



## **Ontario Waterpower Association**

### **Information Briefing Note**

Overview of Renewable Energy Opportunities on the Trent- Severn Waterway

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- More than two-dozen waterpower facilities in Ontario occupy federal lands on the Trent-Severn and Rideau systems. The vast majority of these are situated on the Trent-Severn Waterway (TSW), spanning from the Big Chute facility at Severn Falls to the recently re-developed Sonoco station at Trenton.
- In total, these facilities account for almost 100 MW of installed capacity and annually produce, on average, 500,000 MWh of clean, renewable energy. This represents an annual offset of approximately 40 million kg of CO<sub>2</sub> – roughly equivalent to the annual emissions of 100,000 cars.
- Water management across the system is a shared responsibility, primarily between Parks Canada and waterpower producers. Waterpower interests range from the former provincial utility (Ontario Power Generation) to municipally-owned facilities (Orillia, Peterborough) to private investors (Shaman, Innergex, Algonquin).
- The waterpower industry has been actively engaged in discussions with Parks Canada for some time in order to seek operational improvements. It is the consensus of the producers that there are immediate improvements possible that would benefit renewable energy production without affecting other resource use values, including those related to navigation.
- Relatively modest modifications to operational regimes can create substantial opportunities for increased production of renewable energy from existing facilities. It is conservatively estimated that operational efficiencies could result in a 10-20% increase in energy production from existing facilities on the TSW.
- Moreover, there are new developments being actively pursued on the TSW and re-development opportunities across the system. For example a proposal at locks 22 and 23 is currently at the Environmental Assessment stage. This development alone is expected to add another 30,000 MWh of new renewable energy to the TSW's output. Recent discussions with Parks Canada confirm that several other proposals have been received.
- With proactive public policy defining renewable energy as a key objective for the TSW, it is reasonable to expect that, collectively, efficiency improvements, re-developments and new developments could increase renewable energy production by more than 50%.