March 5 2012

Contribution Policy Review

AESO Tariff Applications
Monday March 5th, 2012

Agenda

• Discuss issues/comments raised at stakeholder consultation
• Finalize the principles
• Review inflation indices
• Consider differences between upgrade and greenfield projects
  – ATCO and AML configuration estimates
• Finalize mechanism and investment level?
• Impact of increased investment levels on TFO rates
• The outliers – does this need further investigation or let it lie?
• Examination of whether a contribution should be required between utilities (we must get to this today!)
Action Items

- ATCO and ENMAX (Ken and Mike) provided information on inflation indices
- Updated the DTS levels for the “18 old projects”
- Revised the principles (included in notes summary)
- Estimate impact of increased MILs on TFO rates

Information Session

- No questions or issues raised?
- Any other comments?
Principles

• At the information session, John mentioned that we were looking at making cost causation a primary principle – we would have 3 primary and 5 secondary principles

• “Investment levels should be determined on the same cost causation basis as are the related rate components, to the extent practical and considering the expected life of a service. Since investment is recovered through rates, basing both on cost causation will ensure investment is appropriately recovered through rates over a broad range of market participant connections.”

Principles

• Primary Principles
  – Provides Effective Price Signals
  – Maintains Intergenerational Equity
  – Is Based on Cost Causation

• Secondary Principles
  – Is Based on Local Costs
  – Is Robust and Sustainable
  – Treats All Market Participants Equitably
  – Compensates Utilities Equitably
  – Is Simple, Consistent, and Transparent
Inflation Index

- The current AESO index considers StatsCan indices for substation equipment, transmission line systems, industrial structures and APEGGA values
- ATCO utilizes a transmission index based on EUCPI and AWE, but excludes the labour component of EUCPI
- ENMAX uses an index based on the EUCPI and monthly Alberta Average Hourly Earnings (AHE) – weighting of each is 50/50

Inflation Indices (revised)

- AESO: $y = 1.9017x^{0.5566}$, $R^2 = 0.3982$
- ENMAX: $y = 2.0001x^{0.5564}$, $R^2 = 0.4011$
- ATCO: $y = 1.9907x^{0.5573}$, $R^2 = 0.4009$
Upgrade projects

We asked AML and AE (Tony and Ken) to provide three estimates, one for each of the following configurations:

Configuration 1 (ISD 2013)
- greenfield construction, 17 MW load, one 25 MVA transformer, three 25 kV feeders leaving substation
- 1 km of 138 kV line, single radial connection to existing system substation with addition of 138 kV breaker at system substation

Configuration 2 (ISD 2013)
- upgrade of existing 10-year-old substation (existing substation as in Configuration 1, with original in-service date of 2003)
- 17 MW increase in load (from 17 MW to 34 MW), addition of second 25 MVA transformer, addition of three more 25 kV feeders leaving substation

Configuration 3 (ISD 2013)
- greenfield construction, 34 MW load, two 25 MVA transformers, six 25 kV feeders leaving substation
- 1 km of 138 kV line, single radial connection to existing system substation with addition of 138 kV breaker at system substation

Greater variability in upgrade costs

[Graph showing variability in upgrade costs]
The proposed average cost function

$$y = 1.9017x^{0.5624}$$

$$R^2 = 0.3982$$

Setting the appropriate level for maximum investment allowance is a balancing act

- Process involves judgment to satisfy contribution policy principles
  - Most importantly, must provide effective price signals and maintain intergenerational equity to the extent practical
- In Decision 2007-106 on the AESO’s 2007 tariff application, the Commission explained it did not provide “general endorsement of an 80/20 rule as a guiding principle”
  - The Commission assessed the investment level such that “79.2% of the data points receive at least 80% investment”
  - Resulting investment level covered 88% of costs and 56% of projects
AUC set investment levels at 88% of costs and 56% of projects (2007 GTA)

Setting investment levels to cover 88% of costs would cover 66% of projects (current cost function)
Impact on TFO Rates

Change in Total TFO Revenue Requirement With Change in Customer Connection Project Investment Level

- Current Investment Level
- 10% of Current Investment Level
- 20% of Current Investment Level
- % Change in Total TFO Revenue Requirement at 100% of Current Investment Level
- % Change in Total TFO Revenue Requirement at 100% of Current Investment Level

The outliers

Frequency of Project Cost Ranges

- Escalated Cost as Percentage of Escalated Cost Function
Are we going to treat outliers differently?

- Have we concluded that we will treat the outliers the same and continue to include them in the data set?
- Do we need further investigation?

Contributions between utilities

- ENMAX (Mike) proposes to add this “con”
  - “increases the financial complexity for integrated utilities”
- Any other suggestions? Comments?
Principles matrix

Next Steps

- Should we propose new investment levels with a July 1 effective date?
- Next meeting March 26th 2012
- Who wants John and I to present for their members?
## Schedule

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<th>Event</th>
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<tr>
<td>Working Group meeting #7</td>
<td>March 26, 2012</td>
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<tr>
<td>Application filing date</td>
<td>June 21, 2012</td>
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Thank you