



U.S.-EU Energy Council – Lithium Roundtable Industry Discussions

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Disclaimer: *This document represents a summary of roundtable discussions. It does not reflect the official positions of the European Union or the United States. This document lays out actionable recommendations for policymakers shared by industry during roundtable discussions convened under the auspices of the U.S.-EU Energy Council. Discussions were held under Chatham House rules. Specific recommendations are not attributed to individual participants.*

Two roundtables were co-led by the United States Department of Energy (DOE), the United States Department of Commerce (DOC), and the European Commission’s Directorate-General for Energy (DG-ENER) and Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG-GROW). It was the first industry roundtable series focused on critical minerals and metals – lithium – organized within the framework of the U.S.-EU Energy Council.

The first roundtable was held in Washington, D.C. on October 11, 2024. The second roundtable was held in Brussels, Belgium, in conjunction with EU Raw Materials Week hosted by the European Union on December 10, 2024.

Context

The U.S.-EU Energy Council is the lead transatlantic coordination forum on strategic energy issues dealing with energy security, policies, and technologies between the United States and the European Union. In 2024, the U.S.-EU Energy Council Ministerial endorsed bilateral collaboration within the Council’s Energy Policy Working Group to convene a series of U.S.-EU stakeholder roundtables on critical energy transition minerals and materials, including roundtables focusing on lithium.

Aims of the U.S. - EU Energy Council – Lithium Roundtable Industry Discussions

Recognizing the wide array of tools already implemented and available to address challenges within the critical minerals and materials space, the U.S.-EU Energy Council’s Energy Policy Working Group’s starting assumption was that new initiatives are not required. Rather, the co-leads of the Energy Policy Working Group sought to engage industry to identify key challenges, as well as existing tools that could be leveraged to manage and address those challenges.

Industry participants were asked to provide *actionable* feedback to government on three themes: finance, innovation, and regulation. The roundtables aimed to generate at least three concrete next steps for governments by their conclusion.

Targeted Insights and Recommendations for Government from Private Sector

For each theme, participants provided targeted insights and recommendations to address industry needs, promote innovation, and ensure sustainable practices.

More generally, multiple speakers emphasized the importance of lithium for the clean energy transition due to its presence in core technologies, like Electric Vehicle (EV) batteries and energy storage, and the unique power of the private and public sector leading together to address supply challenges and meet bilateral clean energy targets. Participants also noted the need to promote market stability and demand certainty to address challenges faced by industry. Price transparency, upstream funding, and enforcing Environmental Social and Governance (ESG) standards could also help accelerate deployment in both markets. Speakers encouraged further discussions and cooperation among all stakeholders from both sides of the Atlantic.

Within this context, participants provided the following insights and recommendations:

Topic 1: Financing

Participants discussed challenges and potential barriers to financing lithium mining and refining, and shared insights and recommendations to better mobilize private capital. The recommended policy tools governments can use to ensure market stability and open investment opportunities in third countries. Key takeaways:

- 1. Market Price Stability and Demand Certainty:** Volatility of lithium prices is an obstacle to upstream projects accessing finance, as it casts doubts on the economic viability of such undertakings. To create more certainty, participants suggest temporary, government-instituted price floors and ceilings (e.g., Contracts for Difference models) or coordinated national stockpiles (particularly as related to lithium) to stabilize prices, ensure financial viability, and unlock private financing. However, participants noted that given technical challenges for stockpiling in the near-term, governments focus on stabilizing prices. They noted that lithium crystals or chloride are relatively easy to stockpile for a limited time. Government offtake agreements for a portion of production before project completion could also help guarantee demand and reassure investors.
- 2. Green Premium Incentives:** Participants recommend the introduction of tax breaks for projects with high ESG standards and penalties for low performers (e.g. penalties or market bans on severely polluting lithium extraction/refining processes). Further, participants stressed that environmental standards should be enforced industry-wide to ensure producers that do not adhere to basic ESG standards do not benefit financially. Industry underscored the importance of minimum carbon footprint standards and environmental thresholds in shaping sustainable practices and future regulation. Participants expect green standards to drive market incentives as well as financing opportunities for environmentally responsible projects.
- 3. Equity Investments to De-Risk Projects:** Participants recommend implementing models like those employed by the Japan Organization for Metals and Energy Security (JOGMEC), where governments provide equity investments to share risks with private investors and attract financing, especially in emerging markets. This could address

challenges faced by junior mining lithium projects in Africa and South America, as well as the broader issue of fragmented financial support across regions. Participants noted that clearer and more harmonized financial mechanisms are necessary to attract investment, especially in emerging markets. A joint EU-U.S. financial entity (e.g. trust) could co-fund extraction and refining projects, prioritizing critical minerals essential for renewable energy transitions. Governments could also collaborate with developers on full-scale demonstration projects, especially in third countries, by supporting financing, mitigating political risks, encouraging cluster developments, streamlining permitting, and providing grants to leverage economies of scale.

Topic 2: Innovation

Participants discussed technical challenges faced by the industry and ways to facilitate the uptake of innovative extraction, processing, recycling, and substitution methods on both sides of the Atlantic. Key takeaways:

- 1. Environmental, Social, and Governance (ESG) Standards:** Participants noted that lithium extraction technologies must reach higher technology readiness levels (TRLs), while innovation should improve safety, energy efficiency, water use, greenhouse gas (GHG) emissions, and include the (re)training of workers. Research and development can support sustainable mining techniques by improving re-injection techniques for direct lithium extraction (DLE) and enhancing reagent management to minimize waste and environmental impact of such practices.
- 2. Improve Circularity through R&D:** Recycling lacks technology to get beyond black mass (the most valuable part of the battery, made up of lithium, cobalt, nickel, manganese, and more). This requires a push for recycling collection beyond nickel and cobalt and production of precursor materials from recycled content. Participants note governments could address this by standardizing battery life cycle assessments and creating policies to retain used batteries within regional and national markets. Circularity helps keep materials in country, which improves resilience and security of supply. The U.S. and EU could cooperate on excluding non-compliant, non-traceable batteries with unclear sourcing or content.
- 3. Map Industry Needs and Promote Transparency:** Industry could provide clear forecasts of material demands (e.g., lithium carbonate vs. hydroxide) to guide investments and innovation. Working together, industry and governments can also help align market supply with Original Equipment Manufacturer (OEM) needs.

Topic 3: Regulation

Participants discussed the impacts of regulatory uncertainty and suggested how the U.S. and EU could provide better clarity. They noted differences in standards between the EU and U.S. for extracting, processing, and recycling, and explained that standards can better align to create opportunities for both sides. Participants discussed how to foster and implement high ESG standards that provide more certainty to secure investments, rather than hindering them, and how to create workforce opportunities. Key takeaways:

1. **Standards and Environmental Impact Measurements:** Governments need to harmonize global standards (like product carbon footprint and harmonized system (HS) codes). According to participants, the International Lithium Association could be a source of such standards. Participants agree that tools like battery passports could enhance transparency and incentivize consumers based on environmental standards. More metrics, measurement tools, and standards are needed to establish a carbon border tax adjustment, life cycle analysis/assessment (LCA), battery end-of-life policies (EOL), and battery passport systems. Common classifications should be agreed upon for per- and polyfluoroalkyl substances (PFAS) and lithium salts, which are designated as hazardous in some geographies.
2. **Collaboration with Third Countries:** Participants recommend building cooperative frameworks with countries like Canada, Australia, and with Latin America (e.g. Chile and Brazil) and select African countries, to leverage permitting expertise, support regulatory capacity, and diversify supply chains (both for up and mid-stream) while maintaining high sustainability standards. The U.S. and EU could develop policies that examine barriers to entry in the EV battery supply chain and increase feedstock from diversified global partners.
3. **Regulatory and Permitting Coordination:** Differing regulations between and within countries (royalty schemes, labor requirements, regional permitting) hinder lithium projects across the U.S. and EU. Participants recommend governments accelerate, clarify, and simplify permitting processes, particularly for demonstration projects, with lighter regulatory requirements to reduce risks and delays. This enables easier access to financing. Public acceptance is also key for projects to access finance. Building political and public support for mining and refining projects is essential for investment decisions and public trust. The U.S. and EU could share best practices to better support investment.
4. **Workforce Development:** Participants note the transferability of skills from the oil and gas industry (e.g. chemistry) suggesting that the U.S. and EU could build consortia of local miners, local governments, lenders, refiners, off-takers, etc. to facilitate the dissemination of industry expertise, and help negotiate the appropriate allocation of risks across projects. Apprenticeships, like those in the EU, could also help build skills and relationships between educational programs and industry to encourage young people to pursue careers in critical minerals. Demonstration plants could also help train and develop workforce capacity before commercialization.