

SAGKEENG HYDROKINETIC PROJECT SUMMARY

New Energy Corp has been awarded a contract to provide the Sagkeeng First Nation with a 25-kW Water-Current Turbine on the Winnipeg River. The floating system will provide clean power to the community, starting in the Spring of 2018. This project will serve as a blueprint for the installation of hydrokinetic systems at other First Nations communities, especially those currently served with diesel power. This unique, first-of-a-kind project was approved through the Build in Canada Innovation Program, administered by Public Works and Government Services Canada, with the support of Indigenous and Northern Affairs Canada.



PROJECT STATUS

The EnviroGen-025 system successfully passed validation testing in Manitoba during September 2017. The turbine and barge were deployed at the Canadian Hydrokinetic Turbine Test Center (CHTTC) using a new custom trailer, which allows these systems to be launched as easily as a recreational boat, without use of heavy equipment.

Following several days of performance testing and validation, the system was put into winter storage at the CHTTC location in Seven Sisters, Manitoba. Its final location will be the Manitou Rapids on the Winnipeg River.



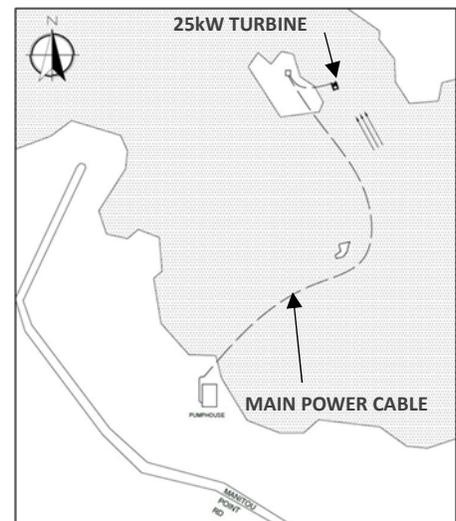
Deployment using custom trailer



Drilling anchor pins in island at Manitou Rapids

Phase 1 site preparation, performed in October 2017, consisted of preparing the island for the power cable and junction box. A series of rock anchors, drilled and epoxied into place, provide the mounting for cable clamps and the junction box.

Phase 2 will begin in the Spring, after the ice has melted. The first task will be installation of the power cable, which runs from the pumphouse to the island as shown in the diagram. The second task will be laying three, environmentally friendly, 5,000 lb. granite anchor blocks, which will not impact the local ecosystem. The blocks are being stored in Sagkeeng, and the power cable at the University of Manitoba.



Sagkeeng Turbine Site Diagram

With Site preparation complete, the final installation and commissioning is ready to commence in Spring 2018. The barge and turbine will be towed out and connected to the anchor blocks, while a short power cable will connect the turbine to the island.

THE HYDROKINETIC ADVANTAGE

All forms of renewable energy have a place in meeting the world's growing energy needs. While solar and wind are the dominant renewable sources, the energy provided is often periodic and unpredictable. Energy from flowing water is typically much more predictable, apart from seasonal variations or unusual events.

For the most part a river flows 24-hours a day. Canals and controlled rivers are even more predictable as they are managed by a system operator. Base load power from a Water Current Turbine can have a profound effect on remote communities that do not have access to reliable power. Critical applications such as remote medical support and schooling, refrigeration, and Internet access are a few examples. The project at Sagkeeng establishes a precedent for similar projects in other North American First Nations communities where noisy, dirty, and costly diesel generators are often the main power source.

ABOUT NEW ENERGY

New Energy Corp manufactures and distributes small scale Water-Current Turbine systems for power generation. Proprietary EnviroGen systems convert kinetic energy in water currents into electricity, the same way wind turbines convert kinetic wind energy. The EnviroGen system is an economical and easy to maintain hydroelectric generating system with an extremely small environmental footprint, which can be used in a variety of settings where traditional hydroelectric plants are not practical. Systems can be installed in freshwater rivers, canals, and industrial outflow applications, as well as tidal currents.

“You can produce power 24-hours a day, because rivers typically don't stop running.” Clayton Bear, CEO

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