Non-wholesale DER (BtMG) Observability

TOA-AC
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"Non-wholesale" DER (BtMG) observability

- Non-wholesale DER = generation (including storage) that does not participate in the wholesale markets (either as "front of meter" generation or demand response) and is used to self-serve load

  - Behind the Meter Generation (BtMG)
    - Cogen/CHP, emergency diesel, CTs, batteries, solar, etc.

  - Non-retail Behind the Meter Generation (NRBtMG)
    - Primarily Muni/Coop generation
Why does PJM need non-wholesale DER information?

• System Operations
  – Dispatcher situational awareness
  – Mitigate impact of manual load dump or local load shed
  – Improve short term load forecast and/or understand load forecast variance

• Planning
  – Improve long term load forecast or understand load forecast variance

• Manage existing NRBtMG and BtMG requirements (including telemetry & metering)
PJM will identify non-wholesale DER/BtMG (>1MW) on annual basis
- Primarily use EIA860 public data

TO verifies/adds information so resources can be modelled for PCLLRW tool
- PJM Transmission Substation, Voltage, Equipment Name
- TO may provide additional information to PJM if available and able to release to PJM without confidentiality issues

Communication to non-wholesale DER/BtMG during grid emergency
- TO may communicate downstream, as needed, to non-wholesale DER/BtMG through EDC or muni/coop as necessary
- Non-wholesale DER/BtMG modelled in PJM PCLLRW tool
  - Local issue – identify resources and their expected impact (helps/hurts)
  - Wider issue – list of resources in zone
PJM Emergency Operations Manual (M-13):

- **Load Shed Directive**
  - Local in nature;
  - Typically to protect a single piece of transmission equipment.

- **Manual Load Dump Action**
  - Wide-area System issues;
  - Typically to protect the System from collapse.

Overload / System Issue Occurs

PJM Directs TO to curtail load: Protect equipment / System 1st!!!

TO *may* contact BtMG, if it is a help and if available, to mitigate prolonged issue

Restore % of load while ensuring equipment is within limits / System reliability
Jan ‘18 - Present
Issue discussed at DERS

Early Aug
DERS vote

8/22
MRC (first read)

9/27
MRC (endorsement)

Reviewed proposal/manual language at other stakeholder meetings to ensure members are aware of changes: 6/5 – OC, 7/5 – SOS-T, 7/10 – OC, 7/18 – TOA-AC