M06733 **JUNE 30, 2016 CONSENSUS AGREEMENT**

IN THE MATTER OF: **THE PUBLIC UTILITIES ACT, RSNS 1989, c. 380**

AND

IN THE MATTER OF: **THE ORDER OF THE NOVA SCOTIA UTILITY AND REVIEW BOARD IN MATTER M06733 DIRECTING THE PARTIES TO PURSUE RESOLUTION OF CERTAIN MATTERS SET OUT IN SETTLEMENT AGREEMENTS THEREIN WITHIN THE DSM ADVISORY GROUP**

AND

AND IN THE MATTER OF: **THE APPLICATION OF EFFICIENCYONE FOR APPROVAL OF THE MATTERS AGREED UPON WITHIN THE DSM ADVISORY GROUP AND FOR DETERMINATION AND RESOLUTION OF UNRESOLVED ISSUES**

WHEREAS EfficiencyOne is the Franchise Holder for the provision of electricity efficiency and conservation activities to Nova Scotia Power Inc. ("NS Power") in accordance with the *Public Utilities Act,* RSNS 1989, c. 380;

AND WHEREAS in matter M06733 before the Nova Scotia Utility and Review Board, EfficiencyOne sought approval of a Supply Agreement with NS Power for the supply of electricity efficiency and resource conservation activities for the years 2016 to 2018 ("Supply Agreement");

AND WHEREAS in the course of the proceedings before the Nova Scotia Utility and Review Board in Matter M06733 certain Parties thereto reached a Consensus Agreement;

AND WHEREAS the Nova Scotia Utility and Review Board approved the Consensus Agreement in its October 7, 2015 Order in Matter M06733;

AND WHEREAS in the course of the proceedings before the Nova Scotia Utility and Review Board in Matter M06733 certain parties thereto reached a Quantum Agreement which included an amount for DSM activities as well as non-financial provisions;

AND WHEREAS the Nova Scotia Utility and Review Board did not approve the Quantum Agreement but observed in its August 12, 2015 Decision its understanding that the non-financial provisions of the Quantum Agreement would be pursued by the Parties within the Demand Side Management Advisory Group ("DSM Advisory Group");

AND WHEREAS the Consensus Agreement and Quantum Agreement, attached hereto together as Appendix C, deferred certain matters to be resolved within the DSM Advisory Group;

AND WHEREAS the terms and conditions of the Consensus Agreement require such deferred items that are to be addressed within the DSM Advisory Group but which remain unresolved be presented to the Nova Scotia Utility and Review Board for determination not later than June 30, 2016;

AND WHEREAS the DSM Advisory Group has convened on multiple occasions and assembled a working group and special meetings to address the outstanding issues;

AND WHEREAS the Parties have reached agreement on certain matters in relation to the deferred issues outlined in the Consensus Agreement and the Quantum Agreement, the details of such agreement being set out below.

THE PARTIES HERETO AGREE AS FOLLOWS:

1. Subject to Item 2 below, The Parties agree that the items enumerated in paragraphs 5-8 below are in response to the Order of the Nova Scotia Utility and Review Board.

2. The Parties agree that agreement to the items enumerated in paragraphs 5-8 below is without prejudice to the pending Small Business Energy Study due December 31, 2016. It is understood and agreed that items may arise from the Small Business Energy Study which may have an impact upon the Standardized Filing, the development of DSM Expenditure Justification Criteria, and the Rate and Bill Impact Analysis. The Parties reserve the right to amend, if necessary, this Consensus Agreement and its Appendices, as a result of the findings of the Small Business Energy Study, in consultation with the DSM Advisory Group. If any of the Parties do not agree on the terms of this Consensus Agreement following consultation with the DSM Advisory Group, EfficiencyOne shall take the matter to the Board, on notice, for those issues to be litigated.

3. The parties expressly reserve their right to challenge any specific DSM measure or program proposed for approval by EfficiencyOne.

4. This Consensus Agreement may be executed by the Parties in counterparts, each of which when so executed and delivered shall be deemed to be an original and when taken together shall be deemed to be one and the same instrument. The electronic delivery, including, without limitation, by email or facsimile transmission of any signed original of this Consensus Agreement shall be the same as the delivery of an original.

5. ESTABLISHMENT OF A STANDARDIZED FILING FOR FUTURE APPLICATIONS TO APPROVE A DSM SUPPLY AGREEMENT
    a) The Parties agree that the format and contents of the Standardized Filing Framework, included as Appendix 1, fulfill the requirement to standardize future DSM Plans.

6. DSM EXPENDITURE JUSTIFICATION CRITERIA
    a) The Parties agree that development of additional DSM Expenditure Justification Criteria (DEJC) is not required at this time.

7. COST-EFFECTIVENESS TESTING METHODOLOGY FOR FUTURE APPLICATIONS TO APPROVE A DSM SUPPLY AGREEMENT
   a) The Parties agree to work collaboratively with the DSM Advisory Group to pursue the nature and quantification of estimates associated with participant non-energy benefits to improve the TRC test in future Applications.
   b) EfficiencyOne will update the UARB prior to December 31, 2016 on the DSM Advisory Group's progress on this work.
   c) The Parties acknowledge that specific measures and/or programs exclusively targeted toward low-income Nova Scotians may not pass a cost-effectiveness test.

8. RATE AND BILL IMPACT ANALYSIS
   a) Subject to review of the actual Rate and Bill Impact Analysis model, the Parties agree with the proposed enhancements described generally in Appendix 2, including the lost contribution to fixed cost.
   b) The Parties agree that EfficiencyOne's Rate and Bill Impact Analysis will provide the average, long-term effects of DSM, and NS Power's rate impact analysis will provide the forecasted annual short-term rate effects of DSM. The DSM Advisory Group will work to define "short term" and "long term".
   c) The Parties agree that, as with EfficiencyOne's Rate and Bill Impact Analysis, the DSM Advisory Group will be engaged in the development of the assumptions to be included in NS Power's rate impact analysis prior to the filing of future DSM Resource Plans. This will include, but is not limited to, defining the duration of the analysis period.
   d) The Parties agree that the two analyses (EfficiencyOne's and NS Power's) should rely on common assumptions where reasonable. Both models shall be presented for consideration to the UARB and Intervenors.

Signed this   day of July, 2016 in counterpart:

EfficiencyOne

______________________________ ______________________________

Witness Per:

Signed this day of July, 2016 in counterpart:

Nova Scotia Power Inc.

_______________________________ _______________________________

Witness Per:

Signed this day of July, 2016 in counterpart:

Consumer Advocate

Witness Per:

Signed this day of July, 2016 in counterpart:

Small Business Advocate

______________________________ ______________________________

Witness Per:

Signed this day of July, 2016 in counterpart:

Industrial Group

Witness

Per:

Signed this day of July, 2016 in counterpart:

Municipal Electric Utilities of Nova Scotia

______________________________ ______________________________

Witness Per:

Signed this day of July, 2016 in counterpart:

Affordable Energy Coalition

Witness Per:

Signed this day of July, 2016 in counterpart:

Ecology Action Centre

______________________________ ______________________________

Witness Per:

APPENDIX 1 – STANDARDIZED FILING FRAMEWORK

Demand Side Management Advisory Group

Standardized Filing Framework

Prepared by EfficiencyOne

Dartmouth, NS

20 July 2016

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1. OBJECTIVE

To standardize the content of future DSM Resource Plan filings.

2. BACKGROUND

On June 16, 2015, EfficiencyOne, Nova Scotia Power Incorporated (NS Power), the Consumer Advocate, the Small Business Advocate, the Ecology Action Centre, the Affordable Energy Coalition, and the Industrial Group signed a Consensus Agreement that proposed the establishment of a standardized filing framework for future DSM applications.[1] On October 7, 2015, the Utility and Review Board approved this Consensus Agreement[2] and confirmed that, after it is vetted through the DSMAG,[3] it must be submitted to the Board for approval by no later than June 30, 2016.[4]

The Standardized Filing Framework (including program descriptions based on the model developed by Efficiency Maine) includes standard DSM informational items, one or more alternate scenarios of DSM savings and budgets, and other items enumerated in section 1 of the Consensus Agreement.[5] The DSM Standards, included under section 4, below, describe the overall DSM planning and evaluation process, and list objectives for pursuing DSM activities.

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[1] M06733, In the Matter of the *Public Utilities Act* and *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") Resource Plan,* Document 287094 (16 Jun. 2015) at Appendix A (Consensus Agreement).
[2] M06733, NSUARB Order, Document 240387 (7 Oct. 2015) at p 2.
[3] *Supra* note 1.
[4] *Supra* note 2.
[5] *Supra* note 1.

3. STANDARDIZED FILING FRAMEWORK

Table 1: STANDARDIZED FILING FRAMEWORK

ITEM	DESCRIPTION
1. INTRODUCTION	A brief introduction to the DSM filing and a brief overview of any agreements reached between EfficiencyOne and NSPI. All agreements between EfficiencyOne and NSPI will be provided as Appendices to the filing. .
1.1 Background	Relevant history that is pertinent to the regulatory approval process, including past DSM plans.
2. PREVIOUS PLAN'S DSM RESULTS	
2.1 Previous Plan's DSM Expenditures and Energy Savings Results	A summary of the most recently completed DSM Resource Plan's actual results. This will include a breakdown of savings and investment by rate class and the following portfolio-level metrics for the most recently completed DSM Resource Plan: - Approved and Actual Investment; - Approved and Actual Incremental net Energy Savings (First-year); - Approved and Actual Incremental net Demand Savings (First-year); - Weighted-Average Measure Life; - Lifetime Benefits; - Ex-ante and Ex-post Incremental net Energy Savings (Lifetime); - Ex-ante and Ex-post Incremental net Demand Savings (Lifetime); - UARB-Approved Cost-Effectiveness Testing; and - Cumulative energy and demand savings and investment (approved and actual) since 2008.
2.2 Previous Plan's DSM Programs	Discussion of the results of each program for the most recently completed DSM Resource Plan.

ITEM	DESCRIPTION
3. ALTERNATE SCENARIOS TO THE PROPOSED DSM PLAN	
3.1 Various Scenarios	Based on the UARB's October 7, 2015 Order, EfficiencyOne will "provide one or more alternate scenarios of DSM budgets for the Board to consider, and NSPI is to provide rate impact analysis on those scenarios."[6] For each of the alternative scenarios presented, EfficiencyOne will include a table of the following portfolio-level metrics: - Investment; - Incremental net Energy Savings (First-year); - Incremental net Demand Savings (First-year); - Weighted-Average Measure Life; - Lifetime Benefits; - Incremental net Energy Savings (Lifetime); - Incremental net Demand Savings (Lifetime); and - UARB-Approved Cost-Effectiveness Testing.
4. PROPOSED DSM RESOURCE PLAN FOR THE UPCOMING PERIOD	
4.1 Overall Summary	A brief overview of the proposed DSM Resource Plan for the upcoming period and any proposed significant changes in program delivery or philosophy. NSPI will provide a rate impact analysis for the proposed DSM Resource Plan. To enable overall consideration of the Plan, this section will include the following metrics, presented at the portfolio level: - Investment; - Incremental net Energy Savings (First-year); - Incremental net Demand Savings (First-year); - Weighted-Average Measure Life; - Lifetime Benefits; - Incremental net Energy Savings (Lifetime); - Incremental net Demand Savings (Lifetime); and - UARB-Approved Cost-Effectiveness Testing.

[6] *Supra* note 2.

ITEM	DESCRIPTION
4.2 Program Level Energy Savings and Investment	A summary of program-level savings and investment for the upcoming period. Reference to benchmarks of plans from other jurisdictions that are comparable based on depth of savings relative to load, as appropriate. This will include the following metrics, presented at the program level: - Investment; - Incremental net Energy Savings (First-year); - Incremental net Demand Savings (First-year); - Breakdown of Savings and Investment by Rate Class; - Weighted-Average Measure Life; - Lifetime Benefits; - Incremental net Energy Savings (Lifetime); - Incremental net Demand Savings (Lifetime); and - UARB-Approved Cost-Effectiveness Testing.
4.3 Program Descriptions	Detailed descriptions of each program. A sample outline is provided in TABLE 2: PROGRAM DESCRIPTION TEMPLATE.
5. DEVELOPMENT OF THE UPCOMING PERIOD'S DSM RESOURCE PLAN	
5.1 Development of the Upcoming Period's DSM Program Targets and Investment	A summary of: - the parties involved in developing the Plan; - NS Power's most recent Integrated Resource Plan results; - the affordability of the Plan; and - cost-efficiency opportunities.
5.2 Evaluation	A summary of any changes that are planned for evaluation activities over the upcoming period.
5.3 Reporting	A summary of EfficiencyOne's proposed regular reporting initiatives to the UARB and the DSMAG for the upcoming period (e.g., Annual Progress Reports and quarterly reports).

ITEM	DESCRIPTION
6. ADDITIONAL ITEMS	
6.1 Rate and Bill Impact Analysis	This will consist of a detailed description of the forward-looking rate and bill impact analysis of the proposed plan.[7] This will include a detailed breakdown between the rate classes, with the exception of certain customer classes (e.g., Unmetered), for which EfficiencyOne does not have the necessary data.
6.2 Other Items	This could include time-limited topics such as cost allocation and HST updates.
7. CONCLUSION	A summary of the items that EfficiencyOne is seeking approval for.

[7] *Supra* note 1.

Table 2: PROGRAM DESCRIPTION TEMPLATE

ITEM	DESCRIPTION
1. OVERVIEW	A brief description of the program intent, target market, and type of service or rebate.
2. OBJECTIVES	Long-term objectives for the program.
3. OPPORTUNITY	A summary of the market potential for the program, including description of target customers, barriers for the market to undertake the upgrades or services without support, and program history.
4. PROGRAM DESIGN	
4.1 Measures Promoted	A summary of services, rebates, or financing options included in the program, including technical data by measure.
4.2 Implementation Strategy	A description of the implementation strategy, including overview of marketing plan, use of external delivery agents, funding of energy audits, and provisions for quality control.
4.3 Performance Indicators	A summary of targeted: - Lifetime energy and demand savings; - Annual participation and participation rates; - Cost-effectiveness testing analysis; and - Levelized cost of saved energy.
4.4 Low Income Performance Indicators	A summary of expected impact to low-income Nova Scotians: - Lifetime energy and demand savings; - Annual participation and participation rates; and - Proportion of low-income owner and rental households served.
5. PROGRAM ALTERNATIVES	A comparison of the program elements in the proposed DSM plan to the alternate scenarios of DSM budgets.

4. DEMAND SIDE MANAGEMENT STANDARDS

4.1 OBJECTIVES

The objectives of this document are as follows:

- To ensure consistency in the overall Demand Side Management (DSM) planning and evaluation process in Nova Scotia;
- To consolidate important decisions made by the NS Utility and Review Board (the UARB) as they pertain to DSM regulation; and
- To ensure that DSM Resource Plans balance the multiple objectives of DSM.

4.2 DSM RESOURCE PLAN RESEARCH

4.2.1 DSM BASELINE STUDY

EfficiencyOne will commission a DSM baseline study in advance of each DSM Potential Study. The DSM Baseline Study will identify current stocks of electricity consuming devices in all market sectors.

4.2.2 DSM POTENTIAL STUDY

EfficiencyOne will commission a DSM potential study in advance of each Integrated Resource Plan (IRP). The DSM Potential study will identify DSM resources that are achievable over the planning horizon, and will inform the development of Candidate Resource Plans for the IRP.

4.2.3 INTEGRATED RESOURCE PLAN

Nova Scotia Power's IRP develops a long-term Preferred Resource Plan that establishes directional information for DSM that assists NS Power in meeting customer demand and energy requirements, and environmental obligations in a cost-effective, safe and reliable manner across a reasonable range of foreseeable futures.[8]

4.2.3.1 AVOIDED COSTS

Nova Scotia Power will provide estimates of annual avoided costs of fuel on a per-MWh basis, and annual avoided costs of generation, transmission, and distribution on a per-kW

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[8] NSPI, *Nova Scotia Power Integrated Resource Plan – 2014 Terms of Reference, Appendix A*, at p 1.

basis to EfficiencyOne for use in the cost-effectiveness screening of DSM measures and programs during DSM planning processes. Estimates of avoided costs will be provided prior to each DSM Potential Study, and whenever NS Power and EfficiencyOne believe avoided cost estimate require changes.

4.3 DSM RESOURCE PLAN DEVELOPMENT

The Preferred Resource Plan identified in the IRP will inform the development of a preferred DSM Resource Plan by EfficiencyOne, including analysis of alternate scenarios of DSM activity, in accordance with the Standardized Filing Framework.

4.3.1 BALANCED PLAN APPROACH

EfficiencyOne will produce DSM Resource Plans that balance multiple aspects of DSM for the benefit of customers, including:

- Short-term and long-term energy and capacity avoidance;
- Program delivery costs;
- Avoided energy and capacity investments;
- Non-electric and non-energy benefits;
- Diversity of program delivery;
- Business relationships and maintenance of market presence;
- Access to programs by all market sectors and rate classes by addressing barriers to participation; and
- Rate impacts.

4.3.2 COST-EFFECTIVENESS TESTING

EfficiencyOne will apply the UARB-approved cost-effectiveness test.

4.3.3 PERFORMANCE METRICS

4.3.3.1 DEFINITIONS

To provide clarity, the following definitions are used:[9]

Performance Metric: A quantifiable measure that is used to track and assess the status of a specific achievement.

Performance Indicators: A set of particular performance metrics used to indicate or monitor progress toward performance targets. Performance Indicators are management tools that provide information to allow an organization to take action to help it deliver on performance targets.

Performance Target: A performance metric expressed as a specific quantified goal that identifies the desired outcome of an activity at a specific point in time. In this Application, Performance Targets refer to UARB-approved targets.

Performance Threshold: A predefined quantity, percentage, or range, which identifies the allowable deviation from a Performance Target within which the actual outcome is considered to have achieved success. In this Application, Performance Thresholds refer to UARB-approved thresholds.

4.3.3.2 REQUIREMENTS

Performance Targets and Thresholds[10]

i. Performance Targets apply to the period of the UARB-approved Supply Agreement with NS Power, rather than annually;

ii. EfficiencyOne is deemed to be in substantial compliance with the UARB-approved Plan Performance Targets if 90 percent or greater achievement is reached on each of the Performance Targets. If less than 90 percent of any Performance Target is achieved, a regulatory process will be triggered.

[9] EfficiencyOne, Evidence, *In the Matter of the Public Utilities Act and in the Matter of an Application for Approval of the 2016-2018 Supply Agreement for EE&CA*, (27 Feb. 2016), at p 46.

[10] M06733, NSUARB Order, *The Public Utilities Act and An Application for Approval of a Supply Agreement for electricity efficiency and conservation activities between EfficiencyOne and Nova Scotia Power Incorporated, the establishment of a final agreement between the parties, and approval of a 2016-2018 Demand Side Management Resource Plan* (7 Oct 2015), at p 2 and Schedule B, p 5.

Performance Targets consist of:[11]

i. Cumulative annual energy savings;
ii. Cumulative annual peak demand savings.

Performance Indicators consist of:[12]

i. Annual incremental energy savings (reported by program and rate class);
ii. Cumulative annual energy savings (reported by program and rate class);
iii. Lifetime savings (reported by program and rate class);
iv. Annual incremental peak demand savings (reported by program and rate class);
v. Cumulative annual peak demand savings (reported by program and rate class);
vi. Total ratepayer benefits;
vii. Total spending (reported by program and rate class);
viii. Customer satisfaction;
ix. An analysis of the impact on rates through the implementation of the programs will be included as part of EfficiencyOne's historical-looking rate and bill impact analysis, filed by October 31st of each year;
x. Reporting on low income program participation, expenditures, and savings through a variety of methods, including estimation based on geographic census information.

4.3.4 DSM PROGRAMS

Investments in DSM programs reduce energy consumption through technology replacements and behaviour change. DSM programs are offered to the Residential and the Business, Not-for-Profit and Institutional (BNI) sectors as follows:

- Residential – Efficient Product Rebates
- Residential – Existing Residential
- Residential – New Residential
- Residential – Energy Savings Actions
- Business, Not-for-Profit and Institutional – Efficient Product Rebates
- Business, Not-for-Profit and Institutional – Custom Incentives
- Business, Not-for-Profit and Institutional – Direct Installation

[11] *Ibid.*
[12] *Ibid.*

4.3.4.1 LOW INCOME CONSIDERATIONS

NS Power Shareholder Charitable Contribution

NS Power shareholders have indicated that they will provide up to $37 million dollars over ten years (2015-2024) to upgrade all electrically-heated homes owned by low-income Nova Scotians. In the interest of minimizing rate impact, EfficiencyOne will not invest DSM funds to provide upgrades where it believes the upgrades would otherwise be funded by NS Power shareholders.

Other Low Income Programming

In accordance with Section 4.3.1, the Balanced Plan Approach, EfficiencyOne will design and deliver programs and services that benefit low-income Nova Scotians not affected by the NS Power charitable donation.

4.3.5 ENABLING STRATEGIES

Specific Enabling Strategies activities requiring an annual investment of $100,000 or more that benefit a specific rate class or classes will have the participant benefit portion (75%) of their investment allocated to the specific rate class or classes that receive the benefit. Investments under $100,000, or any investment benefiting all rate classes, will have their participant benefit portion (75%) allocated according to the per-rate class investment of program expenditures.[13] In all cases, the system benefit portion (25%) is allocated on the basis of class energy and demand requirements.

Enabling Strategies expenditures are classified into one of three categories:

- Education and Outreach
- Development and Research
- Other Enabling Strategies

[13] M07151, NSUARB Decision Letter, *Nova Scotia Power Inc. – DSM Cost Allocation and Recovery (E-R-15)*, (11 Apr 2016), at p 6.

4.4 DSM TRACKING, EVALUATION AND VERIFICATION

4.4.1 TRACKING

EfficiencyOne will track the energy and capacity savings resulting from each program. Tracked results will be used in quarterly reports.

4.4.2 EVALUATION

EfficiencyOne will retain the services of an independent DSM evaluation firm to conduct annual evaluations for each DSM program, as described in Sections 5.5 and 5.6.

4.4.3 VERIFICATION

The UARB's savings verification consultant provides a verification review of the evaluated savings. The verification consultant will produce a report that states the net energy and peak demand savings for the programs, and outlines any required adjustments to the evaluation reports.

4.5 REPORTING REQUIREMENTS

4.5.1 DSM RESOURCE PLANS (3-YEAR CYCLE)

EfficiencyOne will prepare DSM Resource Plans as required by the Board, on a three-year cycle unless directed otherwise by the Board.

4.5.2 ANNUAL PROGRESS REPORTS

In the first quarter of the calendar year of each intervening year between multi-year filings, ENS will file an Annual Progress Report (APR) with the UARB, which will include the following information:[14]

- A summary of the context, activities and milestones achieved in the prior year, including the status of annual performance indicators;
- A management discussion and analysis of any major discrepancies relative to the original plan's intent and forecasts;
- A summary of costs and savings for each program or target market area. If the total reported results fall below 75 percent of the original plan's forecast cumulative

[14] *Supra* note 2 at p 44.

annual incremental energy savings up to that point, ENS will also file a Corrective Action Plan designed to achieve the total approved energy savings target, within the approved multi-year budget.

In the event ENS proposes significant changes to elements within an approved Plan, advance notice will be provided to the UARB and Stakeholders within the APR. Significant changes include:[15]

- Adding a new Program;
- Terminating an existing Program;
- Increasing the 3-year plan budget for the total Residential sector by more than 25%;
- Decreasing the 3-year plan budget for the total Residential sector by more than 25%;
- Increasing the 3-year plan budget for the total BNI sector by more than 25%;
- Decreasing the 3-year plan budget for the total BNI sector by more than 25%;
- Increasing the 3-year plan savings target for the total Residential sector by more than 25%;
- Decreasing the 3-year plan savings target for the total Residential sector by more than 25%;
- Increasing the 3-year plan savings target for the total BNI sector by more than 25%; and
- Decreasing the 3-year plan savings target for the total BNI sector by more than 25%.

4.5.3 QUARTERLY REPORTS

ENS will file quarterly reports with the UARB for quarters one through three of each year. The reports will provide quarterly status updates and service highlights, as well as communicate course adjustments within the current approved DSM Resource Plan.[16]

[15] *Ibid.*
[16] *Ibid.*

4.5.4 AUDITED FINANCIAL STATEMENTS

ENS will retain the services of an external financial auditor to prepare audited annual financial statements. These will be filed with the UARB in the second quarter of the following year.

4.5.5 IMPACT EVALUATION

ENS will file impact evaluations for each program annually, produced by an independent third party DSM program evaluator.

4.5.6 PROCESS EVALUATION

ENS will file process evaluations for individual programs, produced by an independent third party DSM program evaluator as necessary. Examples of instances in which a program-level evaluation would occur include newly created program components that have not yet been evaluated, program components that have incurred major changes, program components that received a large number of recommendations from the evaluator, or program components that have a variance of energy savings larger than 25 percent of planned.

4.5.7 RATE AND BILL IMPACT ANALYSIS

ENS will file its historical Rate and Bill Impact Analysis (RBIA) by October 31st of each year.[17] The historical RBIA estimates the high-level, long-term impact to rates and bills of all DSM activities up to and including those of the previous calendar year.

ENS will file a forward-looking RBIA as part of each DSM Resource Plan. The forward-looking RBIA estimates the high-level, long-term impact to rates and bills of all DSM activities conducted as part of the proposed DSM Resource Plan.

4.6 DEMAND SIDE MANAGEMENT ADVISORY GROUP

The DSM Advisory Group is a forum to provide strategic or directional advice and stakeholder perspectives on current or emerging DSM issues including, but not limited to, issues identified in UARB Orders pertaining to Demand Side Management.

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[17] *Supra*, note 2.

APPENDIX 2 - ENHANCEMENTS TO EFFICIENCYONE’S RATE AND BILL IMPACT ANALYSIS MODEL elenchus

34 King Street East, Suite 600
Toronto, Ontario, M5C 2X8
elenchus.ca

25 May 2016

Mark Robertson, Regulatory Specialist
Efficiency Nova Scotia
Suite 300, 230 Brownlow Ave.
Dartmouth, Nova Scotia
B3B 0G5

Dear Mark:

Rate and Bill Impact Model Revisions

Based on the comments of the stakeholders and the discussion at the Stakeholder session on May 25, Elenchus proposes to make the following enhancements to the rate and bill impact model.

1. Changes to Avoided Costs

The model will be modified to calculate the levelized system avoided costs in two parts. The current $/MWh avoided cost will be replaced with an avoided energy related costs ($/MWh) and an avoided demand related costs ($/kW). It will be necessary for NS Power to provide values for (i) generation capacity ($/KW), (ii) transmission capacity ($/KW), (iii) distribution capacity ($/KW) and (iv) fuel costs ($/MWh).

2. Addition of Lost Revenue

A worksheet will be added to calculate lost revenue for each rate class. All lost revenue will be tracked on one worksheet per rate class and aggregated at the system level.

3. Attribution of savings to rate classes.

Rate changes that arise from savings due to avoided costs as well as rate changes to make up for lost revenue will be apportioned to rate classes on the basis of their share of system rate revenue.

Sincerely,

John D. Todd
President
Elenchus Research Associates Inc.
Jtodd@elenchus.ca; Direct: 416.348.9910

APPENDIX 3 – 2015 CONSENSUS AGREEMENT AND QUANTUM AGREEMENT

M06733

IN THE MATTER OF:	***THE PUBLIC UTILITIES ACT***
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") Resource Plan*

WHEREAS EfficiencyOne is the Franchise Holder in accordance with the *Public Utilities Act*;

AND WHEREAS EfficiencyOne has filed an application with the Nova Scotia Utility and Review Board, in accordance with the provisions of the *Public Utilities Act*, for the approval of a Supply Agreement with Nova Scotia Power Inc. ("NSPI") for the supply of electricity efficiency and resource conservation activities for the years 2016 through 2018 ("Supply Agreement");

AND WHEREAS NSPI is, in accordance with the *Public Utilities Act*, deemed to be a co-applicant with EfficiencyOne in the application for approval of the 2016 -2018 DSM Resource Plan ("2016-18 DSM Plan") and Supply Agreement;

AND WHEREAS EfficiencyOne and NSPI (together referred to as the "Co-Applicants") have each filed its evidence before the Board;

AND WHEREAS each of the Co-Applicants has served and responded to Information Requests of the other, and each of the Co-Applicants have responded to Information Requests filed by certain of the formal Intervenors in this proceeding;

AND WHEREAS the parties to this Agreement (collectively the "Parties" and individually a "Party") have reached an agreement on certain matters in relation to the approval of the 2016-2018 DSM Plan;

AND WHEREAS, based on the record before the Board, the Parties hereby approve the Terms of Consensus attached hereto as Appendix "A". The Parties reserve the right to amend their position based on any further evidence raised in the proceeding before the Board.

NOW THEREFORE the Parties agree as follows:

1) This Consensus Agreement may be executed by the Parties in counterparts, each of which when so executed and delivered shall be deemed to be an original and when taken together shall be deemed to be one and the same instrument. The electronic delivery, including, without limitation, by email or facsimile transmission, of any signed original of this Settlement Agreement shall be the same as the delivery of an original.

Signed and dated this 16th day of June 2015.

Witness

EfficiencyOne

Per:

Witness

Nova Scotia Power Incorporated

Per: DAVID LANDRIGAN

Witness

Consumer Advocate

Per:

Witness

Small Business Advocate

Per:

Witness

Industrial Group

Per: NANCY RUBIN

Witness

Affordable Energy Coalition

Per:

Witness

Ecology Action Centre

Per:

2870094

APPENDIX "A"

1) ESTABLISHMENT OF A STANDARDIZED FILING FOR FUTURE APPLICATIONS TO APPROVE A DSM SUPPLY AGREEMENT

a) The Parties agree to the establishment of a standardized filing for future applications, the substance of which will be vetted through the DSM Advisory Group for the Board's approval. The standardized filing will include a program description template based on Efficiency Maine (included as Attachment C to EfficiencyOne's Reply Evidence), with the addition of:

   i) Lifetime energy and demand savings;

   ii) Annual participation and participation rates by program;

   iii) Cost-effectiveness testing analysis results by program;

   iv) Levelized cost of saved energy for each program;

   v) Detailed description of the rate and bill impact analysis; and

   vi) Such other items as agreed to in the DSM Advisory Group.

b) EfficiencyOne is not precluded from providing additional information or sections as it may determine to be relevant.

c) EfficiencyOne will provide technical data in its Plan filing, by measure, or such similar information to the extent available.

2) ESTABLISHMENT OF A RESERVE FUND

a) In lieu of development of a DSM reserve fund, the Parties agree they will not challenge EfficiencyOne's ability to apply on an expedited basis to the Board for recovery of funds to address extraordinary or unforeseen circumstances outside of normal operations, if required, provided that Efficiency One has made a good faith effort to mitigate the costs of the extraordinary or unforeseen circumstances.

b) This clause is without prejudice to any Party's rights of participation in any such application and does not preclude any Party from challenging the merits of the claimed recovery, claimed recourse or any other matter.

c) EfficiencyOne agrees that, if a budget surplus exists at the end of the three-year contract period, the surplus will be returned to NS Power for the benefit of ratepayers as determined by the Board.

3) PERFORMANCE TARGETS, INDICATORS AND THRESHOLDS

a) The parties agree to the following Performance Targets and Performance Indicators:

i) Performance Targets are set over the three-year contract period, rather than annually.

ii) EfficiencyOne is deemed to be in substantial compliance with the approved Plan Performance Targets if 90 percent or greater achievement is reached on the two Performance Targets as listed below. If less than 90 percent of any Performance Target is achieved, a regulatory process will be triggered.

b) Performance Targets consist of:

i) Cumulative annual energy savings

ii) Cumulative annual peak demand savings

c) Performance Indicators (for indicating or monitoring progress toward Performance Targets) consist of:

i) Annual incremental energy savings (reported by program)

ii) Cumulative annual energy savings (reported by program)

iii) Lifetime savings (once methodology is developed) (reported by program)

iv) Annual incremental peak demand savings (reported by program)

v) Cumulative annual peak demand savings (reported by program)

vi) Total ratepayer benefits (once methodology is developed)

vii) Total spending (reported by program and rate class)

viii) Customer satisfaction

ix) An analysis of the impact on rates through the implementation of the 2016-2018 programs, to be included as part of EfficiencyOne's historical-looking rate and bill impact analysis as outlined in clause 6(b).

x) Reporting on low income program participation, expenditures, and savings through a variety of methods, including estimation based on geographic census information.

d) For the Performance Indicators reported by program, EfficiencyOne agrees to report on them additionally by rate class as soon as available and not later than within its Q3 report.

4) COST ALLOCATION

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.

5) EVALUATION AND REPORTING

a) The Parties support EfficiencyOne's proposal for annual program impact evaluations and process evaluations at the organizational level with program process evaluations if required. EfficiencyOne will provide an overview of potential condensed impact reporting to the DSM Advisory in 2016 for discussion.

b) EfficiencyOne will explore methodologies of demand savings evaluations with its evaluator.

c) EfficiencyOne agrees to provide a full report on its 2016-2018 Performance Requirements and Performance Indicators within its Annual Progress Report filed in 2019.

d) EfficiencyOne will provide explanations of substantial changes, defined as variance in energy savings or investment of 25 percent or more at a program level.

e) Dependent on an approved cost allocation methodology, EfficiencyOne will undertake reasonable efforts to avoid program changes that will result in substantial changes to any customer rate class on an annual basis.

f) The Parties agree to the timing of EfficiencyOne's reporting and the contents of those reports as set out in the attached Schedule 1, subject to revisions to the contents of the reports which may be agreed to or determined by the Board as a result of discussions within the DSM Advisory Group.

g) EfficiencyOne will provide written advance notice of its intent to implement mid-course adjustments by program and their customer rate class impacts. The Parties acknowledge EfficiencyOne's position that it is not able to provide advance notice of mid-course adjustments resulting from third-party evaluation reports, as these adjustments are made immediately after receipt of these reports.

6) RATE AND BILL IMPACT ANALYSIS

a) As with prior filings of its rate and bill impact analysis, EfficiencyOne agrees to develop, in consultation with the DSM Advisory Group, assumptions to its rate and bill impact analysis. This will include, but is not limited to, the inclusion of contribution to fixed costs. Once complete, the inclusions will be included in future filings of the analysis.

b) EfficiencyOne agrees to file historical-looking rate and bill impact analyses by October 31st of each year.

7) RESOLUTION PROCESS

a) If consensus is not achieved on any of the above items to be addressed within the DSM Advisory Group, such items will be presented to the UARB for determination not later than June 30th, 2016.

8) Reservation of Rights

a. This agreement is without prejudice to the rights of any Party or the position any Party may take on these issues in future proceedings.

"Schedule 1"

Report Timing and Contents

Legend:

Filing has not historically triggered an automatic regulatory process (would be on request or by Decision of the UARB).	Filing has historically triggered a regulatory process.

Year	Report/ Process	Filing Timeframe	Inclusions
2015	2015 Q2 Report	July/Aug	• Quarterly and YTD Highlights: o Comparison of targets, mid-course adjustments, and results (by program) • YTD investment by rate class (compared to approved forecast) • Sector highlights (results, participation, and items of interest by program, plus low-income results) • Other activities (organized by Enabling Strategies categories) • Advance notice of Significant Changes if relevant.
	2015 Q3 Report	Oct/Nov	• See 2015 Q2 report for details
	Meetings with DSMAG	At least three times per year (generally following filing of quarterly reports)	• Discussion of quarterly report • Other topics as required/requested

Year	Report/ Process	Filing Timeframe	Inclusions

2016	2015 Annual Progress Report	End of March	• Summary of 2015 context, activities and milestones achieved
			• 2015 investment by rate class (compared to approved forecast)
			• Status of Performance Targets and Indicators
			• Energy savings and investment for each program component
			• Management discussion and analysis of any major discrepancies relative to the original plan's intent and forecasts
			• Summary of investment and savings for each program or target market area
			• Update to 2016 planned activities (mid-course adjustments by program plus updated program descriptions/highlights)
			    o Corrective Action Plan (if required)
			    o If mid-course adjustments result in substantial changes by program, explanation and justification will be provided)
			    o Notice of significant changes (if required)
			• Update on items arising from the 2016-2018 DSM Plan process
			• Updated preliminary cost allocation (if relevant)

	2015 Evaluation Reports	End of March	• Impact evaluation (all programs) • Process evaluation
	2016 Q1 Report	April/May	See 2015 Q2 report for details
	2015 Audited Financial Statements	May	
	2016 Q2 Report	July/Aug	See 2015 Q2 report for details plus advance notice of Significant Changes if relevant.
	Historical-looking rate and bill impact analysis	End of October	• Results by rate class in graphical form • Overview and description of analysis • Commentary around results • Assumptions, including explicit identification of any changes from prior filings
	2016 Q3 Report	Oct/Nov	• Status of Performance Indicators by rate class

Year	Report/ Process	Filing Timeframe	Inclusions
			• See 2015 Q2 report for remaining details
	Meetings with DSMAG	At least three times per year (generally following filing of quarterly reports)	• Discussion of quarterly report • Other topics as required/requested
2017	2016 Annual Progress Report	End of March	• See 2015 Annual Progress Report
	2016 Evaluation Reports	End of March	• Impact evaluation (all programs) • Process evaluation (as proposed in EfficiencyOne's Evidence)
	2017 Q1 Report	April/May	See 2015 Q2 report for details
	2016 Audited Financial Statements	May	
	2017 Q2 Report	July/Aug	See 2015 Q2 report for details
	Historical-looking rate and bill impact analysis	End of October	• Results by rate class in graphical form • Overview and description of analysis • Commentary around results • Assumptions, including explicit identification of any changes from prior filings
	2017 Q3 Report	Oct/Nov	See 2015 Q2 and 2016 Q3 report for details
	Meetings with DSMAG	At least three times per year (generally following filing of quarterly reports)	• Discussion of quarterly report • Other topics as required/requested

Year	Report/ Process	Filing Timeframe	Inclusions
2018	2019-2021 DSM Plan Filing	End of February	• Based on standardized filing agreed to/ordered by the UARB • Rate and bill impact analysis • Preliminary cost allocation (if relevant) • Other items as required to support the Plan
	2017 Evaluation Reports	End of February	• Impact evaluation (all programs; shortened version referencing 2016 evaluation for methodology unless it changed) • Process evaluation (as proposed in EfficiencyOne's Evidence)
	2018 Q1 Report	April/May	See 2015 Q2 report for details
	2017 Audited Financial Statements	May	
	2018 Q2 Report	July/Aug	See 2015 Q2 report for details
	Historical-looking rate and bill impact analysis	End of October	• Results by rate class in graphical form • Overview and description of analysis • Commentary around results • Assumptions, including explicit identification of any changes from prior filings
	2018 Q3 Report	Oct/Nov	See 2015 Q2 and 2016 Q3 report for details
	Meetings with DSMAG	At least three times per year (generally following filing of quarterly reports)	• Discussion of quarterly report • Other topics as required/requested
2019	2018 Annual Progress Report	End of March	• Status of annual performance indicators • See 2015 Annual Progress Report for remaining items
	2018 Evaluation Reports	End of March	• Impact evaluation (all programs; shortened version referencing 2016 evaluation for methodology unless it changed) • Process evaluation (as proposed in EfficiencyOne's Evidence)

Year	Report/ Process	Filing Timeframe	Inclusions
	2019 Q1 Report	April/May	See 2015 Q2 report for details
	2018 Audited Financial Statements	May	
	2019 Q2 Report	July/Aug	See 2015 Q2 report for details plus advance notice of Significant Changes if relevant.
	Historical-looking rate and bill impact analysis	End of October	• Results by rate class in graphical form • Overview and description of analysis • Commentary around results • Assumptions, including explicit identification of any changes from prior filings
	2019 Q3 Report	Oct/Nov	See 2015 Q2 report for details plus advance notice of Significant Changes if relevant.
	Meetings with DSMAG	At least three times per year (generally following filing of quarterly reports)	• Discussion of quarterly report • Other topics as required/requested

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M06733

IN THE MATTER OF: ***THE PUBLIC UTILITIES ACT***

And

IN THE MATTER OF: *An application by EfficiencyOne for Approval of a Supply Agreement for Electricity Efficiency and Conservation Activities between EfficiencyOne ("E1") and Nova Scotia Power Inc. ("NSPI"), the establishment of a final agreement between the parties, and approval of a 2016-2018 Demand Side Management ("DSM") Resource Plan*

WHEREAS EfficiencyOne is the Franchise Holder in accordance with the *Public Utilities Act*;

AND WHEREAS EfficiencyOne has filed an application with the Nova Scotia Utility and Review Board, in accordance with the provisions of the *Public Utilities Act*, for the approval of a Supply Agreement with Nova Scotia Power Inc. ("NSPI") for the supply of electricity efficiency and resource conservation activities for the years 2016 through 2018 ("Supply Agreement");

AND WHEREAS NSPI is, in accordance with the *Public Utilities Act*, deemed to be a co-applicant with EfficiencyOne in the application for approval of the 2016 -2018 DSM Resource Plan ("2016-18 DSM Plan") and Supply Agreement;

AND WHEREAS EfficiencyOne and NSPI (together referred to as the "Co-Applicants") have each filed its evidence before the Board;

AND WHEREAS each of the Co-Applicants has served and responded to Information Requests of the other, and each of the Co-Applicants have responded to Information Requests filed by certain of the formal Intervenors in this proceeding;

AND WHEREAS, based on the record before the Board, the Parties hereby approve the Terms of Consensus attached hereto as Appendix "A". The Parties reserve the right to amend their position based on any further evidence raised in the proceeding before the Board [or any other Intervenors who are not a party to this Consensus Agreement].

1) This Consensus Agreement may be executed by the Parties in counterparts, each of which when so executed and delivered shall be deemed to be an original and when taken together shall be deemed to be one and the same instrument. The electronic delivery, including, without limitation, by email or facsimile transmission, of any signed original of this Settlement Agreement shall be the same as the delivery of an original.

Signed and dated this 16th day of June 2015.

EfficiencyOne

Witness ______________________ Per: ______________________

Consumer Advocate

Witness ______________________ Per: ______________________

Small Business Advocate

Witness ______________________ Per: ______________________

Affordable Energy Coalition

Witness ______________________ Per: ______________________

Ecology Action Centre

Witness ______________________ Per: ______________________

APPENDIX "A"

1) Importation of Agreement

a) The parties agree to incorporate by reference all of the terms of agreement reached in the partial settlement agreement among EfficiencyOne, Nova Scotia Power, the Consumer Advocate, the Small Business Advocate, the Industrial Group, the Ecology Action Centre, and the Affordable Energy Coalition in the proceeding before the Nova Scotia Utility and Review Board (Matter M06733).

2) DSM Investment Level

a) The parties support a reduction in investment level for DSM activities over the 2016-2018 contract period from the proposed $121.5 million to $113.5 million as follows:

   i) $36.9 million in 2016

   ii) $37.8 million in 2017

   iii) $38.8 million in 2018

3) EfficiencyOne Performance Targets

a) EfficiencyOne's cumulative energy and demand savings targets shall be 405.9 GWh and 62.5 MW respectively, as set out in EfficiencyOne's 2016-2018 DSM Resource Plan filing.

4) 2016-2018 Programs

a) The DSM programs in 2016-2018 will be as proposed in EfficiencyOne's 2016-2018 DSM Resource Plan filing.

5) DSM Expenditure Justification Criteria

a) The parties agree to discuss the potential development of DSM Expenditure Justification Criteria (DSMEJC) within the DSM Advisory Group.

6) Small Business Energy Study

a) EfficiencyOne agrees to undertake a Small Business Energy Study in 2016, with the scope to be developed in consultation with the Small Business Advocate.

7) Cost-Effectiveness Testing

a) Through collaboration within the DSM Advisory Group, the parties agree to work to achieve consensus as to the methodology and assumptions of the cost-effectiveness screening test to be applied to future DSM Resource Plans.

8) DSM Advisory Group Discussions

a) If consensus is not achieved on any of the above items to be addressed within the DSM Advisory Group, such items will be presented to the UARB for determination.

9) Principles of Equity

a) All ratepayers are entitled to an equitable opportunity to participate in DSM programs. Low-income tenants and homeowners as well as marginally viable commercial and industrial customers are some of the most difficult and most expensive customers to serve. Services that recognize the barriers these customers face must be offered so they can participate. Cost-effectiveness screening must take into account the extra costs involved.

10) NS Power's Charitable Contribution

a) The parties encourage Nova Scotia Power to provide the evaluated results of its low income program to the Board and to stakeholders on an annual basis and to coordinate administration and evaluation of the program with EfficiencyOne.

b) At present, the Parties agree that DSM activities resulting from NS Power's charitable contribution will not be used to reduce or constrain EfficiencyOne's Performance Targets.