



# **Order No. 2222 – Opening the Door to Valuing DERs in RTO/ISO Markets**

Jeff Dennis

General Counsel and Managing Director

Advanced Energy Economy

# About Advanced Energy Economy

- AEE represents more than 100 companies and organizations that span the advanced energy industry and its value chains.
- Technologies represented include energy efficiency, demand response, solar photovoltaics, solar thermal electric, wind, energy storage, electric vehicles, advanced metering infrastructure, transmission and distribution efficiency, fuel cells, hydro power, advanced nuclear power, combined heat and power, and enabling software.
  - AEE also supports the work of the Advanced Energy Buyers Group ("AEBG")
- AEE pursues policy transformation in the states and in wholesale power markets that expand market opportunities for advanced energy technologies and lay the foundation for a 100 percent clean advanced energy future.



# Why is DER participation in wholesale markets valuable?

- Helps lower overall system costs
  - Improved utilization on both retail and wholesale markets can avoid duplicative investments
- Improves flexibility and reliability
  - Many DERs provide higher quality and more flexible ancillary/reliability services (frequency regulation, reserves, fast ramping/response)
  - Could be a major step in unlocking flexibility of demand
  - Market integration gives RTO/ISO operators more awareness and visibility of operations and capability of DERs
- Ensures market efficiency and just and reasonable rates as DER adoption rapidly increases
- Supports state policy goals (e.g., emissions reduction) and promotes greater integration of retail and wholesale markets and state-federal jurisdiction

For more, see *Advanced Energy Economy*, [“Putting Distributed Energy Resources to Work in Wholesale Markets”](#) (Sept. 2019)

# What are DER developers, owners, and aggregators looking for in RTO/ISO participation models?

- Clear roadmap for aggregated DERs to provide all the services they are capable of providing, comparable to generators and stand-alone demand response
- Rules allowing aggregations of multiple technology types across broadest area possible
- Allow for multiple use cases and business models (e.g., don't build participation rules around specific use cases or business models)
- Harmonization of retail-level use cases with wholesale market participation
- Predictability and transparency in distribution utility coordination process, with clear guardrails to guide discretion
  - Distribution utility review of inclusion of DERs in an aggregation
  - Circumstances under which a distribution utility may curtail operation of a DER for safety and reliability

# What are some of the challenges to fully opening the RTO/ISO markets to DER participation as Order No. 2222 envisions?

- Resolving issues associated with dual participation in retail and wholesale markets (i.e., implementing the prohibition of “double counting”)
- Establishing appropriate metering, telemetry, and data requirements and options
  - Finding the balance between meeting system needs and avoiding costly barriers to participation
  - Focus should be on needed data quality and availability, w/ requirements applied at aggregation level
  - Should also provide an option to directly meter a DER (requires addressing add-back/load reconstitution)
- Developing modeling and operational tools needed to manage a more distributed system with increased participation of aggregations/hybrid resources
- Establishing distribution utility coordination processes that address need to ensure safety and reliability in a predictable, transparent, and non-discriminatory manner
  - E.g., when a DER may be curtailed for reliability, and the consequences of that curtailment for the aggregator

# What are some of the challenges to fully opening the RTO/ISO markets to DER participation as Order No. 2222 envisions? (cont.)

- Clarifying interconnection requirements for DERs participating in wholesale aggregations
  - FERC left these interconnections under the jurisdiction of the states in most cases
  - This was a reasonable exercise of discretion, but may leave continued uncertainty as to what requirements apply

# THANK YOU!

Jeff Dennis

[jdennis@aee.net](mailto:jdennis@aee.net)

202.380.1950

Twitter: @EnergyLawJeff