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<td><strong>Docket Number:</strong></td>
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<td><strong>Document Title:</strong></td>
<td>Reframing EVs as DER</td>
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<td><strong>Description:</strong></td>
<td>Presentation by Jackie Piero, Nuvve</td>
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<td><strong>Filer:</strong></td>
<td>Raquel Kravitz</td>
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Reframing EVs as DER
V2G World Overview: Markets developing

• Interest in bi-directional EVs around the world
  • EV markets
  • High DER penetration
  • Islands

• UK, France, Denmark, Japan:
  • TSOs including EVs as DER in forecasts and scenarios
  • TSO designing wholesale markets to include EVs
  • DSOs including EVs and V2G in localized flexibility markets
  • Energy management of EVSEs allowed and planned for

• Investment interest in USA
  • Infrastructure companies
  • VCs with longer investment horizons

Acronyms
DER – Distributed Energy Resource
TSO – Transmission System Operator
DSO – Distribution System Operator
EVSE – Electric Vehicle Service Equipment
EVs are Distributed Energy Resources

- There is a disconnect in policies and regulations: EV vs DER
  - EV-specific rates may not be necessary, it is about energy usage
- EVs are extraordinarily flexible
- NOTE: Anchor rate for MD/HD is based on the least flexible use case!
  - Need to assume MOST flexibility in charge times, charge rates, discharge capability, and coordination with other loads and resources for policy, regulatory, and rate design purposes
Use case: Private investment vs MD/HD

Value streams are accessible if EV is connected to loads and DER:
• Allows private investment to finance infrastructure
• Allows integration + balancing with other DER and loads
• Opens Demand Response opportunities

MD/HD funding is discouraging VGI:
• EV is “added” not “integrated”
• EV rate imported from another use case
• No export compensation
• No Demand Response (baselining issue)
• No other loads to balance
• ONLY price signal is TOU
• WDAT could work, not funded

Acronyms
DER – Distributed Energy Resource
WDAT – Wholesale Distribution Access Tariff
TOU – Time of use
Suggestions

• Customers need to be allowed to elect to use energy management technologies to avoid primary and secondary upgrades.

• For EVs, this means not being stuck on a constraining rate.

• Stop planning distribution for the worst hour of the worst day with no control of resources.
  • Decrease complexity of distribution planning and rate design.
  • All rate payers benefit.

• IOU involvement should end at the Point of Common Coupling.
Thank You

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