September 29, 2023

The Honorable Gina Raimondo Secretary U.S. Department of Commerce 1401 Constitution Ave., N.W. Washington, DC 20230

RE: Recommendation from the Environmental Technologies Trade Advisory Committee on Engagement with U.S. Trade and Development Agency

ETTAC Recommendation 2023-3

Dear Secretary Raimondo:

The Environmental Technologies Trade Advisory Committee (ETTAC) recommends that you engage with the U.S. Trade and Development Agency (USTDA) to explore avenues to advance the export of U.S.-manufactured environmental technology solutions in emerging markets. Specifically, USTDA's Reverse Trade Missions (RTMs) present a unique ability to connect overseas buyers with American environmental technology solutions.

Our ambitious climate and infrastructure goals will require the innovation and knowhow led by the U.S. private sector. The International Trade Administration (ITA) is developing the Environmental Technologies *Top Markets* report in which your team of experts will provide key market intelligence on the most promising opportunities to increase U.S. exports of environmental technologies, products, and services. In addition, we appreciate all of the efforts of ITA to support and carry out traditional Trade Missions around the world in these critical areas. Based on experience of many ETTAC members, we believe that several countries, including Brazil, China, Mexico, and India, would benefit from additional direct engagement with U.S. companies to see firsthand capacity and capabilities to meet such market needs.

By working together with USTDA, Commerce can maximize the impact of ITA's *Top Markets* by identifying areas of specific opportunity for reverse trade missions. These visits by foreign decision-makers are a practical way to grow demand for U.S. environmental technology solutions and build relationships among public and private decisionmakers with U.S. companies. Accordingly, we suggest the following potential topics for the RTMs and as recommended in the *Top Markets report*:

- Carbon capture, removal, utilization, and storage.
- New energy solutions, including hydrogen generation, transportation, storage, and usage.
- Solid waste management and recycling.
- Water treatment and reuse.

Attached is more detailed background on each sector and solution set.

We urge that you swiftly direct ITA to engage USTDA and U.S. company executives to identify the most effective approach to operationalize the recommendations identified through the *Top Markets* report.

Please feel free to contact me if you wish to discuss it further.

Sincerely,

Clore Schulzki

Clare Schulzki ETTAC Chair

CC: USTDA Director Ebong

# **Appendix A: More Detailed Background and Market Potential**

# 1) Carbon Capture, Removal, Utilization, and Storage.

Achieving our ambitious climate goals requires that hard decarbonize sectors explore approaches to capture, remove, and/or store greenhouse gas emissions. The U.S. Department of Energy recently released its "Carbon Management Liftoff" report, which states "Modeling studies suggest reaching U.S. energy transition goals will require capturing and storing 400 to 1,800 million tonnes (MT) of carbon dioxide (CO<sub>2</sub>) annually by 2050."<sup>1</sup> Storing CO2 in injection wells seems to provide near-term solutions. EPA is now considering as many as 120 Clean Water Act Class VI well permits for project proposals in Louisiana and Texas.

# 2) New Energy Solutions, Including Hydrogen Generation, Transportation, Storage, and Usage

Decarbonizing our global economy—our industries, utilities, personal transportation and the production and movement of goods—will require a united effort. Clean, sustainable hydrogen has the potential to reduce and replace our reliance on fossil fuels for heating, transport, production of green chemicals and fertilizer, storage, and electricity generation. A zero-carbon fuel that emits only water, hydrogen's role in the drive for sustainability can be accelerated by using or adapting significant parts of existing infrastructure to employ hydrogen as a fuel source. U.S. based companies are positioned well for and delivering progress today across green hydrogen for power generation and storage, advanced transportation, and fuel-cell technology, and as a feedstock for green chemicals, as well as the processing of blue hydrogen with carbon capture technology.

Storing excess renewable energy as hydrogen yields a long-term and long-duration energy storage solution, complementing battery energy storage solutions while allowing renewable energy to be deployed in times of highest demand.

### 3) Solid Water Collection and Recycling Infrastructure

Southeast Asian countries, including Indonesia, Malaysia, and the Philippines are considered significant contributors to the leakage of land-based plastic waste into the oceans, with a generation of 31 million tons of plastic waste annually (Julius and Trajano, 2022). Solutions for solid waste management and recycling infrastructure are needed, including advanced recycling. The EPA National Recycling Strategy calls for among other issues developing markets for recycled materials and life cycle innovation from product and package design through use and recycling. A materials neutral approach should be pursued. Los Angeles, San Francisco and Seattle are leaders.

<sup>&</sup>lt;sup>1</sup> https://liftoff.energy.gov/carbon-management/

#### 4) Water treatment and reuse

Growing water scarcity across the nation and the world requires companies and communities alike to consider water reuse and recycling as solutions. Wastewater should be seen as resource for generating energy and using nutrients. Colorado Springs, Loudon County, VA, San Diego, and San Antonio, among other municipalities have water reuse programs.