MISO Indiana Utilities
AES Indiana, CenterPoint Energy, Duke Energy Indiana, and NIPSCO

IURC FERC 2222 Indiana Implementation Stakeholder Workshop
March 2, 2022
Agenda (2:45 – 3:30pm)

• Introduction, Indiana Utilities, & DERs in Indiana Overview
• Planning
• Operations
• Other Topics part of FERC 2222 Implementation
• Other Related Topic
Introduction to MISO Indiana Utilities & DERs in Indiana*

- MISO Indiana Utilities have ~approx. 426 MW of DERs connected to each utility’s respective distribution systems
- DERs owned and operated by ~approx. 7,986 customers in Indiana
- A majority of customer-sited DERs are solar resources. Other DER resource types include wind, CHP, etc.

*as of 12/31/2022
Planning Time Horizon (1 of 2)
Generation Interconnection

• Unknown Impact on Interest in Distributed Generation
  o Modification of MISO compliance filing
  o Supply side developments
  o Capacity accreditation
  o MISO’s Long Range Transmission Planning
  o Interconnection path of least resistance

  Calls for:

• Flexibility in Interconnection Regulations
  o Non-serial application processing (for example, batching of applications for study)
  o “Best-efforts” review timelines
  o Size limits
  o Order 2222 RTO implementation-compliant metering and telemetry requirements (any interconnecting generator is a potential DER Aggregation component)
  o Speculative application prevention
  o Fee structures
Planning Time Horizon (2 of 2)
Aggregation Enrollment / Modification

• Customer Protections
  o Lists
  o Information
  o Rules of engagement

• Reliability Under a 60-Day Clock
  o Submission requirements
  o Distribution utility-specific standards

• Modification
  o Definition of “material”
  o Frequency
  o Timing

• Double counting
  o Aggregator status
  o Policing mechanism
• Operation oversight and control of DERs
  o Necessary FERC 2222 topic to address
Operations Time Horizon (2 of 2)

• Operational control of aggregated DERs in Indiana
• Functionality needs for distribution system operations
• System configuration for system reliability and safety
• Override and dispute resolution
• Metering
  o Impact on wholesale dispatch
Other Topics part of FERC 2222 Implementation

• Aggregators as Public Utilities
  o Customer protection
  o Participation guidelines

• Cost Recovery/Allocation
  o Implementation
  o Planning time horizon
  o Operations time horizon
Other Related Topic: Adoption of IEEE 1547-2018
Part of Interconnection Rules Process

• IEEE 1547-2018 requires DER to be capable of providing support to the bulk power system (BPS)

• IEEE 1547-2018 requires DER to be capable of communicating but leaves the decision to use a local DER communication interface or to deploy a communication to the Area EPS operator (utility)
Adoption of IEEE 1547-2018
Part of Interconnection Rules Process (continued)

• IEEE 1547-2018 standard does not address aggregated behavior of DER at a transmission node or at multiple points of common coupling (PCC)
  • “The performance requirements of this standard apply to interconnection of either a single DER unit based on that unit’s rating or multiple DER units within a single Local EPS (“DER system”), based on the aggregate rating of all the DER units that are within the Local EPS.”

• IEEE 1547-2018 does not apply to all DER as defined by FERC Order 2222 (for example, does not apply to energy efficiency or demand response)
Questions?

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Matt Fields, AES Indiana
Nancy Connelly, Duke Energy
Appendix
Topics on IURC Implementation re: FERC Order 2222 website

1. The appropriate or preferred process or processes to utilize in the development of rules implementing FERC’s Order 2222 (informal, formal rulemaking, and/or formal investigation).
2. Interconnection of component DERs to the distribution system.
3. Adjudication of (pre-registration/aggregation registration) disputes.
4. Operational oversight and control of DERs.
5. Distribution utility overrides of DERs to maintain reliability, and disputes arising therefrom.
6. Cost allocations (issues re: technical review costs/upgrades/needed technology/considerations of subsidizations, etc.).
7. Dual participation (retail and wholesale participation) and double-counting concerns or challenges.
9. DER aggregators as “public utilities”.
11. Coordination among RTO/utility/aggregator/IURC.