

Impact of Long-Term Transmission Spending on Transmission Charges

1. Methodology used to estimate monthly transmission charge impacts

- 1 Estimate the revenue requirement amount associated with new transmission costs.

The AESO has estimated the amount transmission facility owners would likely seek to recover each year in return for constructing, operating and maintaining facilities outlined in the *Long-term Transmission System Plan 2009*. The calculation considers operating expenses, depreciation, income taxes, debt costs and return on equity.

A \$/MWh value for the cumulative revenue requirement associated with new projects was calculated by dividing the annual revenue requirement amount by the AESO forecast¹ Demand Transmission Service (DTS) energy volume.

- 2 Express the 2009 AESO revenue requirement amount in \$/MWh.

A \$/MWh value for the 2009 AESO revenue requirement was calculated by dividing the AESO 2009 revenue requirement by the AESO forecast DTS customer volume.

- 3 Calculate ratio of incremental revenue requirement amount to 2009 AESO revenue requirement amount.

The percentage increase in AESO revenue requirement is calculated by dividing the incremental \$/MWh revenue requirement amount associated with new costs by the AESO 2009 revenue requirement amount.

- 4 Calculate the increase in residential transmission charges.

A current FortisAlberta monthly residential bill with \$8.96 per month in transmission charges was increased by the percentages calculated in 3 above.

- 5 Calculate the increase in industrial transmission charges.

The AESO Bill Calculator located on the AESO website (www.aeso.ca, Tariff, Current Tariff, Tariff effective August 1, 2008, AESO Bill Estimator) was used to obtain an estimate of current monthly transmission charges.

Current monthly transmission charges are then escalated by rates calculated in 3 above to calculate annual estimated charges.

¹ Source: AESO FC2008 forecast

2. Estimated increases in transmission charges

Table A summarizes the percentage increase in transmission charges relative to current rates, for critical infrastructure projects, Bill 50-related projects and for all projects in the \$14.5 billion capital costs estimate described in the *AESO Long-term Transmission System Plan 2009*.

**Table A:
Estimated Increase in Transmission Charges Relative to 2009 Rates (%)**

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|--|------|------|------|------|------|------|------|------|------|
| Bill 50 Projects \$5.6 billion (2008 \$) | 0% | 0% | 0% | 1% | 29% | 52% | 55% | 58% | 59% |
| Critical Transmission Infrastructure \$8.1 billion (2008 \$) | 0% | 0% | 0% | 13% | 40% | 70% | 77% | 80% | 83% |
| \$14.5 billion capital cost (2008 \$) | 3% | 8% | 18% | 30% | 63% | 95% | 106% | 110% | 136% |

3. Transmission charge impact of projects included in proposed Bill 50

Bill 50, the *Electric Statutes Amendment Act, 2009*, was introduced on June 1st in the Alberta Legislature. It proposes to amend three existing Acts in order to facilitate new transmission infrastructure for Alberta. The current cost estimate for transmission components included in proposed Bill 50 amounts to \$5.6 billion (2008 \$). Bill 50 projects include all project costs deemed as Critical Transmission Infrastructure (CTI) with the exception of \$2.5 billion (2008 \$) related to the Southern Alberta Transmission Reinforcement project and Foothills Area Transmission Development. Transmission charges for residential and industrial customers are estimated to increase as follows by 2017, when the total cost of Bill 50 projects is included in rate base.

a) Residential Transmission Charges:

It is estimated that residential customers will see an increase of approximately \$6 per month on the transmission component of their monthly bill.

b) Industrial Transmission Charges:

It is estimated that a typical industrial customer (80% load factor) will see an increase of approximately \$7/MWh on the transmission component of their monthly bill.

4. Transmission charge impact of CTI costs

The current cost estimate for required critical transmission components amounts to \$8.1 billion (2008 \$). Transmission charges for residential and industrial customers are estimated to increase as follows by 2017, when the total cost of CTI projects is included in the rate base.

a) Residential Transmission Charges:

It is estimated that residential customers will see an increase of about \$8 per month on the transmission component of their monthly bill.

b) Industrial Transmission Charges:

It is estimated that a typical industrial customer (80% load factor) will see an increase of approximately \$10/MWh on the transmission component of their monthly bill.

5. Transmission charge impact of \$14.5 billion (2008 \$) capital

The *AESO Long-term Transmission System Plan 2009* included a cost estimate for a total of \$14.5 billion (2008 \$) worth of new transmission. Transmission charges for residential and industrial customers are estimated to increase as follows by 2017, when the total cost of the \$14.5 billion worth of projects is included in the rate base.

a) Residential Transmission Charges

Residential customers will see an estimated increase of about \$12 per month on the transmission component of their monthly bill.

b) Industrial Transmission Charges

A typical industrial customer (80% load factor) will see an estimated increase of approximately \$16.50/MWh on the transmission component of their monthly bill.