

Notice of Intent Key Facts	
Issuing Agency	Department of Energy, Office of Critical Minerals and Energy Innovation, Analysis and Strategy Office
Notice of Intent Title	PROSPECT Program: Providing Opportunities for Specialized Education in Critical Technologies
Notice of Intent Number	DE-FOA-0003662
eXCHANGE URL and Helpdesk	eere-exchange.energy.gov eere-exchangesupport@hq.doe.gov

This Notice of Intent (NOI) is for informational purposes only; we are not requesting comments or applications at this time. All information provided here is subject to change.

Summary

The United States is entering a new era of domestic critical minerals and materials development. Securing resilient domestic supply chains will require not only new mines, processing facilities, manufacturing capacity, and recycling infrastructure, but also a new generation of engineers, scientists, technicians, and skilled professionals prepared to build and sustain them. To help meet this need, the U.S. Department of Energy (DOE) Office of Critical Minerals and Energy Innovation (CMEI) intends to establish the **PROSPECT Program—Providing Opportunities for Specialized Education in Critical Technologies—and anticipates investing up to \$100 million**, subject to the availability of appropriated funds, to strengthen the nation's educational capacity in critical minerals and materials.

Meeting the nation's growing demand for domestically produced critical minerals and materials will require a substantial expansion of the technical workforce supporting resource development, processing, manufacturing, recycling, and associated supply chains. While public and private investments continue to accelerate across these sectors, the pipeline of graduates entering mining engineering and related disciplines has not kept pace with projected workforce needs.

Addressing this challenge will require stronger partnerships among universities, industry, national laboratories, and other workforce stakeholders to modernize educational programs, expand experiential learning opportunities, and better align academic training with the evolving technical needs of the critical minerals and materials sector.

The PROSPECT Program will support collaborative approaches that strengthen educational pathways across the entire critical minerals and materials value chain—from mineral resource development and extraction through processing, manufacturing, recycling, and related supply chain activities. The PROSPECT Program is intended to foster collaboration among universities, industry, national laboratories, community colleges, trade schools, and other workforce partners to develop scalable models that expand the domestic talent pipeline.

PROSPECT will accelerate the modernization of critical minerals education by encouraging educational models that integrate automation, artificial intelligence, advanced manufacturing, materials science, data science, systems engineering, and other emerging technologies into mining, mineral processing, metallurgy, and related engineering disciplines. These interdisciplinary approaches are expected to prepare graduates for the rapidly evolving technical demands of the domestic critical minerals and materials industry.

The PROSPECT Program is intended to:

- Expand the domestic pipeline of graduates with mining, minerals, materials, manufacturing, and related supply chain credentials.

- Modernize university curricula to reflect emerging technologies and evolving workforce needs across the critical minerals and materials value chain.
- Strengthen partnerships among universities, industry, national laboratories, community colleges, trade schools, and other educational institutions to improve workforce development and career pathways.
- Increase student participation in internships, cooperative education, apprenticeships, undergraduate research, and other experiential learning opportunities aligned with industry needs.
- Enhance institutional capacity through faculty development, instructional laboratory modernization, and educational infrastructure that supports long-term workforce growth.
- Establish sustainable models that continue producing highly qualified graduates and supporting domestic critical minerals and materials supply chains beyond the period of federal investment.

The PROSPECT Program will build on existing investments in critical minerals and materials research, development, demonstration, and deployment by ensuring that the United States has the highly skilled workforce needed to support continued innovation and growth across the domestic supply chain. Through collaboration among academia, industry, national laboratories, and other partners, the PROSPECT Program is expected to help develop a durable talent pipeline that strengthens U.S. economic competitiveness, energy security, and national security.

Additional information regarding implementation of the PROSPECT Program will be announced at a later date. This Notice of Intent is provided solely to inform the public of DOE's plans and does not constitute a solicitation, funding opportunity, or commitment by DOE to undertake any particular course of action. DOE reserves the right to modify or discontinue the initiative described herein. All information contained in this Notice of Intent is subject to change.