

# Heartland Biogas, LLC



## Heartland Biogas -Project Design Highlights

- Heartland is the largest co-digestion anaerobic digester project in the world.
- Heartland is a high ratio co-digestion anaerobic digester utilizing regionally sourced organic material.
- Heartland utilizes an average of 180,000 gallons per day of dairy manure and 240,000 gallons per day of substrate (average of 12% TS).
- Substrate provided to Heartland includes source separated organics (SSO), food processing waste, DAF and other organic waste streams
- Heartland operates in the thermophilic temperature range of 131 F
- Heartland has 10 MG of active bio-reactor capacity and 8.5 MG of polishing covered lagoon capacity.
- Raw biogas is upgraded to pipeline quality gas via three separate Greenland Totara plus wet scrubbers rated at 1,600 (each) dktherms per day.
- Phase 1 of the Heartland Project will produce 4,700 dktherms per day of pipeline quality Renewable Natural Gas (RNG).
- This is enough RNG to produce 28MW's of power.
- The Project will also produce 300-340 cubic yards per day of valuable digested solids that are sold as Colorado Peat.

## Heartland Project Team

The Heartland Project was developed by AgEnergy USA, LLC. AgEnergy and its members have 28+ years of experience successfully developing, financing and managing the construction of complex energy infrastructure projects.

The AgEnergy Teams experience includes the development of natural gas CT and CC projects, biomass projects, coal projects. Team experience also includes the provision of Operational services and management of resource recovery facilities, hydro portfolio's, AD projects, etc.

AgEnergy is focusing on development of large centrally located urban AD projects operating on organic waste streams. AgEnergy is pursuing projects in Seattle, Boston, NYC and Philadelphia.

- Numerous communities in the Denver metro region have voluntarily decided to manage their organic waste streams by collecting and sending their organic material to the Heartland project.



### Regional Benefits of the Heartland Project

- More effective and lower cost solution to organics waste management
- Provides capacity to achieve massive carbon reduction goals
- Provides base load generation of Renewable Natural Gas and corresponding base load production of renewable energy
- Provides a low cost, base load, renewable alternative to solar and wind generation.
- Provide capacity for industry and communities to achieve long term sustainability goals
- Provides regional, high paying jobs during construction and during the long term operation and maintenance phase
- Creates an organic soil amendment product that is a natural byproduct of the AD process and that is a high demand organic product used in the organic foods production sector.

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