

# Research and Development Technical Working Group (R&D-TWG)

## Kickoff Meeting

Monday, April 20, 2026; 2:00 p.m. to 4:00 p.m. EDT

### Discussion Summary

#### Welcome and Project Staff Introductions

- The facilitator from Eastern Research Group (ERG), a New York State Energy Research and Development Authority (NYSERDA) contractor, welcomed TWG members and reviewed the meeting agenda.
- NYSERDA and Department of Public Service (DPS) staff introduced themselves and explained that they are working together on the Master Plan for Responsible Advanced Nuclear Development in New York (Master Plan).
- The contractors responsible for researching and drafting the R&D Study, Solestiss and the Brattle Group, introduced themselves.

#### TWG Member Introductions

- TWG members introduced themselves and shared why they are interested in being part of the R&D-TWG.
- TWG members responded to an electronic poll question: *In your opinion, what is the greatest challenge to advancing nuclear innovations today?*
  - Of 15 respondents, 33% said the initial capital costs; 20% said public perception; 20% said regulatory hurdles; 13% said availability of testing facilities; 7% said lack of funding opportunities for research; and 7% said availability of a skilled workforce.

#### Nuclear Energy in New York and Advanced Nuclear Master Plan Overview

- NYSERDA presented an overview of New York State's energy policy and the development of the Master Plan.
  - New York State's growing power demand from industrial development, electrification, and electric vehicles requires building out a clean, diverse set of power generation resources.
  - In June 2025, Governor Hochul directed New York Power Authority (NYPA) and DPS to develop at least 1 GW of new nuclear energy in Upstate New York and to facilitate a cost-effective pathway to develop a Nuclear Reliability Backbone for a decarbonized electric grid by 2040.
  - NYSERDA and DPS are developing the Master Plan to identify and assess options for responsible nuclear development.

- NYSERDA presented an overview of the two studies for which the R&D-TWG will provide feedback.
  - The R&D Study aims to assess the R&D needs for advanced nuclear deployment and the role that New York State can play in addressing those needs.
  - The Waste Study will analyze the existing federal and state regulatory framework, storage and disposal options, and transportation requirements for managing waste from existing and potential future nuclear reactors in New York State.

#### TWG Charter Review and Member Agreement

- The facilitator reviewed the draft R&D-TWG Charter, which provides details on the TWG mission, structure, objectives, representation, and member responsibilities.
- TWG members agreed to the rules set forth by NYSERDA, including that the TWG is invitation only. Members will not disclose the identity of anyone in the group or attribute quotes to an individual without their permission. Slides are draft findings and not for public distribution. Organizations involved in the meetings will be listed on publicly available notes and acknowledged in the study for contributing expertise.

#### Research and Development Study Overview

- Solestiss presented an overview of the R&D study, which focuses on R&D needs for Gen III+ and Gen IV advanced nuclear reactors. The study evaluates how New York State can prepare for near-term and long-term nuclear energy deployment.
- The study is focused on five broad R&D topics areas: (1) testing and validation, (2) manufacturing and project delivery, (3) materials and components, (4) fuel and fuel cycle, and (5) site characterization and preparation.
- TWG member feedback:
  - The study may want to consider deconsolidation in any discussion related to recycling and reprocessing.
  - For testing and validation, numerical modeling capability and model assessment and validation should be considered.
  - The research into materials and components could include activated products and waste materials generated as part of an operation.
  - The study could consider radiation shielding or material studies.
- Solestiss shared the approach the study is taking to characterize New York State's role in potential advanced nuclear R&D opportunities.
- Solestiss also shared a comparison of federal and state-level nuclear R&D efforts.
  - State-level nuclear R&D efforts typically focus on applied research and deployment readiness, using university programs and manufacturing capabilities.
- TWG member feedback:
  - New York State resources could act to bolster existing or emerging U.S. Department of Energy (DOE) activities through cost share, resources-in-kind, or other support. This process could guide work to New York State and its interests.

- The focus should be on leveraging or modifying existing programs and infrastructure, as that is most likely to move the needle in the near term.
- The study should look at opportunities beyond grid-scale electricity generation, such as flexible operation (to better pair with variable generation), non-electric applications (hydrogen, process heat, isotope production, etc.), and off-grid dedicated power for manufacturing (e.g., chip manufacturing) and data centers.
- Improved project delivery will keep rates down. Ultra-high-performance concrete, seismic isolation, steel bricks and steel/concrete composites, and automated welding are innovations that could reduce the cost/time of civil works.
- TWG members responded to the following electronic polling questions:
  - *Which key topics does your institution have expertise or experience in?*
    - Sixteen people participated.
    - Responses: testing and validation, 31%; manufacturing and project delivery, 19%; fuel and fuel cycle, 19%; site characterization and preparation, 19%; materials and components, 13%.
  - *Rank the topics in order of their potential to impact advanced nuclear deployment.*
    - Thirteen people participated. Answers were fairly evenly split among the topics. The top answer was manufacturing and project delivery.
  - *Are you aware of any ongoing R&D initiatives that don't fall into one of the listed topics?*
    - Answers included: structural design for natural hazards, site security and protection, facility-appropriate sizing, and cybersecurity and remote operations.
    - One member commented that financing new nuclear is a key challenge that may require new approaches or products (e.g., insurance).
- TWG members then discussed R&D opportunities in which they are involved.

**Moving Forward**

- NYSERDA will share a questionnaire with TWG members regarding their experience.
- ERG will send out calendar holds for future meetings shortly. The meetings will occur approximately every three weeks.

**Action Items and Next Steps**

Task	Assigned to	Target date
Send R&D-TWG members the questionnaire by.	NYSERDA	April 22
Send R&D-TWG calendar holds.	ERG	April 24
Send out the agenda for the next meeting.	ERG/NYSERDA	April 29
Return the questionnaire by email.	TWG members	May 1
Publish kickoff summary notes, slide deck, and finalized charter.	NYSERDA	May 4

## Participants

### Member Organizations

Brookhaven National Laboratory  
City College of New York  
Columbia University  
GE Vernova  
Idaho National Laboratory  
Nuclear Science and Engineering Research Center—West Point  
Oak Ridge National Laboratory  
Rensselaer Polytechnic Institute  
Rochester Institute of Technology  
State University of New York  
Stony Brook University  
University at Buffalo

### New York State Staff

Alyse Peterson, NYSERDA  
Andrew Kincaid, DPS  
Cheryl Sandrow, Department of Environmental Conservation (DEC)  
Christopher Johnson, DEC  
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Laura Welch, Empire State Development  
Liam Boire, NYPA  
Liam McAuliff, NYSERDA  
Rob Habermann, DPS  
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### Contractor Team

Aniruddh Mohan, Brattle Group  
Dean Murphy, Brattle Group  
Hannah Rosenberg, ERG  
Kaitlin Schneider, ERG  
Patty Bubar, Solestiss  
Sara Hilbrich, ERG