Panel 2: Utility Perspective and Current Landscape

**Discussion Outline**

1. Advancing transportation electrification in New York
2. Utility Actions and Approaches

**Representatives of the Joint Utilities**

- Central Hudson: John Borchert
- Con Edison: John Shipman
- National Grid: Karsten Barde
- NYSEG and RG&E: Scott Bochenek
- Orange and Rockland: MD Sakib
Advancing Transportation Electrification in New York
The Joint Utilities Support EV Adoption

• The Joint Utilities support New York’s clean energy goals.

• Transportation electrification is essential to meeting greenhouse gas emissions reduction requirements by 2030.
  • The transportation sector emits almost 2x the greenhouse gases as electric generators.

• New York has already taken a number of steps to promote the deployment of electric vehicles (EVs).

• The time is right to influence the EV market in New York State.
  • EVs are becoming increasingly cost effective.

**State’s GHG Emissions: 219 MMtCO₂e**

- 33% transportation
- 31% buildings
- 17% electricity generation
- 16% non-energy
- 3% non-combustion
Ongoing Utility Efforts to Advance EVs

• Joint Utilities EV Readiness Framework
  • The Joint Utilities collaborated with stakeholders on a path to make each utility “EV ready” by discussing existing hurdles to widespread deployment of infrastructure.
  • The framework recognizes the different approaches to engage in EV charging development and the need for broad policy action.

• 2018 DSIP Filing Framework
  • Each company will file an individual DSIP by July 31, 2018 that includes discussion of EV integration, among other DER Integration.
  • Filings will incorporate common summary materials from the 2017 JU implementation and stakeholder outreach.

• Utilities are advancing EV demonstrations, pilot projects, and programs, and are continuing to work with regional groups, associations, and governments to advance EV initiatives and infrastructure awareness.
Advancing EV Adoption Requires a Joint Effort

- Utilities have a critical role to play and are uniquely positioned to facilitate beneficial transportation electrification.

- Early utility involvement has the potential to jump-start EV adoption in NY and can provide some of the support needed to meet State goals.

- Other industry participants have critical roles to play in advancing EV growth.

- State and local agencies have an important role to play as well: incentives, readiness, planning support, etc.
Potential Approaches to Spur Adoption

Home

Multi-family

Workplace or Destination

In-route

Fleets

Infrastructure Deployment

Rate design

Education & Outreach

Incentives

Partnerships & Planning
• This investment can take several forms, and it is too soon to foreclose options – multiple pathways and business models should be pursued at this time.

• Utilities’ role in charging infrastructure buildout may be based on regional needs defined by EV use cases and regional characteristics.

Source: EVI Pro Lite Scenario Results for NYS and Urban Areas for 850,000 EVs
Rate Design

• Demand rates should be preserved for EV fast charging stations – with potential design improvements that provide more economically efficient price signals.

• Challenges with demand rates are entirely a function of charger utilization rates – and will be resolved as utilization increases.

• Customers should be encouraged to charge during off-peak hours, both from a wholesale and distribution system perspective.

• Storage coupled with charging could alleviate some of the concerns regarding interconnection costs and system impacts.

• This issue to be discussed further in Panel 7.
Customer Outreach and Education

• Customers need information on vehicle options, total cost of ownership, and vehicle charging.

• Utilities have a role to play in engaging customers on EV activities.

• Information on vehicles and charger units is being incorporated into certain utilities’ online marketplaces.

• Additional funding will be required to enhance outreach and education; utilities should be allowed to recover these additional costs.

• To be discussed further in Panel 8.
Incentives

• Incentives may be appropriate mechanisms to spur deployment of charging equipment, influence customer charging behavior, and accelerate vehicle adoption.

• Utility incentive programs may be tailored to regional differences in EV charging needs, customer demographics, and vehicle ownership.

• Programs should allow flexibility to pivot program funding to incentives that work.

• Use strong outreach and marketing to educate consumers on the availability of incentives and value toward total cost of ownership.

• Develop mechanisms to align utility incentives with state objectives.

• Coordinate with NYSERDA, Charge NY resources, and other available incentives to encourage EV adoption to meet clean energy goals holistically.
Utility Considerations

Cost Recovery

• Establish mechanisms to allow utilities to recover the costs of EV investments.
• Allow utilities to capitalize infrastructure investments and incentives.
• Permit recovery on all O&M costs related to EV programs.

Investment Strategy

• Ensure that investment aligns with market needs.
• Ensure that investments do not outpace the technology.

Measuring Success

• Design metrics to track program performance in a way that recognizes the many factors that are impacting EV growth and informs future programs.
• Develop methodologies to measure and verify impact of utility investments.
• Explore EAMs related to EVs to align utility incentives with state objectives.
Utility Actions and Approaches
Central Hudson

• New Focus on EV initiatives

Increase electric vehicle adoption

• Establish a Program
• Continue and Expand Participation and Advocacy
• Increase employee EV engagement and experience
• Demonstrate leadership

Strategy Approach

• Utility Infrastructure
  • Planning and Forecasting
  • Improve asset utilization
  • Rate design

• Vehicle Charging
  • Support availability to reduce range anxiety
  • Provide convenient and cost effective options

• Advocacy and Education
  • Employee and external
Central Hudson

Priority Actions

• Establish program leadership and a cross-functional team;

• Develop and implement an employee program focused on education and adoption;

• Expand existing advocacy efforts with an “EV Summit” or similar annual events;

• Address rate design issues and propose solutions that advance the program;

• Propose a transportation electrification program in accordance with our rate order; and

• Establish outreach to local counties and municipalities.
• Goals and approaches to EV initiatives

  **Increase electric vehicle adoption**
  • Identify and target high potential use cases
  • Test a variety of concepts and business models
  • Form strategic partnerships with business developers, vendors, and public stakeholders
  • Enhance outreach and education to customers

  **Support public charging options**
  • Business Incentive Rate for public quick charging
  • Curbside charging demonstration
  • Public quick charge demonstration
  • Considering a proposal to cover ‘make-ready’ costs

  **Encourage off-peak charging**
  • SmartCharge NY incentive program
  • Residential EV time of use rates
  • School bus vehicle-to-grid demonstration
  • Considering enhancements to residential EV charging
National Grid

We are expanding our offerings in Upstate NY to address customer needs, including:

**Awareness**
- Promoting EVs to our customers through targeted education & outreach
- Enabling EV consideration through a new online vehicle marketplace
- Promoting the NYSERDA rebate and automaker discounts

**Accessibility**
- Operating 66 public Level 2 stations across our service territory since 2014
- Providing “make-ready” investment through a new program focused on workplaces, apartment buildings, and public DC Fast sites
- Evaluating options for additional residential charging offers

**Affordability**
- Encouraging lower cost, off-peak home charging through whole-house VTOU rate
- Evaluating options to mitigate current demand rates for public fast charging

We are also aligning with policy goals through the EV portion of our Carbon Reduction EAM, which measures incremental EV registrations against a peer group.
Developing capabilities to support a robust EV market

Ability to forecast EV growth and assess network impacts and needs

Ability to integrate EV load without increasing peak demand

Ability to support EV market growth with sufficient charging infrastructure

Ability to positively influence customer perception of EVs
Orange & Rockland

**O&R Program Objective**

- Increase adoption of EV in NY State
- Increased deployment of EV chargers in strategic high traffic locations
  - Reduce range anxiety for prospective EV buyers
- Increase utilization of assets
  - Off-peak charging
  - Strategic placement of EVSE
- Increase customer awareness of Utility EV Programs
- Test a variety of concepts and utility ownership of EVSE business model
- Seamless integration and management of EVSE with the distribution system

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**Economic Development Program to promote quick charging (DCFC)**

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<th>Charger Type</th>
<th>Number of Units</th>
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<tbody>
<tr>
<td>Level 2 – Parking lots</td>
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<tr>
<td>Level 2 – Curb-side</td>
<td>26</td>
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<tr>
<td>DC Fast Chargers</td>
<td>5</td>
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</table>

- **Deploy utility-owned EV Charging Infrastructure to drive EV adoption**

- **Customer rebate for Level 2 Home Chargers**
  - $500 rebate for 150 Level 2 home chargers

- **Education and Outreach Program**
  - Facilitate the education of customers on operational information, ownership costs, environmental benefits, charging options, and incentives

- **Whole-home TOU rate for both EV and house (both on the same meter)**
  - One year guarantee to remove risk of higher bills under the TOU rate
  - Separate EV meter not required

- **Increase utilization of assets**
  - Off-peak charging
  - Strategic placement of EVSE

- **Increase customer awareness of Utility EV Programs**
  - Test a variety of concepts and utility ownership of EVSE business model

- **Seamless integration and management of EVSE with the distribution system**

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*draft for discussion*
Contact the Joint Utilities of New York

• Email info@jointutilitiesofny.org with any questions or concerns
• Visit the Joint Utilities of New York website: www.jointutilitiesofny.org
  • JU EV Readiness Framework available under the ‘Resources’ tab: http://jointutilitiesofny.org/resources/
  • Improved JU website with links to new online utility specific web portals (System Data, Hosting Capacity, Non-Wires Alternatives RFP Opportunities)
  • Monthly DSP enablement summary documents posted to JU website
Thank you!

www.jointutilitiesofny.org