Nova Scotia Utility and Review Board

IN THE MATTER OF *The Public Utilities Act*, R.S.N.S. 1989, c.380, as amended.

-and-

IN THE MATTER OF AN APPLICATION by EfficiencyOne for Approval of a Supply Agreement for Electricity Efficiency and Conservation Activities between EfficiencyOne and Nova Scotia Power Inc., the establishment of a final agreement between the parties and approval of a 2016-2018 Demand Side Management ("DSM") Plan (M06733).

2016-2018 DSM Plan

NS Power Cost Allocation Proposal

October 30, 2015

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1.0 INTRODUCTION

In accordance with the Consensus Agreement dated June 16, 2015 (Consensus Agreement) signed by EfficiencyOne (E1), Nova Scotia Power Inc. (NS Power or Company), Consumer Advocate, Small Business Advocate, Industrial Group, Affordable Energy Coalition and Ecology Action Centre (collectively, the parties), as approved by the Nova Scotia Utility Review Board (Board) in its decision dated August 12, 2015 (M06733), the parties agreed to refer the issue of cost allocation methodology to the Demand Side Management Advisory Group (DSM Advisory Group). Specifically, Section 4.0 of the Consensus Agreement[1] provides as follows:

> a) The Parties agree to collaboratively work to develop new DSM cost allocation and DSM cost recovery models to be submitted by October 31, 2015 for approval or Decision by the Board, or within a reasonable period of time in accordance with the Board's regulatory schedule. This engagement will include the following items:
>
> i) 2015 DSM cost allocation;
> ii) 2016-2018 DSM cost allocation;
> iii) 2014 rate-smoothing adjustment ("RSA"); and
> iv) Mid-course adjustments.
>
> b) For clarity, this clause in no way restricts Nova Scotia Power's discretion in making application to the UARB regarding the accounting treatment and recovery mechanism of DSM costs.

Cost allocation sets the methodology to determine and track the amount of demand side management (DSM) costs to be allocated among rate classes. NS Power has worked collectively with the members of the DSM Advisory Group on the issue of DSM cost allocation. The proposal sets out NS Power’s position and reflects input received by the Company to date from the DSM Advisory Group. Although a consensus was not reached

[1] 2016-2018 DSM Plan Consensus Agreement (Schedule B), M06733, Approved October 7, 2015, page 6.

on the precise terms of this proposal[2], the Company did not receive objections from any members of the DSM Advisory Group with respect to the general cost allocation framework proposed herein.

NS Power notes that DSM cost recovery is a separate matter distinct from cost allocation and is therefore not within the scope of this proposal. NS Power will file its proposed accounting treatment and cost recovery for 2015 DSM programs and 2016-18 DSM programs by November 30, 2015 in accordance with the Board's Order dated October 7, 2015. NS Power acknowledges that there are certain cost allocation items that will be impacted by proposed accounting treatment and cost recovery, such as the true-up for past imbalances between customer classes, resulting from variances in forecast and actual DSM amounts as well as possible trade-offs between DSM related and non-related costs (e.g. FAM balance in 2015). The Company intends to address these issues in its November 30, 2015 filing.

[2] For example, the DSM Advisory Group has not reached a consensus on the cost allocation of enabling strategies.

2.0 BACKGROUND

Prior to the recent amendments to the *Public Utilities Act* (Act), the cost of DSM was recovered through a DSM Cost Recovery Rate Rider (DCRR) on the customer's electricity bills.

NS Power ceased collecting DSM costs through the DCRR at the end of 2014. Administration of DSM activities was also moved from Efficiency Nova Scotia Corporation to E1, who was granted the first franchise under the Act to provide DSM activities within the province of Nova Scotia.

The process for cost allocation is set out in Section 79S[3] of the Act:

> 79 (S) The Board may, when approving an application made pursuant to Section 79L or 79Q, determine the manner in which any costs recoverable by Nova Scotia Power Incorporated from its customers must be allocated amongst Nova Scotia Power Incorporated's customers, and in doing so may, in addition to any other factors considered appropriate by the Board, take into account the Rate Smoothing Adjustment approved by the Board in its order dated January 29, 2014.

The current cost allocation methodology was approved by the Board in its 2010 DSM Plan and 2010 DSM Rider Decision[4] wherein the Board provided as follows:

> The Board has considered the SA and evidence filed in the hearing. The Board accepts the proposed method of DSM cost allocation, 25% system cost and 75% participant cost, to be a fair and reasonable method to recover DSM costs. The benefits received by customers varies based on the level of participation by each customer class. It is reasonable and fair that the DSM costs be partially based and shared on the benefit received by the customers.

[3] Public Utilities Act (2014), R.S.N.S. c. 380, 2014.
[4] NSUARB-NSPI-P-884(2), August 4, 2009, paragraph 66.

3.0 NS POWER'S POSITION

The current 25/75 per cent split between system cost and participant cost was agreed to by stakeholders to the 2009 Settlement Agreement. It appropriately recognizes that rate class benefits from DSM programs are higher if the class participates in the program. The direct assignment of 75 per cent of DSM expenses to those classes who caused them aligns with a cost of service principle that to the extent possible, and correct to do so, costs should be assigned to rate classes directly[5]. To the extent there are external benefits that accrue to non-participating classes they should pay for the costs of these benefits, too. Since the nature of DSM programs is such that they primarily benefit participating customers through reduced energy bills, logic dictates that directly assigned costs should represent the majority of the total DSM spent. The current methodology assigns 75 per cent of costs to the participating classes.

NS Power recommends maintaining the current cost allocation methodology but proposes changes to the cost allocation methodology for Enabling Strategies that would limit the need for tracking of Enabling Strategies by rate class. Specifically, the Company proposes that Enabling Strategies be allocated along the same 25/75 per cent split, except in the following two cases:

(i) where the benefit of a particular Enabling Strategy clearly benefits a rate class(es) and the cost exceeds $100,000 CDN, the costs shall be fully allocated to that rate class (for example, the Small Business study currently contemplated in E1's 2016 plan will be allocated to the SBA if the cost of such study exceeds $100,000); and,

[5] NS Power Cost of Service 2013, M05473, AVON (NSPI) IR-18.

(ii) where the cost of a particular Enabling Strategy can be attributed to a particular rate class(es) based on historical average(s), up to 2014, such cost will be allocated to that rate class(es) without ongoing tracking.

4.0 COST ALLOCATION PROPOSAL

NS Power proposes the following DSM cost allocation treatment.

4.1 DSM net contract price 2016-2018

In its Decision[6] to approve the 2016-18 DSM Plan, the Board stated as follows:

> The Board approves a DSM Plan for 2016-2018 in the aggregate amount of $102,150,000. Approved spending is $33,210,000 during 2016; $34,020,000 during 2017; and $34,920,000 in 2018.

The net contract price for 2016-2018 will not exceed $93,631,970, as provided in Schedule B of the Supply Agreement approved by the Board in its Order dated October 7, 2015,[7] and summarized below. Costs will be initially allocated in accordance with E1's 2016 DSM budget and plan.

	2016	**2017[8]**	**2018[9]**	**Total**
UARB Approved	$33,210,000	$34,020,000	$34,920,000	$102,150,000
Balance Adjustment[10]	($8,518,030)	Nil	Nil	($8,518,030)
Net Contract Price to be Paid by NS Power[11]	$24,691,970	$34,020,000	$34,920,000	$93,631,970

[6] 2016-2018 DSM Plan, UARB Decision 2015 NSUARB 204, M06733, August 12, 2015, page 1.
[7] 2016-2018 DSM Plan, UARB Order 2015 NSUARB 204, M06733, October 7, 2015.
[8] The 2017 payments owing by NS Power will be reduced to reflect any 2015 under-spending by E1, if any, against the 2015 UARB-approved DSM Resource Plan, together with any 2014 Balance Adjustment interest earned in 2015.
[9] The 2018 payments owing by NS Power will be reduced to reflect any Balance Adjustment interest earned in 2016.
[10] This is the 2014 surplus of DSM funds in the amount of $8,518,030 that is to be returned by E1in accordance with the UARB-approved cost-allocation methodology. The return of this is to be accounted for through a reduction in the payment of the 2016 portion of the contract price.
[11] The portion of contract price approved by the Board for 2016 was reduced by the amount of the Balance Adjustment. As such, the amount to be paid by NS Power to E1 in 2016 shall not exceed $24,691,970 and the total amount to be paid by NS Power over the term of the Supply Agreement shall not exceed $93,631,970.

4.2 Balance Adjustments 2010 & 2014

Efficiency Nova Scotia's financial statement for the year ending December 31, 2014 shows the following balance adjustments[12]:

12. EXTERNALLY RESTRICTED FUND BALANCES

DSM Fund Balance

	Opening Balance	2014 Fund Activity	2014 Closing Balance
Balance Adjustment 2010	$ 75,636	$ -	$ **75,636**
Balance Adjustment 2012	(6,128,466)	6,128,466	**-**
Balance Adjustment 2013	3,976,398	-	**3,976,398**
Balance Adjustment 2014	-	8,442,394	**8,442,394**
HST	12,523,662	1,599,545	**14,123,207**
Capital Asset Acquisitions	(915,219)	-	**(915,219)**
Capital Asset Amortization	477,978	206,813	**684,791**
Closing DSM Fund Balance	$ 10,009,989	$ 16,377,218	$ **26,387,207**

The 2010 Balance Adjustment of $75,636 and 2014 Balance Adjustment of $8,442,394 are applied to the 2016 cost allocation through a reduction in the payment of the 2016 portion of the contract price by $8,518,030.

4.3 Cost allocation of 2016-2018

Please refer to **Appendix A** for allocation of DSM Program costs from years 2016 to 2018 among rate classes using the current costing methodology. The calculations were based on a DSM cost allocation model provided by E1 to the Company following the submission of E1's Compliance Filing dated September 15, 2015 (and which reflected

[12] Efficiency Nova Scotia Financial Statement for the year ending December 31, 2014, issued March 27, 2015, page 14.

the approved DSM spending of $102, 500 for 2016-2018). The model was subsequently updated by NS Power with its own usage statistics.

4.4 True-up

NS Power proposes to true-up, at the rate class level, amounts collected from customers relative to the actual DSM expenditures in the class and class load. The actual expenditure on a rate class by E1 in a given year, may vary from the DSM programming associated with the amount of the Board approved contract price paid to E1. DSM funds collected by NS Power from customer classes will also vary based on actual load. A true-up mechanism is required to track and allocate DSM costs to ensure that customers pay for the DSM they receive at the rate class level.

Further details concerning the true-up process will be provided in the Company's scheduled filing on November 30, 2015 on cost recovery. The principle of the true-up is the same as the Fuel Adjustment Mechanism Balance Adjustment. Variations in load and DSM programming from forecast require that actual volumes be reconciled against the forecast. NS Power proposes the following schedule:

- E1 to provide NS Power with an estimated total expenditure for the current year by November 30, 2015.

- NS Power will adjust the recovery requirement annually on January 1 of each year of the DSM Supply Agreement to reflect any variation between the forecasts as well as actual load and DSM program mix. This will ensure that only the DSM contract obligation is collected from customers and costs are allocated to customer classes based on the actual DSM programming they received.

- In Q2 of each year (after E1 has the final financial results for the prior year), the adjustment amount can be determined and will be applied in the following January 1 recovery requirement (plus any newly created balances as reported by E1 on or before November 30).

4.5 Rate Smoothing Adjustment

NS Power proposes that the inter-class DSM loans incurred in 2014 be repaid over a three year period. The Company will propose an appropriate approach for recovery of these costs as part of its cost recovery filing on November 30, 2015. Please refer to **Appendix B** for details.

5.0 CONCLUSION

NS Power respectfully requests the Board approve the Company's DSM cost allocation proposal. The proposal was prepared in accordance with the terms of the Consensus Agreement and reflects input received from the DSM Advisory Group.

Table 1: 2016 PCR - Preliminary allocation of 25% of 2016 program costs associated with system benefits

COLUMN	A	B	C	D	E	F	G	H

Program Cost Recovery by Benefits

System Benefits	25%	$8,302,500
Combined Class and Participant Benefits	75%	$24,907,500
Total[1]	100%	$33,210,000

Functionalization of system Benefit DSM Costs

	Factors
Generation	100%
Transmission	0%
Distribution	0%
Retail	0%

Classification of System Benefit DSM Costs

	Factors[2]
Demand-related	36.61%
Energy-related	63.39%
Total	100.00%

	Demand-Related Costs			Energy-Related Costs			Total	
Rate Class	3 CP kW Demands[3]	Relative Share	($)	MWh Energy Requirement[4]	Relative Share	($)	Relative Share	Total Amount ($)
Residential[5]	3,644,446	61.1%	$1,858,457	4,919,194	48.6%	$2,559,706	53.2%	$4,418,163
Small General	142,921	2.4%	$72,882	270,147	2.7%	$140,571	2.6%	$213,453
General Demand	1,244,244	20.9%	$634,493	2,671,982	26.4%	$1,390,368	24.4%	$2,024,861
Large General	167,018	2.8%	$85,170	430,902	4.3%	$224,220	3.7%	$309,390
Small Industrial	110,359	1.9%	$56,277	267,261	2.6%	$139,069	2.4%	$195,346
Medium Industrial	188,083	3.2%	$95,911	497,263	4.9%	$258,751	4.3%	$354,662
Large Industrial	245,023	4.1%	$124,948	723,221	7.2%	$376,328	6.0%	$501,276
Municipal	112,340	1.9%	$57,287	190,519	1.9%	$99,137	1.9%	$156,424
Unmetered	68,809	1.2%	$35,089	118,905	1.2%	$61,873	1.2%	$96,961
Gen. Repl. / Load Foll.	36,738	0.6%	$18,734	10,094	0.1%	$5,252	0.3%	$23,987
1P-RTP	-	0.0%	$0	12,270	0.1%	$6,385	0.1%	$6,385
Shore Power	-	0.0%	$0	3,061	0.0%	$1,593	0.0%	$1,593
Total	**5,959,982**	**100.0%**	**$3,039,246**	**10,114,819**	**100.0%**	**$5,263,254**	**100.0%**	**$8,302,500**
Classification Breakdown		36.61%			63.39%			100.0%

Numbers may not add due to rounding

[1] Source: EfficiencyOne 2016-2018 DSM Resource Plan

[2] Source: Source: “2016 Base Cost of Fuel Calculations” as used in Appendix E "Revenue Analysis" provided in 2016 BCF Reply Evidence.

[3] Source: “2016 Base Cost of Fuel Calculations” as used in Appendix E "Revenue Analysis" provided in 2016 BCF Reply Evidence.

[4] Source: “2016 Base Cost of Fuel Calculations” as used in Appendix E "Revenue Analysis" provided in 2016 BCF Reply Evidence.

[5] All residential rate classes use the same unit fixed cost estimate

Table 2: 2016 PCR - Preliminary allocation of 75% of 2016 DSM Program Costs associated with benefits realized by participating classes

Line #												
1												
2	**COLUMN**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
3	**FORMULA**										**∑ col A to I**	**J * 75%**
4												
5	**Program**	**Existing Residential**	**New Residential**	**Efficient Product Rebates (Residential)**	**Efficient Product Rebates (BNI)**	**Custom Incentives**	**Direct Installation**	**Education and Outreach**	**Development and Research**	**Other Enabling Strategies**	**All Program Costs Combined**	**Program Costs Directly Assigned to Participating rate classes (75% of the total)**
6	**Rate Class**											
7	Residential	$9,169,224	$1,190,261	$3,131,294	$1,841,293	$63,832	$491,685	$930,784	$524,024	$260,141	$17,602,539	$13,201,904
8	Small General	$34,459	$0	$4,947	$554,674	$127,665	$851,215	$65,167	$58,319	$41,185	$1,737,632	$1,303,224
9	General Demand	$116,944	$0	$8,654	$2,476,277	$3,044,579	$2,152,455	$245,494	$222,268	$136,800	$8,403,471	$6,302,603
10	Large General	$5,093	$0	$415	$382,285	$1,315,384	$41,018	$39,705	$37,656	$29,259	$1,850,815	$1,388,111
11	Small Industrial	$0	$0	$1,546	$144,223	$343,591	$160,207	$16,486	$30,192	$9,125	$705,370	$529,027
12	Medium Industrial	$0	$0	$493	$167,915	$596,056	$13,871	$20,848	$20,804	$11,590	$831,578	$623,683
13	Large Industrial	$0	$0	$518	$234,089	$1,171,538	$4,663	$27,925	$26,976	$15,747	$1,481,456	$1,111,092
14	Municipal	$140,769	$37,986	$47,572	$79,198	$127,665	$79,469	$28,847	$24,814	$11,374	$577,693	$433,269
15	Unmetered	$0	$0	$0	$11,639	$0	$0	$3,333	$2,727	$1,749	$19,447	$14,585
16	Gen. Repl. / Load Foll.	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	1P-RTP	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
17	Shore Power	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
18	**Total**	**$9,466,490**	**$1,228,247**	**$3,195,440**	**$5,891,592**	**$6,790,309**	**$3,794,585**	**$1,378,588**	**$947,779**	**$516,971**	**$33,210,000**	**$24,907,500**
19												
20												
21												

Table 3: 2016 PCR - Preliminary estimate of 2016 DSM program participation by rate class (Relative Shares)

Line #	COLUMN	A	B	C	D	E	F	G	H	I
4	**Program**	**Existing Residential**	**New Residential**	**Efficient Product Rebates (Residential)**	**Efficient Product Rebates (BNI)**	**Custom Incentives**	**Direct Installation**	**Education and Outreach**	**Development and Research**	**Other Enabling Strategies**
5	**Rate Class**									
6	Residential	96.9%	96.9%	98.0%	31.3%	0.9%	13.0%	67.5%	55.3%	50.3%
7	Small General	0.4%	0.0%	0.2%	9.4%	1.9%	22.4%	4.7%	6.2%	8.0%
8	General Demand	1.2%	0.0%	0.3%	42.0%	44.8%	56.7%	17.8%	23.5%	26.5%
9	Large General	0.1%	0.0%	0.0%	6.5%	19.4%	1.1%	2.9%	4.0%	5.7%
10	Small Industrial	0.0%	0.0%	0.0%	2.4%	5.1%	4.2%	1.2%	3.2%	1.8%
11	Medium Industrial	0.0%	0.0%	0.0%	2.9%	8.8%	0.4%	1.5%	2.2%	2.2%
12	Large Industrial	0.0%	0.0%	0.0%	4.0%	17.3%	0.1%	2.0%	2.8%	3.0%
13	Municipal	1.5%	3.1%	1.5%	1.3%	1.9%	2.1%	2.1%	2.6%	2.2%
14	Unmetered	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	0.3%	0.3%
15	Gen. Repl. / Load Foll.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	1P-RTP	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
16	Shore Power	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
17	**Total**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Table 4: 2016 PCR - Preliminary allocation of 2016 program costs among rate classes

Line #	COLUMN	A	B	C	D	E	F
5–6	FORMULA	Table 1 Column H		Table 2 Column K		A + C	
7		System Benefit Costs (25% of the total expenditure allocated to classes using COS methodology)		Participating Class Benefit Costs (75% of the total expenditure directly assigned to participating classes)		2016 PCR	
8		($)	Relative Share	($)	Relative Share	($)	Relative Share
9	**Rate Class**						
10	Residential	$4,418,163	53.2%	$13,201,904	53.0%	$17,620,067	53.1%
11	Small General	$213,453	2.6%	$1,303,224	5.2%	$1,516,677	4.6%
12	General Demand	$2,024,861	24.4%	$6,302,603	25.3%	$8,327,463	25.1%
13	Large General	$309,390	3.7%	$1,388,111	5.6%	$1,697,501	5.1%
14	Small Industrial	$195,346	2.4%	$529,027	2.1%	$724,374	2.2%
15	Medium Industrial	$354,662	4.3%	$623,683	2.5%	$978,345	2.9%
16	Large Industrial	$501,276	6.0%	$1,111,092	4.5%	$1,612,368	4.9%
17	Municipal	$156,424	1.9%	$433,269	1.7%	$589,693	1.8%
18	Unmetered	$96,961	1.2%	$14,585	0.1%	$111,547	0.3%
19	Gen. Repl. / Load Foll.	$23,987	0.3%	$0	0.0%	$23,987	0.1%
	1P-RTP	$6,385	0.1%	$0	0.0%	$6,385	0.0%
20	Shore Power	$1,593	0.0%	$0	0.0%	$1,593	0.0%
21	**Total**	**$8,302,500**	**100.0%**	**$24,907,500**	**100.0%**	**$33,210,000**	**100.0%**

22 Numbers may not add due to rounding

Table 1: 2017 PCR - Preliminary allocation of 25% of 2017 program costs associated with system benefits

COLUMN	A	B	C	D	E	F	G	H

Program Cost Recovery by Benefits

System Benefits	25%	$8,505,000
Combined Class and Participant Benefits	75%	$25,515,000
Total[1]	100%	$34,020,000

Functionalization of system Benefit DSM Costs

	Factors
Generation	100%
Transmission	0%
Distribution	0%
Retail	0%

Classification of System Benefit DSM Costs

	Factors[2]
Demand-related	36.95%
Energy-related	63.05%
Total	100.00%

	Demand-Related Costs			Energy-Related Costs			Total	
Rate Class	3 CP kW Demands[3]	Relative Share	($)	MWh Energy Requirement[4]	Relative Share	($)	Relative Share	Total Amount ($)
Residential[5]	3,708,999	61.5%	$1,932,097	4,991,365	48.9%	$2,624,692	53.6%	$4,556,789
Small General	139,481	2.3%	$72,658	264,187	2.6%	$138,922	2.5%	$211,580
General Demand	1,251,854	20.8%	$652,117	2,685,304	26.3%	$1,412,058	24.3%	$2,064,175
Large General	165,117	2.7%	$86,013	425,367	4.2%	$223,678	3.6%	$309,691
Small Industrial	110,000	1.8%	$57,301	266,435	2.6%	$140,104	2.3%	$197,405
Medium Industrial	192,428	3.2%	$100,240	507,519	5.0%	$266,877	4.3%	$367,117
Large Industrial	244,401	4.1%	$127,314	719,944	7.1%	$378,580	5.9%	$505,893
Municipal	114,176	1.9%	$59,477	192,256	1.9%	$101,097	1.9%	$160,574
Unmetered	69,099	1.1%	$35,995	119,243	1.2%	$62,703	1.2%	$98,699
Gen. Repl. / Load Foll.	36,738	0.6%	$19,138	10,094	0.1%	$5,308	0.3%	$24,446
1P-RTP	-	0.0%	$0	12,333	0.1%	$6,485	0.1%	$6,485
Shore Power	-	0.0%	$0	4,082	0.0%	$2,146	0.0%	$2,146
Total	**6,032,292**	**100.0%**	**$3,142,350**	**10,198,127**	**100.0%**	**$5,362,650**	**100.0%**	**$8,505,000**
Classification Breakdown		36.95%			63.05%			100.0%

Numbers may not add due to rounding

[1] Source: EfficiencyOne 2016-2018 DSM Resource Plan

[2] Source: Source: “2016 Base Cost of Fuel Calculations” as used in Appendix E "Revenue Analysis" provided in 2016 BCF Reply Evidence.

[3] Source: “2016 Base Cost of Fuel Calculations” as used in Appendix E "Revenue Analysis" provided in 2016 BCF Reply Evidence.

[4] Source: “2016 Base Cost of Fuel Calculations” as used in Appendix E "Revenue Analysis" provided in 2016 BCF Reply Evidence.

[5] All residential rate classes use the same unit fixed cost estimate

Table 2: 2017 PCR - Preliminary allocation of 75% of 2017 DSM Program Costs associated with benefits realized by participating classes

Line #												
1												
2	COLUMN	A	B	C	D	E	F	G	H	I	J	K
3	FORMULA										∑ col A to I	J * 75%
4												
5	Program	Existing Residential	New Residential	Efficient Product Rebates (Residential)	Efficient Product Rebates (BNI)	Custom Incentives	Direct Installation	Education and Outreach	Development and Research	Other Enabling Strategies	All Program Costs Combined	Program Costs Directly Assigned to Participating rate classes (75% of the total)
6	**Rate Class**											
7	Residential	$10,290,188	$1,240,857	$3,244,714	$1,766,419	$61,031	$469,231	$968,906	$560,072	$297,344	$18,898,763	$14,174,072
8	Small General	$38,672	$0	$5,126	$532,119	$122,062	$812,342	$67,836	$62,331	$47,075	$1,687,564	$1,265,673
9	General Demand	$131,241	$0	$8,967	$2,375,583	$2,910,969	$2,054,157	$255,549	$237,557	$156,364	$8,130,387	$6,097,790
10	Large General	$5,716	$0	$430	$366,740	$1,257,659	$39,145	$41,331	$40,247	$33,444	$1,784,710	$1,338,533
11	Small Industrial	$0	$0	$1,602	$138,358	$328,513	$152,891	$17,161	$32,269	$10,430	$681,224	$510,918
12	Medium Industrial	$0	$0	$511	$161,087	$569,898	$13,238	$21,702	$22,235	$13,248	$801,919	$601,439
13	Large Industrial	$0	$0	$537	$224,570	$1,120,126	$4,450	$29,069	$28,832	$17,999	$1,425,582	$1,069,187
14	Municipal	$157,978	$39,601	$49,295	$75,978	$122,062	$75,840	$30,028	$26,520	$13,000	$590,303	$442,727
15	Unmetered	$0	$0	$0	$11,165	$0	$0	$3,470	$2,914	$1,999	$19,548	$14,661
16	Gen. Repl. / Load Foll.	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	1P-RTP	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
17	Shore Power	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
18	**Total**	**$10,623,795**	**$1,280,457**	**$3,311,183**	**$5,652,019**	**$6,492,319**	**$3,621,294**	**$1,435,051**	**$1,012,977**	**$590,903**	**$34,020,000**	**$25,515,000**
19												
20												
21												

Table 3: 2017 PCR - Preliminary estimate of 2017 DSM program participation by rate class (Relative Shares)

Line #										
1										
2	**COLUMN**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
3										
4	**Program**	**Existing Residential**	**New Residential**	**Efficient Product Rebates (Residential)**	**Efficient Product Rebates (BNI)**	**Custom Incentives**	**Direct Installation**	**Education and Outreach**	**Development and Research**	**Other Enabling Strategies**
5	**Rate Class**									
6	Residential	96.9%	96.9%	98.0%	31.3%	0.9%	13.0%	67.5%	55.3%	50.3%
7	Small General	0.4%	0.0%	0.2%	9.4%	1.9%	22.4%	4.7%	6.2%	8.0%
8	General Demand	1.2%	0.0%	0.3%	42.0%	44.8%	56.7%	17.8%	23.5%	26.5%
9	Large General	0.1%	0.0%	0.0%	6.5%	19.4%	1.1%	2.9%	4.0%	5.7%
10	Small Industrial	0.0%	0.0%	0.0%	2.4%	5.1%	4.2%	1.2%	3.2%	1.8%
11	Medium Industrial	0.0%	0.0%	0.0%	2.9%	8.8%	0.4%	1.5%	2.2%	2.2%
12	Large Industrial	0.0%	0.0%	0.0%	4.0%	17.3%	0.1%	2.0%	2.8%	3.0%
13	Municipal	1.5%	3.1%	1.5%	1.3%	1.9%	2.1%	2.1%	2.6%	2.2%
14	Unmetered	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	0.3%	0.3%
15	Gen. Repl. / Load Foll.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	1P-RTP	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
16	Shore Power	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
17	**Total**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
18										
19										
20										

Table 4: 2017 PCR - Preliminary allocation of 2017 program costs among rate classes

Line #							
1							
2	**COLUMN**	**A**	**B**	**C**	**D**	**E**	**F**
3							
4							
5		**Table 1**		**Table 2**			
6	**FORMULA**	**Column H**		**Column K**		**A + C**	
7		**System Benefit Costs (25% of the total expenditure allocated to classes using COS methodology)**		**Participating Class Benefit Costs (75% of the total expenditure directly assigned to participating classes)**		**2017 PCR**	
8		**($)**	**Relative Share**	**($)**	**Relative Share**	**($)**	**Relative Share**
9	**Rate Class**						
10	Residential	$4,556,789	53.6%	$14,174,072	55.6%	$18,730,861	55.1%
11	Small General	$211,580	2.5%	$1,265,673	5.0%	$1,477,254	4.3%
12	General Demand	$2,064,175	24.3%	$6,097,790	23.9%	$8,161,966	24.0%
13	Large General	$309,691	3.6%	$1,338,533	5.2%	$1,648,224	4.8%
14	Small Industrial	$197,405	2.3%	$510,918	2.0%	$708,323	2.1%
15	Medium Industrial	$367,117	4.3%	$601,439	2.4%	$968,556	2.8%
16	Large Industrial	$505,893	5.9%	$1,069,187	4.2%	$1,575,080	4.6%
17	Municipal	$160,574	1.9%	$442,727	1.7%	$603,301	1.8%
18	Unmetered	$98,699	1.2%	$14,661	0.1%	$113,360	0.3%
19	Gen. Repl. / Load Foll.	$24,446	0.3%	$0	0.0%	$24,446	0.1%
	1P-RTP	$6,485	0.1%	$0	0.0%	$6,485	0.0%
20	Shore Power	$2,146	0.0%	$0	0.0%	$2,146	0.0%
21	**Total**	**$8,505,000**	**100.0%**	**$25,515,000**	**100.0%**	**$34,020,000**	**100.0%**
22	Numbers may not add due to rounding						
23							
24							

Table 1: 2018 PCR - Preliminary allocation of 25% of 2018 program costs associated with system benefits

COLUMN	A	B	C	D	E	F	G	H

Program Cost Recovery by Benefits

System Benefits	25%	$8,730,000
Combined Class and Participant Benefits	75%	$26,190,000
Total[1]	100%	$34,920,000

Functionalization of system Benefit DSM Costs

	Factors
Generation	100%
Transmission	0%
Distribution	0%
Retail	0%

Classification of System Benefit DSM Costs

	Factors[2]
Demand-related	37.12%
Energy-related	62.88%
Total	100.00%

	Demand-Related Costs			Energy-Related Costs			Total	
Rate Class	**3 CP kW Demands[3]**	**Relative Share**	**($)**	**MWh Energy Requirement[4]**	**Relative Share**	**($)**	**Relative Share**	**Total Amount ($)**
Residential[5]	3,738,583	61.8%	$2,003,770	5,014,979	49.3%	$2,703,731	53.9%	$4,707,501
Small General	136,080	2.3%	$72,935	258,249	2.5%	$139,230	2.4%	$212,165
General Demand	1,238,864	20.5%	$663,995	2,651,572	26.0%	$1,429,545	24.0%	$2,093,539
Large General	163,231	2.7%	$87,487	419,839	4.1%	$226,348	3.6%	$313,836
Small Industrial	109,337	1.8%	$58,601	264,849	2.6%	$142,789	2.3%	$201,390
Medium Industrial	196,610	3.3%	$105,377	517,318	5.1%	$278,902	4.4%	$384,279
Large Industrial	243,783	4.0%	$130,661	716,631	7.0%	$386,358	5.9%	$517,018
Municipal	114,622	1.9%	$61,434	192,333	1.9%	$103,693	1.9%	$165,127
Unmetered	68,487	1.1%	$36,707	117,515	1.2%	$63,356	1.1%	$100,063
Gen. Repl. / Load Foll.	36,738	0.6%	$19,691	10,094	0.1%	$5,442	0.3%	$25,132
1P-RTP	-	0.0%	$0	12,333	0.1%	$6,649	0.1%	$6,649
Shore Power	-	0.0%	$0	6,122	0.1%	$3,301	0.0%	$3,301
Total	**6,046,335**	**100.0%**	**$3,240,657**	**10,181,834**	**100.0%**	**$5,489,343**	**100.0%**	**$8,730,000**
Classification Breakdown		37.12%			62.88%			100.0%

Numbers may not add due to rounding

[1] Source: EfficiencyOne 2016-2018 DSM Resource Plan

[2] Source: Source: “2016 Base Cost of Fuel Calculations” as used in Appendix E "Revenue Analysis" provided in 2016 BCF Reply Evidence.

[3] Source: “2016 Base Cost of Fuel Calculations” as used in Appendix E "Revenue Analysis" provided in 2016 BCF Reply Evidence.

[4] Source: “2016 Base Cost of Fuel Calculations” as used in Appendix E "Revenue Analysis" provided in 2016 BCF Reply Evidence.

[5] All residential rate classes use the same unit fixed cost estimate

Table 2: 2018 PCR - Preliminary allocation of 75% of 2018 DSM Program Costs associated with benefits realized by participating classes

Line #												
1												
2	**COLUMN**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**
3	**FORMULA**										**∑ col A to J**	**K * 75%**
4												
5	**Program**	**Existing Residential**	**New Residential**	**Efficient Product Rebates (Residential)**	**Efficient Product Rebates (BNI)**	**Custom Incentives**	**Direct Installation**	**Education and Outreach**	**Development and Research**	**Other Enabling Strategies**	**All Program Costs Combined**	**Program Costs Directly Assigned to Participating rate classes (75% of the total)**
6	**Rate Class**											
7	Residential	$10,752,008	$1,279,244	$3,351,524	$1,778,384	$61,012	$469,088	$996,045	$589,087	$371,174	$19,647,567	$14,735,675
8	Small General	$40,408	$0	$5,295	$535,723	$122,025	$812,095	$69,736	$65,560	$58,764	$1,709,606	$1,282,205
9	General Demand	$137,131	$0	$9,263	$2,391,673	$2,910,083	$2,053,532	$262,706	$249,864	$195,189	$8,209,441	$6,157,081
10	Large General	$5,973	$0	$444	$369,224	$1,257,276	$39,133	$42,489	$42,332	$41,747	$1,798,617	$1,348,963
11	Small Industrial	$0	$0	$1,655	$139,295	$328,413	$152,845	$17,641	$33,940	$13,019	$686,809	$515,107
12	Medium Industrial	$0	$0	$528	$162,178	$569,725	$13,234	$22,309	$23,387	$16,538	$807,898	$605,924
13	Large Industrial	$0	$0	$555	$226,091	$1,119,785	$4,449	$29,883	$30,325	$22,468	$1,433,556	$1,075,167
14	Municipal	$165,068	$40,826	$50,918	$76,492	$122,025	$75,817	$30,869	$27,894	$16,228	$606,138	$454,603
15	Unmetered	$0	$0	$0	$11,241	$0	$0	$3,567	$3,065	$2,495	$20,368	$15,276
16	Gen. Repl. / Load Foll.	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	1P-RTP	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
17	Shore Power	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
18	**Total**	**$11,100,588**	**$1,320,070**	**$3,420,181**	**$5,690,301**	**$6,490,344**	**$3,620,192**	**$1,475,246**	**$1,065,456**	**$737,623**	**$34,920,000**	**$26,190,000**
19												
20												
21												
22												

Table 3: 2018 PCR - Preliminary estimate of 2018 DSM program participation by rate class (Relative Shares)

Line #	COLUMN	A	B	C	D	E	F	G	H	I
4	**Program**	**Existing Residential**	**New Residential**	**Efficient Product Rebates (Residential)**	**Efficient Product Rebates (BNI)**	**Custom Incentives**	**Direct Installation**	**Education and Outreach**	**Development and Research**	**Other Enabling Strategies**
5	**Rate Class**									
6	Residential	96.9%	96.9%	98.0%	31.3%	0.9%	13.0%	67.5%	55.3%	50.3%
7	Small General	0.4%	0.0%	0.2%	9.4%	1.9%	22.4%	4.7%	6.2%	8.0%
8	General Demand	1.2%	0.0%	0.3%	42.0%	44.8%	56.7%	17.8%	23.5%	26.5%
9	Large General	0.1%	0.0%	0.0%	6.5%	19.4%	1.1%	2.9%	4.0%	5.7%
10	Small Industrial	0.0%	0.0%	0.0%	2.4%	5.1%	4.2%	1.2%	3.2%	1.8%
11	Medium Industrial	0.0%	0.0%	0.0%	2.9%	8.8%	0.4%	1.5%	2.2%	2.2%
12	Large Industrial	0.0%	0.0%	0.0%	4.0%	17.3%	0.1%	2.0%	2.8%	3.0%
13	Municipal	1.5%	3.1%	1.5%	1.3%	1.9%	2.1%	2.1%	2.6%	2.2%
14	Unmetered	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	0.3%	0.3%
15	Gen. Repl. / Load Foll.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	1P-RTP	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
16	Shore Power	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
17	**Total**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Table 4: 2018 PCR - Preliminary allocation of 2018 program costs among rate classes

COLUMN	A	B	C	D	E	F
FORMULA	Table 1 Column H		Table 2 Column K		A + C	
	System Benefit Costs (25% of the total expenditure allocated to classes using COS methodology)		Participating Class Benefit Costs (75% of the total expenditure directly assigned to participating classes)		2018 PCR	
	($)	Relative Share	($)	Relative Share	($)	Relative Share
Rate Class						
Residential	$4,707,501	53.9%	$14,735,675	56.3%	$19,443,176	55.7%
Small General	$212,165	2.4%	$1,282,205	4.9%	$1,494,369	4.3%
General Demand	$2,093,539	24.0%	$6,157,081	23.5%	$8,250,620	23.6%
Large General	$313,836	3.6%	$1,348,963	5.2%	$1,662,798	4.8%
Small Industrial	$201,390	2.3%	$515,107	2.0%	$716,497	2.1%
Medium Industrial	$384,279	4.4%	$605,924	2.3%	$990,203	2.8%
Large Industrial	$517,018	5.9%	$1,075,167	4.1%	$1,592,185	4.6%
Municipal	$165,127	1.9%	$454,603	1.7%	$619,730	1.8%
Unmetered	$100,063	1.1%	$15,276	0.1%	$115,339	0.3%
Gen. Repl. / Load Foll.	$25,132	0.3%	$0	0.0%	$25,132	0.1%
1P-RTP	$6,649	0.1%	$0	0.0%	$6,649	0.0%
Shore Power	$3,301	0.0%	$0	0.0%	$3,301	0.0%
Total	**$8,730,000**	**100.0%**	**$26,190,000**	**100.0%**	**$34,920,000**	**100.0%**

Numbers may not add due to rounding

1	**Column**	**A**	**B**	**C**	**D**	**E**
2	**Rate Classes**	**DSM Smoothing Adjustment from 2014**	**Outstanding Amount at the end of 2015**	**Repayment of outstanding RSA amounts through the FAM**		
				2016	**2017**	**2018**
3	**ATL**					
4	**Residential**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
5						
6	Small General	($640,113)	($659,316)	$233,088	$233,088	$233,088
7	General Demand	$3,292,613	$3,391,391	($1,198,960)	($1,198,960)	($1,198,960)
8	Large General	($3,547,727)	($3,654,159)	$1,291,856	$1,291,856	$1,291,856
9	**Total Commercial**	**($895,227)**	**($922,084)**	**$325,985**	**$325,985**	**$325,985**
10						
11	Small Industrial	$547,065	$563,477	($199,206)	($199,206)	($199,206)
12	Medium Industrial	$292,125	$300,889	($106,373)	($106,373)	($106,373)
13	Total Large Industrial	$0	$0	$0	*$0*	$0
14	ELI 2PT - RTP*	$0	$0	$0	$0	$0
15	**Total Industrial**	**$839,190**	**$864,366**	**($305,580)**	**($305,580)**	**($305,580)**
16						
17	Municipal	$0	$0			
18	Unmetered	$56,037	$57,718	($20,405)	($20,405)	($20,405)
19	**Total Other**	**$56,037**	**$57,718**	**($20,405)**	**($20,405)**	**($20,405)**
20						
21	**Total ATL Classes**	**$0**	**$0**	**$0**	**$0**	**$0**
22						
23	**BTL (Electric)**	$0	$0	$0	$0	$0
24	GRLF	$0	$0	$0	$0	$0
25	Shore Power	$0	$0	$0	$0	$0
26	1P-RTP	$0	$0	$0	$0	$0
27	**Total BTL (Electric) Classes**	**$0**	**$0**	**$0**	**$0**	**$0**
28						
29	**In Province Total**	**$0**	**$0**	**$0**	**$0**	**$0**
30						
31						

Assumptions
Interest **0.03**