

Statewide Energy Education & Workforce Initiative

Overview

Utah State University proposes Utah's first statewide, rural-focused energy engineering program to serve as the Energy Knowledge Hub for all of Utah. The program will enhance the state's energy economy and help develop a next-generation workforce better equipped to leverage Utah's energy portfolio.

Background

Utah is rich in energy resources but lacks the energy knowledge hub needed for a more robust energy economy. A future with enhanced economic opportunities for all Utahns requires a workforce with advanced engineering training and an entrepreneurial spirit to drive innovation. Knowledge of Utah's energy sector, as well as limited research in this area, limits economic opportunity for residents and constrains advances in production.

- **Coal, oil, and natural gas** comprise a key portion of the state's energy economy. New research and innovation will support improved technology and advance energy security.
- **Advanced small module** reactors offer a promising solution to safe and reliable nuclear energy.
- **Minerals such as lithium, copper, cobalt, and nickel** are used to manufacture batteries for electric vehicles and everyday electronics. Utah is uniquely positioned to benefit from mineral extraction.



Why USU

- The bulk of energy and mineral extraction happens in Central and Eastern Utah where residents have limited access to engineering education, but where USU has facilities to educate our workforce. With campuses in Price, Vernal, and Blanding (and 29 other locations), **USU is uniquely positioned to administer the state's first comprehensive energy workforce initiative.**
- USU has **systemic experience statewide, including technical education focused on advanced manufacturing and specialized welding**, a long engineering tradition and award-winning faculty, as well as significant experience partnering with industry and world-class research facilities.
- With our proximity to Idaho National Laboratory, USU **ranks in the top six nationwide for nuclear engineering research funding** from the U.S. Department of Energy.



Objectives

- **Prepare tomorrow's energy engineers** who bring expertise and new insight to energy policy and economics.
- **Provide a suite of education options**, including certificate, associate, bachelor's, and graduate degree programs to build a workforce for all levels of energy development.
- Graduate engineers with **broad training and expertise** to guide Utah's energy future while improving quality of life in rural communities.
- Serve Utah's **rural workforce with advanced technical knowledge and opportunities** for entrepreneurship and wealth building.
- **Leverage the expertise and resources** of the USU Bingham Research Center in Vernal and the San Rafael Energy Research Center in Emery County.
- Pioneer **innovative technologies and market-relevant insight** to inform decision-makers and better predict energy supply and demand issues.
- Help Utah **navigate forthcoming transformations** in the energy and mining sectors to better predict economic risk and opportunities.



REQUEST:

- **\$2.1M** ongoing
 - » Supports up to nine full-time engineering faculty and an academic advisor: five faculty in Blanding, Price, and Vernal campuses; four faculty at Logan campus.
- **\$450,000** one-time
 - » Upgrade existing Utah State facilities and purchase new equipment for energy research.

Broad Industry Support

- Rocky Mountain Power
- Utah Mining Association
- Savage
- Utah Petroleum Association

