High Performance Materials Program – Supporting the Nation’s Manufacturing Supply Chain and Workforce

Crosscutting Annual Project Review Meeting

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Fossil R&D impacts industries and jobs in the full spectrum of the materials value chain

HIGH PERFORMANCE ALLOY DOMESTIC VALUE CHAIN

Regional Impacts

- Mining
- Alloy Production
- Shaping
- Finishing
- Component
- Fossil Energy Plant & Transmission

VALUE

- Mining: $1.3B
- Alloy Production: $2.5B
- Shaping: $2B
- Finishing: $10.7B

JOBS

- Avg Salary:
  - Mining: $78k
  - Alloy Production: $58k
  - Shaping: $56k
  - Finishing: $57k
  - Component: $79k
  - Fossil Energy Plant & Transmission: $57k

TOTAL VALUE = $16.5 Billion
JOBS = 43,719
AVERAGE SALARY = $65k per year
Portfolio proximity to manufacturing value chain

Research projects are primarily located in states with strong industry presence, where research funding can contribute to building strong regional ecosystems.
ADVANCED ENERGY MATERIALS – WORKFORCE SUPPORT

HIGH PERFORMANCE MATERIALS SUPPLY CHAIN DEVELOPMENT

• Fossil Energy and the Appalachian Regional Commission (ARC) issued a joint RFP for the Advanced Welding Workforce Initiative (AWWI) to invest over $1 million in education and training for advanced technical workers in Appalachia. Five awardees are developing training programs for the high-tech welding skills needed to use advanced materials to ensure the successful operation of low- and near-zero emission power plants. Workers with similar skills are needed in the automotive, aerospace, aviation and petrochemical industries.

ADVANCED WELDING WORKFORCE INITIATIVE Awardees

• Robert C. Byrd Institute at Marshall University in Huntington, WV will educate and train Central Appalachians in advanced welding methods needed in manufacturing, fossil power plant, aviation, automotive, and petrochemical industries. The program will offer hands-on training through classrooms and a new mobile training laboratory funded by the award.
• Southeast Community and Technical College in Cumberland, KY will update and expand the welding program on its Harlan campus, including increasing the number of scholarships available.
• Westmoreland County Community College in Youngwood, PA will expand training and add new welding certifications, including the joining of advanced alloys using robotics.
• Calhoun Community College in Decatur, AL will strengthen robotic welding programs on its Decatur and Huntsville campuses.
• Belmont College in St. Clairsville, OH will partner with Eastern Gateway Community College and Ohio Mid-East Career and Technology Center to launch the Eastern Ohio Appalachia Pipe Welding and Fabrication Project.
AWWI AWARDEES

High Performance Materials Value Chain Employment summary

AWWI Awardees