



## REGIONAL POWER INC.

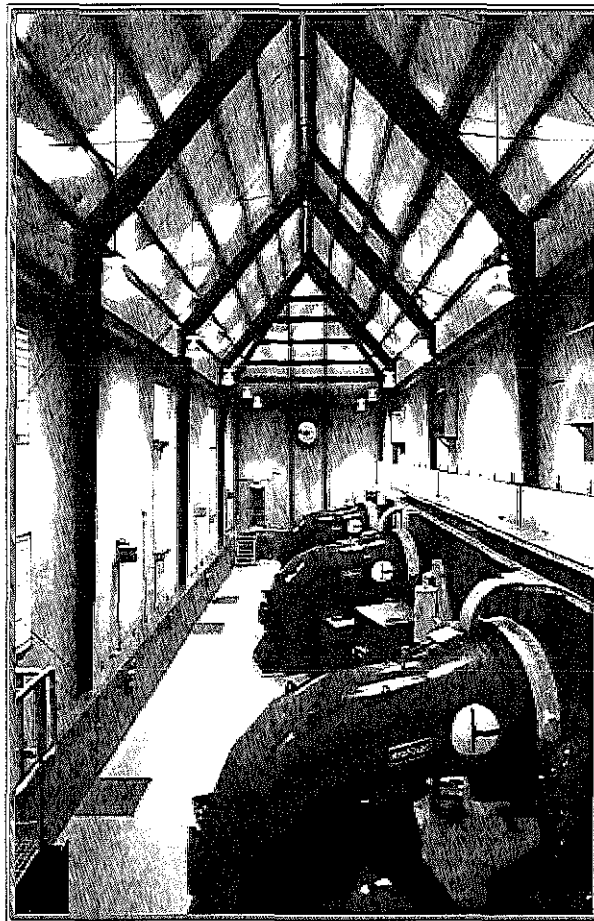
### DEVELOPER AND OPERATOR OF RENEWABLE RESOURCE POTENTIAL

Regional Power Inc., a subsidiary of Manulife Financial, is in the business of developing, building, refurbishing and operating hydroelectric power plants. Currently, Regional operates six plants with a total generating capacity of 36 megawatts. The average annual energy production from the plants is 176,500 megawatt-hours, or enough to supply a town of 30,000 people.

#### Development

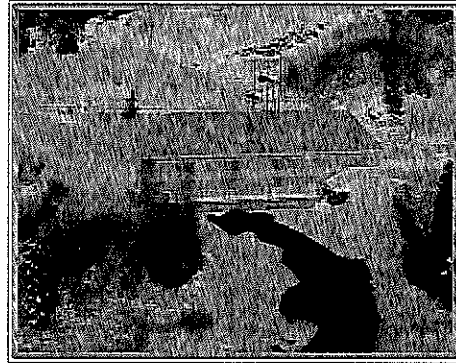
Regional is well known in the industry for its new or "greenfield" hydroelectric developments. These are projects where a virgin site for a proposed development is selected or acquired and a design strategy is formulated to maximize the economic potential and minimize environmental impacts. The power from the proposed development is then marketed, approvals and permits are obtained, and detailed design work is completed. Once this is done, the development is built and commissioned.

Three of Regional's operating plants were "greenfield" developments which started as an idea about how to harness a river or stream and ended up as complete, operating power plants. The Wawatay Generating Station in northwestern Ontario is a 13.5 megawatt facility. The Sechelt Generating Station in southern British Columbia is a 16 megawatt facility and the Hluey Lakes Generating Station in northern British Columbia is a 3 megawatt facility. The expertise for these developments comes from a management team with many years of experience in the development of independent power production.



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Development is impossible without adequate financing to see a project through to completion. Typically, hydroelectric developments cost millions of dollars. The Angliers project is estimated to cost \$55 million. With Manulife as its majority shareholder and financial partner, Regional has the necessary financing for any project which is economic. Manulife has funds under management of more than \$142 billion. Regional is currently developing the Angliers hydroelectric facility, a 25 MW facility in northwestern Quebec, and has several other development opportunities it is pursuing.



### **Operations**

As an independent power producer, Regional has a wealth of experience in operating hydroelectric power plants. The ten operators at Regional's existing plants, together with the management team, represent more than 195 years of operating experience and know-how. This experience is with state of the art technology used in the recent developments at Wawatay, Sechelt and Hluey Lakes, and with the older, reconditioned facilities near the town of Dryden in northwestern Ontario.

### **Environmental**

It is well understood that hydroelectric power is "more friendly" from an environmental perspective than power generated from coal, oil, natural gas or nuclear. However, there are environmental issues that must be addressed in a hydroelectric development. Regional's strength is in finding solutions to these issues through careful site selection, extensive investigation of the environmental conditions, and formulation of a design that specifically answers the sensitive environmental problems. All of the plants operated by Regional have been certified "EcoLogo" under Environment Canada's Environmental Choice labeling program.



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### Green House Gas Emissions

In today's world, no development to generate power proceeds without careful analysis of its green house gas emissions (i.e. volatiles and other gases which pollute the air). An environmentally friendly hydroelectric plant generates no greenhouse gases. Regional's existing sites offset 176,500 metric tons of carbon dioxide emissions per year, when compared to coal and oil fired plants. Our new developments could multiply this savings by three or four times.



### Wawatay Generating Station

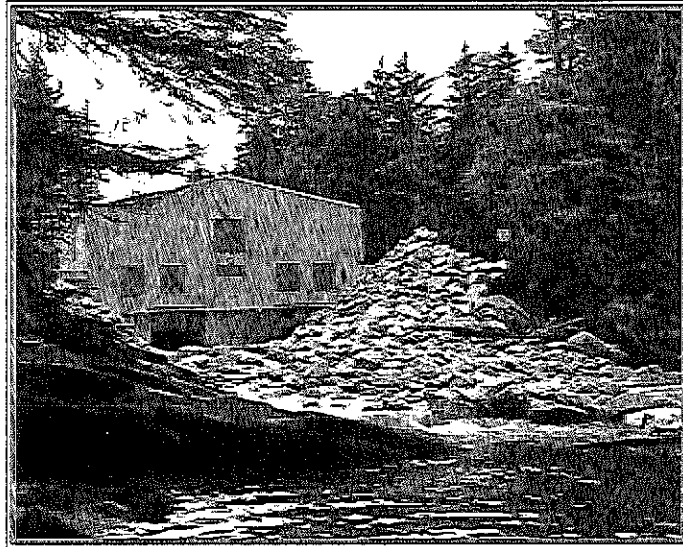
The Wawatay Generating Station is constructed on the Black River, adjacent to a gorge with fast turbulent water that drops approximately 48 meters through steep bedrock walls. An intake structure was constructed upstream of the existing control dam to efficiently direct flow to a combined 625 meter tunnel and penstock. A trifurcation in the penstock occurs to convey water to three horizontal Francis turbine/generator sets contained within the powerhouse structure. The water exits the turbines through a tailrace that was excavated from the riverbank to channel water back to the natural river course. The tailrace was designed and built to improve the spawning habitat for the local fishery (rainbow trout, walleye, sturgeon). The Angliers tailrace will also be designed and built to enhance the local fishery. The plant was designed with an installed capacity of 13.5 megawatts, utilizing a gross operating head (the elevation difference from the intake to the tailrace) of 48 meters and a design flow of 34 cubic meters per second. The electricity generated is sold to Ontario.



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### Sechelt Creek Generating Station

The Sechelt Creek Generating Station is a high head, alpine facility. An intake structure high in the Rocky Mountains collects the water, which then drops 342 meters (gross operating head) through a 4200 m buried penstock. A bifurcation in the penstock distributes the water to two vertical, 8.3 megawatt Pelton turbine/generator sets. The facility generates an average of 90,301 Megawatt-hours of energy annually and the electricity is sold to B.C. Hydro.

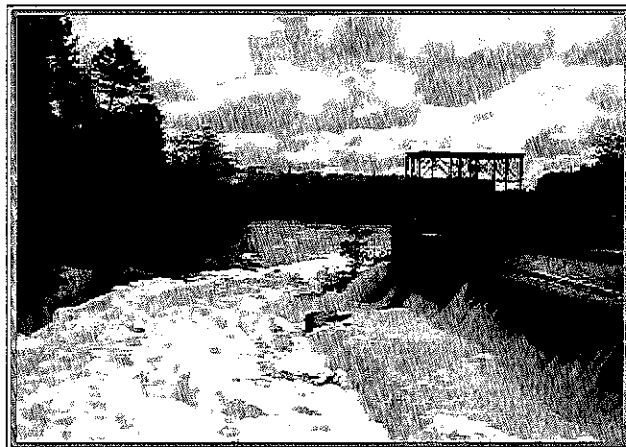


As part of the Sechelt development, a very successful natural salmon spawning channel was established below the powerhouse. The channel was established through the existing forest using local spawning gravel. It is adjacent to Sechelt Creek and draws clean, regulated creek water through a gravity flow pipeline located in the tailrace where the water exits the powerhouse.

### Dryden Generating Stations

Regional operates three generating stations in the Dryden area in northwestern Ontario. They have a combined nameplate capacity of 3.2 MW and generate an average of 20,500 megawatt-hours of energy annually. The electricity generated is sold to Ontario Hydro. The Wainwright generating station is located

on the Wabigoon River, downstream of Wabigoon Lake and the Town of Dryden. The Eagle River generating station, situated on Eagle River, controls the discharge of Eagle Lake. Its sister plant, the McKenzie Falls Generating Station, is located immediately downstream.

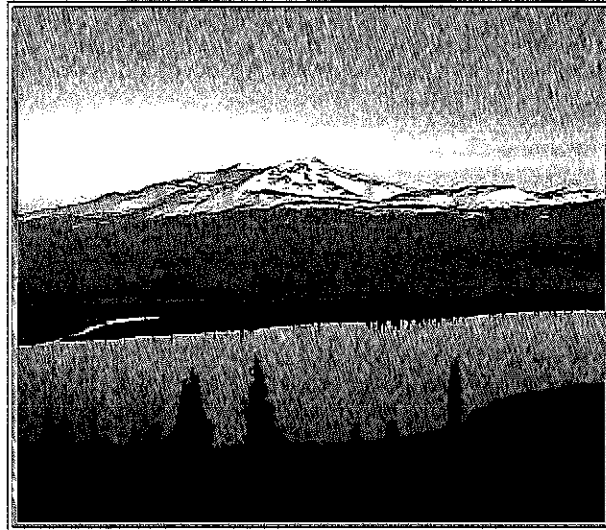


The plants were built in the 1920's and 1930's to provide power to the pulp and paper plant in Dryden. The plants were acquired from CP Forest (Weyerhaeuser) in 1986 and were upgraded and refurbished by Regional. Like Angliers, there is a long and detailed hydrological record for these two watersheds.

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### **Hluey Lakes Generating Station**

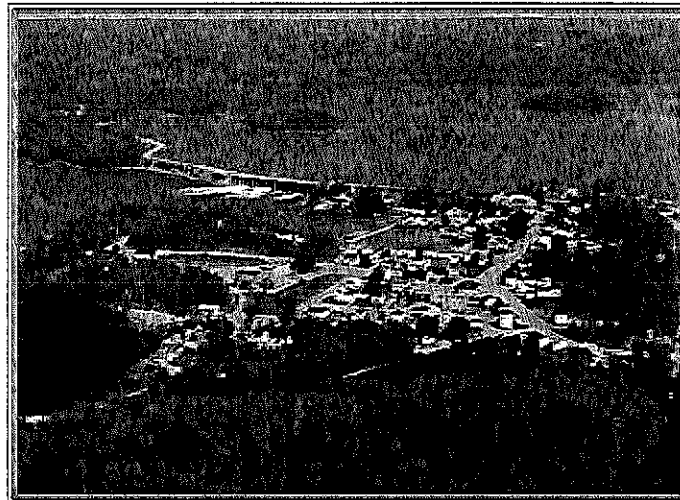
The Hluey Lakes facility is located near the 59<sup>th</sup> parallel in northern British Columbia, 30 km west of the Town of Dease Lake. It has a generating capacity of 3 megawatts. The electricity supplies the needs of the town, offsetting the B.C. Hydro diesel facility which formerly supplied the electricity. Like the Sechelt facility, Hluey Lakes is a high head (400 meters), alpine plant. Average annual energy produced is 6,517 megawatt-hours.



The Hluey Lakes project, which draws its water from two alpine lakes (Tsenglode and Hluey) high in the mountains, was initiated as a greenfield development in 1997 by another developer. The project encountered technical and financial problems. Regional, with the financial assistance of Manulife, was able to solve the problems and complete the project in late 2000.

### **Angliers Development**

Like Regional's other greenfield developments, the Angliers project has been developed in conjunction with significant input from local and regional groups to minimize environmental and social impacts and maximize economic benefits. The proposed project envisages a generating station with a capacity of 25 megawatts. The current cost estimate for the project is \$55 million, of which 60% is expected to be spent in the region. During construction the project is expected to create 100 direct and 150 indirect man years of employment.



The facility will create no changes in the current water management policies or the historical water flows through the Angliers dam. They will continue to be governed by the Ottawa River Control Board. Regional will cooperate with Hydro-Quebec to coordinate the use of the water at their plants downstream. Regional has also undertaken that the development, through the design of its tailrace, will enhance the local fishery.