

Re: Page B-16, Install Meteorological Stations, \$222,000

Q. Please provide any available reports that support the statement that “In the past decisions to spill would not have been made if the data provided by the proposed stations had been available.”

A. The statement “In the past decisions to spill would not have been made if the data provided by the proposed stations had been available” would be more accurate stated as, “In the past, spill may have been avoided or reduced if the data provided by the proposed stations had been available.”

Though Hydro maintains that the assertion is valid, Hydro does not have reports that directly support the above statement. The support comes from operating experience with Hydro’s various reservoirs. A recent example highlights the importance of the project. Hydro currently has no meteorological observation data anywhere within its Cat Arm watershed. The Cat Arm facility typically generates 650 to 700 GWh per year, representing about 15% of Hydro’s hydroelectric production. With no meteorological observation data within the watershed, Hydro has limited knowledge of how much precipitation is developing over the watershed. Hydro takes a snapshot of snowpack conditions two or three times per winter, but the information value decreases quickly in terms of reservoir management as time passes. Without observation data within the watershed, snowpack accumulation/ablation models yield unreliable results.

In the spring of 2006, Hydro experienced a significant spill at Cat Arm, due in part to poor knowledge of how much water was stored in the snow within the watershed. The spill amounted to 126 MCM with an approximate value of \$9

1 million¹. With one or more meteorological stations located within the
2 watershed, Hydro would have improved knowledge of conditions within the
3 watershed, and would have been in a better position to prevent some portion
4 of that spill. This would have been achieved by increasing production at Cat
5 Arm earlier in the season and where possible reducing production at other
6 facilities. A review following the event concluded that in fact shifting
7 production would have been possible for this event. To accomplish these
8 reductions at other facilities, additional hydrometric data would have been
9 required from a number of watersheds.

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11 Knowledge of precipitation and temperature conditions within each of its
12 reservoir basins is an essential piece of decision-making information required
13 to ensure that Hydro can pursue best use of its hydraulic resources.

¹ Based upon a 630 kWh/bbl conversion factor at Holyrood and a fuel cost of \$50/bbl.