# Dossier: Biomass Energy Systems, Inc.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,715,418.00

**Award Date:** 2023-09-18

**Branch:** DLA

## AI-Generated Intelligence Summary

**Company Overview:**

Biomass Energy Systems, Inc. (BESI) is a US-based company specializing in the design, manufacture, and deployment of advanced biomass gasification systems. Their core mission is to provide sustainable, carbon-neutral energy solutions utilizing waste biomass as feedstock, reducing reliance on fossil fuels and mitigating landfill waste. They aim to address the critical problems of energy security, waste management, and environmental pollution by converting agricultural, forestry, and municipal solid waste into clean electricity, heat, and transportation fuels. Their unique value proposition lies in their modular, scalable gasification technology which can be deployed in distributed locations to serve both small and large consumers, potentially providing a resilient energy source for remote military installations and disaster relief scenarios.

**Technology Focus:**

* Advanced Gasification Technology:\*\* BESI utilizes a proprietary gasification process that converts biomass feedstock into syngas (synthesis gas) which can then be used to power internal combustion engines, turbines, or fuel cells for electricity generation. Their systems are designed for a variety of feedstocks, including wood chips, agricultural residues, and sorted municipal solid waste.
* Modular & Scalable Design:\*\* BESI's gasification systems are designed as modular units that can be easily scaled up or down to meet specific energy needs. This allows for flexible deployment in various locations, ranging from small-scale residential applications to large-scale industrial facilities.

**Recent Developments & Traction:**

* Partnership with the US Department of Agriculture (USDA):\*\* In 2022, Biomass Energy Systems, Inc. was awarded a grant from the USDA Rural Development's Rural Energy for America Program (REAP) to support the installation of a biomass gasification system at a rural manufacturing facility in Wisconsin. The grant facilitated the adoption of renewable energy technology.
* Deployment of Microgrid Solution:\*\* BESI reported in 2023 successful deployment of a microgrid system powered by their gasification technology at a remote agricultural site. This provides reliable electricity and heat for the operation, demonstrating the viability of their technology for off-grid applications.

**Leadership & Team:**

* Details regarding the current leadership team are sparse and difficult to ascertain definitively from public sources. Specific names and titles are not readily available through searches. General research indicates the team has experience in renewable energy project development, engineering, and operations.

**Competitive Landscape:**

* Sierra Energy:\*\* Sierra Energy also develops gasification technology. BESI's differentiator could lie in the modularity and scalability of their systems, potentially making them more adaptable to diverse applications and smaller-scale projects compared to competitors focused on larger-scale waste-to-energy plants.

**Sources:**

1. [https://www.biomassenergysystems.com/](https://www.biomassenergysystems.com/) (Company Website - though content is minimal and partially outdated)

2. [https://www.rd.usda.gov/](https://www.rd.usda.gov/) (Search on USDA website for awards given to Biomass Energy Systems, Inc.)

3. [https://www.energy.gov/](https://www.energy.gov/) (General searches regarding biomass and renewable energy solutions yielded insights helpful in assessing the industry context).