

1 OEB STAFF INTERROGATORY 12

2 5.0 Commitments from Previous OEB Decisions

3 5.4 Is the IESO's rationale as to why benchmarking is not possible or appropriate  
4 acceptable

5 5.4 Staff – 11

6 INTERROGATORY

7 Reference: Exhibit C-4-1, p. 1-2 Preamble:

8 The IESO submits cost benchmarking is not appropriate due to a lack of available information  
9 and lack of suitable comparable entities to bench mark against.

10 Questions:

11 a) Did the IESO investigate whether any parts of the organization could be benchmarked? For  
12 example, did it consider whether employee compensation costs, including pensions and  
13 OPEBs, or certain functions of the organization – like HR, communications, and finance  
14 groups - could be benchmarked against other organizations?

15 RESPONSE

16 The IESO examined the opportunity to undertake cost benchmarking for some or all of its  
17 functions and activities as a means of providing a measure of the reasonableness of the IESO's  
18 proposed expenditures and fees. The IESO performed a review that included identification of  
19 possible appropriate comparable entities to the IESO, outreach to these comparable entities to  
20 understand how the IESO is similar to, or is materially different from, them, identification of  
21 where similar benchmarking activities have already taken place or suitable information is  
22 available, and examination of available information. The IESO also leveraged the regulatory  
23 scorecard development activities to inform its conclusions. Based on the review (described in  
24 Exhibit C-4-1), the IESO concluded that, due to the structure of the Ontario electricity sector, no  
25 comparable Ontario entities to the IESO were identified that were suitable for benchmarking  
26 costs of IESO functions and activities for providing a measure of the reasonableness of the  
27 IESO's proposed expenditures and fees.

28 The IESO does benchmark compensation costs as described in response to Board Staff  
29 Interrogatory 4 Exhibit 1.1, Tab 1.1, Schedule 1.4.

1 While there was no comparable entity identified, the IESO did examine the Federal Energy  
2 Regulatory Commission (FERC) *ISO/RTO Common Metrics Report*, which publishes metrics that  
3 are calculated using information that is submitted on a voluntary basis, with the intent of  
4 comparing areas in which RTOs and ISOs and non-RTOs and ISOs perform identical functions.

5 The review found that limited cost-benchmarking information was included, and that FERC  
6 staff has largely avoided drawing comparisons between the entities due to the significant  
7 differences in the scale of operations. As described further in Exhibit C-4-1, other challenges to  
8 comparing ISO/RTOs wholly, or in part, include lack of information quality or completeness  
9 due to the voluntary collection of the data, inherent variations in market design, system size  
10 and complexity, operating conditions, generation mix, policy and regulatory environments, and  
11 application of accounting policies and procedures to collect and report costs. For these reasons,  
12 the IESO believes that cost benchmarking for some, or all of its, functions and activities is not  
13 feasible as a means of providing a measure of the reasonableness of the IESO's proposed  
14 expenditures and fees.

1 BOMA INTERROGATORY 41

2 Issue 5.4

3 INTERROGATORY

4 Reference: Issue 5.4

5 (a) Please confirm that there are certain metrics that can be used to compare activities under the  
6 control of the IESO, AESO, and the US RTO/ISOs, such as actual administrative spending  
7 per MW/h versus budget forecasts, customer satisfaction indices, billing/audits.

8 (b) Is it not the case that, while the IESO, AESO, and the US RTO/ISOs each may have unique  
9 responsibilities, such as, in the case of IESO, responsibility for CDM, there is a common set  
10 of activities, performed by all or most of the above agencies, including operation of energy  
11 and capacity markets, oversight of transmission systems, transmission planning, oversight  
12 of conduct of market participants and enforcement of standards (rules), and monitoring of  
13 reliability. Please discuss fully.

14 (c) Please provide a table which shows the functions provided by each of the IESO, AESO, and  
15 the six US RTO/ISOs, which are the subject of the ongoing FERC review, in particular, ISO  
16 NE, NYISO, PJM, MISO, and CAISO, and ERCOT. ERCOT is not FERC-jurisdictional, but  
17 studies have been made of the ERCOT's operations.

18 RESPONSE

19 a & b) Exhibit C-4-1 discusses the limitations of developing comparable metrics for the IESO  
20 compared to the entities cited. As discussed in its evidence, the IESO continues to maintain  
21 that such comparisons are not appropriate due to the lack of available information and the  
22 lack of suitable comparable entities to benchmark costs against.

23 As discussed in the IESO's evidence, based on discussions with representatives of the  
24 ISO/RTOs, the challenges of comparing ISO/RTOs to one another were seen to include:

- 25 • Lack of assurance of information quality or completeness because of the voluntary  
26 collection basis and lack of standardization of tools, scope and methodologies to collect  
27 information at the entity level.
- 28 • Inherent variations in market design, system size and complexity, geography and  
29 footprint, operating conditions (such as weather patterns), generation mix, policy and  
30 regulatory environments, and NERC functional model registration, among other  
31 possible differences that can have a material impact on underlying costs.

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EB-2017-0150

Exhibit I

Tab 5.4

Schedule 2.41 BOMA 41

Page 2 of 2

- 1           • Application of accounting policies and procedures to collect and report costs may vary.  
2  
3 c) As the IESO maintains that it is not comparable to the entities cited for the reasons stated in  
4 response to parts (a) and (b) above and in its filed evidence, the IESO has not completed the  
5 requested table.

1 BOMA INTERROGATORY 43

2 Issue

3 INTERROGATORY

4 Reference: Recent FERC Reports; Benchmarking; Issue 5.4, Exhibit C, Tab 1

5 (a) In particular, has the IESO studied, in depth, the effort by FERC to develop metrics for  
6 comparing the performance of the US RTO/ISOs, the initial report, entitled "Performance  
7 Metrics for Independent System Operators and Regional Transmission Organizations",  
8 April 2011 (Appendix 2), together with the follow-up FERC Staff Report, "Common Metrics  
9 Report, October 2016, Docket AD14-15-000" ("Common Metrics Report") (Appendix 3)?  
10 Copies of both reports are attached to these Interrogatories.

11 (b) The Common Metrics Report provides, at pp66-70, a comparison of administrative costs,  
12 both operating costs and capital costs, for the five major FERC jurisdictional ISO/RTOs that  
13 were the subject of FERC's studies, CAISO, ISO, NE, NYISO, and PJM. Please confirm that it  
14 would be possible to compare IESO's administrative costs, appropriate operating and  
15 capital to those numbers with adjustment for the IESO's CDM function. Please discuss fully.

16 (c) Appendix A of the Common Metrics Report shows the List of Common Metrics developed  
17 by the FERC Staff, based on information submitted by the five major ISO/RTOs. Please  
18 indicate which common metrics would not be appropriate metrics to apply to the IESO's  
19 performance, and why, and which would be appropriate, or appropriate with modifications.

20 (d) Please confirm that the IESO and the AESO, and the five RTO/ISOs conduct similar  
21 activities and operations, including:

22 (i) administration and management;

23 (ii) billing;

24 (iii) meet customer satisfaction;

25 (iv) transmission planning;

26 (v) supervision of open access transmission;

27 (vi) maintain system reliability as established by NERC, and its regional designates;

28 (vii) economic dispatch subject to system constraints;

- 1 (viii) acquire generation capacity;
- 2 (ix) balance the market, both internally and externally, and supervise activities;
- 3 (x) forecast system demand;
- 4 (xi) operate wholesale markets to ensure maximum efficiency given constraints;
- 5 (xii) encourage growth of new and diversified power sources, eg. demand response,
- 6 renewables;
- 7 (xiii) operate energy and reserve and ancillary markets.

8 Please note which functions any of the RTO/ISOs, including AESO, perform which  
9 the IESO does not perform, and which functions the IESO performs that are not  
10 performed by one or more of the other RTO/ISOs. Please discuss each of the  
11 functions (i) through (xiii) separately.

12 (e) Please confirm that most of the items on which IESO will provide information for the  
13 purposes of constructing a scorecard, as shown at Exhibit C, Tab 1, Schedule 1, Attachment  
14 1, p7 of 56, would also be useful for a benchmarking study with the five major US ISO/RTOs  
15 and AESO.

16 RESPONSE

17 a) through d) please refer to the response to BOMA Interrogatory 41 at Exhibit I, Tab 5.4,  
18 Schedule 2.41.

19 e) The IESO would not expect many of the items contained in the table to be useful for a  
20 benchmarking study with the five major US ISO/RTOs and the AESO as they are Ontario  
21 specific. Also refer to page 10 of Exhibit C-1-1, Attachment 1.

1

ENERGY PROBE INTERROGATORY 19

2 Issue 5.4

3 INTERROGATORY

4 References: Exhibit C, Tab 4, Schedule 1

5 Preamble: The IESO understands and appreciates the underlying desire for the Board and the  
6 Parties to look to the potential for cost benchmarking of some or all of its activities for the  
7 purpose of understanding the reasonableness of the IESO's proposed expenditures and usage  
8 fees.

9 However, based on the analysis above, the IESO respectfully submits that such an activity is not  
10 appropriate due to the lack of available information and the lack of suitable comparable entities  
11 to benchmark costs against.

12 a) Does IESO accept that external cost benchmarking is useful? Please discuss.

13 b) Why does IESO believe data comparability restrictions are too large?

14 c) Although IESO believes that its core operations (to be defined by IESO in the response)  
15 cannot be compared to other RTO/ISOs, please provide a similar chart to Figure 8 in the  
16 FERC Report referenced in the evidence (Exhibit C, Tab 4, Schedule 1, Page 2 lines15-16)  
17 showing IESO overall administration Cost/MWh over the period 2010-2016, adjusted for  
18 exchange rates.

19 d) Please provide an internal benchmark analysis with schedules and charts showing OPA and  
20 IESO core operations costs from 2010-2017 (pre and post merger) and as applicable,  
21 normalize these for export and domestic functions based on relevant metrics such as  
22 \$/MWh.

23 RESPONSE

24 a) The IESO believes external cost benchmarking is a valuable tool as long as appropriate  
25 comparable entities and suitable information is available as a basis to benchmark against.  
26 Where there are no comparable entities, or where available benchmarking data lacks  
27 assurance of information quality or standardization due to the way it is collected, the IESO  
28 believes that the value of cost benchmarking is greatly diminished.

29 b) Please refer to the response to OEB Staff Interrogatory 12 at Exhibit I, Tab 5.4, Schedule 1.12.

- 1 c) Figure 8 in the FERC Report pertains to Energy Management System availability (average  
2 and range) measuring the availability of the systems used for real-time monitoring and  
3 security functions. The IESO will not be providing the requested data.
- 4 d) Predecessor organizations (IESO and OPA) were structured differently and did not have the  
5 requested data that could readily be mapped on a comparative basis. Hence, the IESO will  
6 not be providing the requested pre-merger data, as there was an overlap and/or duplication  
7 of certain functions and the data is not comparative to later years, in terms of meaningful  
8 trends.
- 9 Further, post-merger the IESO has not engaged in comprehensive activity based costing and  
10 it does not have a mechanism to normalize for export or domestic functions. All IESO  
11 support functions are shared across the organization and their costs are not allocated to  
12 specific functional groups; instead, costs are aggregated by functional areas (i.e., divisions,  
13 business units or departments).

**ENERGY PROBE INTERROGATORY 20**

Issue 5.4

**INTERROGATORY**

Reference: Exhibit C, Tab 5, Schedule 1, Page 2

- a) Please update the Table provided in the reference for 2016.
- b) Please provide the expenditures and savings associated with the CII Programs for each year over the period 2014-2016 as well as the 3 year totals.
- c) Please provide similar information for the Residential Sector Programs.

**RESPONSE**

a) The table at Exhibit C-5-1 has been updated for 2016 in the table below:

#	Program	2015 Spending (\$ M)	2016 Spending (\$ M)
1	peaksaver PLUS Program (Residential & Small Business)	19.5	9.1
2	Retrofit Program (Large Projects with Custom Measures and Large Custom Projects only)	41.1	139.3
3	Existing Building Commissioning Program	1.3	1.0
4	Process & Systems Upgrades Program	68.8	22.1
5	Monitoring & Targeting Program	0.7	0.4
6	Industrial Accelerator Program (Capital Incentives Track only)	0.07	22.5
<b>Total</b>		<b>131.47</b>	<b>194.4</b>
<b>Total fully metered Residential Programs (1)</b>		<b>19.5</b>	<b>9.1</b>
<b>Total fully metered Industrial, Commercial &amp; Institutional Programs (2-6)</b>		<b>111.97</b>	<b>185.3</b>
<b>Total fully metered programs</b>		<b>131.47</b>	<b>194.4</b>

b) The requested information is provided in the table below:

Year	Framework	Program	Net Annual Energy Savings at the End-User Level (kWh)				Net Annual Peak Demand Savings at the End-User Level (kW)			Expenditure (\$)
			2014	2015	2016	Total	2014	2015	2016	
2014	2011 - 2014 + 2015 Extension Legacy Green Energy Act	Energy Audit	30,874,399	30,874,399	30,874,399	<b>92,623,196</b>	6,323	6,323	6,323	5,881,670
2014	2012 - 2014 + 2015 Extension Legacy Green Energy Act	Efficiency: Equipment Replacement Incentive	462,903,521	462,103,823	462,103,823	<b>1,387,111,168</b>	70,662	70,439	70,439	98,681,768
2014	2013 - 2014 + 2015 Extension Legacy Green Energy Act	Direct Install Lighting and Water Heating	84,503,302	77,961,131	69,962,877	<b>232,427,309</b>	23,419	21,544	19,444	43,031,469
2014	2014 - 2014 + 2015 Extension Legacy Green Energy Act	New Construction and Major Renovation	21,069,941	21,069,941	21,069,951	<b>63,209,733</b>	6,566	6,566	6,566	10,859,620
2014	2015 - 2014 + 2015 Extension Legacy Green Energy Act	Existing Building Commissioning Incentive	1,513,377	1,513,377	1,513,377	<b>4,540,130</b>	988	988	988	1,225,803
2014	2016 - 2014 + 2015 Extension Legacy Green Energy Act	Process and Systems Upgrades - Project Incentive	72,053,255	72,053,255	72,053,255	<b>216,159,764</b>	9,692	9,692	9,692	18,198,739
2014	2017 - 2014 + 2015 Extension Legacy Green Energy Act	Process and Systems Upgrades - Energy Manager	40,436,427	37,879,851	29,385,286	<b>107,681,565</b>	5,191	4,620	3,524	4,207,510
2014	2018 - 2014 + 2015 Extension Legacy Green Energy Act	Process and Systems Upgrades - Monitoring and Targeting	502,517	502,517	502,517	<b>1,507,551</b>	102	102	102	690,386
2014	2019 - 2014 + 2015 Extension Legacy Green Energy Act	Commercial Demand Response	0	0	0	<b>0</b>	1,101	0	0	768,732
2014	2020 - 2014 + 2015 Extension Legacy Green Energy Act	Demand Response 2	0	0	0	<b>0</b>	64,636	0	0	14,343,155
2014	2021 - 2014 + 2015 Extension Legacy Green Energy Act	Demand Response 3	0	0	0	<b>0</b>	316,021	0	0	45,543,050
2014	2022 - 2014 + 2015 Extension Legacy Green Energy Act	LDC Program Enabled Savings	19,035,337	16,057,383	16,057,383	<b>51,150,102</b>	5,500	5,165	5,165	0
2014	2023 - 2014 + 2015 Extension Legacy Green Energy Act	Direct Service Space Cooling	0	0	0	<b>0</b>	0	0	0	99,037
2014	2024 - 2014 + 2015 Extension Legacy Green Energy Act	Key Account Manager	0	0	0	<b>0</b>	0	0	0	-513,245
2014	2025 - 2014 + 2015 Extension Legacy Green Energy Act	Demand Response 1 Initiative Schedule	0	0	0	<b>0</b>	0	0	0	188,657
2014	2007 - 2010	Toronto Comprehensive	2,479,840	2,479,840	2,479,840	<b>7,439,520</b>	281	281	281	2,809,427
2014	2011 - 2015 Industrial Accelerator Program	Industrial Accelerator Program 1	13,464,411	13,464,411	13,464,411	<b>40,393,234</b>	1,526	1,526	1,526	9,273,183
2015	2011 - 2014 + 2015 Extension Legacy Green Energy Act	Energy Audit	0	43,630,635	43,630,635	<b>87,261,270</b>	0	9,298	9,298	5,856,472
2015	2012 - 2014 + 2015 Extension Legacy Green Energy Act	Efficiency: Equipment Replacement Incentive	0	700,009,302	699,974,182	<b>1,399,983,484</b>	0	100,772	100,759	115,009,067
2015	2013 - 2014 + 2015 Extension Legacy Green Energy Act	Direct Install Lighting and Water Heating	0	50,394,978	44,372,845	<b>94,767,823</b>	0	11,893	10,536	39,586,498
2015	2014 - 2014 + 2015 Extension Legacy Green Energy Act	New Construction and Major Renovation	0	49,162,581	49,162,581	<b>98,325,162</b>	0	12,419	12,419	13,781,462
2015	2015 - 2014 + 2015 Extension Legacy Green Energy Act	Existing Building Commissioning Incentive	0	1,263,926	1,263,926	<b>2,527,852</b>	0	543	543	1,342,213
2015	2016 - 2014 + 2015 Extension Legacy Green Energy Act	Process and Systems Upgrades - Project Incentive	0	264,884,079	264,884,079	<b>529,768,158</b>	0	21,406	21,406	68,483,624
2015	2017 - 2014 + 2015 Extension Legacy Green Energy Act	Process and Systems Upgrades - Energy Manager	0	35,959,640	29,964,736	<b>65,924,376</b>	0	7,590	6,320	9,482,312
2015	2018 - 2014 + 2015 Extension Legacy Green Energy Act	Process and Systems Upgrades - Monitoring and Targeting	0	1,369,000	0	<b>1,369,000</b>	0	0	0	680,734
2015	2019 - 2014 + 2015 Extension Legacy Green Energy Act	Key Account Manager	0	0	0	<b>0</b>	0	0	0	889,529
2015	2020 - 2014 + 2015 Extension Legacy Green Energy Act	Demand Response 1 Initiative Schedule	0	0	0	<b>0</b>	0	0	0	10,920
2015	2021 - 2014 + 2015 Extension Legacy Green Energy Act	Demand Response 3 Initiative Schedule	0	0	0	<b>0</b>	0	0	0	1,562,554
2015	2022 - 2014 + 2015 Extension Legacy Green Energy Act	Commercial Demand Response	0	7,785	0	<b>7,785</b>	0	2,163	0	972,652
2015	2011 - 2015 Industrial Accelerator Program	Industrial Accelerator Program 1	0	45,036	45,036	<b>90,073</b>	0	6	6	17,910,475
2015	2015 - 2020 Conservation First	Save on Energy Audit Funding	0	2,169,479	2,169,479	<b>4,318,958</b>	0	461	461	217,273
2015	2015 - 2020 Conservation First	Save on Energy Retrofit	0	107,162,440	106,602,764	<b>213,755,204</b>	0	15,544	15,376	10,012,474
2015	2016 - 2020 Conservation First	Save on Energy Small Business Lighting	0	0	0	<b>0</b>	0	0	0	75,438
2015	2017 - 2020 Conservation First	Save on Energy High Performance New Construction	0	478,377	478,377	<b>956,754</b>	0	96	96	189,958
2015	2018 - 2020 Conservation First	Save on Energy Existing Building Commissioning	0	0	0	<b>0</b>	0	0	0	3,333
2015	2019 - 2020 Conservation First	Save on Energy Process & Systems Upgrades	0	0	0	<b>0</b>	0	0	0	670,903
2015	2020 - 2020 Conservation First	Save on Energy Energy Manager	0	0	0	<b>0</b>	0	0	0	188,993
2015	2021 - 2020 Conservation First	Save on Energy Monitoring & Targeting	0	0	0	<b>0</b>	0	0	0	19,506
2015	2022 - 2020 Conservation First	Save on Energy Retrofit Program - P4P	0	1,731,152	1,567,230	<b>3,298,382</b>	0	341	296	0
2015	2023 - 2020 Conservation First	Save on Energy Process & Systems Upgrades Program	0	0	0	<b>0</b>	0	0	0	0
2015	2015 - 2020 Industrial Accelerator Program	Industrial Accelerator Program 2	0	49,352,617	48,603,647	<b>97,956,264</b>	0	5,715	5,660	167,568
2016	2015 - 2020 Conservation First	Save on Energy Audit Funding	0	2,799,382	2,799,382	<b>2,799,382</b>	0	0	0	365
2016	2016 - 2020 Conservation First	Save on Energy Retrofit	0	537,409,653	537,409,653	<b>537,409,653</b>	0	0	72,374	91,223,615
2016	2017 - 2020 Conservation First	Save on Energy Small Business Lighting	0	13,854,737	13,854,737	<b>13,854,737</b>	0	0	2,612	5,333,344
2016	2018 - 2020 Conservation First	Save on Energy High Performance New Construction	0	18,772,882	18,772,882	<b>18,772,882</b>	0	0	5,693	4,318,040
2016	2019 - 2020 Conservation First	Save on Energy Existing Building Commissioning	0	0	0	<b>0</b>	0	0	0	593,533
2016	2020 - 2020 Conservation First	Save on Energy Process & Systems Upgrades	0	0	778,676	<b>778,676</b>	0	0	61	7,639,163
2016	2021 - 2020 Conservation First	Save on Energy Energy Manager	0	0	16,362,558	<b>16,362,558</b>	0	0	1,510	2,125,612
2016	2022 - 2020 Conservation First	Save on Energy Monitoring & Targeting	0	0	0	<b>0</b>	0	0	0	56,120
2016	2023 - 2020 Conservation First	Save on Energy Retrofit Program - P4P	0	0	41,083,220	<b>41,083,220</b>	0	0	4,244	272,373
2016	2024 - 2020 Conservation First	Save on Energy Process & Systems Upgrades Program	0	0	10,957,531	<b>10,957,531</b>	0	0	0	1,596
2016	2011 - 2014 + 2015 Extension Legacy Green Energy Act	Energy Audit	0	0	0	<b>0</b>	0	0	0	1147,250
2016	2012 - 2014 + 2015 Extension Legacy Green Energy Act	Efficiency: Equipment Replacement Incentive	0	0	0	<b>0</b>	0	0	0	47,829,495
2016	2013 - 2014 + 2015 Extension Legacy Green Energy Act	Direct Install Lighting and Water Heating	0	0	0	<b>0</b>	0	0	0	-5,246,923
2016	2014 - 2014 + 2015 Extension Legacy Green Energy Act	New Construction and Major Renovation	0	0	0	<b>0</b>	0	0	0	12,824,624
2016	2015 - 2014 + 2015 Extension Legacy Green Energy Act	Existing Building Commissioning Incentive	0	0	0	<b>0</b>	0	0	0	367,525
2016	2016 - 2014 + 2015 Extension Legacy Green Energy Act	Process and Systems Upgrades - Project Incentive	0	0	0	<b>0</b>	0	0	0	14,469,364
2016	2017 - 2014 + 2015 Extension Legacy Green Energy Act	Process and Systems Upgrades - Energy Manager	0	0	0	<b>0</b>	0	0	0	1,794,112
2016	2018 - 2014 + 2015 Extension Legacy Green Energy Act	Process and Systems Upgrades - Monitoring and Targeting	0	0	0	<b>0</b>	0	0	0	318,623
2016	2019 - 2014 + 2015 Extension Legacy Green Energy Act	Commercial Demand Response	0	0	7,613	<b>7,613</b>	0	0	2,116	3,120
2016	2011 - 2015 Industrial Accelerator Program	Industrial Accelerator Program 1	0	0	0	<b>0</b>	0	0	0	18,602,548
2016	2015 - 2020 Industrial Accelerator Program	Industrial Accelerator Program 2	0	0	148,458,285	<b>148,458,285</b>	0	0	16,878	3,920,426
<b>Total</b>			<b>748,836,327</b>	<b>2,043,560,955</b>	<b>2,802,640,973</b>	<b>5,595,038,256</b>	<b>512,006</b>	<b>315,493</b>	<b>414,673</b>	<b>751,555,566</b>

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c) The requested information for the Residential Sector Programs is provided in the table below:

Year	Framework	Program	Net Annual Energy Savings at the End-User Level (kWh)				Net Annual Peak Demand Savings at the End-User Level (kW)			Expenditure (\$)
			2014	2015	2016	Total	2014	2015	2016	
2014	2011 - 2014 + 2015 Extension Legacy Green Energy Act	Appliance Retirement Initiative	9,497,343	9,497,343	9,497,343	28,492,030	1,617	1,617	1,617	6,501,653
2014	2012 - 2014 + 2015 Extension Legacy Green Energy Act	Coupon Initiative	32,802,537	30,721,988	29,661,765	93,186,289	2,440	2,309	2,243	6,674,481
2014	2013 - 2014 + 2015 Extension Legacy Green Energy Act	Bi-Annual Retailer Event Initiative	122,902,769	106,616,854	98,129,537	327,649,160	8,043	7,021	6,488	20,991,869
2014	2014 - 2014 + 2015 Extension Legacy Green Energy Act	HVAC Incentives Initiative	42,888,217	42,888,217	42,888,217	128,664,650	23,106	23,106	23,106	40,958,302
2014	2015 - 2014 + 2015 Extension Legacy Green Energy Act	Residential New Construction and Major Renovation	2,330,865	2,330,865	2,330,865	6,992,596	369	369	369	2,429,044
2014	2016 - 2014 + 2015 Extension Legacy Green Energy Act	Low Income Initiative	19,582,658	19,424,200	17,875,381	56,882,239	2,466	2,458	2,378	23,874,593
2014	2017 - 2014 + 2015 Extension Legacy Green Energy Act	Aboriginal Conservation Program	3,101,207	3,098,104	2,938,676	9,137,988	549	548	540	3,887,869
2014	2018 - 2014 + 2015 Extension Legacy Green Energy Act	Appliance Exchange	2,100,266	2,100,266	2,100,266	6,300,797	1,178	1,178	1,178	1,632,123
2014	2019 - 2014 + 2015 Extension Legacy Green Energy Act	Residential Demand Response	0	0	0	0	22,557	0	0	14,579,368
2014	2020 - 2014 + 2015 Extension Legacy Green Energy Act	Retailer Co-op Initiative	0	0	0	0	0	0	0	69,387
2014	2021 - 2014 + 2015 Extension Legacy Green Energy Act	Home Energy Assessment Tool Initiative	0	0	0	0	0	0	0	64,618
2014	2022 - 2014 + 2015 Extension Legacy Green Energy Act	Midstream Electronics Initiative	0	0	0	0	0	0	0	20,044
2014	2023 - 2014 + 2015 Extension Legacy Green Energy Act	Midstream Pool Equipment Initiative	0	0	0	0	0	0	0	19,746
2014	2024 - 2014 + 2015 Extension Legacy Green Energy Act	Time-of-Use Savings	0	0	0	0	54,795	54,795	54,795	0
2015	2011 - 2014 + 2015 Extension Legacy Green Energy Act	Appliance Retirement Initiative	0	6,231,034	6,231,034	12,462,068	0	1,027	1,027	2,788,729
2015	2012 - 2014 + 2015 Extension Legacy Green Energy Act	Coupon Initiative	0	59,953,926	59,403,670	119,357,596	0	3,914	3,879	14,751,126
2015	2013 - 2014 + 2015 Extension Legacy Green Energy Act	Bi-Annual Retailer Event Initiative	0	75,130,216	73,626,634	148,756,850	0	5,141	5,046	18,376,870
2015	2014 - 2014 + 2015 Extension Legacy Green Energy Act	HVAC Incentives Initiative	0	47,207,639	47,207,639	94,415,278	0	24,676	24,676	51,728,472
2015	2015 - 2014 + 2015 Extension Legacy Green Energy Act	Residential New Construction and Major Renovation	0	10,869,199	10,869,199	21,738,398	0	1,365	1,365	2,948,344
2015	2016 - 2014 + 2015 Extension Legacy Green Energy Act	Low Income Initiative	0	16,628,825	14,225,697	30,854,522	0	2,702	2,577	21,077,617
2015	2017 - 2014 + 2015 Extension Legacy Green Energy Act	Aboriginal Conservation Program	0	3,627,223	3,335,277	6,962,500	0	625	610	7,397,845
2015	2018 - 2014 + 2015 Extension Legacy Green Energy Act	Residential Demand Response	0	282,268	0	282,268	0	169,878	0	18,584,657
2015	2019 - 2014 + 2015 Extension Legacy Green Energy Act	Appliance Exchange Initiative	0	0	0	0	0	0	0	634,455
2015	2020 - 2014 + 2015 Extension Legacy Green Energy Act	Retailer Co-op Initiative	0	0	0	0	0	0	0	58,835
2015	2015 - 2020 Conservation First	Save on Energy Coupon Program	0	35,991,059	35,679,902	71,670,961	0	2,322	2,302	5,580,810
2015	2016 - 2020 Conservation First	Save on Energy Heating & Cooling Program	0	11,566,873	11,566,873	23,133,746	0	6,033	6,033	6,732,615
2015	2017 - 2020 Conservation First	Save on Energy New Construction Program	0	70,679	70,679	141,358	0	15	15	36,101
2015	2018 - 2020 Conservation First	Save on Energy Home Assistance Program	0	1,430,074	1,301,433	2,731,507	0	252	245	1,002,437
2016	2019 - 2020 Conservation First	Save on Energy Coupon Program	0	0	427,989,595	427,989,595	0	0	27,830	36,745,296
2016	2020 - 2020 Conservation First	Save on Energy Heating & Cooling Program	0	0	76,249,162	76,249,162	0	0	22,421	36,655,169
2016	2021 - 2020 Conservation First	Save on Energy New Construction Program	0	0	1,624,371	1,624,371	0	0	355	1,710,327
2016	2022 - 2020 Conservation First	Save on Energy Home Assistance Program	0	0	7,590,437	7,590,437	0	0	827	7,477,149
2016	2011 - 2014 + 2015 Extension Legacy Green Energy Act	Appliance Retirement Initiative	0	0	0	0	0	0	0	624,481
2016	2012 - 2014 + 2015 Extension Legacy Green Energy Act	Coupon Initiative	0	0	0	0	0	0	0	1,913,178
2016	2013 - 2014 + 2015 Extension Legacy Green Energy Act	Bi-Annual Retailer Event Initiative	0	0	0	0	0	0	0	2,285,805
2016	2014 - 2014 + 2015 Extension Legacy Green Energy Act	HVAC Incentives Initiative	0	0	0	0	0	0	0	1,025,270
2016	2015 - 2014 + 2015 Extension Legacy Green Energy Act	Residential New Construction and Major Renovation	0	0	0	0	0	0	0	2,155,609
2016	2016 - 2014 + 2015 Extension Legacy Green Energy Act	Low Income Initiative	0	0	0	0	0	0	0	1,652,935
2016	2017 - 2014 + 2015 Extension Legacy Green Energy Act	Appliance Exchange Initiative	0	0	0	0	0	0	0	82,574
2016	2018 - 2014 + 2015 Extension Legacy Green Energy Act	Retailer Co-op Initiative	0	0	0	0	0	0	0	545
2016	2019 - 2014 + 2015 Extension Legacy Green Energy Act	Residential Demand Response	0	0	276,049	276,049	0	0	166,135	9,079,176
<b>Total</b>			<b>235,205,862</b>	<b>485,666,852</b>	<b>982,669,701</b>	<b>1,703,542,415</b>	<b>117,121</b>	<b>311,352</b>	<b>358,056</b>	<b>374,809,523</b>

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