

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, Schedule B;

AND IN THE MATTER OF an Application by Thunder Bay Hydro Electric Distribution Inc. to the Ontario Energy Board for an Order or Orders approving or fixing just and reasonable rates and other service charges for the distribution of electricity as of May 1, 2017.

INTERROGATORIES FROM THE SCHOOL ENERGY COALITION

1.0-SEC-1

Please confirm that, based on the revised Revenue Requirement Work Form, the Applicant is now seeking a weighted average rate increase for 2017 of 27.1%, and with the revised cost of capital parameters the weighted average rate increase proposed for 2017 will still exceed 26%. Please confirm that this proposal is net of an impact from the reduction in the working capital allowance of \$264,509 (\$4,236,651 reduction in rate base at 4.92% plus PILs gross-up), and thus but for that accounting reduction the requested rate increase would be \$5,375,323, or 28.5%.

1.0-SEC-2

Please file the Powerpoint presentation given by Thunder Bay management at the OEB Community Day on November 23, 2016.

1.0-SEC-3

Below is a comparison of 2016 bills for typical customers of several LDCs. Please advise whether these LDCs, being the LDCs closest in size to Thunder Bay Hydro, are the ones that the Applicant believes are the appropriate comparator group. If there are additions or deletions that should be made, please describe them, and provide an explanation for each.

Annual Distribution Bill Comparison - Thunder Bay Comparators 2016 Rates
(monthly charge and volumetric rate)

<i>Utility</i>	<i>Residential</i>		<i>GS<50</i>		<i>GS>50</i>		<i>Overall</i>	<i>Number of</i>
	<i>800 kwh</i>	<i>% of Avg</i>	<i>2000 kwh</i>	<i>% of Avg</i>	<i>250 KW</i>	<i>% of Avg</i>	<i>Ranking</i>	<i>Customers</i>
Oshawa	\$270.84	82.7%	\$569.04	88.2%	\$14,048.40	109.8%	93.6%	54,731
Waterloo North	\$384.36	117.4%	\$765.12	118.6%	\$16,627.26	130.0%	122.0%	54,674
Guelph	\$365.40	111.6%	\$524.76	81.4%	\$10,215.66	79.9%	90.9%	52,963
Energy+	\$305.76	93.4%	\$506.52	78.5%	\$13,666.32	106.8%	92.9%	52,684
Niagara Peninsula	\$396.72	121.2%	\$790.20	122.5%	\$11,383.86	89.0%	110.9%	51,824
Thunder Bay	\$276.00	84.3%	\$661.68	102.6%	\$10,248.78	80.1%	89.0%	50,482
Greater Sudbury	\$312.84	95.6%	\$708.48	109.8%	\$14,822.28	115.9%	107.1%	47,187
Whitby	\$362.88	110.9%	\$749.40	116.2%	\$14,935.92	116.8%	114.6%	41,488
Entegrus	\$301.68	92.2%	\$597.60	92.7%	\$10,832.64	84.7%	89.8%	40,503
Brantford	\$281.28	85.9%	\$483.12	74.9%	\$11,965.86	93.5%	84.8%	38,789
Bluewater	\$397.80	121.5%	\$799.32	123.9%	\$14,722.08	115.1%	120.2%	36,115
Peterborough	\$272.64	83.3%	\$584.76	90.7%	\$10,045.44	78.5%	84.2%	36,058
AVERAGE	\$327.35		\$645.00		\$12,792.88			

1.0-SEC-4

[Ex.1, p. 12] Please advise how, using “an education lens” to engage customers, the Applicant ensured that its communications to customers to educate them did not introduce bias into the feedback the Applicant received.

1.0-SEC-5

[1, p. 15] The description of the DSP appears to assume that it has not yet been written. Please provide a full chronology of the DSP, including the dates or periods for a) information gathering and research, b) physical inspection of assets, c) developing the DSP plan/strategy, d) first drafts of the DSP document or its components, e) revisions to the document, f) first request for board of directors approval, and g) final approval. If there are any other key milestones in the process (e.g. submission to the City and their approval), please provide those as well.

1.0-SEC-6

[1, p. 16] The Applicant refers to a number of IT-related studies and reviews that have informed the Application. Please provide copies of:

- a) The GIS review, if it has been completed. If it has not, please provide the schedule and budget for this review, and indicate whether internal or external resources will be used.
- b) The “review of system control update options” done in 2015. Please also advise how the implementation in 2016 has differed from the results of the review, if at all.
- c) The study of “strategies to mitigate IT risks related to business continuity and data security” and the related “high level plan” completed and reviewed in 2014.

1.0-SEC-7

[1, p. 17] The Applicant describes its plans for consolidation “to increase corporate efficiency and profitability”, based on “previously established Shareholder principles”. Please provide a complete copy of the document or documents setting out those principles.

1.0-SEC-8

[1, p. 17] Please advise whether the “comprehensive customer engagement strategy” was provided to the board of directors for review and/or approval. If it was, please provide a copy of the materials given to the board of directors in seeking that review and/or approval.

1.0-SEC-9

[1, p. 17] Please provide a breakdown of all costs and benefits arising as a result of expansion of functionality of the website and other customer service interfaces. Please include a quantification of the net cost savings of these initiatives in the Test Year.

1.0-SEC-10

[1, p. 19] With respect to the Best Practices program:

- a) Please provide a list of the independent experts used, and copies of their reports to the Applicant if they are not already in the record of this proceeding.
- b) Please provide a list of all the projects for “research into specific industry techniques, practices, and tools” referred to.

1.0-SEC-11

[1, p.36] Please provide evidence to support the statement “In practice, [the IRM] adjustment does not keep up with various costs such as rising salaries and wages, new initiatives and regulatory compliance requirements.”

1.0-SEC-12

[1, p. 38] Please provide a copy of the report on stakeholdering by Decision Partners to the Ontario Power Authority in November 2005, referred to on the Decision Partners website as their “Supply Mix Advice Report”.

1.0-SEC-13

[1, p. 41] Please provide copies of the “ten year capital plan overview”, and related detailed plans, provided to the City of Thunder Bay in each of 2012 through 2016. Please provide details of any changes to those plans resulting from the review by the City of Thunder Bay.

1.0-SEC-14

[1, p. 44] Attached to these interrogatories is a copy of the description by Decision Partners of their recent customer engagement project for Enersource. Please provide details of all material differences, if any, between the Thunder Bay customer engagement project and this description of the Enersource customer engagement project.

1.0-SEC-15

[1, p. 72] Please provide a copy of the most current Shareholder Declaration. If the Shareholder Declaration has changed since the date the EB-2012-0167 application for the last rebasing was filed, please provide the Shareholder Declaration at that time, and all revisions since then.

1.0-SEC-16

[1, p. 76] Please provide a copy of the most current Board of Directors Mandate. If the Board of Directors Mandate has changed since the date the EB-2012-0167 application for the last rebasing was filed, please provide the Board of Directors Mandate at that time, and all revisions since then.

2.0-SEC-17

Please describe how, if at all, the Applicant’s policies or approaches with respect to operational and capital expenses changed due to the results of the customer engagement activities.

2.0-SEC-18

[2, p. 24,27] Please explain the references to “partial expenditure” and “final expenditure” with respect to the double bucket truck.

3.0-SEC-19

Please explain the Applicant’s strategy to reduce costs to maintain pace with declining billing determinants for most rate classes. If possible, please provide numerical targets that tie the rate of decline of billing determinants to the rate of decline of costs.

4.0-SEC- 20

[4, p. 5] The Applicant describes the normal budget process in a non-rate-application year, and how the process differed due to the rate application in 2016. Please confirm that an operating budget is not being approved by the board of directors in Q4 of 2016. If that is not confirmed,

please provide the operating budget actually approved by the board of directors for 2017, and the materials provided to the board of directors by management in the process of obtaining that approval.

4.0-SEC-21

[4, p. 8] Please confirm that the increase in OM&A from 2013 to 2017 is forecast to be \$2,496,988 (18.9%, a CAGR of 4.4% per year), not \$1,429,872 (10.0%, a CAGR of 2.4%). Please confirm that the 1.92% figure in the evidence is a miscalculation, based on five years instead of four, and is in any case based on 2013 Board approved rather than actual. Please confirm that the increase in OM&A per customer from 2013 to 2017 is 17.3%, not the 8.38% quoted in the evidence.

4.0-SEC-22

[4, p. 8] The Application provides detailed explanations for changes in certain OM&A costs. SEC is seeking to understand whether the 4.4% CAGR for OM&A from 2013 to 2017 is primarily driven by cost influences unique to Thunder Bay Hydro, or is primarily driven by cost influences that Thunder Bay Hydro experiences in common with most other LDCs. Please provide an explanation characterizing the major cost influences in these categories.

4.0-SEC-23

[4, p. 11] In which future years is the total cost of Mist meters expected to exceed the materiality threshold?

4.0-SEC-24

[4, p. 12] Please provide a forecast of all cost changes (increases or decreases) expected to arise from monthly billing in the Test Year, including increased personnel and postage, reduced bad debts and collection costs, reduced working capital needs, and all other impacts.

4.0-SEC-25

[4, p. 14] In 2013 and 2014 the Applicant had \$28.8 million included in rates for OM&A, but only spent \$27.1 million. Please advise how the Applicant used the remaining \$1.7 million.

4.0-SEC-26

[4, p. 23] Please provide a copy of the City of Thunder Bay tree trimming bylaw referred to, together with all presentations, memoranda, reports and other documents provided by the Applicant to the City of Thunder Bay related to that bylaw.

4.0-SEC-27

[4, p. 41] Please provide the most recent financial statements of TBHUSI.

4.0-SEC-28

[4, p. 59] Please provide the full calculation of the Asset Retirement Obligations, together with the detailed accounting entries used to record it in PP&E and in Account 1575, including the dates of all such entries. See also 9.0-SEC-34.

4.0-SEC-29

[4, p. 61] Please confirm that, as a result of accounting policy changes, the amount of depreciation taken in the years 2013 to 2016 was reduced by \$421,420, and the opening rate base on January 1, 2017 is thus higher by that amount.

4.0-SEC-30

[4, Attach 4-D, 4-F] Please describe all changes to accounting rules, account allocations, and other such factors that affect the comparability of figures in Appendices 2-JC and 2-K from one year to the next. Please include dollar and FTE figures, as the case may be, so that the Board and the parties can make more accurate comparisons.

4.0-SEC-31

[4, Attach 4-J] Please explain why the obligations in section 1(h) and (i) are obligations of DISTRIBUTION rather than obligations of RENEWABLE.

5.0-SEC-32

[5, p. 6] The Rate Minimization Model, which binds the board of directors of the Applicant through the Shareholder Declaration, prohibits the inclusion in rates of the “allowable regulated return on shareholder equity”. The current Application seeks to include in rates the full allowed ROE. Please provide the amendment to the Shareholder Declaration, or other documentary evidence, showing that the City of Thunder Bay has legally modified the Rate Minimization Model to allow the inclusion in rates of full ROE. If no such documentary evidence is available, please provide evidence that the Applicant has the legal authority under its constating documents to seek approval for inclusion of full ROE in its rates starting in 2017.

8.0-SEC-33

[8, p. 9] Please provide a calculation of the rates for the GS>50kW class is the fixed charge is set at Minimum System with PLCC, i.e. \$99.13.

9.0-SEC-34

[9, p. 29] For each of the five bullets related to the calculation of account 1575, please provide the detailed calculation of the adjustment described, plus the following additional details:

- a) For the calculations of the constructive obligation for decommissioning of station assets (\$228,306 in 2014 and \$256,890 in 2016, the calculations of which should be in the response to 4.0-SEC-28 above), please provide any external valuations or other sources of assumptions used in the calculation; and
- b) For the calculations related to employee benefits of any type, please provide the external actuarial or other sources used in the calculation.

All of which is respectfully submitted this December 27, 2016.

Enersource Deploys State-of-the-Science Decision Technology to Fulfill Regulatory Requirements Re: Customer Engagement

The Context

In early 2013, Ontario's energy regulator, the Ontario Energy Board, implemented new requirements for rate application submissions calling for electricity distribution companies to solicit their customers' input and demonstrate that their Distribution System Plan (DSP) is responsive to customers' input. ([Citation](#)) The DSP is the foundation for rate increases over the next 5 years. While rate increases are a topic of great interest to most customers, the plan behind them and its rationale have not been transparent to most in the past.

Leaders at Enersource Hydro Mississauga Inc., the electricity distribution company for the City of Mississauga, Ontario, carefully considered their approach to responsibly fulfilling this requirement. They assessed traditional approaches for soliciting customer feedback, such as brochures, opinion surveys, focus groups and workbooks, but recognized the limitations of those approaches for complex topics such as electricity distribution. In February 2015, Enersource contracted Decision Partners to design and conduct a comprehensive customer consultation initiative. The results would be used to develop "detailed, sophisticated and compelling evidence" that demonstrated Enersource's commitment and obligation to engage, inform and seek customer input on key components of their draft DSP in a meaningful way, while listening to and incorporating customer feedback into their DSP submission.

Informed Engagement Step 1: Systematically Gathering Foundational Insight

Given the complex social and technical issues inherent in the DSP, the Enersource Team determined that effective customer consultation had to be based on in-depth insight into people's values, interests and priorities, in short, their mental models.² Decision Partners' proprietary Mental Modeling Technology^{TM3} – evidence-based, science-informed processes, methods and tools – is specifically designed for understanding and influencing judgment, decision making and behaviour on such issues.

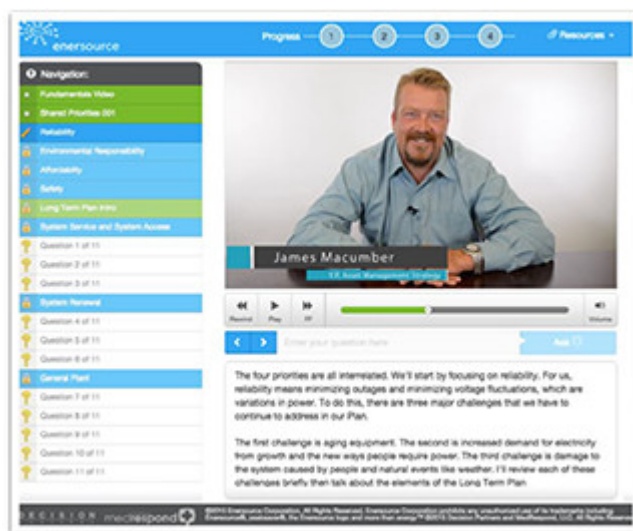
Decision Partners conducted mental models interviews with three cohorts of customers: residential; non-residential and large use customers. This foundational research demonstrated that most residential and non-residential customers did not have a sufficient understanding of the electricity system to provide meaningful input into the DSP. Customers' mental models of the electricity system were incomplete and, in some cases, incorrect. Consequently, if customers did not understand the system, they could not reasonably be expected to understand the rationale of the investment decisions being proposed in the DSP or provide meaningful input on the key components.

The foundational research also underscored that customers were unclear about the company's role in the electricity system and that there was significant confusion about the costs associated with Enersource's distribution compared to the costs of the overall electricity system.

Consequently, Enersource's value proposition – what it takes to deliver electricity safely and reliably – was not understood by most customers.

The Bottom Line: If customers don't understand the basic value proposition, they can't make well-informed judgments about the need for, or acceptability of, Enersource's DSP, and the resulting rate increase. An intervention based on informed insight and customized to address customers' values, interests and priorities was required to effectively communicate the implications of the DSP for customers over the next five years and to improve the ability of customers to provide meaningful feedback on the DSP.

Informed Engagement Step 2: Conducting Thoughtful Conversations



Building on findings of the foundational research, Decision Partners, and its Interactive Decision Support Technology™ (IDSTTM) partner, MedRespond, proposed an engagement solution that would first clarify Enersource's power delivery role within the electricity system, then enable engagement of a broad range of residential and non-residential customers in thoughtful "conversations" with Enersource leaders about the DSP.

Working with the Enersource Team, MedRespond designed, developed and hosted a state-of-the-science website to bring the foundational research to life using its Synthetic Interview™ platform.

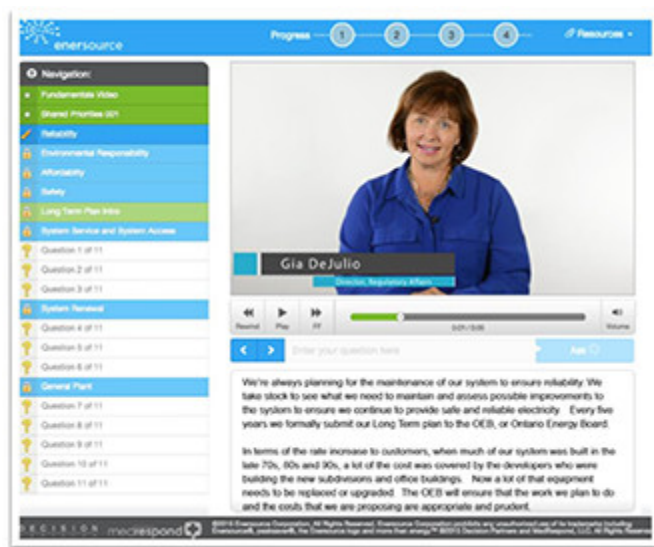
Enersource's Customer IDST™ was first full scale application worldwide, and a breakthrough customer engagement approach for the energy sector.

The Synthetic Interview™ is an interactive technology that simulates a one-on-one conversation through a combination of streaming video and artificial intelligence designed to enable a direct interaction with the video hosts. Customers feel as though they are engaging directly with the video hosts. [Enersource's IDSTTM site](#) was launched November 23, 2015 and remained active

until January 7, 2016. Customers were invited to log on to the site, view the Electricity Fundamentals video, then take part in the IDST™ dialogue on the DSP.

The IDST™ content, built on the foundational mental models research results, was designed to address gaps in customers' understanding of the electricity system, while enabling them to provide meaningful input on the various components of the LTP. Customers listened to and watched descriptions of the various aspects of power distribution and aspects of the DSP presented by members of the Enersource leadership team then were asked for their feedback. Customers could also ask their own questions about the Plan or other related topics that interested them. Those who completed the 11 mandatory questions were eligible to be entered into a draw for one of eight tablet computers.

The IDST™ Experience



The IDST™ enabled customers to work through the various DSP components and the rationale for investment in it. The presence of an Enersource host, commenting or asking questions along the way, gave them the opportunity to think through the benefits, risks and trade-offs of the proposed activities and the level of investment being recommended. This in turn enabled customers to make well-informed judgments of the acceptability of the recommended investments.

Advantages over Conventional Customer Engagement Methods

The Interactive Decision Support Technology™, a unique combination of cognitive modeling and artificial intelligence, is a powerful new technology for customer engagement. It is more customer-centric than traditional engagement tools because it is based on customers' mental models – their values, interests, priorities and information gaps and needs. The technology anticipates and responds to these in a conversational format. This dialogue-based technology enhances customer engagement through the proven Synthetic Interview™ medium that enables customers to gather the information they want and need to make well-informed judgments. At the same time, it enables real time, systematic collection of data about customer priorities and how they change over time.

Enersource's customer-centric IDST™ enabled the Team to provide information and gather feedback in a way that was much more engaging and interactive than traditional approaches. It also offered several advantages:

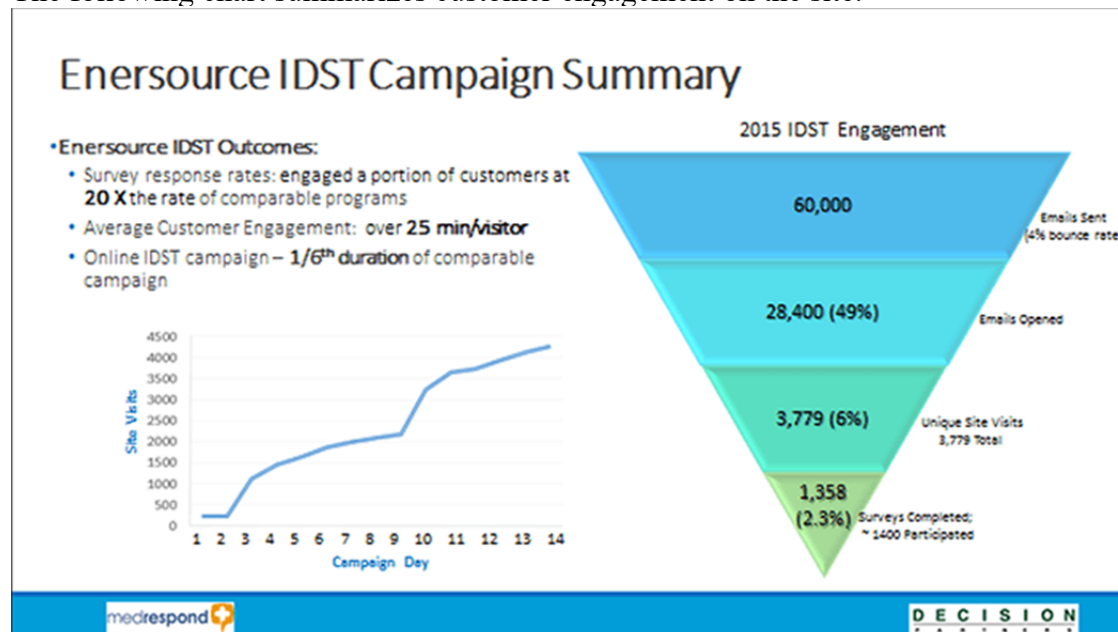
- Information presented in a visual format was much easier for customers to understand;
- Interaction with Enersource leaders underscored the company's commitment to meaningful engagement; the dialogue approach allowed for a two-way flow of a natural conversation compared to the typical one-way, "tell" process; and
- The Synthetic Interview™ format was significantly more convenient and less time consuming for customers, improving their willingness and ability to provide meaningful input.

The Results

Enersource's Customer IDST™ program delivered far more value than traditional approaches and the quality and value of the customer engagement was significantly higher and the outcome more robust:

- 2,157 Residential Customers and 49 Non-Residential Customers visited the site – more than double the response achieved by a electricity distribution company of a similar size to their online workbook landing page.
- 1,358 Customers completed the DSP survey of the IDST™ – more than a ten-fold increase over the workbook completion of the three electricity distribution companies whose workbooks we assessed.
- The average engagement time was 25.7 minutes per visitor – far less than the time required to complete a workbook or attend a focus group meeting, but sufficient time to think through the components of the DSP and provide meaningful input.

The following chart summarizes customer engagement on the site.



The Bottom Line for Enersource

The Enersource Team committed to adopting a behavioural science-based approach to customer engagement. They systematically worked through the consultation process, first to discover customer interests, preferences priorities, and information needs, then used that insight to develop a state-of-the-science tool to engage a broader group of customers using a web-based interface, demonstrating the company's leadership and progressive thinking. We believe the results speak for themselves.

Conclusion

In short, the Enersource Team successfully engaged more Customers in *meaningful* dialogue about the electricity system, the role of the local distribution company, the proposed activities under each of the key components of their DSP and the rationale for the required investment than is typical of consultations in this industry. In return, they received thoughtful judgment about their proposed DSP from over 1,400 IDST users and from 40 Customers who participated in the foundational research. The quality of customer input – thoughtful judgment and well-informed decisions – surpasses that typically gathered through traditional methods.

Based on the results of this engagement – the robust input from Large Use, Residential and Non-Residential Customers – *we do not recommend any substantive changes* to Enersource's draft DSP. By providing additional context on a few topics, we believe Enersource's DSP addresses both direct and indirect customer preferences. We do however recommend that Enersource continue to use behavioural science-based methods and tools in its future customer engagement initiatives.

Decision Partners' recommendation, included in the Enersource Research-Based Customer Consultation Final Report, January 2016