CAPTURING THE HEAT WITH BIOPOWER SYSTEMS

New Jersey's Clean Energy Program offers incentives for biopower systems that also capture the waste heat for heating, cooling or process applications.

Biomass fuels are used most efficiently and beneficially when generating both power and heat through the use of highly efficient combined heat and power (CHP) applications. CHP, also known as cogeneration, is the simultaneous production of electricity and heat from a single fuel source. CHP is not a single technology, but an integrated energy system.

Biopower Sources

Unlike solar and wind, biopower can come from a multitude of sources. The following are just a few examples of biopower projects that are supported by *New Jersey's Clean Energy Program:*

- Wastewater treatment facility capturing anaerobic digester gas;
- Food manufacturers, supermarket or animal farms using aerobic digestion to gasify organic waste;
- Lumberyard, forestry management unit or municipality directly combusting or gasifying wood waste;
- Commercial printers and publishers combusting or gasifying paper and cardboard waste into power;
- Landfill converting methane gas to power; and
- Big box retailer combusting or gasifying paper and cardboard waste into power.

If you think you have a potential biopower project, call 866-NJSMART today to get started.

Reduce your energy usage

Regardless of the biopower fuel source, an integrated energy system that combines both heat and power provides for the greatest efficiency at the lowest cost. Adoption of clean, renewable energy marks a big step toward climate change solutions. However, the cleanest kilowatt is the one not used.

***New Jersey's Clean Energy Program* offers energy efficiency programs, information and resources to help residents, businesses, municipalities and other organizations reduce their energy consumption. By implementing energy efficiency measures first, you not only reduce your overall energy use, but you may also reduce the amount of renewable energy capacity that you need, saving you money for years to come. Visit NJCleanEnergy.com to get started.**

Learn about more renewable energy options

There are additional renewable energy technologies to help us meet our energy goals and reduce our use of fossil fuels.

For more information on renewable energy initiatives, call 866-NJSMART or log on to NJCleanEnergy.com/RE.

NJCleanEnergy.com

1035-0713

RENEWABLE ENERGY

Biopower – Turning Organics into a Renewable Energy Resource

Capitalize on sustainable resources

It's a smart way for New Jersey municipalities, farms and businesses to reduce their carbon footprint, stabilize electric costs, preserve natural resources and support the economy.

NEW JERSEY IS CAPITALIZING ON SUSTAINABLE, ORGANIC RESOURCES

Municipal and industrial facilities, waste water treatment plants and farms across New Jersey are already seeing the benefits of biopower.

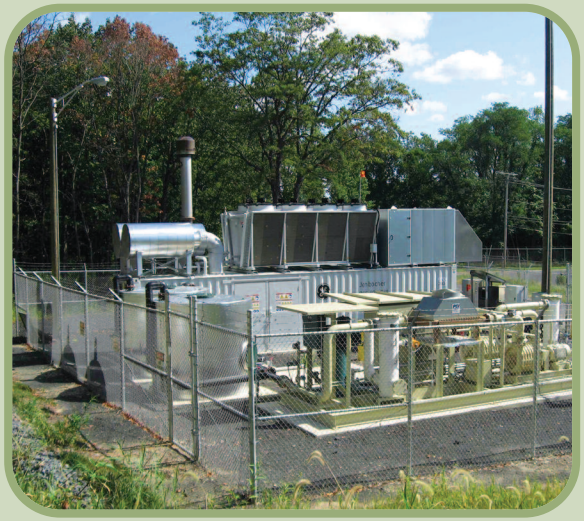
- Turns waste into a resource
- Reduces pollution
- Lessens our dependence on fossil fuels
- Strengthens our commitment to our planet's future
- Supports local jobs and our State's economy

WHAT IS SUSTAINABLE BIOPOWER?

Organic matter that is available on a sustainable basis, including energy crops, urban wood waste, food processing residue, grassy and woody plants, residues from agriculture or forestry, or the organic component of municipal and industrial waste is considered sustainable biomass or biomass feedstock.

Biomass can be converted to a synthetic gas, like landfill gas, methane gas or energy, through a conversion process of either gasification, direct combustion, pyrolysis or anaerobic digestion, among others. The gas is then used to create electricity by technologies such as fuel cells, microturbines and combustion turbines.

The New Jersey Legislature has classified certain types of sustainable biomass as a Class I Renewable Resource. Project developers using any other form of biomass must first receive a sustainability determination from the New Jersey Department of Environmental Protection.



Monmouth County's one megawatt sustainable biopower project produces enough energy to support their materials processing and recovering facility.

GETTING STARTED

The New Jersey Board of Public Utilities and *New Jersey's Clean Energy Program™* make it easy to get started by offering financial and technical assistance. Additional information and applications can be found at NJCleanEnergy.com/RE.

FINANCING YOUR SYSTEM

Rebates –

New Jersey's Renewable Energy Incentive Program (REIP) provides financial incentives that reduce the cost of installing sustainable biopower projects. Biopower projects include technologies such as microturbines or fuel cells which produce electricity from sustainable biomass that has been converted to a biogas, such as landfill or methane.

Tax Incentives –

Biopower projects may be eligible for a federal investment tax credit and/or a renewable energy production tax credit. An accelerated depreciation schedule may also be available for businesses. Visit irs.gov for more information about federal tax incentives or speak with a tax specialist.

Class I RECs –

Eligible biopower project owners in New Jersey with electric distribution grid-connected systems are eligible to generate Class I Renewable Energy Certificates (RECs). RECs can be sold or traded separately from the power, providing system owners with a recurring source of revenue to help offset the cost of installation, operations and maintenance.

Net Metering –

When a renewable energy system produces more electricity than the customer actually uses, the customer will be compensated with credits at the full retail value of the electricity production over and above what they use. Production in excess of a customer's annual usage is credited at a wholesale rate.

BPU

New Jersey's Clean Energy PROGRAM™

Your Power to Save

njcleanenergy.com

NJCleanEnergy.com