May 7, 2026

The Honorable Howard LutnickSecretary of Commerce
U.S. Department of Commerce
1401 Constitution Avenue NW
Washington, DC 20230

RE: Recommendation from the Environmental Technologies Trade Advisory Committee on Advancing U.S. Leadership in Waste-to-Resource Technologies

ETTAC Recommendation 2026-10

Dear Secretary Lutnick:

The Environmental Technologies Trade Advisory Committee (ETTAC) advises on policies and procedures that affect exports of U.S.-made environmental technology, goods, and services. As global markets more frequently recognize waste as a valuable resource, the United States faces a strategic opportunity to lead in technologies that transform waste streams into energy, raw materials, and other high-value products. The United States has the opportunity to become a market leader in these exports by recharacterizing relevant materials traditionally considered 'waste' as process residuals, recoverable materials, or resource recovery.

Why This Matters:

- The global environmental technology market is valued at **$1.1 trillion**, with U.S. firms already generating trade surpluses in water and waste treatment technologies. The U.S. environmental technologies industry employs **1.9 million people** and generates **$509 billion in annual revenues**.[1]
- U.S. exports of solid waste management technologies exceeded **$7 billion in 2025**, and the domestic recycling and waste management technology market is projected to grow from **$15.6 billion in 2025 to $34.3 billion by 2032** (CAGR 11.9%).[2,3]
- Globally, the market is expected to reach **$798 billion by 2029**, driven by resource recovery and waste valorization.[4]
- Technologies that advance waste as a resource are developing rapidly, advancing efficiencies, supporting new end markets, and contributing to resilient supply chains.

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[1] Environmental Business Journal, Environmental Business International, Inc.
[2] ITA Environmental Technologies Trade Dashboard, https://www.trade.gov/environmental-technologies-trade-dashboard
[3] [psmarketresearch.com]
[4] [thebusines...ompany.com]

- These technologies and equipment include but are not limited to:
    - Biogas to energy systems including anaerobic digestion and landfill gas to energy
    - Molecular or non-mechanical recycling[5]
    - Material recovery facilities (MRF)
    - Waste to energy
    - Wastewater harnessing for water, energy, and nutrient recovery[6]
    - Black mass and battery recycling and recovery of critical minerals

Current Challenge:
The United States has a wealth of opportunity to reap financial benefits from leveraging both domestic waste as a resource to support our supply chain, as well as exporting technologies to deliver this capability. For example, European companies are aggressively scaling biogas and molecular recycling technologies, supported by strong policy frameworks and investment. The EU biogas sector alone aims for 35 billion cubic meters (bcm) biomethane production by 2030[7]

The U.S. biogas market is growing domestically, demonstrating the opportunity for exports of U.S. technology and equipment. In 2025, over $2 billion in investments brought 70 new biogas projects online in the United States, bringing the total number of facilities to nearly 2,600.[8]

ETTAC supports taking action in order to continue to advance these technologies and to support their export potential.

Recommendation:
ETTAC recommends that the U.S. Department of Commerce and the interagency prioritize U.S. innovation in waste-to-resource technologies by:

1. **Collaborating to Support Deployment of U.S. Technologies at Federal, State and Military Facilities:** Government adoption can validate performance, enhance credibility, and accelerate international uptake and U.S. exports.

2. **Expanding Support for Early-Stage Technologies:** For example, many U.S. firms have proven anaerobic digestion and biogas upgrading systems. Scaling technologies like these could unlock **$45 billion in capital investment and create 374,000 construction jobs and 25,000 permanent jobs**.[9]

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[5] ICYMI: Administrator Zeldin in The Hill: The Trump EPA has a Plan to 'Unmake' Plastic Waste | US EPA
[6] https://www.trade.gov/environmental-technologies-trade-dashboard
[7] [europeanbiogas.eu]
[8] [https://americanbiogascouncil.org/investment-in-new-u-s-biogas-systems-exceeds-2-billion-in-2025-continuing-strong-industry-growth]
[9] [biomassmagazine.com]

3. **Integrating Waste-to-Resource Solutions into Trade Policy:** Position these technologies as a critical component of U.S. environmental exports, leveraging EXIM financing and ITA's programs for competitive advantage.[10]

4. **Building Supply Chain Resilience:** Encourage domestic processing and reuse of recovered materials to reduce reliance on foreign sources and mitigate geopolitical risks. For example, water utilities in the United States have the opportunity to unlock $47 billion annually by adopting water efficiency principles to recover valuable resources.[11]

Strategic Opportunity:
By acting now, the United States can capture a share of the rapidly growing global resource efficiency market, strengthen supply chains, and create high-quality jobs while advancing sustainability goals.

We appreciate the U.S. Department of Commerce and the interagency's consideration of this recommendation and look forward to working with you to advance U.S. leadership in waste-to-resource technologies and expand environmental exports globally.

Sincerely,

Clare Schulzki

Clare Schulzki
Chair, Environmental Technologies Trade Advisory Committee

CC: U.S. Environmental Protection Agency
U.S. Department of Energy
U.S. Department of War

[10] [grow.exim.gov]
[11] Water Environment Federation. Valuing the Circular Water Economy: A $47 Billion Opportunity for U.S. Utilities. 2025 https://go.wef.org/WC-2025-07-22-CWE-White-Paper_LP-2025-CWE-White-paper.html