

Transmission Total Cost Benchmarking Study

Stakeholder Session #1

Thursday, August 6, 2015

DoubleTree Hotel by Hilton – The Victoria Room

108 Chestnut Street

1:00 – 4:00pm

OVERVIEW

On August 6, 2015 Hydro One Networks Inc. hosted a stakeholder session with interveners and OEB staff, as part of the Hydro One's transmission application <CODE> Settlement Agreement. The purpose of this meeting was to present and seek feedback on the proposed approach and framework of the Transmission Total Cost Benchmarking Study.

The stakeholder session included welcoming remarks from Allan Cowan (Director Major Applications, Hydro One Networks), a presentation on the proposed approach and framework of the Transmission Total Cost Study delivered by Benjamin Grunfeld (Director Energy Practice, Navigant) and Ken Buckstaff (Managing Director, First Quartile Consulting), and closing remarks delivered by Allan Cowan.

This draft summary was written by Yulia Pak and Bianca Wylie, who provided independent facilitation services for the stakeholder session. It provides a high level summary of the main points shared by participants as captured in the “live” notes written during the meeting, and is not intended as a verbatim transcript of the meeting.

If you have any suggested edits to this draft summary, please forward them to Yulia Pak by August 27, 2015 at 12:00 pm at ypak@swerhun.com or by phone at (416) 572-4365. The draft summary will then be edited, as necessary, and finalized. The final summary will again be distributed to all participants.

Note that there are two appendices to this draft summary (attached separately), including:

Appendix 1. Presentation Slides

Appendix 2. Individual Submissions Received After the Meeting

NOTE: This draft summary reflects what happened during the meeting and does not attempt to integrate the written feedback received after the meeting. Please see Appendix 2 for the additional feedback received.

DRAFT KEY MESSAGES AND OUTCOMES OF THE MEETING – For Participant Review

While many thoughts were shared by participants at the meeting, the key messages and outcomes are captured in the points below. These points are intended to be read together with the more detailed feedback that follows in the remainder of this report.

- 1. Identify and expand on how differences between Canadian and US systems will be addressed in the study.** In particular:
 - Identify and expand on how the differences between Canadian and US accounting methods will be addressed in the methodology (i.e. IFRS vs. GAAP).
 - Identify and expand on how traditional reliability metrics, such as MAIFI, and different methods of accounting for major weather event will be normalized.
- 2. The stakeholder group did not provide opinion on the high or low capital spending options for the first quartile presented by the consultant team for the report.** They stated that they needed more data and more information, including reliability linkage, in order to have an opinion on the matter.
- 3. Provide details on the methodology used to divide and isolate the transmission and distribution assets within the list of the peer firms.**

DRAFT DETAILED FEEDBACK – For Participant Review

Ben Grunfeld from Navigant, and Ken Buckstaff from First Quartile Consulting delivered an overview presentation that described an overall work plan and proposed approach, peer group selection criteria, metric selection, and practice area investigation for the Transmission Benchmarking Study for Hydro One. The presentation was broken into 4 parts and each part was followed by a question and clarification period. These questions, followed by a summary of the discussion, are organized into the six categories below. Please note that the responses provided by consultants are in *italics*.

Overall Work Plan & Proposed Approach

- Can you give us some idea about timelines with major milestones? (Roger Higgin, Energy Probe) *The goal is to complete the work by the end of the year. We will come back to stakeholders in November and conclude everything in December of this year. In September and October, we will be collecting missing data and conducting qualitative and quantitative analyses.*
- What is the analytical framework and methodologies for the data? What major statistical analysis will you be performing on the dataset? (Roger Higgin, Energy Probe) *We will be performing a regression analysis. First we need to decide what we*

need to measure—what we are comparing and normalizing. Per kilometer and per asset basis is our end point metric. The things that affect these metrics are density (recognizing that there is a lesser impact on transmission than distribution) and other demographic variables.

- Are you planning on using any econometric models and look at factors such as total factor productivity? (Roger Higgin, Energy Probe) *We are not planning to do much on econometric models. The primary reason is because we do our work to improve our clients' performance. From our past experience with econometric models, we find that they are not as useful for our clients. Econometric models are good to find the outcomes, but not the causes, so these models cannot really tell us what our clients can do to make improvements. The same is true for total factor productivity models.*
- Consider using the Total Productivity Study on Transmission in the US to inform the Transmission Benchmarking Study for Hydro One, as it won't require doing new work (Roger Higgin, Energy Probe).

Peer Group Selection Criteria

- Are the outliers removed from the peer group or do they stay in? How do you make that decision? (Shelley Grice, AMPCO) *We look at the reasons behind the differences in outliers. For example, ConEd in New York City has completely different costs and reliability, driven largely by their system configuration, so it is not really comparable. However, if we have a company, say, with the costs considerably higher or lower without an apparent reason, we would still keep it in.*
- Are the outliers based on a single metric or is it an overall metric? (Alfredo Bertolotti, PWU) *It could be based on one metric or more. For example, let's take reliability vs. O&M. A comparator could be an outlier in either or both of the metrics. However, we will not necessarily remove the company from the peer group just because it's an outlier in one metric.*
- Why the proposed group of peers is so different from the list of companies we were asked to provide in February? (Emma Blanchard, CME) *The starting point for us is data availability. Based on the scope of this project and the companies for whom we already have data, we estimated that we could go after half a dozen additional companies. So, we looked at your list, looked at the data we had, and decided that we should go after Canadian companies. We wanted to make sure we have a good representation of the industry as a whole -- with the companies similar to Hydro One and different utilities as well.*
- I'd like to confirm that the proposed peer group consists of the companies you work with and have data sets for, except for the Canadian ones. Are there American companies that are similar to Hydro One but are not included in the peer group primarily because they are not your clients and you do not have data sets for them? (Tom Brett, BOMA) *Yes, that's correct. It's not the full list of companies we work with -- we took some companies off the list. We also took off the list the companies that do not want to work with us. For example, Northwestern Energy operating in South*

Dakota, and Montana would be a US-based company that is very similar to Hydro One, but that chose not to participate in our studies for the past couple of years.

- I would call this approach to the peer group selection as the “soft” approach. It’s not a hard numbers comparison; rather you are doing more of nuanced analysis to draw out practices (Tom Brett, BOMA). *Hard numbers will come across all metrics, and the reason for drawing out practices is to get behind the numbers.*
- Are you going to touch base with the companies you already have data for? (Bohdan Dumka, Society) *We have the end of the year results conference in couple of weeks for all the companies who participate in our annual study. There will be an opportunity for us to ask any questions that we might need answered for this study. However, the plan is not to go back to them. Canadian companies are really where we have a data gap.*
- I understand that if you do not get data from the companies that you do not currently work with, these companies would be removed from the peer group. What are your expectations around the number of new companies to provide you with data? (Harold Thiessen, OEB) *About 50/50.*
- How do we as outsiders understand which comparators look like Hydro One and which do not? It would be helpful to see a visual representation of the companies that are in the “close”, “middle”, and “far” buckets in terms of similarities to Hydro One and explain methodology behind the buckets (Emma Blanchard, CME). *The columns on page 10 of the presentation deck are a good start. All companies have differences. Some utilities could be alike in terms of service territory and length of lines, but different in terms of storm susceptibility. We can definitely show where Hydro One sits on the presented range of peers.*
- There are fundamental differences between the IFRS and the GAAP accounting systems. While GAAP is more popular in the US, big Canadian electricity companies mostly use IFRS. Was the accounting system a factor in selecting a peer group? If not, how do you reconcile the differences – for example, normalizing capitalization criteria? (Bohdan Dumka, Society). *The accounting system was not a factor in selecting the peer group. We provide a set of guidelines and a survey in the beginning of the data collection process; and we are quite explicit about what to include and what not to include in terms of costs. In terms of the capitalization criteria, even companies that follow the same rules will have different results. When you roll everything up (capital and O&M together), allocation becomes less of a challenge; however, when we look at specific capital allocation, we ask questions about accounting system, etc. to better understand the results.*
- Consider Altalink and Emera based in Nova Scotia. Both have good similarities with Hydro One. For example, Emera experiences lots of outage due to hurricanes (Roger Higgin, Energy Probe).
- Consider going to the Regulator for permission to collect data on Canadian companies that participated in CEA surveys and studies (Roger Higgin, Energy Probe). *Going to the Regulator is a good place to start. Although there would be likely data gaps that we would need to fill in.*

- Consider looking into the Best Practices Working Group that has been doing specific studies around transmission over the past couple of years. They would have published data (Emma Blanchard, CME). *Yes, we happened to be the consultants that conducted that work for the Best Practices Working Group; and we are hoping to get their permission to use some of the data.*

Metric Selection Criteria

- What is the extent of distribution in the proposed peer companies? Are the indicators for the transmission lines only (Harold Thiessen, OEB)? *Many of these companies have distribution and transmission much like Hydro One (except for the Kentucky company on the list). All of the presented numbers are for the transmission lines and substations only.*
- So this is separated transmission data, not generation and/or distribution. Where do you draw the line between transmission and distribution? (Tom Brett, BOMA) *We give everybody we work with a voltage classification. Sometimes we get companies with odd voltage, but generally everyone is more or less consistent in their voltage-based definition of transmission and distribution.*
- Some workforces work harder than others; and some are better enabled with different systems. Is it possible to assess the efficiency of the workforce? (Tom Brett, BOMA) *I think there are very few workers that come to work and say, “I will work harder today”, or “I won’t work hard today”. The issue is not how hard people work, but how effectively. So, the second point is more of a challenge because it’s not just the systems that better enable the workforce, it’s also supervision, management structure, scheduling, assigning, the quality of equipment, etc. Our approach is to look at both outcomes and the underlying operating practices. For example, we know that generally speaking, there are 3 work management systems that are really good and we ask companies if they use any of those. You can make each system work, but some companies don’t have any work management systems in place, so we try to understand what they are doing.*
- Most Canadian providers use old style metric systems, such as SAIFI and MAIFI, which are not commonly used in the US. The Loss of Supply (LOS) is a critical parameter that needs to be thought of. How are you going to bridge that gap and put the data on some reliable familiarly regulated basis? (Roger Higgin, Energy Probe) *We use SAIFI and MAIFI metrics on distribution level, so we have them. In terms of LOS, we ask for LOS-related data.*
- The treatment of major event day (MED) classification is treated differently in Canada and the US. How do you normalize MEDs? In Canada we are leaning towards using IEEE-1366 (Roger Higgin, Energy Probe). *Yes, we are aware of that. We also know that Hydro One wrote several excellent critiques about the 1366 standard. There could be complications that would need to be addressed. In our data collection, we gather information about major event days, measured using the IEEE standard and using other methods. We also ask how the “other methods” are defined, which gives us an understanding and the ability to make comparisons*

- Is your work on the wage-rate analysis going to be similar to the recently published Mercer Report that looked at compensation? (Emma Blanchard, CME) *No, the Mercer Report is very detailed. We are only going to look at the core wage to see if there is a significant difference. In the North American market, there is a range of roughly 30% from high to low; unless Hydro One is at the extreme end, anything within that range would not be considered a significant difference.*
- Would a significant delta in wage comparison trigger a more detailed look? (Emma Blanchard, CME) *It won't trigger us to investigate further. It is nice to know, but we cannot do much about it.*
- Some companies use headcount and some use FTEs as a staffing metric, which could produce widely different numbers. What are you using as a metric for staffing? (Maia Chase, IESO) *We use FTEs. Staffing numbers could be useful but could also be misleading.*
- It is important to know what qualifies “Thunderstorms” and “Snow” and the frequency of such events. On slide 11, Thunderstorms should be included for Manitoba Hydro (Roger Higgin, Energy Probe).
- Do you take into consideration whether or not the labour force is unionized (Maia Chase, IESO)? *It's a question we ask. In the proposed peer group we only have 2 companies that do not have unions for their whole labour force – CPS Energy in San Antonio and BGE in Baltimore.*

Practice Area Investigation

- Most transmission service providers are part of larger organizations. How does that play into asset management and regulatory regime (Roger Higgin, Energy Probe)? *Most of the companies have outside drivers – state and/or municipal, and federal, including NERC and FERC. Higher level NERC and FERC regulations are consistent; lower level state regulations are not. We tend to look at and attempt to understand each case individually.*

Capital Spending

Consultants asked meeting participants whether they had a preference of having high or low capital spending in the first and the last quartiles.

- There is an assumption that O&M spending should be in an inverse relationship with Capital spending. Do you support this assumption? (Lisa Lee, Hydro One) *Yes, sometimes O&M spending has an inverse relationship with Capital spending. We try to get a better sense of it by looking at O & M and capital spending separately. When we put everything (capital and O&M) together, we generally pick low total spending for the first quartile as a better option; but at this point we are not supporting anything. We would like to hear from stakeholders what would work better in their opinion.*

- What about an assumption that higher replacement (sustaining) capital lowers O&M dramatically? (Tom Brett, BOMA) *At this point, we cannot really affirm it – it's inconclusive.*
- Until I know whether reliability is good, bad, different for Hydro One, I don't want to answer the question whether high capital spending is better or worse. The linkage to reliability is important because the economic impact of LOS on the province is really a big deal (Harold Higgin, Energy Probe).
- There are also regional planning and other initiatives that do not have links to reliability (Oded Hubert, Hydro One Networks).
- We would also need to know growth vs. sustaining spending (Harold Thiessen, OEB).
- Currently, participants do not have a position on this matter and require more data, including reliability linkages, etc. (Tom Brett, BOMA).

Process Advice

- Participants indicated that they liked the new meeting format facilitated by independent facilitators.
- Consider distributing meeting materials a couple of days in advance of the meeting (Tom Brett, BOMA). *Maxine Cooper from Hydro One added that the comment forms will be e-mailed to participants the following day to give everyone an opportunity to provide additional feedback. The deadline to submit additional feedback is a week from the day of the meeting – August 13, 2015.*
- The scope of attendance is important. Usually everybody “come out of the woods” once the deliverable has already been produced. It's important to have as many interveners attending the meeting as possible (Roger Higgin, Energy Probe).

WRAP UP & NEXT STEPS

Alan Cowan wrapped up the meeting by thanking the facilitator, consultants, and participants for coming and for the quality feedback provided. He said that Hydro One was looking forward to receiving further stakeholder input in a week's time and that submitted feedback will be attached to the meeting report. He reminded participants that the next session will be held in November to review the Transmission Benchmarking Study.

Bianca Wylie confirmed that the draft meeting summary would be distributed to participants for their review before being finalized and reminded that Hydro One would send out comment forms for additional feedback the following day.

PARTICIPANT LIST

The following is a list of participants that attended the meeting and the organizations they represent.

Stakeholders

1. Alfredo Bertolotti, Power Workers' Union (PWU)
2. Emma Blanchard, Canadian Manufacturers & Exporters (CME)
3. Tom Brett, Building Owners and Managers Association (BOMA)
4. David Butters, Association of Power Producers of Ontario (APPRO)
5. Maia Chase, Independent Electricity System Operator (IESO)
6. Bohdan Dumka, Society of Energy Professionals
7. Shelley Grice, Association of Major Power Consumers of Ontario (AMPCO)
8. Roger Higgin, Energy Probe
9. David MacIntosh, Energy Probe
10. Harold Thiessen, Ontario Energy Board (OEB)

Hydro One Networks Inc. & Consultant Team

1. Ken Buckstaff – First Quartile Consulting (Presenter)
2. Maxine Cooper – Senior Regulatory Advisor, HONI
3. Allan Cowan – Director, Major Applications, HONI
4. Benjamin Grunfeld – Navigant (Presenter)
5. S. Lisa Lee, Senior Regulatory Advisor, HONI
6. Dwyane Stratford - Navigant
7. Dave Weiler – First Quartile Consulting
8. Oded Hubert – Vice-President, Regulatory Affairs, HONI

Swerhun Facilitation

1. Yulia Pak, Note taker
2. Bianca Wylie, Facilitator

MEETING AGENDA

- 1:00 pm** **Welcome**
Allan Cowan, Director, Major Applications, Hydro One Networks
- 1:05** **Introductions and Agenda Review**
Bianca Wylie, Swerhun Facilitation
- 1:10** **Section 1 – Overview**
Benjamin Grunfeld, Navigant
- 1:15** **Section 2 – Approach**
Benjamin Grunfeld, Navigant/ Ken Buckstaff, First Quartile Consulting
- 1:30** **Section 3 – Peer Group Selection**
Ken Buckstaff, First Quartile Consulting
- 1:50** **Questions of Clarification**
Bianca Wylie, Swerhun Facilitation
- 2:05** **Break**
- 2:20** **Section 4 – Metrics Selection**
Ken Buckstaff, First Quartile Consulting
- 2:50** **Questions of Clarification**
Bianca Wylie, Swerhun Facilitation
- 3:00** **Section 5 – Practice Area Investigation**
Benjamin Grunfeld, Navigant
- 3:15** **Final Questions of Clarification & Feedback Discussion**
Bianca Wylie, Swerhun Facilitation
- 3:55** **Next Steps and Session Wrap Up**
Allan Cowan, Director, Major Applications, Hydro One Networks