



Massachusetts Technical Standards Review Group (TSRG)

Quarterly Meeting- April 7th, 2026

Agenda

- TSRG Sub-Committee Updates (~10 min)
 - Meter Socket Adapters
 - Flexible Interconnections
- Tariff Revision Process update (~30 min)
 - IIRG process update and procedural schedule
 - IIRG ESS Subgroup
 - IIRG Flex IX Subgroup
 - IIRG DER Equipment Replacement
 - IIRG Fees
 - IIRG Moving ASO vs Non-ASO Projects
 - IIRG Data Transparency (Maps & Reporting)
- Group Study Status Update (~15 min)
 - Eversource
 - National Grid
 - Unitil
- OPESS Tariff Update (~5 min)
- Technical Standards Update from EDCs (~5 min)
- Close Out & Final Discussion (~5min)
 - Next scheduled quarterly meeting dates
 - June 18th 2026 1PM-4PM
 - September 17th 2026 1PM-4PM
 - December 10th 2026 1PM-4PM
 - Send topics for future meetings to:
 - Shakir Iqbal (shakir.iqbal@eversource.com)
 - Tony Morreale (tmorreale@ligconsultants.com)

METER SOCKET ADAPTERS (MSA)

USMAN GAUHAR

TSRG SUB-GROUP

State	Reg/Law effective date	First MSA approval	Notes
Massachusetts	Law, 11/20/2024 (S.2967)	X	Today, we are over 16 months past the adoption of ch. 164 section 151.
Connecticut	Regulation, 10/16/2024 (PURA Order in 24-08-02)	October 2025 (~ 1 year)	Following order, EDCs had roughly 6 months to file updated documentation like liability waiver, interconnection guidelines, use case restrictions, etc. Then had 6 months for initial review and approval, consecutive reviews to take no more than 90 days.
Maryland	Regulation, 11/06/2024 (MD RM81 rulemaking)	August 2025 (~9 months)	As of the effective date of the rule, “An electric utility shall approve or disapprove a meter collar adapter model for installation in its service area no later than 90 days after a meter collar manufacturer submits a request for approval of the meter collar adapter, and a utility’s procedures shall be updated within 90 days of utility approval.”
New Jersey	Law, 9/12/2023 (NJ Ch. 156)	July 2024 (~9 months)	Following effective date, utilities had 6 months to updated ESR’s and 90 days for device review.
Illinois, ComEd	Regulation, 12/14/2023 (MYIGP Final Order)	6/1/2024 (~6 months)	Adopted regulations specified 150 days for utility to review and approve MSAs and implement updates to allow their use.

Meter Socket Adapter Sub-Group Update

Mission Statement:

Ensuring safe, reliable and standardized implementation of meter socket adapters technology across the Utility network through technical expertise, stakeholder collaboration and foster regulatory compliance per Chapter 231 Section 151 of the MA State Law & applicable safety standards.

Expected Group Output:

The goal of this subgroup is to ensure compliance with the MA State Law per Chapter 231 Section 151 by incorporating Meter Socket Adapters (MSA) for the Simplified Applicants and by ensuring that all safety & operational procedures of the EDCs are addressed. For clarifying purposes, it should be noted that this subgroup will not create guidelines for MSAs that do not support Distributed Generation such as EV Chargers.

Team

First Name	Last Name	Company/Affiliation
Usman	Gauhar	National Grid
Wai Pong	Wong	National Grid
Nathan	Walsh	National Grid
Brian	Canfield	National Grid
William	Nieman	National Grid
Shakir	Iqbal	Eversource
Patrick	Fam	Eversource
John	Bonazoli	Unitil
Justin	Ulrich	Unitil
Gerry	Bingham	DOER
Courtney	Feeley-Karp	DOER
Carson	Bullock	DOER
Jonathan	Knauer	Connect DER
Khanti	Munro	Connect DER
Emily	Peck	Connect DER
Marc	Monbouquette	Enphase Energy
Marko	Rosenfeldt	Enphase Energy
Nathan	Charles	Enphase Energy
Beau	Millett	Tesla

Summary of Major Accomplishments & Upcoming Activities

Completed Activities:

DATE	DESCRIPTION OF ACTIVITY
3/02/26	Discussion on device evaluations and field procedures. Requirement of the timeline for defining the testing criterion and the field procedures.
4/06/26	Industry shared the recommended timeline . EDCs to evaluate and provide their input for the timeline within 2 weeks i.e. 21 st April 2026.

Upcoming Activities:

04/21/26	EDCs will provide the timeline for completing the relevant activities/procedures leading to the initiation of testing and evaluation of MSAs.
----------	-----------------------------------------------------------------------------------------------------------------------------------------------

FLEXIBLE INTERCONNECTIONS

MARK BENTSON

TSRG SUB-GROUP

Flexible Interconnections Sub-Group Update

Mission Statement:

Center discussion on the use of technology, improved methods, and products that can enable dynamic management of DER assets on the grid.

As a SubGroup, our primary aim is to define and review Flexible Connections across industry. The goal being to enable DER projects in appropriate areas to interconnect to avoid significant distribution system upgrades, while reducing costs and timeframes associated with the standard interconnection process. This includes defining policy on how curtailment will work for DERs. Success may allow for faster and cheaper integration of DERs by increasing the hosting capacity of existing grid infrastructure and/or increased penetration of DERs to the grid.

Expected Group Output:

Deliverables and actionable next steps to be escalated/reported to the TSRG on the following:

- **Utility Controlled, Flexible Connections** – Use Cases, Thermal Constraints, Foundational technologies, scheduling, economics & markets, curtailment, studies, scaling.
- **Dynamic “Local” Control** – Enabling inverter functionality, Smart Inverter controls & Power Control systems, managing assets via Grid Services.

Bring/communicate any non-technical standard issues or topics to additional groups/DPU.

Team

First Name	Last Name	Company	First Name	Last Name	Company
Gerry	Bingham	DOER	Daniel	McDonough	National Grid
Russ	Aney	Parallel Products	Michael	Porcaro	National Grid
Nachum	Sadan	GridEdge Networks	Justin	Woodard	National Grid
Doug	Pope	Pope Energy	Mark	Bentson	Eversource
Greg	Hunt	ZeroPoint Energy	Shakir	Iqbal	Eversource
Richard	Labrecque	Agilitas	Ryan	West	Eversource
Mrinmayee	Kale	NewLeaf Energy	Michael	Taniwha	Eversource
John	Mosher	Solect Energy	Jeannie	Amber	Eversource
Prasanth	Gopalakrishnan	Applied Systems Engineering Inc.	Paul	Krell	Unitil
			John	Bonazoli	Unitil

Summary of Major Accomplishments & Upcoming Activities

Completed Activities:	
DATE	DESCRIPTION OF ACTIVITY
12/11/2023	Kick off meeting with SMEs
1/22/2024	Review Flexibility SubGroup Charter, Defining Flexible Interconnections, Developer Feedback on Reporting
3/7/2024	Confirmed working definition and listed out scope
4/12/2024	Alignment on Initial Constraint Criterion (Thermal) and Initial Foundational Technologies (software, hardware/equipment, communication protocols - DNP3/IEEE 2030.5)
5/21/2024	Transmission system capabilities, impacts, & benefits and how this impacts our Flex Connect discussions moving forward. Thermal Constraints Data / Reporting for Viable Circuits – Preliminary List for early scaling.
6/18/2024	Initial IIRG – Flex Connect / DERMS language and deliverable list established for UL 3141, Failsafe items, & Data points
7/22/2024	UL 3141 “Outline of Investigation for Power Control Systems” criteria for equipment standardization – Review of scope, requirements, testing & optional testing. Out for industry review and comment.
9/30/24	Group alignment on carrying over existing IEEE 1547 subgroup scope. As we can move these to Flex Connect, then we can close the 1547 group. – Communications Protocols (DNP3, 2030.5, SunSpec Modbus), Customer Comms, & Grid Support functions
10/21/24	Introduction to defining fail safe mode operation/countermeasures: Communications Failures & Data Points (DNP3)
11/25/24	Advanced/Smart Inverter Functionality Presentation: Brian Lydic (IREC), Nachum Sadan (GridEdge Networks), and Jeffrey Albus (Eos Energy Enterprises)
1/21/25	Eversource presentation / Q&A of their recent Flexible Interconnection activities
2/19/25	Established Curtailment Catch-All Doc – Work to define “Curtailment”, Defining policy on how curtailment will work for DERs, Industry thoughts on ways of curtailing, Feasibility analysis and curtailment studies, collaborative discussion between Utility and Industry
3/19/25	Refined Curtailment Catch-All Doc – Discussed %s in curtailment estimates, CIP areas, Hosting Capacity Fee, and potential use-cases not limited to 1) Full flexibility with estimated figures 2) “Hybrid” Model that ensures a confirmed amount of capacity in addition to flex capacity where available & not to exceed nameplate 3) Firm with schedule and adherence to schedule
5/29/25	Continued discussion on the Curtailment Catch-All Doc Flex connect schedules and implementation
6/18/25	How we study, what it means for customers 8760 models in connection with studies Different types of DE profiles, flex connect schedules and implementation
7/31/25	8760 models in connection with studies Software packages; excel, Cyme, Synergi, Windmill, PSSE Data cleaning; net load vs gross load
8/27/25	When to offer flex connection in the process, which feeders/stations are most suitable for flex connect Thermal and voltage limits Use cases; PV only, PV + ESS, ESS Only
9/30/25	IIRG Updates Voltage Constraints and how it relates to flex connect
10/30/25	Smart Inverter Settings Volt/Var MW vs. MWH
11/25/25	Abnormal Circuit Configurations Volt/Watt
Dec '25-April '26	TSRG Sub Group Flex Connect was placed on hold. No updates.
Upcoming Activities:	
	Collaborate with IIRG to determine next steps for TSRG Flex Connect Sub Group

IIRG GROUP UPDATE

KATE TOHME/BRETT JACOBSON

IIRG GROUP

ENERGY STORAGE

MIKE PORCARO

IIRG SUB-GROUP

IIRG Energy Storage Sub-Group Update

Mission Statement:

Scope of the IIRG Energy Storage Sub-Group is limited to energy storage topics related to interconnection and processes overseen by the DPU. Topics discussed by the group may tangentially relate to other elements, however each substantive topic must be centrally focused on its relation to energy storage.

Expected Group Output:

Recommendations from the group shall focus on process recommendations to the DPU for processes under their purview. Technical topics may come up in natural course and will be discussed to the extent practical. This sub-group will develop recommendations on technical topics when appropriate, however detailed discussion and decisions on technical topics will be deferred to the Technical Standards Review Group (TSRG).

Team		
First Name	Last Name	Company/Affiliation
Michael	Porcaro	National Grid
Greg	Hunt	Zero Point Energy
John	Mosher	Agilias Energy
Nathan	Walsh	National Grid
Shakir	Iqbal	Eversource
Mark	Bentson	Eversource
Jeremy	Kites	Unitil
John	Bonazoli	Unitil
Natalie	Treat	ACT
Sarah	Bresolin	ENGIE North America Inc.
Silas	Bauer	Seal Rock Energy
Mrinmayee	Kale	New Leaf Energy
Chris	Modlish	AGO
Tom	Ferguson	MA DOER
Ryan	McGlothlin	Silo Electric

Summary of Major Accomplishments & Upcoming Activities

Completed Activities:

DATE	DESCRIPTION OF ACTIVITY
12/17/25	Continued progression of topics 3,4, and 5 in parallel
2/2/26	EDC presentation on flex studies for ESS
3/6/26	Closed topics 4 and 5, continuing topic 3 discussion, started topic 6 discussion

Topic	Status
1. ESS Metering	Complete, submitted to IIRG Co-Chairs
2. Open Loop Response Time	Complete, submitted to IIRG Co-Chairs
3. Trip settings for standalone ESS, when flexed to zero	In progress – Industry evaluating proposed solution
4. Future load effects on curtailment where flexing	Complete, topic deferred to Flex IX Subgroup
5. Potential real power impacts from reactive power support	Complete, deferring to core IIRG as this is not ESS specific
6. DCM applicability for ESS facilities	In progress
7. DLS review – carried over from TSRG	In progress – details to follow on meeting date for discussion

FLEX INTERCONNECTIONS

MIKE PORCARO

IIRG SUB-GROUP

IIRG Flexible Connections Sub-Group Update

Mission Statement:

The Flex IX Subgroup's current scope is targeted to developing common, comprehensive Flex IX offerings, as well as estimated implementation plans. Individual electric distribution companies ("EDCs") may also offer additional, utility-specific Flex IX options at their discretion. Incentive compensation and the Long-Term System Planning Process ("LTSPP") are outside the scope of the Flex IX Subgroup's work at this time.

Expected Group Output:

Develop a statewide common comprehensive set of Flex IX offerings for distributed generation ("DG") interconnection applicants in an iterative manner based on system, customer and market needs, which are expected to include:

1. Dynamic curtailment
2. Dispatch limiting schedules
3. Flex IX as a bridge to wires

Team

First Name	Last Name	Company/Affiliation
Michael	Porcaro	National Grid
Sean	Burke	Bluewave
Chris	Modlish	AGO
Nikhil	Balakumar	AGO (Facilitator)
Kayla	Burns	AGO
Carson	Bullock	DOER
Gerry	Bingham	DOER
Courtney	Feely-Karp	DOER
Kate	Tohme	New Leaf Energy
Joshua	Briggs	Lodestar Energy
Daniel	Passarello	Nexamp
Brian	Lydic	IREC
Brett	Jacobson	Eversource
Michael	Taniwha	Eversource
Mark	Bentson	Eversource
Jill	Duplessis	Eversource
Michael	Porcaro	National Grid
Sean	Burke	Bluewave

Summary of Major Accomplishments & Upcoming Activities

Completed Activities:	
DATE	DESCRIPTION OF ACTIVITY
9/17/2025	Kick Off - Defining scope and group mission
10/14/2025	Meeting 2 – Developing a common understanding of Flex IX and current state for EDC's
11/3/2025	Meeting 3 – Developing an initial set of Flex IX options and use cases, and associated challenges
1/12/2026	Meeting 4 – Developing offering details and drafting implementation roadmap to achieve priorities
3/3 – 3/4/2026	In person workshop held at AGO offices in Boston for broad stakeholder collaboration on Flex IX offering details
3/31/2026	IIRG update provided to DPU on Flex IX group status and next steps
Upcoming Activities:	
Apr-Jul '26	Develop draft Flex IX Guideline and Implementation Plan document(s)
Jul-Aug '26	Present flex IX documents to full IIRG for comment
Q3/Q4 '26	Present Flex IX Guideline and Implementation Plan to DPU

DER EQUIPMENT REPLACEMENT

JOHN BONAZOLI

IIRG SUB-GROUP

In-Service DER Equipment Replacement Subgroup

Mission:

To develop a comprehensive procedure to administer the replacement of in-service DER equipment.

Expected Group Output:

The recommended procedure from this group will be presented to the TSRG and the IIRG for potential inclusion of interconnection tariff changes.

Team			
Fist Name	Last Name	Affiliation	Role
Muhammad	Khan	Eversource	EDC
Kelly	Musto	Eversource	EDC
Ruvini	Kankanamalge	National Grid	EDC
Nathan	Walsh	National Grid	EDC
Jeremy	Kites	Unitil	EDC
Gerry	Bingham	MA DOER	Gov.
Courtney	Feeley Karp	MA DOER	Gov.
Tim	Snyder	ACT	Industry
Sam	Feigenbaum	Kearsage Energy	Industry
Andrew	Hickok	Solect Energy	Industry
John	Mosher	Solect Energy	Industry
Mark	Durrenberger	New England Clean Energy	Industry - Residential
Claire	Chang	Solar Greensfield	Industry - Residential
Bronte	Payne	SunRun	Industry - Residential
John	Bonazoli	Unitil	Lead

Summary of Major Accomplishments & Upcoming Activities

Completed Activities:

DATE	DESCRIPTION OF ACTIVITY
6/10/2025	Kick-off meeting with full subgroup with industry and government reps.
8/12/2025	Created Matrix of equipment replacement categories and requirements
11/2/2025	Consensus – a few replacement categories do not require Notification to EDC
3/26/2026	Full draft of tariff language

Upcoming Activities/ Topics:

Apr. 2026	Present consensus / <i>non-consensus</i> document to IIRG and DPU
2026	Processing fee to fee subgroup to determine

Fees

Will Kern

IIRG SUB-GROUP

IIRG – Fee Subgroup

Simplified Common System Modification (CSM) Fee

- Discussions starting in October 2025
- Filed a new tariff provision with the DPU on March 27, 2026
- Full consensus was reached on the filing, including:
 - Scope of simplified work covered
 - CSM Fee (to be paid at time of application)
 - Cost Threshold
 - Reporting
 - Program Review Period
 - Cost Recovery Mechanism

Next Topics

- Application Fee
- Pre-Application Fee
- DER Equipment Replacement Fee?

Moving ASO vs Non-ASO Projects

Kate Tohme

IIRG SUB-GROUP

Data Transparency (Maps & Reporting)

Gerry Bingham

IIRG SUB-GROUP

GROUP STUDY STATUS UPDATES

UPDATE BY EDC'S

Group Study Status Update

- The EDCs have provided the below links for Group Study status updates
- Status is updated monthly
- Intended to be generally informative on Group Study timeline expectations
- Included here for reference and general discussion, however Group specific questions may need to be deferred to a separate Group specific forum

- **Eversource**
 - <https://www.eversource.com/content/residential/about/doing-business-with-us/interconnections/massachusetts/distribution-group-studies>

- **National Grid**
 - <https://gridforce.my.site.com/s/article/MA-Distribution-Group-Study-Documents>

- **Unitil**
 - N/A

OPERATIONAL PARAMETERS FOR
ENERGY STORAGE SYSTEMS
(OPESS) TARIFF

DOCKET UPDATE

TECHNICAL STANDARDS UPDATE

EDC'S UPDATE

EDC Technical Standards

- As needed, EDC Technical Standards may be updated
- **National Grid**
 - NG to provide Updates
- **Unitil**
 - Unitil to provide Updates
- **Eversource**
 - No new updates to report.

TSRG COMMON TECHNICAL STANDARDS MANUAL UPDATE

EDC'S FEEDBACK

THANK YOU!

Next Quarterly Meeting:

June 18th 2026, 1PM-4PM

Send topics for future meetings to:

Shakir Iqbal (shakir.iqbal@eversource.com)

Tony Morreale (tmorreale@ligconsultants.com)