

Hastings will benefit from new 'hydro' power

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Hastings will soon be home to some new technology in the world of hydroelectric power. The Hydro Green Kinetic Hydropower Installation will look like an ordinary barge from above the surface. Down below, it will be doing something most barges can't — generating electricity.

The barge uses turbines mounted on the bottom of its hull to harness the kinetic energy in currents beneath the surface of the water. The turbines then spin electrical generators located on the barge's surface. The barge will have a generating capacity slightly larger than 100 kilowatts, or about 1/40 the size of the city's existing four-megawatt (MW) hydropower plant.

The proposed site for the installation is the tailrace of the existing hydroelectric plant in Hastings. The barge's location would be within 250 feet of an existing substation, grid connection and metering facility, all of which help to reduce costs and ease the installation.

A few other sites were looked at in the process, including the Ford Dam in St. Paul and St. Cloud hydroelectric power plant.

In the end, the Hastings location was chosen due to its expanse of open water during the winter months and the existence of usable structures to tie off the barge.

The concept was unanimously approved by the Hastings City Council earlier this month. The next step is for the city attorney to draft an agreement between Hydro Green and the city to install the new technology. As part of the agreement, the revenue generated by the electricity would be split between Hydro Green and Hastings, generating about \$10,000 annually for the city.

Wayne Krouse, the president of Hydro Green, said gaining approval from the city was the second most significant event in the history of the company after getting the patent on the technology.

"Pardon the pun, but it was a watershed event," Krouse said.

Hastings is not spending any money on the project. As part of the installation process, Hastings needs approval from the Federal Energy Regulatory Commission (FERC), and any fees incurred in applying for approval will be paid for by Hydro Green.

Hydro Green is using this installation to determine the feasibility of further developments in this type of kinetic hydropower technology, as well as gathering field data and operational information to aid the development of future systems.

Krouse hopes the barge will be in the water and producing electricity by this time next year.