

Date:	December 10, 2024	Meeting held as part of the Massachusetts Technical Standards Review Group (TSRG) for discussion of industry topics and collaboration amongst utilities and the DG community. Meeting minutes are outlined below. If there are any corrections, additions, or omissions please notify the preparer.
Prepared by:	Tony Morreale tmorreale@ligconsultants.com	

Participants:

Michael Porcaro (Member – National Grid)	
Shakir Iqbal (Member – Eversource)	
John Bonazoli (Member – Unitil)	
Tony Morreale (Member – LIG Consultants)	
Greg Hunt (Member – Zero-Point Development)	
Brian Lydic (Member – IREC)	
Brian Ritzinger (Member – DPU)	
Brett Jacobson (Alternate – Eversource)	
Gerry Bingham (Alternate – DOER)	
Benjamin Piiru	Jorge Jorge
Brad Marszalkowski	Justin Woodard
Brooklyn Clark	Manuel Saadallah
Carson Bullock	Mark Bentson
Ceylan Kapcak	Muhammad A Khan
Claire Loe	Naera Haghazarian
Courtney Feeley Karp	Nathan Walsh
Daniel J Mungovan	Niall Pascal
Daniel McDonough	Paul Krell
David LaPlante	Prasanth Gopalakrishnan
Doug Smith	Quinn Perry
Douglas Denny-Brown	Rebecca Guifoyle
Eric Wilkinson	Russ Aney
James George	Ruvini Kankanamalage
Jamie Seidl	Ryan Rainville
Jeannie M Amber	Sid
Jeff Long	Taylor Giron
Jennifer Chalifoux	Travis S Carless
Jeremy Kites	William Kern
John M Kreso III	
Jon Beniers	

Notes:

1. Administrative Items

- Refer to TSRG Website for all information related to the group.
- For any questions, suggestions, or to get on the mailing list email:
 - Chair, Mike Porcaro - Michael.Porcaro@nationalgrid.com
 - Incoming Chair, Shakir Iqbal – Shakir.Iqbal@eversource.com
 - Co-Chair, Tony Morreale - tmorreale@ligconsultants.com
- Shakir Iqbal, Eversource, will be taking over as Chair in 2025.

2. Subgroup Updates

- Inverter Repowering – John Bonazoli, Unutil
 - When existing facility equipment is being charged out (e.g. due to age or repair) a notice of change and application submittal required specifying existing equipment and detail on change.
 - EDC will determine level of review needed based on details of change.
 - Most analysis will be reduced scope. If changes are not significant, study should be able to be isolated from group studies. Anti-islanding may be a concern.
 - All new equipment must meet present certification requirements (e.g. inverters must meet IEEE 1547 settings requirements and be certified to UL 1741 SB.
 - EDC reviews requirements in existing ISA and amends as needed.
 - EDCs recommend updating tariff to add revision requirements. To include list of requirements for application and deadlines of notifications.
 - Russ Aney, Parallel Products: Is this tariff change recommendation for all tracks? Simplified, expedited, and standard?
 - JB: We have not discussed the tariff changes in detail, but probably a separate section on this for all types. For any facility that changes equipment.
 - RA: Suggest updating each section separately.
 - Greg Hunt, Zero-Point Development: What if we change inverters with identical model? It should not be included in change notice as it may not meet latest standards/certifications.
 - GH: Inverter output voltages can change. This could change transformer and means of effective grounding. May be difficult to define significant.
 - JB: Agreed that defining significant has been difficult in the past. EDC would have to look at individual application to determine what kind of study is required.
 - GH: Might be better to define different paths.
 - Paul Krell, Unutil: Might be some suggestions that same make/model won't need notification, but EDC might still want to do some checks.
 - JB: Agreed. Still notify and provide application.

- Courtney Feeley Karp, Klavens Law Group: Makes sense to update tariff, but would be helpful to list circumstances that are notice-only. Show different paths.
- Brett Jacobson, Eversource: On larger projects that interface with ISO-NE, what information needs to be relayed to ISO-NE?
- JB: Still under consideration, but yes we will need to bring ISO-NE into the process.
- JB: Will draft tariff language and forward it IIRG.
- Flexible Connections – Michael Porcaro, NGRID (on behalf of Jon Beniers, NGRID)
 - September: Working on carrying over existing IEEE 1547 subgroup scope.
 - October: Talking through definition of safe mode operation/countermeasures. Comms failures.
 - November: Presentation on Advanced/Smart inverter functionality by IREC, GridEdge Networks, and EOS Energy Enterprises.
 - Gerry Bingham, DOER: Heard from IREC what was happening in other jurisdictions. Also reviewed two case studies.
 - Next Steps: Define fail safe model operations/countermeasures, develop operations requirements to address voltage issues, Eversource to share recent Flex Connection Pilot.
 - GB: Subgroups have obligatory attendance from utilities. Did not have Eversource at the last subgroup meeting.
 - MP: Yes, EDCs should have representation at subgroup meetings.

3. Group Study Status Update

- See meeting slides for details and links.
 - <https://www.eversource.com/content/residential/about/doing-business-with-us/interconnections/massachusetts/distribution-group-studies>
 - <https://gridforce.my.site.com/s/article/MA-Distribution-Group-Studies>
- BJ: All groups having monthly calls to answer stakeholder questions. Update coming to website on start dates and milestones.
- MP: Similar update for NGRID.
- CFK: If a group study is in a proposed CIP will it be listed here as well as with CIP info?
- BJ: At end of group study, reach out to customers to notify it is a good candidate for CIP, move forward base don responded or lack there off.
- CFK: Looking to see CIP information publicly. If it is not included, we are not seeing fully story.
- Shakir Iqbal, Eversource: The information specific to the group only goes to the group.
- MP: There is CIP information on the Eversource pages
- CFK: It would be helpful for the public to see which group studies are going to CIP.

4. EDC Technical Standards

- MP: Most recent update dates below:
 - Eversource: April 27, 2023
 - Unutil: May 1, 2000
 - National Grid: January 2024
- MP: National Grid update planned for early 2025. Mostly administrative changes.
- SI: For Eversource, there was an update. In October, there was an update to interconnection requirements documentation.
 - Section 1.6 DER SCADA Visibility & Control Requirements
 - Section 2.18: Communication Protocol, which includes expected SCADA points.
 - https://www.eversource.com/content/docs/default-source/builders-contractors/der-information-technical-requirements.pdf?sfvrsn=6527694a_4
- RS: Recommend having thresholds be over a rounded number rather than including a round number and above. (Example: > 1 MW rather than ≥ 1 MW)
- SI: Yes, we will bring this up to internal team.
- MP: NGRID will do the same.
- JB: Significant update in Q1 2025. Adding more detail to specifications. Right now, they are more general guidelines. Adding more process and technical details.
- GB: When will we be able to post updates on TSRG website? Also, TSRG was partially set up to discuss these kinds of technical changes before they are published.
- National Grid Flexible Interconnection Program.
 - MP: There are pilot programs seeking interest from solar and storage cases for both ARI and Local Power Controllers. Deadline moved to 2/28/2025.
 - MP: Email requests to NationalGridARI@nationalgrid.com.

5. Common Guideline Review

- Current version: <https://www.mass.gov/doc/tsrg-common-guideline-2022-12-22/download>
- Section Topics:

- Anti-Islanding	- Witness Testing	- Spot/Area Networks
- Direct Transfer Trip	- Power Factor	- Substation reverse power flow
- Feeder Limits	- GSU Transformer	- Energy Storage
- Remote Monitoring/Control	- Utility Grade Relaying	- Significant vs Moderate
- PCC Reclosers	- Flicker	
- Next Steps:
 - Document review by membership.
 - Proposed edits/updates sent to Chair/Vice Chair by 2/28/2025.

- Discussion at March quarterly TSRG meeting.
- MP: We want to keep it digestible and streamlined.
- GB: TSRG is not just to establish common guideline. DPU order includes EDCs bringing any new changes to TSRG for review and discussion.
- MP: EDCs will better coordinate on proposed changes in the future.
- GH: ESS feeder limits should be included in feeder limits.
- MP: Be prepared for March meeting to discuss any proposed changes.

6. IIRG Process for Tariff Redline Coordination

- IIRG set up to discuss non-technical process items related to interconnection.
- Building off DPU Docket 1955.
- Targeting the following tariff section changes:
 - Simplified: Section 3.1 and Figure 1 – Simplified
 - Expedited: Section 3.3 and Figure 1 – Expedited
 - All tracks: Section 4.3 – New Section for Import/Export limiting requirements.
- MP: Trying to keep one document. Reach out to IIRG membership if you would like to review proposed tariff changes.
- RA: What does modeling process look like for each EDC putting project into CYME? Do you build on top of previous models? What is the strategy to reduce incremental cost for new applications? It would be helpful to understand the scope/cost required for incremental additions.
- EDCs agreed to discuss next meeting.
- MP: Any best practices from IREC or EPRI?
- Brian Lydic: Not sure we have a lot of information on data/model management.

7. Open Discussion

- GB: Would like to hear more about 75% feeder limit.
- MP: Ties in with planning criteria.

8. Close Out & Final Discussion

- Next quarterly meeting to be held in March.