Agenda for
Fourth Annual California Multi-Agency Update on Vehicle-Grid Integration Research

Tuesday, December 5, 2017
Beginning at 9:30 a.m.
CALIFORNIA ENERGY COMMISSION
1516 Ninth Street
First Floor, Rosenfeld Hearing Room
Sacramento, CA
Wheelchair Accessible

Purpose: California Energy Commission staff will lead a public workshop to review the progress of research – called for in the California Vehicle-Grid Integration Roadmap as part of the Governor’s Zero-Emission Vehicle Action Plan – with the goal of accelerating the adoption of plug-in electric vehicles to provide grid services while maintaining driver mobility needs.

Objectives:
- Share current research results with stakeholders and identify potential Vehicle Grid Integration (VGI) synergies or new research opportunities to advance VGI technologies
- Determine the needs to overcome the barriers to accelerating electrification in the medium- and heavy-duty sector
- Solicit feedback from stakeholders, experts, and the public on current and future VGI research and development efforts

Agenda

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<tr>
<td>9:30 a.m. -</td>
<td>WELCOME AND OPENING REMARKS</td>
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<td>9:45 a.m.</td>
<td>➢ Welcome and Housekeeping</td>
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<td>• Matt Fung, California Energy Commission</td>
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<td>➢ Opening Comments</td>
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<td>• Reynaldo Gonzalez, California Energy Commission</td>
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<td>9:45 a.m. -</td>
<td>VEHICLE-GRID INTEGRATION (VGI) TECHNICAL RESEARCH INNOVATIONS</td>
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<td>11:45 a.m.</td>
<td>➢ Advancing Plug-in Electric Vehicle Smart Charging and Demand Management through Interoperable Communication Technologies</td>
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<td>• Next-Generation Grid Communication for Residential PEVs</td>
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<td>◦ John Schott and Craig Rodine, ChargePoint</td>
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<td>• Smart Charging of Plug-in Vehicles with Driver Engagement for</td>
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### Demand Management and Participation in Electricity Markets
- Doug Black, Lawrence Berkeley National Laboratory
  - **Open Source Platform for Plug-in Electric Vehicle Smart Charging in California**
    - Tim Lipman, UC Berkeley
  - **Improving Commercial Viability of Fast Charging by Providing Renewable Integration and Grid Services with Integrated Multiple DC Fast Chargers**
    - Keerthi Ravikkumar, Greenlots

### Grid Communication Interfaces to Support Vehicle-to-Grid Services
- **Distribution System Aware Vehicle to Grid Services for Improved Grid Stability and Reliability**
  - Sunil Chhaya, Electric Power Research Institute
- **Open Vehicle to Building/Microgrid Integration Enabling ZNE and Improved Distribution Grid**
  - Sunil Chhaya, Electric Power Research Institute

### Effects of Vehicle-to-Grid Battery Cycling at the Los Angeles Air Force Base Demonstration
- **Vehicle-to-Grid Testing and Demonstration with Department of Defense**
  - Dan Markiewicz, Concurrent Technologies Corporation

#### 11:45 a.m. - 12:30 p.m.
**MEETING UTILITY INFRASTRUCTURE NEEDS THROUGH PILOT PEV CHARGING INTEGRATION**
- **On Campus PEV Charging**
  - David Goldgraben, San Diego Gas & Electric
- **Charge Ready Demand Response Pilot**
  - Mauro Dresti, Southern California Edison
- **Vehicle Grid Integration R&D Update**
  - Abigail Tinker, Pacific Gas & Electric
- **Q&A Session**

#### 12:30 p.m. - 1:30 p.m.
**LUNCH**

#### 1:30 p.m. - 2:15 p.m.
**DISCUSSION PANEL:**
- **Identifying Opportunities and Barriers to Advance Vehicle-Grid Integration into the Medium-/Heavy-Duty Sector**
  - Matt Fung (Moderator), California Energy Commission
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| 2:15 p.m. - 3:30 p.m. | **FUTURE VGI PLANS FROM THE AGENCIES AND THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR**  
  • Kiel Pratt and Noel Crisostomo, California Energy Commission  
  • Amy Mesrobian, California Public Utilities Commission  
  • Peter Klauer, California Independent System Operator  
  ➢ Q&A Session |
| 3:30 p.m. - 4:00 p.m. | **PUBLIC COMMENT**  
  ➢ Public Comment Session  
  • Matt Fung (Moderator), California Energy Commission  
  ➢ Next Steps and Closing Remarks  
  • Matt Fung, California Energy Commission  
  ➢ Adjourn |