

Policy Principles:

Critical Minerals Mining, Reuse & Recycling

The Advanced Energy Opportunity

Advanced Energy United is committed to the transition to a 100% clean energy and transportation system. Building the technologies to power that grid and electrify transportation will require more raw materials than the advanced energy industry is presently utilizing. Doing so at the speed and scale necessary to address climate goals will require a significant acceleration of current critical minerals production and technology manufacturing. This is particularly true in the electrified transportation sector, which we include under the rubric of “advanced energy”, where rising consumer demand for electric vehicles and new federal incentives with strong domestic content requirements combine to create an acute need for more U.S. mining now.

Advanced energy presents the opportunity for the U.S. to achieve real energy independence, by reducing – and ultimately ending – our reliance on fossil fuels. These global commodities have increasingly high and volatile prices that can be impacted (even manipulated) by geostrategic competitors. Essentially, the transition to advanced energy represents trading an economy tied to commodities for one grounded in technologies.

Geostrategic competitors currently hold a significant market share in the production and processing of critical minerals and advanced energy technologies. Thus, achieving energy independence through advanced energy will, in part, require the development of more domestic manufacturing, critical mineral production, processing, reuse, and recycling. While we endeavor to reduce our reliance on competitors, making supply chains more resilient will require not only more U.S. production but also effective coordination with global allies.

Advanced energy differs markedly from the existing fossil-fuel based economy. Both require resources, but the footprint of advanced energy is a fraction of that of the fossil-fuel industry. The technologies underlying advanced energy do not necessarily require continuous extraction – e.g., drilling for oil, mining for coal, or fracking for natural gas – to power our homes, businesses, and vehicles. Instead, because many advanced energy technologies consume no fuel, they provide opportunities for the creation of circular economies as they are reused, and recycled at the end of their lifecycle, shrinking their footprint.

Over the medium-to-long-term, the development of domestic recycling and reuse sectors will not only help to mitigate the need for new critical mineral production but will also help reduce our reliance on geostrategic competitors for these resources and technologies. In our estimation these considerations, in conjunction with the potential to create a transformational circular energy economy, provide ample incentive to spur and sustain U.S.-based recycling and reuse within the advanced energy industry.

Advanced Energy United appreciates that policymakers are focused on the issues discussed above. As part of our work around manufacturing and federal investment, we look forward to engaging in these interconnected policy conversations.

Policy Principles

In deciding whether to support a given policy regarding recycling, reuse, and / or critical minerals, Advanced Energy United will give preference to those policies that:

- △ **Take an integrated approach.** Policy should address both the near-term need for additional critical mineral production and the long-term opportunity to create a circular advanced energy economy through reuse and recycling.
- △ **Foster domestic advanced energy recycling.** Policy should provide clear, robust, and consistent market signals and support to grow and sustain a U.S.-based recycling industry for advanced energy and electrified transportation technologies. Policymakers should prioritize the use of incentives to encourage the growth of this market.
- △ **Encourage smart design and production.** Policy should support manufacturers that design and produce advanced energy tech to be efficiently reused and recycled.
- △ **Support materials & mining innovation.** For critical minerals of geostrategic, environmental, and / or social concern, policy should support R&D into effective substitutes, efficient utilization, and innovative recycling methods. It should also support low-impact extraction methods to maximize their cost-effectiveness.
- △ **Bolster domestic processing.** The U.S. finds itself at a disadvantage not only in the extraction of critical minerals, but also in their processing and refinement. To strengthen the domestic minerals supply chain, policy should encourage the expansion of critical minerals processing in the U.S. and among our allies.



- △ **Maintain environmental protections.** Policy should not diminish the standards for environmental performance that domestic producers and processors must achieve.
- △ **Provide transparency in U.S. production.** Policy should require government to map known critical minerals in the U.S., in a modern and publicly accessible manner, and indicate where exploration and production is ongoing to inform resource strategy.
- △ **Prioritize low-impact production.** Critical minerals for advanced energy and electrified transportation can be produced in numerous locations, using a variety of methods. Policy should encourage resource production in locations, and utilizing methods, with the least environmental impact.
- △ **Address permitting timelines.** To avoid stranding capital, policy should clarify and reduce the timeline for the review and approval / denial of permits and other necessary authorizations for critical minerals mining and other advanced energy projects.
- △ **Fully fund permitting agencies.** Limited staff and resources at key state and federal permitting agencies impede efficient permit reviews. Smart policy reforms should be paired with sufficient and sustained funding to ensure regulators have the resources they need to do the job quickly and thoroughly.
- △ **Clarify regulatory & legal processes.** Policy should streamline the review processes for mining and other advanced energy projects with clear roles and responsibilities, establish accelerated dispute resolution, and set standards for judicial review.
- △ **Protect workers.** Increasing the production of critical minerals should not come at the cost of worker health or safety at home or abroad. Given the high U.S. standards for worker safety, compensation, and benefits, policy that stimulates greater domestic production should also advance this principle.
- △ **Benefit the community & fairly compensate taxpayers.** Policy should help to ensure that communities benefit from the development of mining projects and U.S. taxpayers receive a fair return on the value of resources produced on public lands.

While United does not anticipate or insist that every one of these principles be addressed through legislative proposals, regulatory actions, or Administration efforts, on balance we would like to see progress across the board. Any proposal or action that does receive the support of the organization will need to meet a reasonable number of these principles.

