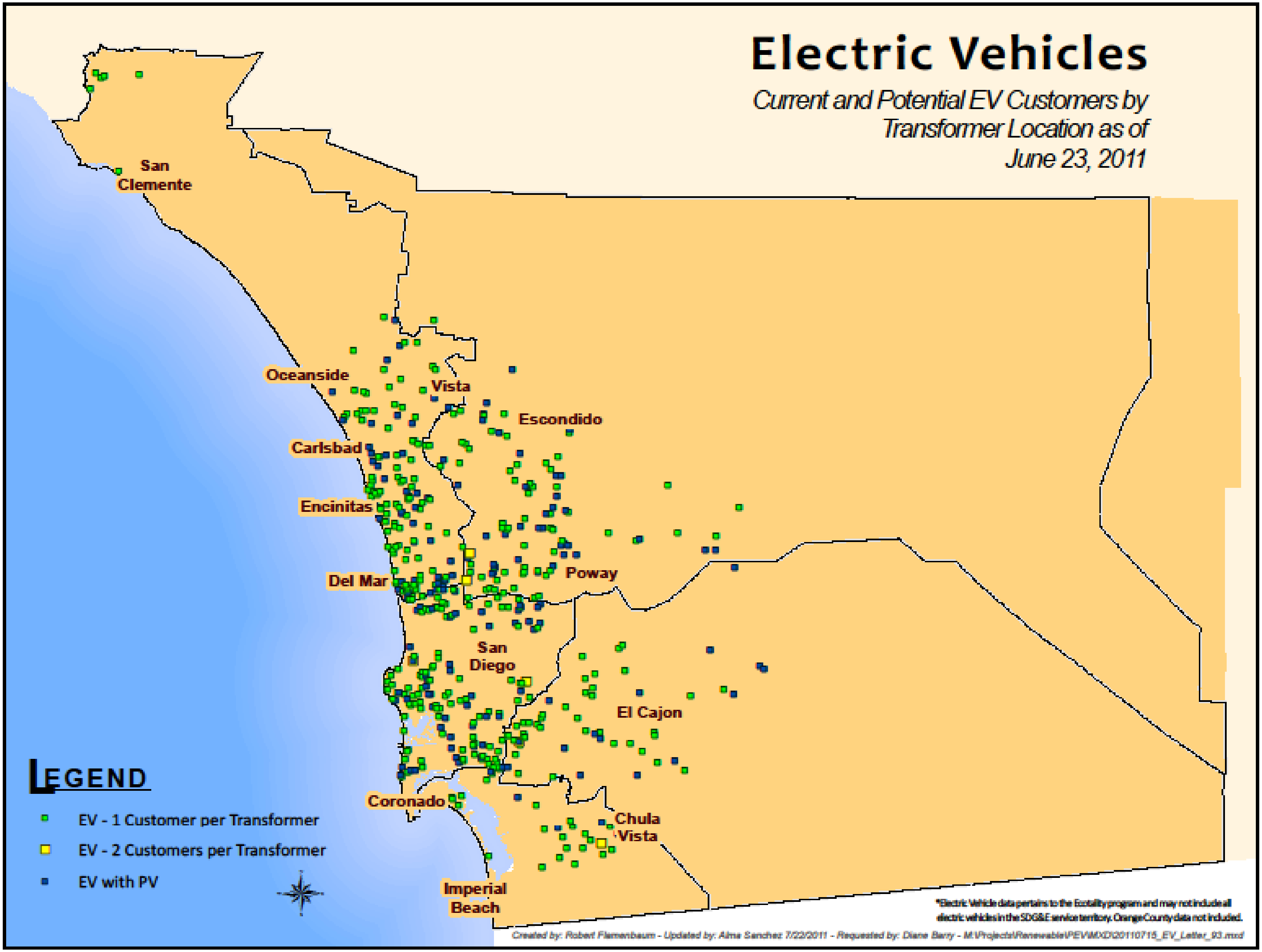


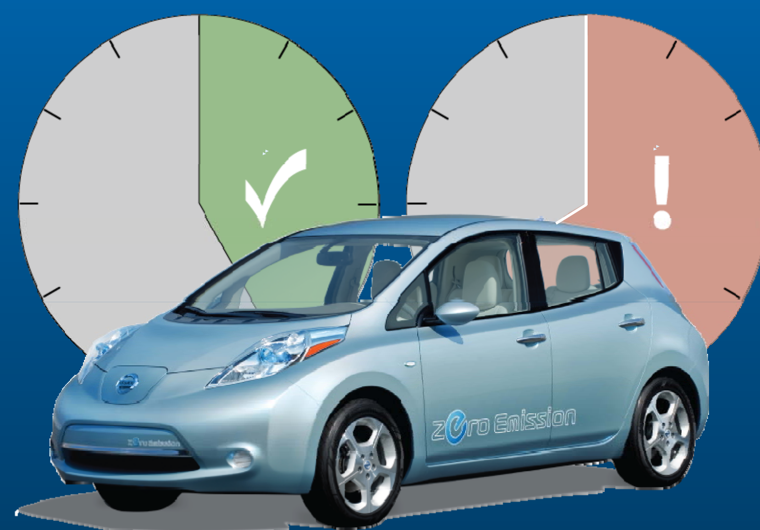
Electric Vehicles
Current and Potential EV Customers by Transformer Location as of June 23, 2011
San Clemente
Oceanside
Vista
Escondido
Carlsbad
Encinitas
Del Mar
Poway
San Diego
El Cajon
Coronado
Chula Vista
Imperial Beach
LEGEND
EV - 1 Customer per Transformer
EV - 2 Customers per Transformer
EV with PV
*Electric Vehicle data pertains to the Ecotality program and may not include all electric vehicles in the SDG&E service territory. Orange County data not included.
Created by: Robert Flamenbaum - Updated by: Alma Sanchez 7/22/2011 - Requested by: Diane Barry - M:\Projects\Renewable\PEV\MXD\20110715_EV_Letter_93.mxd

1. Barriers & Solutions

Barrier #1: Fuel Price

Solution: Maintain low fuel (electricity) prices

- Fuel cost savings help drive PEV sales
- Use LCFS credit to sustain low electricity prices
- Apply to off-peak rates to help the grid
- Create incentives to control rate and time of charge



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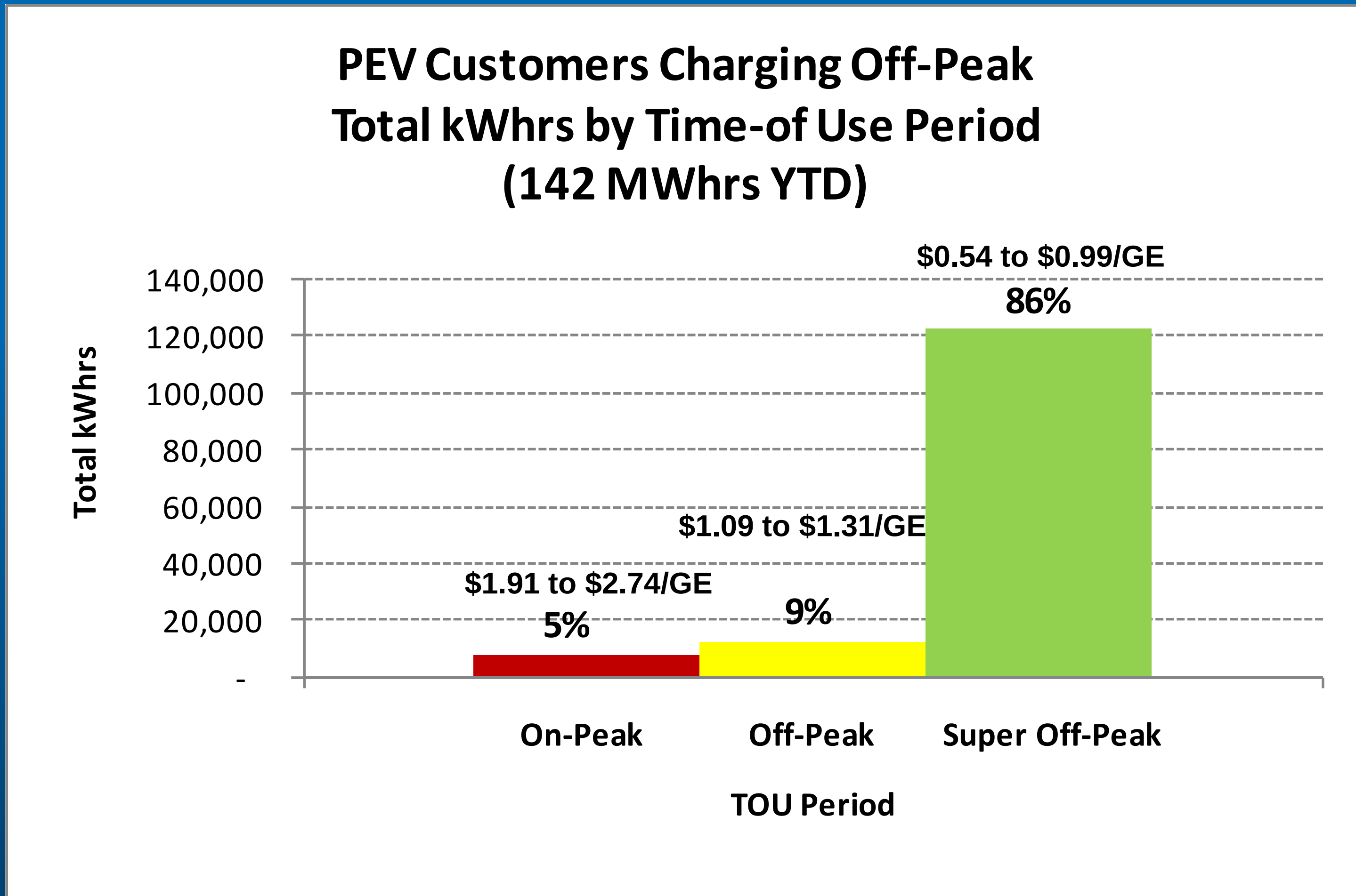
Charging Behavior



PEV Rate Study participants only (n=298 as of 9/2/11). Excludes customers on EVTOU and EVTOU2.
Assumes 3.5 miles/kWh at the utility meter.

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2. Barriers & Solutions

Barrier #2: Price of PEV ownership

Solution: Maintain PEV incentives to sustain "demand-pull"

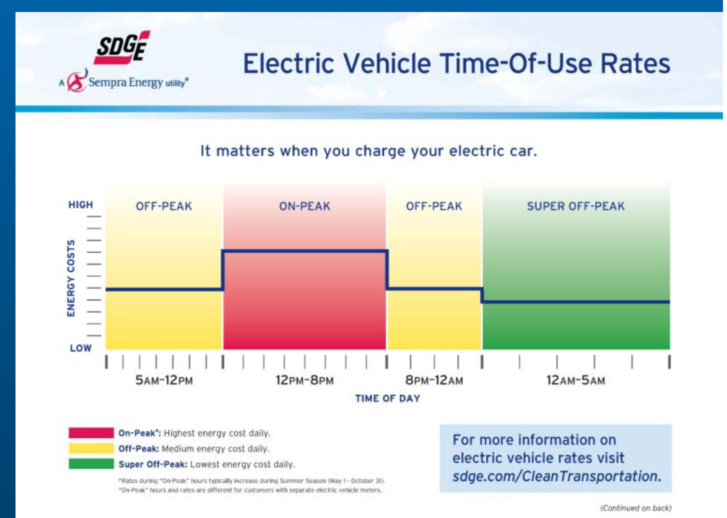
- Maintain state & federal incentives <u>until</u> market is established
- Send a message to consumers to "buy now"
- Encourage the growth in PEV support service industry (create jobs)

3. Barriers & Solutions

Barrier #3: Consumer & Stakeholder knowledge

Solution: Robust education and outreach

- Utility role – neutral & informative
- Customers: Residential MUDs, Fleet, Commercial (private and public) & Workplace charging
- Stakeholders: Contractors, policy makers, dealers, OEMS, suppliers



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4. Barriers & Solutions

Barrier #4: Cost of EVSE

Solution: Encourage a variety of EVSE options

- Create price & product competition
- Allow utilities to explore technology options with electric vehicle service industry

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Glimpse into the Future?