

PROJECT FACTS

UNIVERSITY OF KENTUCKY CENTER FOR APPLIED ENERGY RESEARCH

The University of Kentucky **Engineered Fuels lab** produces transportable, high-value fuel briquettes and pellets, chiefly from low-value or waste fine coal and biomass.

Engineered Fuels lab staff has collaborated with state, federal, and industrial partners on numerous briquetting and pelletization projects culminating in three licensing agreements.

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ENGINEERED AND UTILITY FUELS

The facility contains briquette-testing equipment (compressive strength meters and test stand, attrition mills, drop shatter apparatus, etc.), controlled environment chambers for curing, and a vibrating screener for fines removal. A wide range of equipment for chemical and physical testing and for sample preparation is also available.

The services of the briquetting and binder development facility are available for industrial, academic, or government projects. Coupled with support from other sectors within the CAER, the Engineered Fuels lab contains the capabilities and expertise to conduct projects ranging from small-scale laboratory research to larger-scale production runs including the critical aspects of feedstock preparation, pellet/briquette production, and product evaluation.

Roll Briquetting:

- High throughput
- Low to moderate energy
- Moderate equipment erosion
- Suitable for coal/biomass blends

Biomass/Fine Coal Briquettes:

- Reduction in emissions relative to coal
- Can be transported, stored, utilized in existing equipment used for coal
- Applicable to raw or torrefied biomass
- Avenue to market waste coal fines from waste impoundments and gob piles

Contract Research:

- Binder/feedstock evaluation
- Briquette production and testing
- Pan palletization

