

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 Plan. 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 DTS² load 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 Demand Transmission Service

Note: The attached file, “**Estimated Transmission Charges Increase.xls**” used the methodology described above to estimate the impact on monthly transmission charges.

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 (\$5,667 2008 \$ millions)	0%	0%	0%	1%	29%	52%	55%	58%	59%
Critical Transmission Infrastructure (\$8,121 2008 \$ millions)	0%	0%	0%	13%	40%	70%	77%	80%	83%
\$14.5 billion capital cost (2008 \$)	0%	0%	0%	21%	51%	87%	102%	110%	125%

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 \$5,667 (2008 \$ millions). Bill 50 projects include all project costs deemed as Critical Transmission Infrastructure with the exception of \$2,454 (2008 \$ millions) related to Southern Area Transmission Reinforcement Transmission. 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 between \$5.25 and \$5.75 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, 20 MW of capacity) will see an increase of approximately \$7/MWh on the transmission component of their monthly bill

4. Transmission charge impact of critical transmission infrastructure costs

The current cost estimate for required critical transmission components amounts to \$8,121 (2008 \$ millions). 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 rate base.

a) Residential Transmission Charges

It is estimated that residential customers will see an increase of between \$7.40 and \$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, 20 MW of capacity) 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 rate base.

Residential Transmission Charges

Residential customers will see an estimated increase of between \$11 and \$12 per month on the transmission component of their monthly bill.

Industrial Transmission Charges

A typical industrial customer (80% load factor, 20 MW of capacity) will see an estimated increase of approximately \$15/MWh on the transmission component of their monthly bill.