

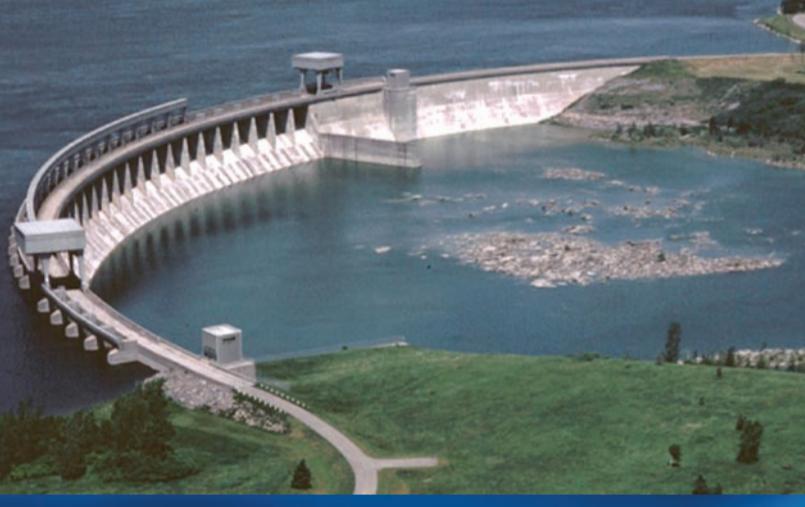
# Hydroelectric Power



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## Who are we?

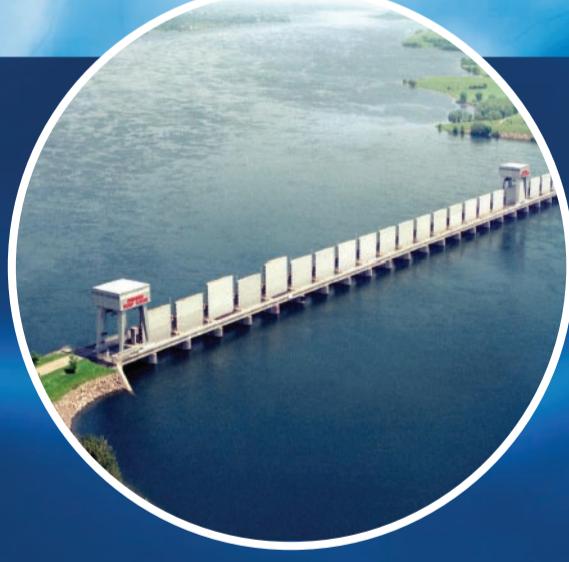
The Hydroelectric Power Technical Work Group consists of representatives from Hydro Quebec (HQ), Ontario Power Generation (OPG) and the New York Power Authority (NYPA), which are public utilities owned by the provinces of Quebec and Ontario and the State of New York.



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## How do water levels in Lake Ontario and the St. Lawrence River relate to Hydroelectric Power?

- Higher Lake Ontario water levels and St. Lawrence River flows increase the output of generation, and lower outflows reduce generation.
- The flows in the St. Lawrence River provide the source of water for the Saunders-Moses and Iroquois Power Plants near Cornwall/Massena operated by Ontario Power Generation and the New York Power Authority, and for the Beauharnois Power Plant near Montreal operated by Hydro Quebec.
- Water levels in Lake St. Lawrence and in the Beauharnois Canal affect the "head" of the plants. A higher head will produce more megawatts with the same amount of water, and the reverse is true with a lower head.
- Together, these facilities have the potential to generate approximately 3000 megawatts.



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## Why was the Hydroelectric Power Technical Work Group (TWG) created?

The regulation plan directly affects the operations of hydroelectric power. The Hydroelectric Power TWG was created to provide input to the Study Board, and to evaluate the impacts on hydropower issues of proposed changes to the plan. We are focusing our attention on:

- The economic value of power (hydropower offsets more expensive forms of power generation),
- Flow predictability and stability (crucial for pre-scheduled turbine maintenance), and
- Ice cover management for winter operation (to prevent flow restrictions and ice jams in order to allow outflows that follow the regulation plan).

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## What are our goals?

- To maximize the benefits of hydropower consistent with any changes to the plan of regulation, assure flow predictability and stability, and provide flexibility for ice management;
- To increase awareness of the benefits to the environment and the economy of clean, low-cost hydropower; and
- To minimize negative impacts that may arise from proposed changes to the regulation plan.

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## How will we achieve our goals?

We are actively participating in the development and application of recommendations to the Study Board. New York and Ontario are both developing new standards to increase the amount of renewable energy sold into the electricity markets. The need to control and reduce greenhouse gas emissions will increase the importance of hydropower in these markets.