

Biomass Energy Cogeneration

DEGS of St. Paul, LLC

St. Paul, Minnesota



Duke Energy Generation Services (DEGS) and a District Energy St. Paul (DESP) affiliate, Market Street Energy Company, entered into an agreement with Northern States Power (NSP) to provide electricity produced from St. Paul area wood waste biomass. Electricity is generated in a combined heat and power (CHP) plant next to District Energy St. Paul's downtown thermal plant. The project sells heat under a 20-year contract to District Energy St. Paul. This project is part of the largest wood-fired district energy system in the country.

The cogeneration project is jointly owned with Market Street Energy Company, a wholly owned subsidiary of District Energy St. Paul, and burns St. Paul area wood waste biomass. A substantial portion of the wood waste comes from downed trees, trimmings and branches from the Minneapolis/St. Paul area. Making use of this wood waste also solves what had been an ongoing environmental challenge, since much of the debris previously went to landfills or was burned in open fires. District Energy St. Paul also purchases a portion of its steam and hot water requirements from the project.

The project's electric power is used in the Minneapolis/St. Paul area and avoids the transmission losses associated with remotely generated electricity. The project significantly reduces air pollution by displacing 110,000 tons of coal that was previously burned every year. This reduces sulfur dioxide emissions by roughly 600 tons per year and reduces fossil fuel derived carbon dioxide emissions (CO₂) by roughly 283,000 tons per year.

District Energy St. Paul is a customer-owned utility providing cost-effective, reliable and convenient heating and cooling services. Its diverse customer base includes business, institutions and residential buildings, as well as city and state facilities.

Technologies:

- Combined heat and power biomass generation

Emissions Reduction:

- Approximately 600 tons per year of sulfur dioxide
- Approximately 283,000 tons per year of carbon dioxide

Products:

- Electricity and thermal energy (hot water and steam)

Contact Information:

Dave Ledonne, Vice President, Operations

Duke Energy Generation Services

139 East Fourth Street, Mail Drop EA502, Cincinnati, Ohio 45202

513-419-5930

dave.ledonne@duke-energy.com

www.de-gs.com

*Duke Energy
Corporate Headquarters
526 South Church Street
Charlotte, NC 28202-1802*

www.duke-energy.com