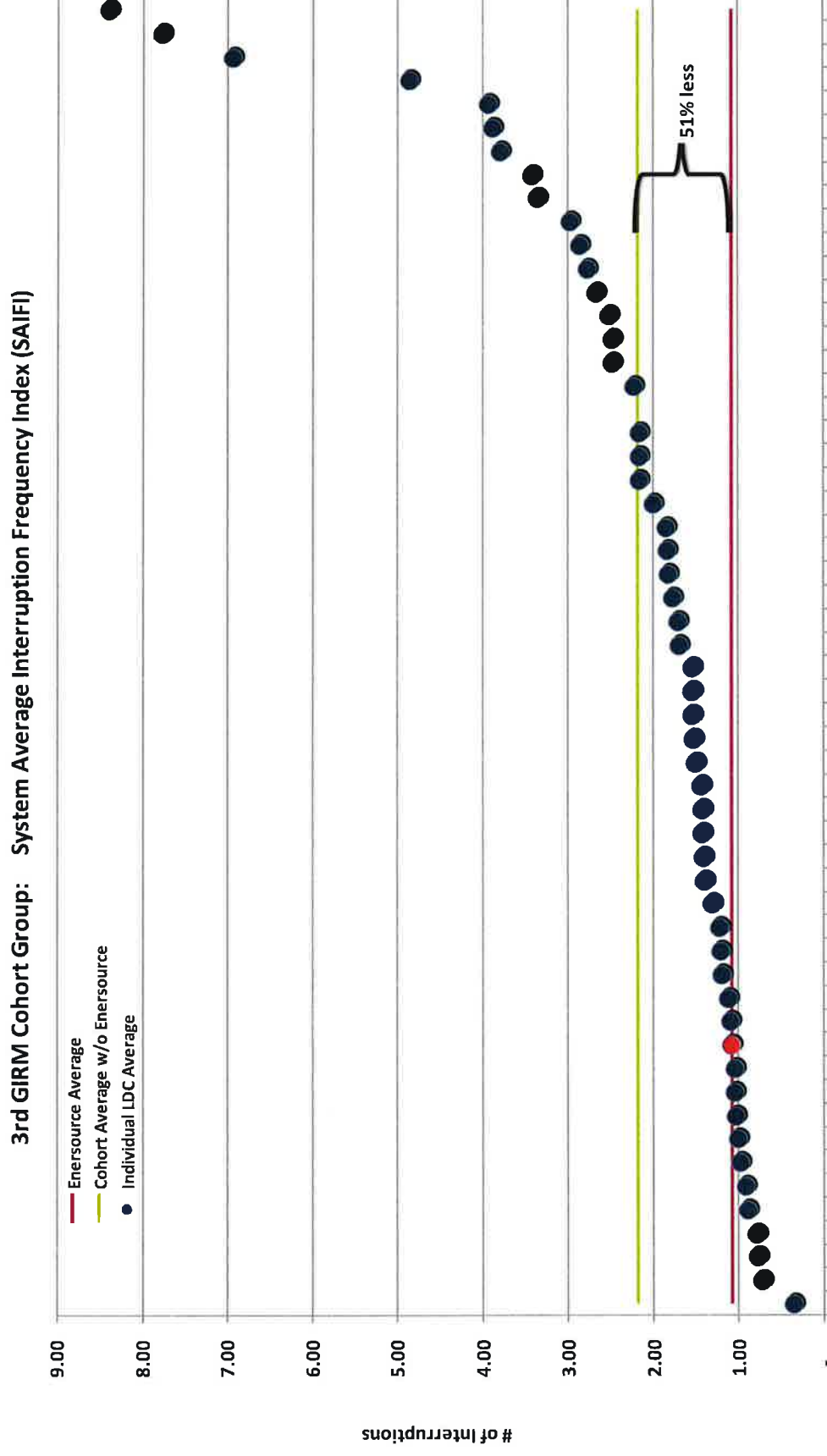


AMPCO Compendium
Enersource 2013/2014 Electricity Rate Application
EB-2012-0033

Panel 1

September 6, 2012

Benchmarking – 3rd GIRM Cohort



**Enersource Hydro Mississauga Inc.
Response to Interrogatories by Issue**

Interrogatory # 2

**Energy Probe Research Foundation
(Energy Probe)**

1. General

1.4 Is service quality acceptable?

Ref: Exhibit 2, Tab 3, Schedule 1, Appendix 1, Service Quality and Reliability Performance

Table 3 on Page 2 of the reference shows reliability indices for the years 2009 – 2011 excluding loss of supply events.

- a) SAIDI and SAIFI indices both showed marked increase in 2011 compared to the two previous years. In the same year CAIDI declined compared to the previous two years. Please explain why this index would be lower than historical when the other two indices are significantly higher than historical.
- b) Does Enersource benchmark its reliability performance against other similar distributors or does it just track its performance against a three-year average as specified in Board required performance measures? If yes, please provide a table similar to Table 3 showing how Enersource compares in each category with the average of its peer group.
- c) If performance is only compared with previous years please comment on why comparisons with other distributors would not be an appropriate method of gauging how well or how poorly the company is doing on reliability.

Response:

- a) By definition $CAIDI = \text{Total Customer-Hours of Interruptions} / \text{Total Customer Interruptions}$. Alternatively, $CAIDI = SAIDI / SAIFI$. Since it is a ratio of the individual measures, SAIDI and SAIFI, a change in either the numerator or a change in the denominator or a change in both will directly impact CAIDI.

From 2009 to 2011, SAIFI increased more than SAIDI, therefore CAIDI proportionally decreased. Specifically, SAIFI increased by 67% while SAIDI

increased by 45% during the period. Thus, CAIDI mathematically decreased by 13%.

Please see the table below for historical performance figures. This is Table 6.1 from page 23 of the AMP found at Exhibit 2 Tab 2 Schedule 2 Appendix 1.

Reliability Statistics					
	2007	2008	2009	2010	2011
INTERRUPTIONS	377	384	852	2,083	1,027
CUSTOMERS AFFECTED	142,035	135,413	221,578	251,366	380,772
CUSTOMER MINUTES	7,075,965	3,626,325	6,893,927	6,673,600	10,277,717
SAIDI (Minutes)	38.7	19.6	36.7	35.0	53.3
SAIFI	0.78	0.73	1.18	1.32	1.97
SAIFI (MI)	4.0	3.9	5.3	3.2	5.0
CAIDI (Minutes)	49.8	26.8	31.1	26.5	27.0

- b) Enersource maintains an awareness of its reliability performance against other similar utilities and members of the Canadian Electrical Association. Through inter-utility meetings, knowledge and best practices are shared with other member utilities. A summary table of the reliability statistics for comparable LDCs is provided below.

	SAIDI				
Distributors	2010	2009	2008	2007	2006
Enersource Hydro Mississauga Inc.	0.58	0.61	0.33	0.64	0.45
Horizon Utilities Corporation	1.24	1.18	1.49	1.01	0.94
Hydro One Brampton Networks Inc.	0.66	0.79	0.77	1.26	0.86
Hydro Ottawa Limited	1.36	1.50	0.98	1.40	1.51
London Hydro Inc.	0.88	0.89	2.29	1.69	1.25
PowerStream Inc.	0.81	1.97	0.88	2.17	5.49
Toronto Hydro-Electric System Limited	1.66	2.90	1.24	1.95	1.62
Veridian Connections Inc.	0.92	3.69	2.36	1.94	0.85
	SAIFI				
Distributors	2010	2009	2008	2007	2006
Enersource Hydro Mississauga Inc.	1.32	1.18	0.73	0.78	0.73
Horizon Utilities Corporation	1.80	1.81	1.80	1.59	1.44
Hydro One Brampton Networks Inc.	1.47	1.27	1.12	1.85	1.48
Hydro Ottawa Limited	1.39	1.15	1.02	1.21	1.19
London Hydro Inc.	1.12	1.59	2.39	2.46	2.14
PowerStream Inc.	0.92	1.23	0.92	1.54	2.64
Toronto Hydro-Electric System Limited	1.95	1.86	1.76	2.27	2.03
Veridian Connections Inc.	1.58	2.45	2.41	1.81	1.25
	CAIDI				
Distributors	2010	2009	2008	2007	2006
Enersource Hydro Mississauga Inc.	0.44	0.53	0.45	0.83	0.62
Horizon Utilities Corporation	0.69	0.65	0.83	0.64	0.65
Hydro One Brampton Networks Inc.	0.45	0.62	0.69	0.68	0.58
Hydro Ottawa Limited	0.97	1.30	0.97	1.15	1.27
London Hydro Inc.	0.79	0.56	0.96	0.69	0.59
PowerStream Inc.	0.88	1.60	0.95	1.40	2.08
Toronto Hydro-Electric System Limited	0.85	1.56	0.70	0.86	0.80
Veridian Connections Inc.	0.58	1.51	0.98	1.07	0.68

- c) The OEB publishes its Annual Yearbook which provides the reliability statistics, and other data, for all utilities in the Province. Enersource is unable to comment and compare on its reliability results to other LDCs on an “apples-to-apples” basis as the data capture and monitoring techniques may differ amongst each company.

1 MR. CROCKER: All right. And do you know whether they
2 as well are outside the three-year range?

3 MR. MORRISON: I don't know whether they are within
4 the three-year range or not.

5 MR. CROCKER: Okay. It sounds trivial -- I don't mean
6 it to -- we have a number of industrial clients who are
7 significantly bothered by outages even smaller than a
8 minute long, and can you provide me with that information,
9 please?

10 MR. MORRISON: Yes, we can.

11 MS. HELT: That will be undertaking JT1.9.

12 MR. CROCKER: Thank you.

13 **UNDERTAKING NO. JT1.9: TO PROVIDE THE PERCENTAGE OF**
14 **INDUSTRIAL CLIENTS WHO ARE SIGNIFICANTLY BOTHERED BY**
15 **OUTAGES OF LESS THAN A MINUTE.**

16 MR. CROCKER: On the same issue, on reliability, in
17 Energy Probe's Interrogatory No. 2, under the heading --
18 under the Issue 1.4, service quality acceptable, they are
19 asking about whether you benchmark -- among other things,
20 they are asking whether you benchmark with other
21 municipalities, and you say on page 3, after you have the
22 chart with the information:

23 "The OEB publishes its annual yearbook, which
24 provides the reliability statistics and other
25 data for all utilities in the province.

26 Enersource is unable to comment and compare on
27 its reliability results to other LDCs on an
28 apples-to-apples basis as the..."

1 And this is my issue.

2 "...as the data capture and monitoring techniques
3 may differ among each company."

4 I am not sure what you mean by that.

5 First of all, what do you mean by "data capture"?

6 MR. MORRISON: That's the recording of the outages,
7 the method by which they record the systems, which contains
8 the data.

9 MR. CROCKER: Okay. And "monitoring techniques"?

10 MR. MORRISON: That would be one and the same.

11 MR. CROCKER: Okay. And how do you do it versus how
12 whoever "they" are - the other municipalities with whom you
13 can't benchmark, because their data capturing and
14 monitoring techniques are different - how do you do it
15 versus how they do it?

16 MR. MORRISON: Well, I can comment on how we do it.
17 We have the IOM system, and for every outage there is a --
18 it's recorded in our IOM system. It's reported --

19 MR. CROCKER: What is "IOM"?

20 MR. MORRISON: Integrated operating model.

21 So it basically ties together two or three of our
22 systems, into one.

23 So it records every outage in there, regardless of the
24 duration. It does have some automatic features, which tie
25 into what is called our SCADA system, system control and
26 data acquisition.

27 So that records the very brief interruptions, as well
28 as ones that are very long. It captures all the details

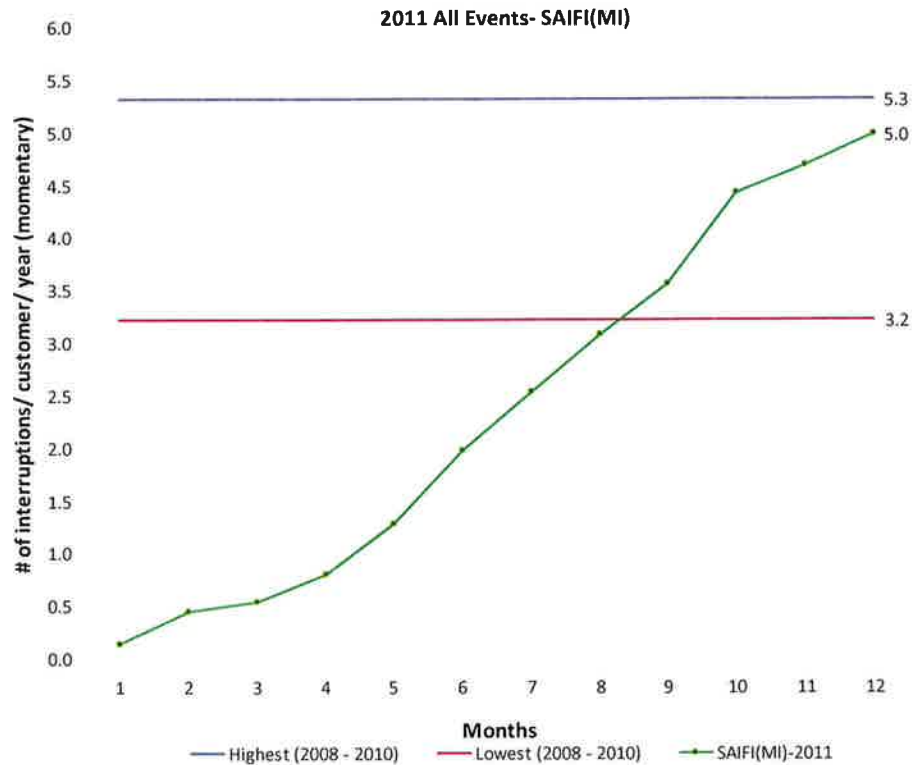
Undertaking No. JT1.9

To provide the percentage of industrial clients who are significantly bothered by outages of less than a minute. P. 108

Response:

As per Mr Crocker's question on P. 107, lines 22 to 24, the undertaking as understood by Enersource is to provide a graph of interruptions lasting less than one minute in a manner similar to the graphs for SAIFI as found in Exhibit 2 Tab 3 Schedule 1 page 5 of 16.

Below is a graph of the 2011 momentary interruption (less than one minute) index, SAIFI (in minutes, mi), with reference to the 3-year historical range (2008 to 2010).



PERFORMANCE MEASUREMENTS	OEB / ESA Target	Enersource Target
SAFETY:		
Number of Preventable Lost Time Injuries (If "LTI" result =1, then achieved = 10%)	N/A	0
RELIABILITY: Annual Average Outage per Customer		
OEB Requirements		
SAIDI [System Average Interruption Duration Index] Outage Minutes/Customer/year	(High 53.3), (Low 36.7)	41.10
SAIFI [System Average Interruption Frequency Index] Outage Interruptions/Customer/Year	(High 1.97), (Low 1.18)	1.41
Customer Restoration Targets:		
CAIDI [Customer Average Interruption Duration Index] Annual Average of Minutes / Interruption	(High 31.1), (Low 26.5)	36.00
SERVICE QUALITY: Electricity Service Quality Requirements (ESQRs)		
Connection of New Services		
<750 volts connected within 5 working days from the day on which all conditions of service are satisfied	90%	95%
>750 volts connected within 10 working days from the day on which all conditions of service are satisfied	90%	95%
Customer Service		
Incoming calls answered by Customer Service Representative within 30 seconds [Telephone Accessibility]	65%	80%
Incoming calls abandon by Customer [Telephone Call Abandon Rate]	≤10%	≤10%
Appointments		
Scheduled of appointments within 5 days of a customer's request	90%	90%
Appointments at customer's premises met within appointed time [am or pm]	90%	90%
Rescheduled of missed appointments within 1 day	100%	100%
Cable Locates completed within 5 working days of a customer's request (ESA)	90%	90%
Written Response to Inquiries		
Written response to inquiries from customer or agent of customer, within 9 working days following receipt of request	80%	95%
Emergency Response		
Emergency trouble calls response within 60 minutes.	80%	95%
Reconnection Standards		
Past disconnection due to non-payment, reconnect within 2 business days of full payment or arrears payment agreement	85%	85%
CONSOLIDATED PRE-TAX NET INCOME (120% OF BUDGET on Modified IFRS*)		
Pre-Tax Net Income		
Target to follow subsequent to Board approval of 2012 Budget numbers	N/A	TBD
* Modified IFRS: IFRS based net income adding back Regulatory Asset & Liability activity and settlement.		

Table 1.3 – Enersource 2012 Corporate Performance Target

Description	Actual					Forecast				
	2007 CGAAP	2008 CGAAP	2009 CGAAP	2010 CGAAP	2011 IFRS	2012 IFRS	2013 IFRS	2014 IFRS	2015 IFRS	2016 IFRS
Subdivision Rebuilds	5,972	7,669	8,354	7,349	6,279	7,356	7,847	8,828	9,808	10,789
Overhead Distribution Sustainment	3,332	3,531	4,704	3,799	1,676	2,249	2,727	3,058	2,609	2,789
Underground Distribution Sustainment	2,280	2,320	2,441	2,133	2,332	2,583	2,998	3,228	3,136	3,228
Transformer Replacement	686	832	2,464	1,375	947	913	1,004	1,096	1,278	1,461
Automated Switches / SCADA Program	1,187	1,438	1,328	1,660	1,473	1,382	1,750	2,119	2,487	2,672
Total	13,457	15,790	19,291	16,316	12,707	14,483	16,326	18,329	19,319	20,939

**Table 17.2 – Table of Enersource System Maintenance – Reliability Driven Investment
(in \$'000)**

Major Variance Factors 2012 Bridge Year Forecast vs 2011 Actual

- 1) Approximate \$0.7M increase in reliability and growth driven investments. This is the net result of increases in “subdivision rebuilds, overhead distribution sustainment, underground distribution sustainment” less decreases in “transformer replacement, automated switches / SCADA program, subtransmission and distribution and municipal substation construction and upgrades”.

Specifically this funding is for the following items:

- to improve reliability by replacing underground equipment
- to ensure that substandard overhead lines, that have reached their end of life are replaced
- to ensure that the replacement of inoperable and end of life equipment
- the spot replacement of overhead switching equipment
- to ensure that substandard wood poles, cross arms and concrete poles are replaced

Major Variance Factors 2013 Test Year Forecast vs 2012 Bridge Year Forecast

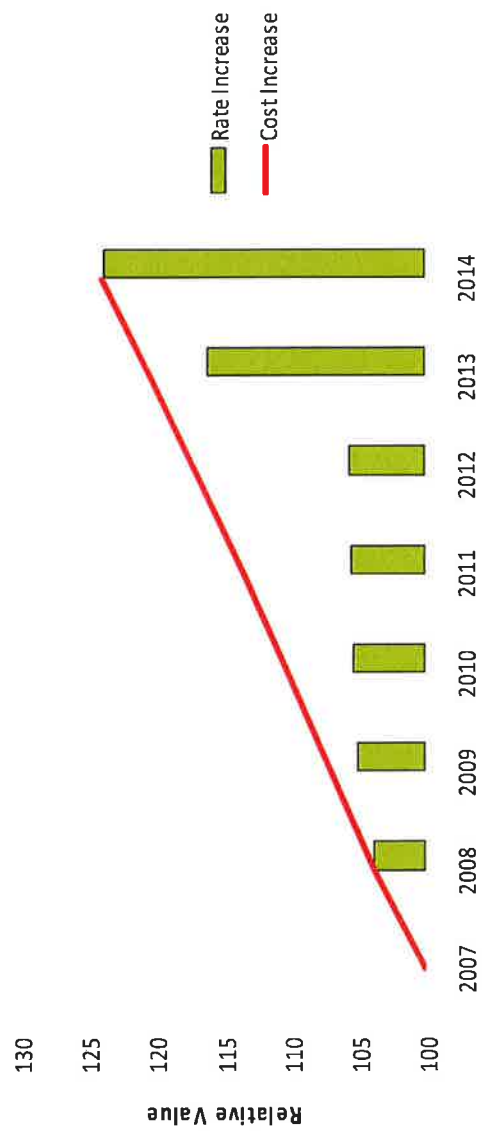
- 1) Approximate \$1.8M increase in reliability driven investment mainly due to the higher forecast replacement of distribution system assets. This is the net result of increases in “subdivision rebuilds, overhead distribution sustainment, underground distribution sustainment, transformer replacement, automated switches / SCADA program”.

Specifically this funding is for the following items:

- to improve reliability by replacing underground equipment
- to ensure that substandard overhead lines, that have reached their end of life are replaced
- to ensure that the replacement of inoperable and end of life equipment
- the spot replacement of overhead switching equipment
- to ensure that substandard wood poles, cross arms and concrete poles are replaced
- three phase feeders, as well as single phase residential cable replacement

OEB Model

Relative Changes in Rate vs Cost Increases



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1 The substantive reasons for this request are discussed below. From a
2 procedural perspective, Enersource appreciates that its proposed approach
3 respecting the treatment of capital for a two-year period departs from past
4 practice. The Board has approved multi-year rate applications but none has
5 been limited past the first year to incremental capital only, like this Application.

6 The Board has recognized the need for new ways to approach the challenges of
7 managing the rate treatment of infrastructure investment and the approach in this
8 Application is proposed in that context. Therefore, Enersource recognizes that it
9 may be appropriate to address the structure of this proposed approach as a
10 preliminary issue in this Application.

11 **Reasons for Proposed Approach**

12 The Chair of the OEB recently stated that “one of the major challenges facing the
13 sector today and the most significant driver of costs is the scale of capital
14 spending expected over the next few years from most utilities – generators,
15 transmitters and distributors alike – to renew and modernize the system and
16 provide for new demand”.¹ As a result, the Board has recognized the need “to
17 consider how existing regulatory approaches and tools may need to be adapted
18 to ensure that public policy goals are met in a cost effective manner”.²

19 The need to adapt regulatory approaches to meet new needs of capital
20 investment has been discussed in a number of forums, including the Board’s
21 *Renewed Regulatory Framework for Electricity* (“RRFE”).³ As part of that
22 process, the Board tabled for discussion a “straw man” model (“Straw Man

¹ Rosemarie T. Leclair, Chair & CEO, Ontario Energy Board, Remarks for the Ontario Energy Network, November 21, 2011, p. 7.

² Letter from OEB to Stakeholders, November 8, 2011, Attachment A.

³ EB-2010-0377, EB-2010-0378, EB-2010-0379, EB-2011-0043, and EB-2011-0004.

1 Model”) drafted by Board staff that involves a multi-year capital plan with annual
2 adjustments.

3 The outcome of this Application provides a practical and reasonable interim
4 solution to the underlying challenges of rate regulation in a time of growing
5 capital requirements.

6 **How the Proposed Approach Differs from the Current Model**

7 The Board’s current rate setting model has resulted in nominal rate increases via
8 incentive regulation mechanism (“IRM”) since Enersource’s last COS rate
9 application for the 2008 rate year.⁴ During this period, Enersource has continued
10 to invest in essential capital infrastructure in order to deliver on the Company’s
11 mission “to consistently fulfill and exceed customer needs and stakeholder
12 requirements”.

13 As a result, a material component of the deficiency for the 2013 Test Year is due
14 to the cumulative difference between the 2008 average net book value (“NBV”) of
15 assets and the 2013 Test Year average NBV. The balance of the revenue
16 deficiency is due to the changes in OM&A and depreciation since 2008, despite
17 the partial offset by the annual IRM distribution rate changes since then.

18 The result of the lag between the time in which the capital investments were
19 made from 2009 to 2012 is a one-time increase to revenue requirement of
20 6.45%. If the costs of capital were included in rate base and revenue
21 requirement at the time they were made, the annual increase of rates attributable
22 to capital investment would have been in the range of 0.15% to 3.47%, as shown

⁴ In the preparation of the Application, Enersource assumed that its 2012 IRM application, EB-2011-0100, for rates effective May 1, 2012, would be approved as updated. The Board’s decision, released April 19, 2012, has been reviewed, and Enersource is hereby filing the resulting necessary updates to the Application.

1 in Table 1 below. Customers would therefore have benefitted from this smoother
2 rate increase.

3 The annual investments in capital and the resulting changes in revenue
4 requirements, for each of the IRM years, are shown in Table 1 below⁵.

5 **Table 1: Change in Average Net Book Value of Assets and Revenue**
6 **Requirement, 2009 - 2012**

Year	Annual Investments in Capital ¹ (\$000s)	Cost of Capital (\$000s) ²	Annual % Change from Approved Revenue Requirement
2009	2,385	172	0.15%
2010	13,265	1,129	1.00%
2011 (MIFRS)	11,298	1,944	1.71%
2012 (MIFRS)	28,747	4,017	3.47%

¹ Reflects changes in the average net book value of assets only, excluding Smart Meter assets. Working Capital Allowance held at 2008 OEB-approved amount.

² Cost of Capital is WACC rate multiplied by the cumulative investments in capital.

7

8 Under the current IRM model, Enersource continues to make significant capital
9 investments that exceed depreciation, with little financial return. This ongoing
10 investment results in pent-up costs imposed all in one year on customers
11 pursuant to the cost of service rebasing process. This approach does not incent
12 efficiency or benefit customers; it causes confusion and concern among
13 customers due to the resulting step increase in distribution rates following a COS
14 rate application proceeding.

15 Enersource is proposing a modest change to the current approach to facilitate
16 more gradual rate changes for customers to mitigate the step increases in rates.

⁵ All references to dollar amounts are quoted in thousands of dollars throughout the Application, unless indicated otherwise.

1 The need for a modified approach is particularly timely for Enersource's
2 customers. As fully detailed in Exhibit 2 Tab 2 Schedule 2 and Exhibit 2 Tab 2
3 Schedule 2 Appendix 1, i.e., the Asset Management Plan, there is a need for
4 significant capital investment in Enersource's system starting within the next four
5 to five years, continuing over the next decade and beyond. It reflects the need to
6 replace or substantially refurbish many of Enersource's electricity system assets
7 that were installed during the City of Mississauga's boom development years of
8 the 1970's, 1980's, and 1990's. A significant portion of this vintage of assets was
9 paid for by developers and therefore is not included in the current rate base and
10 does not impact current distribution rates.

11 Enersource's direct capital investments during that same period of boom
12 development will also require a similar degree of replacement and/or
13 rehabilitation and financial returns from this investment will, in effect, replace the
14 returns generated from the retired plant.

15 In 2011, Enersource extended the useful lives of its assets subsequent to the
16 commissioning of a study prepared by Kinectrics Inc. This is discussed at Exhibit
17 2 Tab 1 Schedule 1. The impact of this extension is lower annual depreciation
18 and amortization expenses, furthering the growth in the NBV of assets.

19 When considering the impact of increased capital expenditure requirements
20 combined with lower depreciation and amortization expense recognition,
21 Enersource's rate base will increase at a significantly faster rate than in the past.
22 If this increase is recognized only at the time of a COS rate application,
23 customers will experience significant distribution rate increases every four or so
24 years.

25 The consequence of this is that sensitivity to managing rate impacts to all
26 customers will be more important than ever. Therefore, it is important to start

1 incorporating a forward-looking approach that takes a longer-term view of the
2 need for capital investment. Developing this approach while there is still some
3 lead time for major capital investments will permit customers to become adjusted
4 to this new approach within a relatively stable environment and with a nominal
5 rate impact. (The impact on the 2014 total electricity bill for a typical residential
6 customer using 800 kWh per month is a decrease from 2013 of 0.3% or \$0.40
7 per month). It also provides the Board with the opportunity to address a longer-
8 term approach to capital investment within the context of a relatively predictable
9 outcome. Addressing these issues prior to a major wave of investment expected
10 to start in the next four to five years is more prudent than waiting until Enersource
11 and the rest of the sector are in the middle of it.

12 Further, a two-year capital approach aligns with the timing of the RRFE, in that it
13 can provide experience and information that may be helpful for the Board in
14 finalizing that review. It also does not commit to a multi-year approach that may
15 interfere with the Board's timing horizon for implementing a new framework.

16 Enersource will do its part to respect customers both with regard to costs and
17 quality of service.

18 With respect to costs, the proposal includes separating the treatment of OM&A
19 from capital for the 2014 ICR Year, not unlike the Straw Man Model. However,
20 unlike the Straw Man Model, if Enersource's proposed treatment of capital is
21 approved, Enersource will hold flat OM&A levels in rates over the two years, with
22 greater incentive for increased productivity and performance outcomes.

23 As stated above, the proposed ICR Year is an interim solution for Enersource,
24 expected to be followed in subsequent years with the final model resulting from
25 the RRFE.

A Renewed Regulatory Framework for Electricity

ATTACHMENT TO DRAFT AGENDA FOR STAKEHOLDER CONFERENCE ON MARCH 28, 29 & 30, 2012

This consultative process will lead to the issuance of a Board report setting out policies in relation to the development of a renewed regulatory framework for electricity which will:

- Establish performance outcomes that reflect consumers' expectations and encourage enhanced utility productivity;
- Provide for efficiently planned investments in grid sustainment, expansion and modernization that consider pace and prioritization;
- Align rate setting cycle and investment planning horizon and provides for efficient recovery of costs;
- Increase efficiency in the regulatory process through greater focus on outcomes; and
- Consider the total bill impact to consumers.

Proposed Approach at the Stakeholder Conference

To facilitate discussions over the three-day period the stakeholder conference will be organized into four segments based on the following themes:

- Vision and Context;
- Planning;
- Performance & Incentives; and
- Rate-Setting & Mitigation.

These themes have been selected based on what presenters have indicated that they wish to present on. Within each theme, and to facilitate discussions, presenters will be organized into groups based on potentially common interests or by particular issue.

The proposed structure for the conference is as follows:

- group members make their individual presentations (up to 15 min. each);
- there will be a brief Q&A period (25 - 30 min.) where participants may ask any member of the group clarifying questions; and
- at the end of each themed segment, there will be a general discussion (up to 60 min.) on what has been presented.

During the discussion sessions, the Board would be assisted if participants considered the following questions related to the different themes.

Vision and Context

- What is your vision for a sustainable and long-term regulatory regime?
- What changes would be needed to evolve planning, mitigation, and performance policies towards your vision?
- What outcomes for customer service and company cost performance should be established?