Q. GENERAL PROPERTY

DEMAND/LOAD CONTROL – COMPANY BUILDINGS (OTHER), p. 59 of 81, $143,000

PUB 25.0
Although the Cost Benefit Analysis provided uses the cost of automated load control and the possible reduction in demand charges from Hydro as a result of a 2.5 MW reduction in peak, it does not include the cost of the utilization of auxiliary back-up generation as a substitute source of electricity (2006 Load Control Initiative, June 2005, p. 1, para. 2). How does this factor into the analysis?

A. The cost of utilizing the auxiliary back-up generation as a substitute source of electricity is the incremental cost of fuel required to run the generation, less the reduced charges from Hydro for the energy purchases avoided when the back-up generation is in operation.

Based on a diesel fuel cost of 44 cents per litre and 30% diesel plant efficiency, the cost of operating a diesel generator is 13.5 cents per kilowatt hour. The avoided end block energy cost from Hydro is 4.7 cents per kilowatt hour, providing a net cost of 8.8 cents per kilowatt hour. On that basis, operating both the 400 kW Kenmount Road and 145 kW Duffy Place diesels would cost $48 per hour ((400 kW + 145 kW) x 8.8 cents per kilowatt hour).

Assuming that the back-up generation is used between 5 and 10 hours per year to help control peak, the total operating cost of the back-up generation ranges from $240 to $480 per year. This cost does not materially affect the analysis of this project which will provide estimated annual benefits of $200,000 in reduced demand charges from Hydro. The cost of utilizing the auxiliary back-up generation as a substitute source of electricity was therefore not specifically included in the analysis.