The CORE Project

St. Lawrence River – Cornwall, ON

Through the Cornwall Ontario River Energy (CORE) Project, Verdant Power Canada will generate renewable and reliable clean energy from the free-flowing waters of the St. Lawrence River near Cornwall, Ontario. The project also will feature the first operation of Verdant Power's Free Flow system in a continuous-flow river setting—a renewable energy resource that could provide nearly '24-hour power' without the use of dams or major civil works.

The CORE Project will operate along the following timeline:

- **Phase 1 (2007 - 2010):** Pilot demonstration of the Free Flow system in a river setting;
- **Phase 2 (2010 - 2012):** Commercial build-out of the project, potentially expanding up to 15 MW of installed capacity.

CORE Project Team

- City of Cornwall
- Mohawk Council of Akwesasne
- St. Lawrence College
- St. Lawrence River Institute of Environmental Sciences
- The Thompson Rosemount Group
- Water and Earth Science Associates Ltd.

In 2008, Verdant Power Canada was awarded major funding for Phase One of the CORE Project from the Ontario Ministry of Research and Innovation's "Innovation Demonstration Fund," as well as the Ontario Power Authority. The project has received strong community support and has catalyzed the establishment of a world-class team of partners that will contribute to the success of the project and the growth of the marine renewable energy industry throughout Canada.

Verdant Power's Free Flow system operates fully underwater, without the use of dams, and can be scaled to operate in a wide variety of settings.

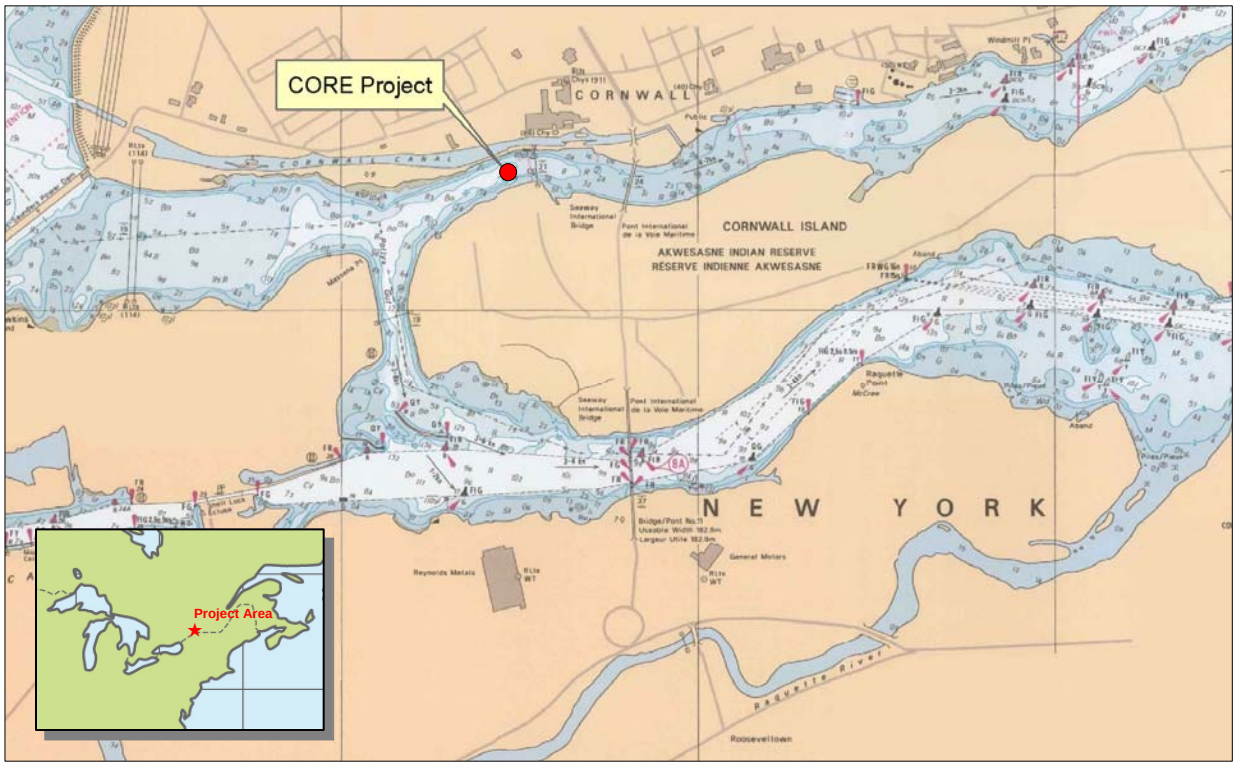
Free Flow System

Verdant Power's Free Flow system employs arrays of three-blade, horizontal-axis turbines that convert the kinetic energy of tidal and river currents into electricity. The systems do not require dams or other major civil works, and do not redirect the natural flow of the water.

Installed fully underwater, Verdant Power systems are silent and invisible from shore. The systems are also modular and scalable, offering a wide range of potential applications across the world – from placement directly within villages and cities to deep-sea operation at remote ocean sites.

Verdant Power Canada

Based in Burlington, ON, Verdant Power Canada is a subsidiary of Verdant Power Inc, a world leader in the design and application of marine renewable energy solutions. Verdant Power Canada's goal is to establish Canada as a global centre for the operation and export of marine renewable energy systems, strengthening the country's clean energy infrastructure, while also sparking economic development in local markets.



Advantages of Verdant Power Systems

- ✓ **Out of Sight and Silent**: Verdant Power systems operate silently and automatically, fully underwater and out of sight from shore. This aspect of the technology reduces the visual disruption and 'NIMBY' issues related to other sources of renewable energy, especially wind farms.

- ✓ **Renewable and Predictable Energy:** Water currents provide a predictable, if not constant, source of renewable energy. This creates an advantage for Verdant Power technologies over wind and solar systems, which offer intermittent power more subject to daily changes in weather and blackout scenarios. In fact, Verdant Power anticipates that its river-based systems will achieve 80-90% capacity factors, approximately double those of wind and solar power systems.

- ✓ **Simple and Scalable**: Verdant Power systems are simple and modular in design and can be scaled to produce cost-effective power at a wide variety of sites—from placement directly in population centers to use in deep offshore ocean locales. The simple nature and few moving parts in the systems also decrease operations & maintenance costs. Additionally, the systems do not require dams, impoundments or other major civil works, thus causing minimal public and environmental impact and minimizing upfront capital costs—an aspect that makes them especially suitable for use in developing countries.

- ✓ **Placement in Population Centers:** Because of their minimal public impact and scalable nature, Verdant Power systems can be placed directly in population centers ranging from major urban areas to small villages. This not only provides power where it is needed most, but, by eliminating the need for transmission lines, the technology is also safer, more energy efficient and cost-effective.

- ✓ **Clean Water Integration**: Simply designed and already deployed in water, Verdant Power systems can be integrated with water purification technology. This further enhances the systems' applicability in developing countries, which report the world's highest demands for both clean energy and water.