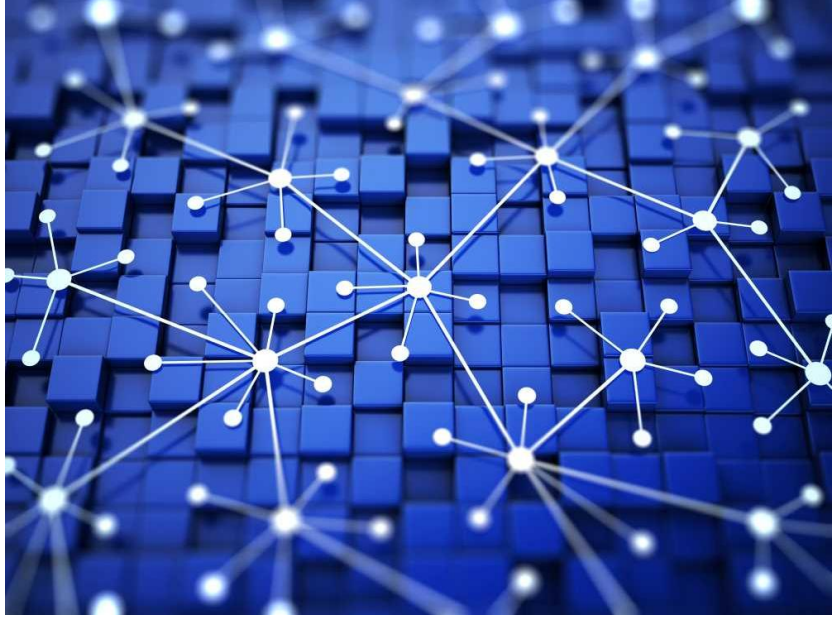




Advanced Technology Working Group (ATWG)

Fall Planning Webinar

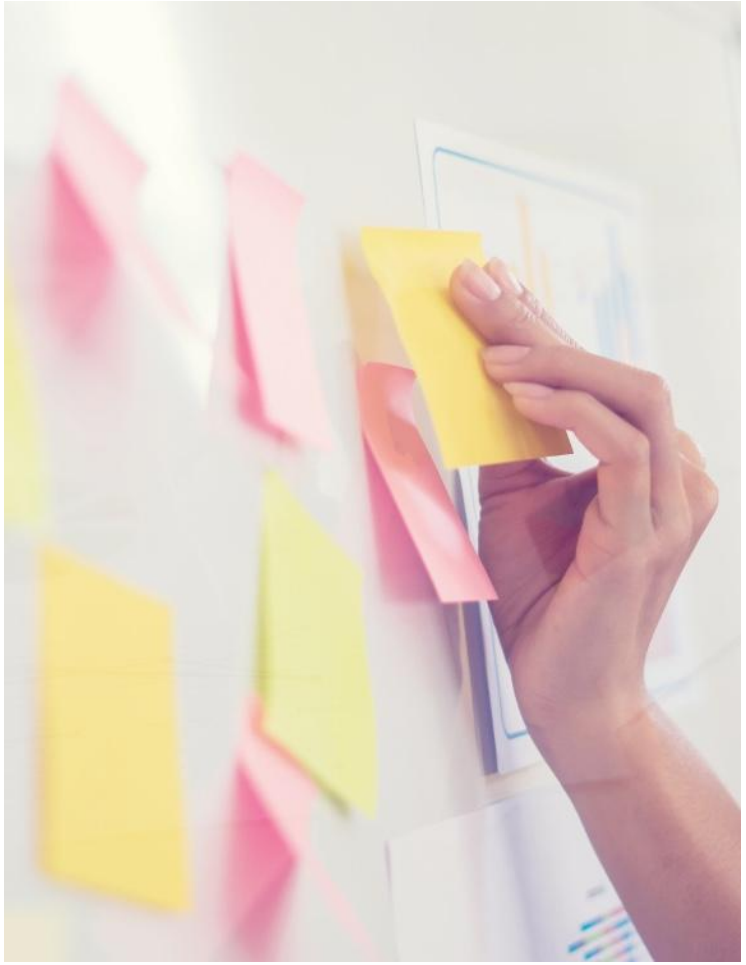
November 12, 2026

JOINT UTILITIES
OF NEW YORK

Welcome

Dean Berlin, National Grid

AGENDA



1. Introduction and Purpose
2. ATWG Status Update, Year-in-Review
3. 2026 Call for Papers
   - Overview of submissions received
   - Key Observations (from the CFP & eval. process) – themes, opportunities, *GAPS*
   - Concepts the JU plan to follow-up on
4. Lessons Learned from the 2026 CFP process
   - Quality and diversity of submissions
   - Effectiveness of the solicitation, webinar, and outreach efforts
   - Potential improvements for future CFP cycles
   - Discussion of recommendations to DPS Staff
5. ATWG Priorities for 2027
6. Next Steps
7. Q&A/Closeout

INTRODUCTION

BACKGROUND

- Following the Commission's Order on Power Grid Study Recommendations (Case 20-E-0197) issued on January 20, 2022, the ATWG was tasked with addressing "the challenge of identifying and removing barriers to the deployment of new technologies" in New York.

REPRESENTATIVES

- The Joint Utilities of New York
- NYSERDA
- New York Department of Public Service
- PSEG-LI / LIPA
- NYPA
- NYISO

ACTIVITIES

- Monthly meetings
- Work sessions with CGPP planners
- Call for Advanced Technology Concept Papers
- Stakeholder engagement sessions
- Annual report

SUBGROUPS

- Energy Storage
- Advanced Conductors
- Dynamic Line Ratings
- Grid-Forming Inverters
- Power Flow Control

The ATWG has been directed to evaluate advanced technologies and enable commercial deployment. The team continues to focus on supporting consideration of advanced technologies in utility planning processes (i.e., the CGPP).

ATWG Status Update

Dean Berlin, National Grid

KEY ACTIVITIES COMPLETED IN 2026

- Improving the guidance in the 2026 Call for Papers to increase number of papers received (discussed below)
- Ongoing support for the CGPP as Cycle 1 came together in Q2 of this year
- Briefing JU colleagues on pilot and demo progress
- Individual utility contributions to NYSERDA PONs (6240, 6149), etc.
- Demos with vendors on promising technologies being explored in other State-sponsored venues (e.g., SmartWires)
- Consideration of a range of clean generation technologies and modeling specifications (e.g., LDES)

ATWG SUB-TEAMS, ACTIVITIES

Dynamic Line Ratings

- Siemens to share what is doable from the JU 'punch list' re: the (NYSERDA) DLR Potential Study
- The Study is behind, but expected to wrap up in time to appropriately inform CGPP Cycle 2

Battery Energy Storage Systems

- Team is working to understand how BESS resources (esp. LDES) can be modeled most effectively in capacity expansion and production cost analyses
- Questions are being gathered to share with NYISO

Power Flow Controllers

- The PFC team is working to document the features and performance of key tech categories that can inform project design selections in CGPP Cycle 2

Advanced Conductors

- JU practices re: ACSS/ACCC; degree to which processes are formally documented
- Coming soon: first annual JU AC discussion re: lessons learned, etc.
- EPRI: Advanced Conductor project meeting (White Plains, 10/14-10/15)

Grid-Forming Inverters

- EPRI has shared GFM concepts it is addressing
- Request to non-JU participants: feedback on the GFM charter
- Confer w/DPS Staff, NYISO re: whether GFM will be a standard for all IBR seeking interconnection

WORK TOWARD CGPP OBJECTIVES

CGPP Cycle 1 report filed May 2026 presenting a least-cost statewide portfolio of local transmission projects to facilitate delivery of new energy resources. Learnings identified and shared; ATWG has next steps for future cycles.

CGPP Cycle 1 concluded in 2026:

- Filing in May, technical conference in June, comment period opened and closed on the report; Commission action anticipated later in the year or early next
- Lessons learned from Cycle 1 have been communicated regarding how system needs inform solution requirements, capabilities required for advanced technologies, and modeling capabilities and limitations

CGPP Cycle 2 expected to begin in 2027:

- Pre-work underway amongst JU to finalize the scope of work for NYISO modeling contributions
- JU to finalize its expected schedule and deliverables in coordination with NYISO led scenario development and modeling needs
- ATWG sub-groups to provide input to inform modeling and project development



2026 Call for Papers

Chris Schramm, NYSEG and RG&E

2026 CALL FOR ADVANCED TECHNOLOGY CONCEPT PAPERS

A more targeted 2026 solicitation: specific transmission needs identified through the CGPP were translated into use cases for vendors to address with advanced technologies.

THE NEED

- Build a pipeline of innovative, commercially viable solutions for New York's transmission system.
- Support long-term planning ahead of the next CGPP cycle and help meet CLCPA-driven grid needs.
- Solutions that can serve as alternatives, complements, or "bridge-to-wires" options.

CGPP-BASED USE CASES

- High-renewable regions with thermal, voltage, and deliverability constraints.
- Local transmission pockets with limited bulk-system exits.
- Radial or weakly networked areas with limited capacity and redundancy.
- Representative N-0 and N-1 conditions drawn from needs identified through CGPP planning.

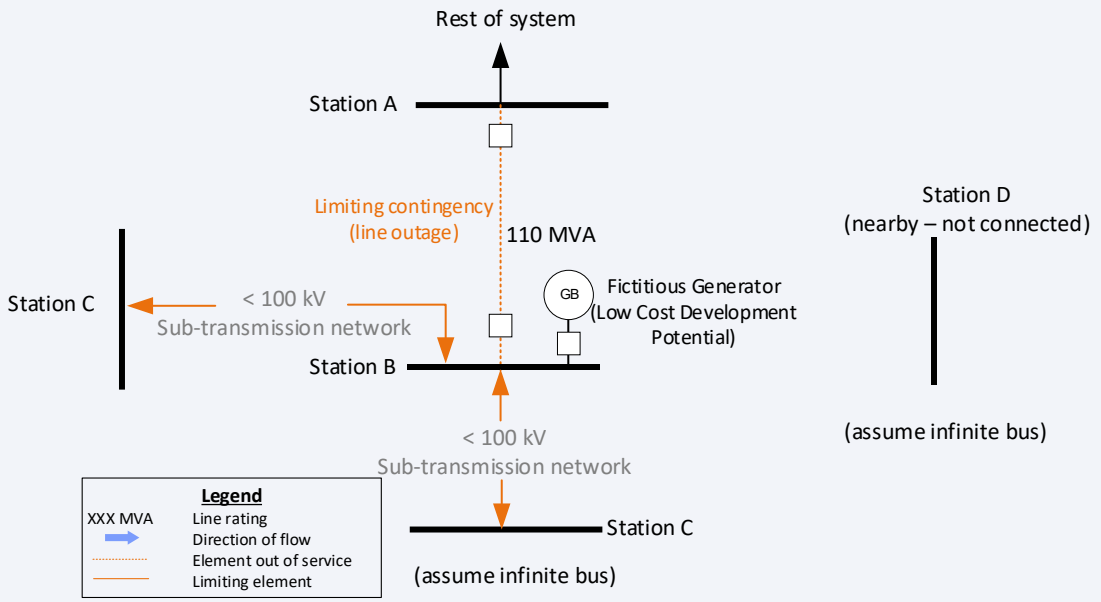
WHAT VENDORS NEEDED TO SHOW

- Measurable capacity and/or energy headroom benefits in MW or MWh.
- Technical feasibility, deployment readiness, operating experience, and transparent cost data.
- Power-flow modeling approach, assumptions, limitations, and optimal deployment configuration.
- Performance relative to traditional transmission solutions.

Bottom line: the call asked vendors to solve defined grid problems, not simply present a technology.

EXAMPLE OF A TARGETED NEED PROVIDED TO VENDORS

Vendor challenge: relieve, defer, or reduce the need for conventional upgrades.



A single 115 kV radial feed is the primary export path; loss of that line shifts power to a weak <100 kV sub-transmission network.

Traditional upgrade potential: ~500 MW idealized; ~100–200 MW with external constraints

REGIONAL PROFILE

Predominantly rural area with approximately 20+ MW of existing or proposed DER. The 115 kV system is radially connected to the wider grid by a long transmission line, while the lower-voltage system has limited transfer capability.

TARGETED PLANNING NEED

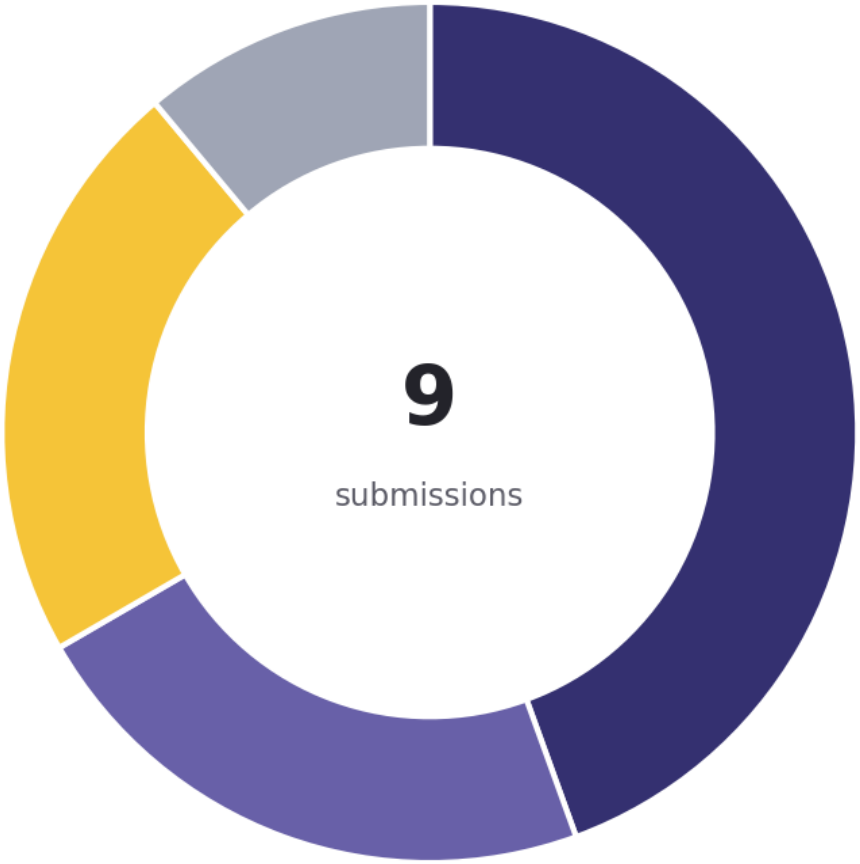
Increase transmission capacity and redundancy for future renewable development. Thermal constraints occur during N-0 conditions; loss of the radial feed causes overloads and voltage violations on the underlying system.

WHAT VENDORS WERE ASKED TO SOLVE

Show how an advanced technology could increase capacity and/or energy headroom under representative N-0 and N-1 conditions. Quantify added generation and compare performance with traditional solutions.

OVERVIEW OF SUBMISSIONS RECEIVED

Nine concept papers clustered into four general solution families



4 **Storage & storage-enabled services**

Fieldcharge mobile storage
Form Energy multi-day storage
GridWatch storage dispatch
Zenobē grid-forming BESS

2 **Grid control & dynamic ratings**

Splight dynamic congestion management
Topolonet PMU-based dynamic line rating

2 **Protection, telemetry & cyber resilience**

Danovo adaptive transmission protection
Argen telemetry trust and OT monitoring

1 **Distribution power quality**

Pacific Volt sub-cycle low-voltage regulation

Portfolio mix spans physical assets, software controls, and monitoring, with storage representing the largest single family.

KEY OBSERVATIONS

Themes, opportunities, and gaps emerging across the 2026 submissions

COMMON THEMES

Headroom on existing infrastructure

Most proposals seek to increase utilization, reduce curtailment, or defer traditional upgrades.

Software and data are central

Several concepts depend on telemetry, models, analytics, or automated operating actions rather than new infrastructure construction.

Bridge-to-wire positioning

Many concepts are framed as complementary or interim measures, not wholesale replacements for conventional transmission.

OPPORTUNITIES

Combine complementary technologies

Examples include DLR plus congestion management, storage plus constraint-aware dispatch, and GFM BESS plus advanced protection.

Use CGPP cases for common testing

A shared set of N-0/N-1 cases and headroom metrics could enable side-by-side comparison.

Advance targeted pilots

Strong candidates generally identify a host utility, constrained facility, operating data, and a measurable MW/MWh outcome.

GAPS / QUESTIONS

Evidence is uneven

Submissions range from commercially deployed technologies to early-stage concepts requiring validation.

Site-specific value remains unproven

Several headroom claims still depend on utility models, data access, and validation against actual constraints.

Detailed modeling inputs are required

Testing will require utility-grade network models, applicable N-0/N-1 cases, equipment and control characteristics, operating assumptions, and validated vendor models.

NEXT STEPS: FROM CONCEPT REVIEW TO THE RIGHT EVALUATION PATH

Close key information gaps, then route each concept to the pathway best suited to its maturity and intended use.

1 JU REVIEW COMPLETE

Consolidate utility interest, concerns, and priority questions.

2 DIRECT VENDOR FOLLOW-UP

Already underway: clarify claims, data needs, models, cost, and provide direct feedback

3 SELECT THE EVALUATION PATH

Match the concept to the level and type of validation needed.

THREE POTENTIAL PATHWAYS

GEMINI / NYPA AGILe LAB

Independent laboratory, hardware-in-the-loop, controls, protection, dynamic, or model validation before field deployment.

NYSERDA PON

Funded product development or demonstration. Align the scope, vendor, utility partner, and an applicable solicitation. May not be directly applicable to CGPP or will require a pilot and host utility before deployment

CGPP PLANNING

Planning-ready concepts. Deliver model representation, operating assumptions, limitations, cost inputs, and candidate use cases directly to planners.

UTILITY INTEGRATION POINT

Bring forward validated concepts, modeling guidance, and pilot recommendations in future utility planning efforts (CGPP, Proactive Planning, regular planning processes).

Pathways may be sequential or combined; concepts without sufficient maturity or a defined system need remain in monitoring status.

LESSONS LEARNED FROM THE 2026 CALL FOR PAPERS

The targeted approach improved relevance; the next cycle should sharpen evidence requirements and provide a clearer path from concept to evaluation.

1 QUALITY & DIVERSITY OF SUBMISSIONS

Keep the problem-based format: CGPP-derived use cases produced more relevant, solution-oriented responses than a general technology request.

Broaden the technology mix: Storage was well represented; future outreach should more deliberately target advanced conductors, power-flow control, protection & controls, and other underrepresented solutions.

Raise the evidence threshold: Require a clear maturity level, operating references, measurable MW/MWh benefit, cost basis, and known limitations.

2 SOLICITATION, WEBINAR & OUTREACH

Retain the pre-submission webinar: Use it to explain the planning need, study conditions, expected deliverables, and how submissions will be evaluated.

Conduct targeted outreach: Engage vendors, national laboratories, universities, industry groups, and relevant NYSERDA program participants rather than relying primarily on broad distribution.

Allow structured questions: Publish consolidated clarifications so all respondents work from the same understanding of the use cases.

3 OPPORTUNITIES FOR FUTURE CFP CYCLES

Standardize the submission template: Request model type, required data, operating assumptions, constraints addressed, and lifecycle cost.

Define evaluation gates up front: Separate screening, vendor clarification, laboratory validation, pilot development, and planning integration.

Use comparable test cases and metrics: Provide non-CEII representative cases where practical and evaluate incremental headroom, reliability benefit, cost, readiness, and implementation risk consistently.

Align CFP with the right advancement pathway(s): Coordinate CFP process with NYSERDA PONs, GEMINI / NYPA AGILe Lab, and CGPP cycles so concepts move to the right forums.

Focus reporting on outcomes: Track which concepts advance, what information gaps remain, and whether testing demonstrates planning or operational value.

Recommended direction: fewer open-ended technology pitches, more comparable evidence tied to defined New York system needs and a visible path to testing or planning use.

ATWG Priorities for 2027

SERGIO RODRIGUEZ, Con Edison

ATWG PRIORITIES FOR 2027

The main priorities revolve around completing existing workstreams so the group can focus new technologies, preparing its outputs to be ready to be utilized in key proceedings, and making further improvements to its processes.

Continue to evolve the group's focus:

- Reprioritize the group's focus across each technology based on: progress made to date, lessons learned from the first cycle of CGPP, and emerging areas of interest. This includes:
  - Shifting the DLR and PFC task forces to more periodic updates rather than dedicated workstreams.
  - Progressing evaluations of storage to more emerging technologies, like how to model long-duration energy storage operations.
  - Reallocating focus to advanced conductors and grid forming inverters

Support the next CGPP Cycle:

- Assuming the next cycle of CGPP begins in early 2027, the ATWG will structure its work to be able to provide inputs to the modeling and local solution designs.
- Project sets developed, but not selected by the NYISO model, in the first cycle of CGPP could provide ideal candidates to evaluate the benefits of different advanced technologies.

Improve the alignment with related activities:

- Evaluate and implement revised approaches to the call for papers to further improve the solicitations and pipeline from concept to deployment. The latest call for papers guidance resulted in more submissions, however, there are opportunities to harmonize the call for papers with similar activities, like NYSERDA's PON 6149.

Next Steps

Seamus Gorman, Central Hudson

NEXT STEPS

In early 2027, the ATWG will file its 2026 Annual Report.

Continue Engagement with “Call-for-Papers” submitters (Q&A from papers, presentations, monitoring technology, evaluate potential for future pilot projects/demos)

Annual Report to be filed by January 31, and a related Stakeholder Webinar held during the first quarter of the year

Continue sub-committee efforts (e.g. complete DLR screening tool, Advanced Conductor best practice summit)

Updates to engage the technology stakeholder community at regular intervals throughout the year (*format may vary*).



Q&A

QUESTIONS?