

# NEW JERSEY RETREAT ON ADVANCING VEHICLE-TO-GRID TECHNOLOGIES

January 22, 2020

Thomas Edison State Univ.  
Prudence Hall  
111 West State Street  
Trenton, NJ

The objective of the retreat is to explore strategies to implement vehicle-to-grid (V2G) technologies and policies in New Jersey, such as allowing vehicles to provide services to the electric grid like demand response, backup battery power, or frequency regulation. This retreat will outline the current state of play of V2G, identify policies and regulatory structures that New Jersey can adopt to allow V2G participation in energy markets, and identify action steps New Jersey can take to achieve the state's electric vehicle and energy storage goals. Participants will learn about V2G technologies, regulatory constructs, rate-design, and market integration to allow V2G deployment in New Jersey, and how to plan for the impacts of more electric vehicles on the distribution grid, along with other topics. Participants will have opportunities to discuss these trends and ideas and recommend next steps for the governor's office and the New Jersey Board of Public Utilities (BPU) to pursue.

## AGENDA

### WEDNESDAY - JANUARY 22, 2020

8:30 - 9:00 AM **Coffee and Registration**

9:00 – 9:30 AM **Overview, Meeting Goals, and Introductions**

New Jersey's planning team will provide context for the retreat by sharing their organizations vision for V2G and give a high-level overview of challenges and opportunities. The session will also include attendee introductions and a brief discussion on what retreat participants hope to achieve.

Speakers:

- *Dan Lauf, Energy Program Director, National Governors Association Center for Best Practices (NGA Center)*
- *Jane Cohen, Senior Policy Advisor, Office of Governor Phil Murphy*
- *Jim Ferris, Bureau Chief for New Technology, Clean Energy Division, NJ BPU*

9:30 – 10:15 AM **The Status of V2G: Perspectives from Academia**

To provide a framework for discussions later in the day, an academic expert will describe V2G technologies, including opportunities, benefits, costs, and challenges for deployment. Questions to be addressed include:

- What is the state of the market now?
- What near-term market movements are expected?
- What are potential barriers or challenges to V2G commercialization and integration that policymakers and regulators should be aware of?

Speakers:

- *Willett Kempton, Research Director – Center for Carbon-Free Integration University of Delaware*

Moderator:

- *Alyse Taylor-Anyikire, Senior Policy Analyst, NGA Center*

10:15 – 10:45 AM **Break**

10:45 – 11:45 AM **The Status of V2G: Perspectives from Industry**

In this session, speakers from the transportation industry will describe the market-readiness of V2G technologies, including opportunities, benefits, costs, and challenges for deployment. Topics to be addressed include:

- Their vision for V2G
- The business case for V2G
- Regulatory concerns regarding V2G

Speakers:

- *Patrick Bean, Senior Manager of Policy & Business Development, Tesla*
- *Josh Cohen, Director of Policy, Greenlots*
- *Kevin Miller, Director of Public Policy, ChargePoint*

Moderator:

- *Sue Gander, Division Director, Energy, Infrastructure & Environment, NGA Center*

11:45 – 12:15 PM **Opportunities for Stakeholder Feedback 1**

Moderator:

- *Alyse Taylor-Anyikire, NGA Center*

12:15 – 1:15 PM

### **Lunch Presentation: Leveraging Medium- and Heavy-Duty Vehicles for V2G**

An expert from Dominion Energy will present on Dominion's innovative electric school bus program in Virginia. The program is a partnership between Dominion Energy and local Virginia school districts to add over 1,000 electric school buses in the next five years. In addition to their normal transportation duties, these buses will (1) act as portable batteries, (2) be used as an energy resources by Dominion, (3) provide ancillary services to the electric grid, and (4) serve as a mobile power stations during power outages or emergencies.

Keynote Speaker:

- *Daniel Weekley, VP of Innovation Policy & Development, Dominion Energy*

1:15 – 2:15 PM

### **Regulatory and Market Solutions to Support V2G Deployment**

In this panel, speakers will discuss what regulatory, market, and rate design changes that need to be made to support V2G in New Jersey and compensate grid-connected vehicles. They will also focus on what will be required to integrate V2G into electricity markets and integrated distribution system planning.

Speakers:

- *Eric Cutter, Director, Distributed Energy Resources, Energy and Environmental Economics, Inc.*
- *Sara Parkinson, Energy Policy Analyst, University of Delaware*
- *Andrew Levitt, Senior Market Strategist, PJM Interconnection*
- *Robert Brabston, Deputy Executive Director, New Jersey Board of Public Utilities*

Moderator:

- *Dan Lauf, NGA Center*

2:15 – 2:45 PM

### **Designing with Customers in Mind – Discussion on Customer Outreach and Equity**

This session will focus on the state and utilities can educate consumers about V2G programs and consider how electrification and V2G can be pursued in an equitable fashion. How can New Jersey increase access and opportunities for all communicates to access electric vehicles?

Speaker:

- *Shelley Francis, Co-Founder and Managing Partner, EVNoire*

Moderator:

- *Alyse Taylor-Anyikire, NGA Center*

2:45 – 3:00 PM

**Break**

3:00 – 4:15 PM

### **Establishing V2G in New Jersey -- Opportunities for Stakeholder Feedback 2**

This session will allow all stakeholders to share their thoughts on the most promising avenues for state action based on the day's discussion. NGA staff will facilitate a discussion with the following questions:

- What ideas did you hear today that you found most promising?
- What barriers remain to V2G that the state should address?
- What areas warrant further study or exploration by the state?
  - *i.e. Statutory, regulatory, policy, incentives*

Moderator:

- *Dan Lauf, NGA Center*

4:15 – 4:30 PM

### ***Wrap-up and Participants Adjourn***

4:30 – 5:00 PM

### **State Team Debrief**

The state officials will remain to discuss the insights from the day and next steps. Discussion may include further development of an action plan for New Jersey.