

January 19, 2022

The Honorable Gina M. Raimondo
Secretary
Department of Commerce
1401 Constitution Ave, N.W.
Washington, D.C. 20230

RE: Energy Transition Metals
ETTAC Recommendation 2021-07

The Environmental Technologies Trade Advisory Committee (ETTAC) is a federally established committee whose purpose is to advise on the policies and procedures of the U.S. government that affect exports of U.S. environmental technology and services. In this capacity, we appreciate the opportunity to provide the following recommendations to support securing U.S. access to raw materials for the energy transition by incentivizing growth in safe, equitable, and sustainable domestic mining and recycling ventures while leveraging partnerships with allies and partners to establish a diversified supply.

We are writing to support the Administration's agenda, which seeks to address the climate crisis and build a clean and equitable energy economy and puts the United States and its partners on a path that will establish a secure battery materials and technology supply chain. As countries across the globe look to meet decarbonization goals, both access to critical energy transition metals and an ability to purify and refine these metals either domestically or via our international partners, is essential for supporting long-term U.S. economic competitiveness and equitable job creation, enabling decarbonization, advancing social justice, supporting the export of US Environmental technologies and services, and meeting national security requirements.¹ The Administration could take actions that would greatly bolster the competitive landscape for the U.S. environmental technology sector by improving access to a domestic supply of critical metals required for this energy transition.

The ETTAC recommends:

- Providing expanded incentives and investment in public private partnerships aimed at enabling domestic mining, processing and refining ventures that are focused on energy transition metals to rapidly adopt advanced, environmentally sound technologies and methods that will:
 - Enable new mines, processing plants and refineries to be permitted quickly and responsibly.

¹ National Blueprint for Lithium Batteries: Jennifer M. Granholm, Secretary of Energy U.S. Department of Energy, June 2021

- Ensure the communities in which they operate that the mines and facilities will be operating at the highest possible environmental standards so that the communities can confidently award them a social license to operate.
- Continue to strengthen bilateral trade agreements with key partner nations around the energy transition and its supply chain.

The impact of these measures would be to help:

- Ensure global market competitiveness of domestic critical minerals processing and refining facilities.
- Mitigate reliance on imports from non-allied countries and facilitate long term access to stable domestic supplies of critical minerals
- Increase domestic employment in the mining and minerals industries, offsetting reductions stemming from the energy transition.
- Develop and enforce global supply chain visibility requirements that are designed to ensure domestic production and imports are utilizing responsibly sourced metals that are produced in a manner consistent with the environmental, health and safety standards expected of domestic producers.
- Establishing and supporting U.S. industry to rapidly implement a secure domestic energy metals recycling ecosystem to reduce constraints imposed by materials scarcity, enhance environmental sustainability, and support a U.S.-based circular materials supply chain. This support should include:
 - Investment in research, development, demonstration and scaling of technologies to more efficiently and economically collect, recycle and reuse critical metals at end of life.
 - Incentives to stimulate the use of recycled critical metals into the production of new products and technologies.
- We further recommend expanded and enhanced government subsidies and tax incentives to further promote U.S. business activities during the energy transition.

In conjunction with these recommendations, the ETTAC expresses its support of the following as expressed in the Administration's 100 Day Report:

"The U.S. Government, working in partnership with the private sector and other stakeholders, should encourage the development of new sustainability standards for designated strategic and critical materials to conduct due diligence, eliminate sources of unsustainable production, and accelerate Federal and commercial purchasing of sustainable products. A recognized sustainability standard, potentially backed by legislation, and coordinated with trading partners, would encourage private sector investment in sustainable sources and increase supply chain resilience."

We value your commitment to these issues and look forward to working closely with you to support the Administration's efforts to address the climate crisis and build a clean and

equitable energy economy that enables responsible growth of U.S. environmental exports
advancing the global energy transition.

Sincerely,

A handwritten signature in black ink, appearing to read 'W. Decker', with a long horizontal flourish extending to the right.

William Decker
ETTAC Chair

The ETTAC makes these recommendations in recognition of and in context of the following facts:

- The global energy transition is dependent on a selection of metals and minerals that are exhaustible and often scarce.
 - Key technologies that are the foundation for the energy transition include: Wind, solar photovoltaic, concentrated solar power, hydro, geothermal, energy storage (including batteries and charging infrastructure), nuclear, coal, gas, carbon capture and storage.
 - These energy transition technologies require the following minerals and metals: aluminum, chromium, cobalt, copper, graphite, indium, iron, lead, lithium, manganese, molybdenum, neodymium, nickel, silver, titanium, vanadium and zinc.
 - All these minerals and metals are exhaustible and non-renewable resources, rapidly depleting against the background of consumption intensity and the increasing demands of the energy transition.
- The Asia-Pacific region has dominated the battery metals market and accounts for up to 90% of its value.
 - Over the past decade, China has cut off the supply of critical minerals twice, such as rare earth and its concentrates, to Japan and the United States.
 - To the extent that these critical minerals are imported to the U.S. and our allies as part of products or as raw material, having the capacity to recycle these metals domestically would enable the U.S. to expand its access to these minerals without having to mine or re-import them.
- New or expanded domestic production must be held to modern standards for environmental protection, best-practice labor conditions, and rigorous community consultation, including with tribal nations.
 - The time to begin commercial mine production after successful exploration (the so-called “lead time III”) has significantly increased during the last two decades. Cobalt mines, for example have shifted this time frame from a medium of 8 years to 12 years.²
 - Continuing to rely on importation of these metals means U.S. supply chains are dependent on resources from countries who may be associated with low environmental standards, child labor, indigenous rights abuses, and/or geopolitical challenges.

² Assessing the adequacy of the global land-based mine development pipeline in the light of future high-demand scenarios: The case of the battery-metals nickel (Ni) and cobalt (Co).