
ELECTRIC GENERAL RATE APPLICATION 2015**Manitoba Hydro Undertaking #18**

Manitoba Hydro to provide a written explanation as to why the costs of Keewatinohk Converter Station increased and Riel Converter Station.

Response:

This undertaking refers to a question on PUB Round II IR 74 a-c, which compares an unapproved 2010 estimate for the Bipole III project, totaling \$4.1 billion, to the current 2014 Bipole III control budget of \$4.65 billion.

The main reasons for the increase to the Keewatinohk Converter Station estimate from the unapproved 2010 estimate to the current 2014 Control Budget are:

- In the 2014 Control Budget the costs for the Keewatinohk 230 kV AC Switchyard are included in the Keewatinohk Converter Stations line item. In the 2010 unapproved estimate this item had been included under the AC Collector System line item.
- Camp infrastructure and camp operations costs have increased since the 2010 unapproved estimate. The 2014 Control Budget is based largely on the actual costs for the camp infrastructure and operations. The unapproved 2010 estimate assumed a lower quality camp (closer to a Wuskwatim type camp), which was modified to ensure labour attraction & retention. Additionally, the 2010 unapproved estimate was based partly on the camp infrastructure being “salvaged” by/for the Conawapa project.
- Contingency for the Riel and Keewatinohk Converter Stations has been re-allocated between the two Converter Stations, with a greater share of contingency included for Keewatinohk compared to the 2010 unapproved estimate.
- Actual contract values for the Keewatinohk Site Development and Keewatinohk 230 kV AC Switchyard have been included as part of the 2014 Controls Budget. These values are greater than the budgetary estimates included in the 2010 unapproved estimate.

The main reasons for the decrease to the Riel Converter Station estimate from the unapproved 2010 estimate and the current 2014 Control Budget are:

- The unapproved 2010 estimate was based on LCC HVDC technology, meaning synchronous Condensers were included in the estimate. The value for synchronous condensers included in the 2014 Control Budget was refined based on updated

budgetary quotes from Vendors and resulted in a reduction compared to the value from 2010.

- Contingency for the Riel and Keewatinohk Converter Stations has been re-allocated between the two Converter Stations. This has resulted in less contingency for Riel compared to the 2010 unapproved estimate.
- The 2014 Control Budget includes actual and signed contract costs for the 230kV AC Switchyard site development and expansion at Riel. These costs are less than those estimated as part of the 2010 unapproved estimate
- The items 'R49R T/L Sectionalization' and 'Riel Electrode Line' are included under the AC Collector System line item for the 2014 Control Budget. These items were included under the Riel Converter Station in the 2010 unapproved estimate.