

Interconnection Rule Issues & Process

March 19, 2015

vermont electric power company



Act 99 net metering & interconnection

- Act 99 requires PSB to revise net metering rules (5.100) by 1/2016. Workshop process commenced last November
- Three tracks established: rates, process, interconnection
- For interconnection track:
 - VELCO comments urged most efficient process to update ALL interconnection standards (5.100 & 5.500)
 - PSD has grant to review all interconnection standards; would have proceeded later this year
 - At 2/27/2014 workshop, PSD proposed consolidating 5.100 and 5.500 rule discussion and proceeding now; PSD to coordinate
 - PSB must approve this path

VELCO recommended...

- Visibility of small-scale renewable generation to grid operators
- Ability to direct resources, renewable or not, to ramp up or down, or to ensure they shut down for safety reasons to avoid negative system impacts during restoration
- Assurance that control systems associated with grid connected resources will operate as designed in emergencies
- Standards of performance assuring:
 - Primary frequency response (governor response)
 - Low and high frequency ride-through
 - Low and high voltage ride-through
 - Reactive power and voltage regulation
 - Ramp rate control
 - Soft start capability
 - Disconnection in an emergency or line outage
 - Harmonic generation content of the inverter
- Readily available, up-to-date information about what resources are installed and available Including the technology utilized, the DC and AC nameplate capacity, the inverter settings with respect to grid services, any protection settings, and geographic and electrical location
- Coordination with ISO-NE and other New England states

ISO position (from MA proceeding)

- ISO submitted comments on January 17 requesting the DPU to review work done in California and specifically address:
 - Frequency ride-through capability;
 - Voltage ride-through capability;
 - Default and emergency ramp rate limits;
 - Reconnect by “soft-start” methods after a unit has been disconnected from the power system;
 - Capability to communicate with utilities for activation/deactivation of DG functionalities and parameters, as well as to support other DG functionalities that may be needed in the future.

Process questions

- Should utilities convene outside the workshops to understand differences and seek consensus?
- If so, who needs to be part of the conversation?
 - OpCom?
 - Subcommittee of OpCom?
 - Some other forum?