

**Lower St. Anthony Falls Hydroelectric Facility
Minneapolis, Minnesota (Congressional District 5)**

Project: Build a 9.6 MW hydroelectric facility at the existing United States Army Corps of Engineers' Lower St. Anthony Falls Lock & Dam on the Mississippi River in Minneapolis

Cost: Estimated at \$35 million

Jobs: Creates 2 full time jobs; construction activities will create between 25-35 jobs for an 18-24 month period (nearly 85,000 man hours)

Background:

Prior to 1987, a turn of the century powerhouse operated at the Lower St. Anthony Falls site. This project was part of the Northern States Power (NSP) St. Anthony Falls Hydropower development. NSP elected not to rehabilitate the project after it ceased operating in 1987. Instead, NSP constructed an embankment in order to restore the navigation pool.



Using an existing FERC license, this project will employ innovative Straflow Matrix turbine technology and is expected to generate about 63 GWh of clean renewable energy annually, the equivalent of 37,000 barrels of oil.

Description:

The project will consist of the following elements:

- Build a reinforced concrete bulkhead in the existing auxiliary lock chamber
- Install sixteen VA Tech Straflow-Matrix turbine/generator units
- Furnish and install eight draft tube gates on the downstream face of the bulkhead with each gate supplying the primary operational control for one turbine/generator module.
- Build unit control systems within a gallery in the concrete bulkhead
- Furnish and install an overhead bridge crane to facilitate initial construction and future turbine/generator maintenance activities
- Furnish and install: two pre-engineered control/storage buildings; site utilities site work
- Demolish existing USACE shop building
- Grid interconnection requires construction of an electrical switchyard, underground conduit runs and a 4800' transmission line (line to be constructed by Xcel Energy/Northern States Power)

Current Status:

- The following licenses and permits have been approved:
 - o FERC license (Feb 21, 2006)
 - o Interconnect Agreement (Jun 25, 2008)
 - o Line Lease Agreement (Jun 25, 2008)
 - o PPA (Jan 9, 2007)
 - o Access, Design and Construction MOA with the USCOE (Sep 28, 2006)
 - o The Minnesota Parks & Recreation Board Permit For Construction (Jan 1, 2009)
- Final Corps review and approval of project design and planning (Mar 5, 2009)
- Operational MOA between Corps and SAF will be required before in-service date

Next Steps:

- Complete off-site fabrication of turbine-generator units
- Start initial site preparation work in 2009
- Construction expected to start mid-May 2009
- In-service date expected October 2010

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