

Client Project Submission Form

Civil Engineering Design Course ENGI - 8700

Memorial University

Faculty of Engineering and Applied Science

St. John's NL, Canada A1B 3X5

To be submitted to Instructor: Stephen Bruneau, sbruneau@enr.mun.ca, 737-2119

CLIENT

COMPANY	Newfoundland Power Inc.	address	55 Kenmount Road St. John's, NL, A1B 3P6		
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Proposed Project Title

Economic Viability of Small Hydro Plants.

Description of Project

As a hydroelectric plant's original construction nears the end of its useful life, the work required to restore useful life is determined. An analysis of the required capital work is completed to determine if the development is still economically viable, assuming the capital work is completed. Alternatively, there are significant implications (financial and environmental) to decommissioning a plant. The cost of decommissioning CAN tip the scales so that the capital investment is more viable than decommissioning. Newfoundland Power generation section has 23 small hydro plants with an installed megawatt size ranging from 0.35 MW to 14.8 MW. Newfoundland Power has 2 plants for which significant capital cost is forecast in the near future - one located at Victoria (0.55 MW) near Carbonear and one at Fall Pond (0.35 MW) on the Burin Peninsula. A system feasibility review is required for both developments.

Requirement of Student Group

These plants need to be evaluated to determine the scope and cost of the rehabilitation work required. Innovative ideas to improve the plants economic viability are desired. Also required is a report on the decommissioning costs and environmental restrictions/requirements.

COMMENTS, CONDITIONS, RESTRICTIONS QUESTIONS