MA TSRG Video Conference
Feb. 18, 2021
Meeting Minutes:

Participants:

John Bonazoli	Maria French	Martin Bowen
Mrinmayee Kale	Mike Porcaro	Aaron Simms
Greg Hunt	Tim Roughan	Adam Houghton
Daniel Ghebre	Sean Diamond	Michael Coddington
Paul Krell	Sanae Matsuki	Daniel Pasarello
Abdlmnam Abdlrahem	Samer Arafa	Quincy Vale
Babak Enayati	Eric Lorenz	Will Lauwers
Doug Pope	Jenna Warmuth	David LaPlante
Gerry Bingham	Philip Stephenson	Russ Aney
Jay Fundling	Mrunmayee Gujar	Scott Secrest
Brian Ritzinger	Nachum Sadan	Michael Frennette
Brad Marszalkowski	Tony Morreale	Brian Lydic
Doug Denny-Brown	Ruida Shu	Tim Roughan
Jeremy Kites	Nancy Israel	Eric Lorenz

IEEE 1547-2018 subgroup update and discussion – Samer Arafa (National Grid)

- Samer Arafa presented on IEEE 1547-2018 adoption road map for MA. Slides for this presentation are available on TSRG's website
- Subgroup will present a draft to TSRG for DER bulk system support today.
- Four phases for full adoption of IEEE 1547-2018.
- Sean Diamond (National Grid) – Will all the phases be the same for all sizes of DER?
  Samer -Bulk System support requirements for all sizes of DER.
- Mrunmayee Gujar (Nexamp) – Will the inverter functions or settings change throughout the implementation timeline and what is the subgroup's plan to accommodate the changes?
  Samer –Changes to first 3 phases unlikely. Changes can be expected for Phase 4.
- Jan. 1, 2022 – SRD applies to all DER apps and DERs to be 1547-2018 compliant
- Draft is open to comments from stakeholders until the next TSRG meeting. Stakeholders should reach out to their respective representative from the subgroup with your comments.

- Discussion on ramp rates: Soft start ramp rate – 2%/sec required per ISO-NE Source Requirements Document issued Feb 6, 2018. Requirement adopted from CA rule 21. Storage capable of changing voltage drastically due to uncontrolled ramp rates. ISO-NE needs predictability for enter service. The requirement is for enter service. For regulation market 5% frequency droop is the OP-14 requirement. ISO-NE is concerned about ramp rates after black out.
- Do we need a separate ramp rate for operational purposes? Developers may request an in service ramp rate from the Utility.
- Type of asset registration in the wholesale market will decided the required ramp rates. Reach out to ISO-NE to determine these requirements.
- Ramp rates do not necessarily have to be controlled at the inverter level. A different control scheme can be used and submitted for evaluation by the utility.
- Ramp rates are currently treated the same way for Solar and Storage. Solar ramp rates are inherently limited by mppt mechanism. Storage ramp rates are uncontrolled. Fuel cell ramp rates are inherently slower than both solar and storage.
- Babak Enayati – When is the final adoption date of the standard? Standard adoption does not require activation of any functionality. Rotating machine penetration is not at par with inverter-based. Perhaps the committee should concentrate on implementation of phase II for inverter-based DER.

ESS export schedule – Required information – Mike Porcaro (National Grid)

- Details on control scheme will be required. Technical specifications to be submitted by developers to the Utility company.
- EDCs to discuss and come up with standard required documentation in the common guidelines.
- Any specific details around concerns of reliability of the grid?
- Mrunmayee Gujar – At what stage of interconnection studies will this information be required? Mike - All proposed set-points and setting will be required to be provided on the one-line with the initial application and applicable settings need to be finalized prior to the beginning of the study.
- Developers request the EDCs to have an approved equipment list for power plant controllers EDCs do not want to prescribe specific equipment. They shall put together minimum technical requirements.
- EDCs to provide a draft for inclusion in the common technical guidelines by the next TSRG meeting.

Electrical Measurements of PV facility during circuit fault – Paul Krell (Until)

- Voltages as high as 110%-130% and fault currents of 80-100% of pre-fault levels observed. Discussion pointing to voltage ride-through functionality leading to VARS being injected during faults. Voltage ride-through and dynamic VAR support are functions that can be manipulated through settings as required by the Utility.

- ISO-NE wants dynamic support for transmission faults. EDCs do not want VARs to be injected during fault or overvoltage conditions.

Next meeting topics:

- SMART Program update (deferred from today's agenda)
- ASO study screening – DPU 19-55 C now available. Developers to review and discuss at the TSRG.
- Simplified projects screening – TSRG is not currently investigating this topic. However, a smaller group of stakeholders are meeting with EDC reps on this issue.
- Next meeting tentative date: May 20th 1pm-4pm.