DER Ride Through: Issue Charge and Problem Statement

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DER Ride Through Task Force
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System Events

Ride-Through

Reconnection (Uncontrolled)

Momentary Cessation

UCTE 2006

South Australia 2016

California 2016
DER Deployment in PJM: ~Tripling over 15 years
IEEE 1547 & Ride-Through Requirements

- Safety
- Reliability
- System Protection

~1200 MW DER Tripped

IEEE 1547-2018
PJM-wide consensus across T+D on preferred IEEE 1547-2018 Ride-Through/Trip Settings for DER (e.g., Category II with specified trip adjustments and addition of momentary cessation).
  – More than one Ride-Through/Trip Setting may be needed: e.g., a Category I and a Category II.

Deliverables:
1) Ride-Through/Trip Settings.
2) Proposed PJM manual language changes or other applicable PJM governing documents, if needed.
3) A guide (best practices) for state/local regulators.
• Ride-Through capability and trip parameters only
  – Not voltage regulation or communications, etc.
  – Note: IEEE Std. 1547-2018 options - stay consistent with the standard

• All DER
  – “DER” = generators/storage on radial distribution < 50 kV (excludes meshed/networked subtransmission)
  – Note: technical focus on inverter-based DER

• Not retroactive
SAFETY AND RELIABILITY

• Safety and reliability, especially on the distribution system, are the first priority.
• PJM recognizes that the distribution utility is the key stakeholder responsible for distribution safety and reliability.
PJM Stakeholder Effort for DER Ride Through

Oct 1-2
Stakeholder Technical Workshop

Nov PC
DER Ride Through Task Force Endorsement

2019
Regular Task Force meetings start Jan 15, 2019

- Ride-Through/Trip Settings
- PJM Manual and/or Tariff
- Guidance for State Jurisdictional DER

www.pjm.com
Few Wholesale DER Have FERC Interconnection

Wholesale DER FERC Interconnection

Retail DER State Interconnection

Ride-Through/Trip Settings

PJM Manual and/or Tariff

Guidance for State Jurisdictional DER

Retail Solar DER State Interconnection