

Fusion Technical Working Group (FUS-TWG)

Discussion of the Fusion Supply Chain

Friday, July 10, 2026; 12:00 p.m. to 2:00 p.m. EDT

Discussion Summary

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 agenda, which focused on New York State's fusion supply chain strengths, opportunities for adjacent industries, policy mechanisms to support supply chain growth, and the potential value of establishing a fusion pilot plant in New York State.

New York State Supply Chain Strengths

- Brattle Group, a contractor researching and writing the Fusion Study within the Master Plan for Responsible Advanced Nuclear Development in New York, presented an assessment of New York State's existing fusion supply chain capabilities, highlighting strengths in high-power lasers and optics, advanced structural materials, high-temperature superconductors (HTS), precision manufacturing, and support for research institutions.
 - The presentation also identified companies, universities, and national laboratories across these supply chain areas and invited feedback on additional organizations or capabilities that should be included.
- Participants generally agreed that New York possesses strong research, manufacturing, and workforce assets that position the state well for future fusion supply chain development.
- Participants recommended additional New York State companies to include in the supply chain assessment, including organizations working in superconductors, structural materials, electroplating, advanced ceramics, and additive manufacturing.
- Participants noted that New York State's universities, national laboratories, and manufacturing base provide significant competitive advantages.

Supply Chain Crossover Industries

- Brattle presented opportunities for existing New York State industries to support and benefit from future fusion supply chain development, highlighting sectors such as aerospace, defense, semiconductors, medical imaging, precision manufacturing, and advanced materials.
 - Electronic polling results identified nuclear fission as the adjacent industry with the strongest perceived crossover potential.

- Participants discussed where New York State could be most competitive as fusion commercialization expands and identified several supply chain gaps that may represent future economic development opportunities.
 - Participants emphasized that much of today’s fusion supply chain remains outside the United States, creating opportunities for domestic manufacturing growth.
 - Participants noted that the state could be competitive in fusion supply chain opportunities involving HTS, advanced ceramics, molten salts, precision manufacturing, pulsed power systems, optics, radiation-resistant materials, medical imaging technologies, and defense applications.
 - Participants noted that many existing industries already possess technologies that could be adapted for fusion applications and emphasized improving awareness of these crossover opportunities.
 - Participants noted that expanding domestic manufacturing capacity for key fusion technologies—including HTS and advanced materials—will become increasingly important as fusion moves toward commercialization.

Policy Opportunities to Support the Fusion Supply Chain

- Brattle presented potential policy mechanisms to strengthen New York States’s fusion supply chain, including targeted incentives, supplier matchmaking, public–private research partnerships, federal funding assistance, and development of manufacturing and testing facilities.
- Participants discussed strategies to attract investment, strengthen existing manufacturers, and position New York State as a competitive location for future fusion-related industries.
 - Participants emphasized expanding assistance for organizations pursuing federal funding opportunities.
 - Participants recommended reviewing successful policy approaches implemented in other states before developing New York–specific strategies.
 - Participants discussed creating a centralized supplier network or online portal to connect fusion developers with New York State manufacturers and suppliers.
 - Participants highlighted the importance of partnering with national laboratories, developing the fusion workforce, and co-locating research institutions and industry to support commercialization.

Value of a New York Pilot Plant

- Brattle summarized some potential supply chain benefits of establishing a fusion pilot plant in New York State.
- Participants discussed how a pilot plant could accelerate commercialization, attract suppliers, strengthen workforce development, and support broader economic growth.
 - Participants discussed how a pilot plant could stimulate long-term investment in manufacturing, workforce development, research partnerships, and supporting infrastructure.

- Participants emphasized that a pilot plant could create demand for local suppliers while providing opportunities to validate technologies, develop specialized expertise, and attract additional companies to the region.
- Participants noted that a pilot plant would require substantial financial investment and is not essential for New York suppliers to participate in the broader fusion supply chain.
- Participants highlighted that pilot plants inherently involve selecting a preferred technology pathway before commercial certainty exists. If an ultimately unsuccessful technology is selected, associated investments could prove less valuable than expected. However, suppliers serving multiple technology platforms would be more resilient than those dependent upon a single reactor design.

Action Items and Next Steps

Task	Assigned to	Target date
Incorporate TWG feedback into the draft fusion study	Brattle/Solestiss	Ongoing
Distribute the agenda and meeting materials for the final FUS-TWG meeting	ERG	July 24, 2026

Participants

Member Organizations

Brookhaven National Laboratory
 Columbia University
 Fusion Consultants
 Idaho National Laboratory
 Rensselaer Polytechnic Institute
 Stony Brook University
 Tritium Solutions, Inc.

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