ERCOT Comments on NERC DER TF Draft Document

Jan 11,2017

Overview

- Comments are by section of the December 2016 Draft

Comments on Executive Summary

- ERCOT agrees on the definitions
  - Demand response is not currently included in the definition of DER, but is an ongoing topic to be considered.

Comments on Section 2 - Reliability Concerns

- ERCOT has the same 9 concerns listed

- ERCOT also has concerns of high levels of DER during outage restoration.
  - Examples include – momentary frequency drops causing DG to disconnect
  - Reconnection of load, but 5 min delay before DG reconnects.

Comments on Section 3 – Data and Modeling

- Much of the modeling section appears to describe WECC techniques for modeling on the *Distribution* system, which may be necessary for California due to the large numbers of legacy systems, but may not be necessary for all regions.
- ERCOT agrees with the statement "*Modeling modern bulk systems with a detailed representation of a large number of DERs and distribution feeders can increase the complexity, dimension, and handling of the system models beyond practical limits in terms of computational time, operability, and data availability*."
- Therefore ERCOT prefers to maintain all modeling at the transmission system as described in Figure 2 due to the effort involved in generating/maintaining a more complex distribution-level model.
- Discussion involves "legacy systems" with restricted capability. (more on this later)

Comments on Section 4 – Non Synchronous DERs (Inverters)

- Ride through requirements-
  - A minor note, but the existing IEEE1547-2003 does not include ride-through requirements. It only contains “must trip” conditions during “abnormal EPS conditions” (see section 5)
  - As noted, the next revision of IEEE1547 will contain “autonomous” functions, including:
    - ride-through capability.
    - Communications
    - Soft start/ramping
    - Volt/var support
- The statement *“but will not affect DERs that is installed before the revisions become effective”* should be re-visited.
    - Is there any thought to including a recommendation for software/firmware upgrades to legacy systems? (i.e. –similar to the German effort)
- Perception is that communications would be used by DSP’s, not ERCOT.