

**Massachusetts Technical Standards Review Group (TSRG)
Regular Meeting
Dec. 8, 2020
Meeting Minutes**

- 1) Attendance: The meeting was an on-line conference. The following is a list of identified attendees. Additional attendees were present via telephone, but not identified

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|--------------------------------|-----------------------------------|------------------------------------|---|
| Adam Houghton | Andrew Schwartz | Andy Houghton | B Jacob |
| Brian Ritzinger - DPU | Courtney Feeley Karp | Dan Passarello | David Laplante |
| Doug Denny-Brown | Doup Pope | Fritz Octave | Gerry Bingham |
| Ghebre Daniel - DPU | Greg Hunt | Jay Fundling – Eversource Rep. | Jeannie Amber |
| Jenna Warmuth | Jinjin Huang | John Bonazoli – Chair/ Unitil Rep. | M French |
| M W Bowen | Matt Holstein | Michael Wall | Mike Brigandi - Vice Chair / Solar Rep. |
| Mike Coddington – Gov. Rep. | Mike Porcaro – National Grid Rep. | Mrinmayee Kale | Mrunmayee Gujar |
| Nancy Israel | Paul Krell | Rahul Pantagada | Samer Arafa |
| Sanae Matsuki | Sara Parkison | Scott Secrest | Sean Diamond |
| Shakir Iqbal – Eversource Rep. | Steven Rymsha | Tony Morreale – CHP Rep. | T Willet |
| Will Lauwers | William LeBlanc | | |

- 2) Nominations of Officers:

- All EDC representatives will remain as present
- Tony Morreale will remain representative for CHP
- Mike Coddington will remain as Government/Customer agency representative
- Mrinmayee Kale (MK) was nominated and accepted the nomination as the solar representative and Vice Chair
- John Bonazoli was nominated and accepted nomination as Chair

- 3) University of Delaware EV project

- Matthew Holstein of University of Delaware presented on interconnection of Electric Vehicles (EV's). Specifically AC/AC interconnection where the inverter resides in the EV.
- EV's for use in demand response programs.
- Bidirectional charging is critical for this dynamic to work
- Integration of AC/DC inverters to be included in the actual car for less expensive charging capabilities

- SAE J3072 will be the relevant listing - checks the boxes of UL1741 but is based on more of a self-certification
- Charging stations could prevent backfeeding
- A comms handshake could be used between the station and the car to ensure the vehicle has the correct SAE certification
- No reference to the IEEE 1547.1
- ISO 17025 standards for OEM applicable? It is the standard that ensures test procedures followed by NRTLs.

4) National Grid PV facilities Update

Can Distribution inverters provide Voltage support to transmission?

- 1) The Ferranti effect - Transmission lines underloaded, voltage rise observed, distribution companies will need to
- 2) Separation between distribution and transmission system blurring with higher DER penetration.
- 3) VAR support has been monetized in Ireland and UK
- 4) The paper from EPRI and National Grid is free for everybody

5) IEEE 1547 subcommittee update

- 1) New Lead for 2021: Samer Arafa
- 2) Communications discussions kicked off in November
- 3) Voltage regulation was also addressed
- 4) Phase 1 items Bulk system support - to be completed in Q1
 - a) Frequency droop in final draft stages
 - b) Voltage/Frequency trip settings
 - c) Category selection

6) Analysis Screen discussion

- EDCs presented Simplified process technical screens in the past and would like to meet with the small PV system developers and get feedback.
 - Tesla would like to weigh in on the technical screens for expedited projects. Concerned about establishing a size threshold instead of being evaluated on the technical merits.
- Mike Coddington: Is it possible to add a screen to incorporate the feeder hosting capacity.
- All EDCs now have hosting capacity maps
- Is there some merit at this point to putting an upper limit for inverter based projects qualifying as expedited projects – Where applications larger than the limit would automatically go through Standard process?
- A proposal will be presented by the EDCs on the expedited technical screening process.

7) Potential Future Topics

- Presentations from modeling software owners - Synergi, CYME and PSCAD

- Standards for dynamic models?
- Real experiences with dynamic issues on distribution grid

8) Next Meeting: Thursday Feb 18th 2021