November 21st, 2011

2011 Contribution Policy Working Group
November 17th 2011 Meeting
Meeting Notes and Summary

**Attendees**

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>Stakeholder Segment</th>
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<tbody>
<tr>
<td>Vittoria Bellissimo</td>
<td>IPCAA</td>
<td>Industrial</td>
</tr>
<tr>
<td>Tony Demassi / David Morris</td>
<td>AltaLink Management Ltd.</td>
<td>TFO</td>
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<tr>
<td>Ed de Palezieux</td>
<td>Enbridge</td>
<td>Industrial</td>
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<tr>
<td>Miles Stroh</td>
<td>FortisAlberta</td>
<td>DFO (non-affiliated)</td>
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<td>Mike Windsor</td>
<td>ENMAX</td>
<td>TFO / DFO</td>
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<tr>
<td>Wayne Taylor</td>
<td>UCA</td>
<td>Small customers</td>
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<tr>
<td>Ken Koenig</td>
<td>ATCO Electric</td>
<td>TFO / DFO</td>
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<td>Lee Ann Kerr</td>
<td>AESO</td>
<td>ISO</td>
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<td>John Martin</td>
<td>AESO</td>
<td>ISO</td>
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**Meeting Summary**

**Action Items from previous meeting**

Ken provided the group with ATCO’s calculated multiplier in the form of maximum investment level divided by average cost. ATCO’s multiplier came out to 1.027 for general service, industrial, oilfield and farm rate classes. Miles provided FortisAlberta’s multiplier, which was later revised to 1.66. This multiplier represents the MIL / average cost for the farm, general service and oil & gas rate classes. Mike noted that ENMAX doesn’t have the data in the correct form to be able to perform the calculation.

Tony undertook to analyze project costs from historical projects, and estimated the project costs based on 2011 unit cost estimates. The results of this analysis were presented later in the meeting.

**Reviewing the Data**

Further analysis was included in the spreadsheet that had previously been sent to the working group members. This analysis included several more categories in the summary data, a graph showing the raw connection project cost power function in comparison to the cost function from the AESO’s 2010 GTA. In addition, some histograms were included that showed the frequency of project cost ranges as a percentage of average cost function, and a cumulative frequency of project cost ranges.
One correction was made to the project data as a result of questions raised at the meeting. The "Current DTS" level for the Kinosis sub was recorded at 0.10 MW. This has been corrected to indicate the current DTS level of 18.0 MW.

The AESO committed to gathering further data for the next Working Group meeting. The additional data will include:

1) Number of transformers and MVA at the substation;
2) "Adding" upgrade projects costs at a substation to Greenfield project costs, and resulting DTS;
3) For upgrade projects, identify whether it was a breaker add, transformer add, transformer replace, etc;
4) Identifying for each project if the contribution was paid by a DFO or by a direct-connect customer; and
5) Inflating project costs to "ISD minus one year" using AESO’s current inflation index.

The AESO will also undertake to compile information regarding the 13 "outliers", including:

1) Location of the new facilities;
2) Any opportunities for future growth;
3) System versus participant-related costs; and
4) Any other factors contribution to variability (eg 240 kV connections).

Further analysis will be completed to include and cost function based on the last 50 projects, creating a cost function based only on final costs, and creating a cost function that discounts the outliers.

**Action Items**

1) Lee Ann will update the data and gather info on the outliers;
2) Ed will have a look at the histogram "bins" to see if the data can be "smoothed out" over different ranges;
3) Ken will supply the ATCO "outlier formula" to provide a basis for identifying the outliers;
4) Miles will prepare a brief discussion paper identifying the pros and cons of contributions between utilities;
5) John will draft the contribution policy principles based on the criteria; and
6) Lee Ann will e-mail the criteria / mechanisms matrix for completion by working group members for next meeting.

**Next Steps**

The next meeting is scheduled for Monday, December 12th, 9:00 am – 12:00 noon, AESO offices, Room 2506. At the next meeting, the working group members review additional data analysis. In addition, the following agenda items are proposed:

1) Further analysis of the data;
2) Review the draft principles;
3) Analysis of the inflation index;
4) Review of the criteria / mechanisms matrix;
5) Examine whether a contribution should be required between utilities;
6) Examine capital costs and factors that contribute to variability; and
7) Consider differences between upgrade and Greenfield projects.