

New Chelsea Hydro Plant Refurbishment, Schedule B, page 12-13 (\$3,973,000)

Q. Could other portions of the New Chelsea hydro plant refurbishment proceed without the replacement of the protection and control equipment rehabilitation, estimated at \$972,000?

A. Deferring the replacement of the protection and control equipment to some future year would have no impact on the work associated with the replacement of the penstock, dam rehabilitation, valve replacement, and the refurbishment of the runner and wicket gates.

There are impacts associated with deferring the replacement of the protection and control equipment on the generator rewind and substation modification projects. To quantify all of these impacts would require an engineering review of the entire project. However, some obvious impacts are described below.

The \$400,000 project to rewind the generator would need a protection upgrade component added to the scope of work. Placing the newly rewound unit into service with the inadequate generator protection currently in place would violate sound engineering judgement. Additional protection relays would be required to adequately protect the stator windings.

There would be costs associated with interfacing the existing protection and control equipment to the new substation equipment and rewound generator. These costs would be repeated when the protection and control systems are eventually replaced.

The work associated with the protection and control equipment will need to proceed at some time in the near future. When the project does proceed there will be costs associated with the mobilization of the equipment and workforce necessary to complete the work. Completing the protection and control work at the same time as the other projects will allow Newfoundland Power to incur mobilization costs only once.

The project as proposed will require an extended plant shutdown in 2004 to complete the work. Removing the protection and control equipment from the project will have no impact on the duration of the plant shutdown in 2004. If as suggested the protection and control work be deferred to a future year then there would also be an extended plant shutdown required at that time. Any costs, including the possibility of increased purchased power cost incurred by this second plant shutdown would be additional to the project as originally proposed.

Newfoundland Power has included the protection and control equipment rehabilitation work with the overall project to complete all of the work at New Chelsea in the most productive and cost effective manner possible.