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Financing Demand Side Management

EfficiencyOne

November 2015



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November 8, 2015

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FINANCING DEMAND SIDE MANAGEMENT

We enclose our independent report, which includes our findings related to Financing Demand Side Management for EfficiencyOne.

Our report, along with supporting calculations, details the methods, considerations, analyses and conclusions. We believe that our analysis must be considered as a whole. Selecting portions of our analysis or the factors we considered, without considering all factors and analyses together, could create a misleading view of the process underlying the conclusions. The preparation of a report is a complex process and is not necessarily susceptible to partial analysis or summary description. Any attempt to do so could lead to undue emphasis on any particular factor or analysis.

We thank you for the opportunity to provide our services and will be pleased to discuss the foregoing with you at your convenience.

Yours sincerely,

Kevin Fraser, CPA, CA, CFA
Partner, Advisory Services

Troy MacDonald, CPA, CA, CBV
Partner, Advisory Services

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1 Introduction and summary of conclusions

2 **Introduction and purpose**

3 EfficiencyOne has requested that we prepare an independent report (“Report”) regarding Financing
4 Demand Side Management (“DSM”). More specifically, EfficiencyOne has asked us to:

- 5 1 Estimate the cost of financing investments in electricity energy efficiency activities, back-stopped
6 with payments from Nova Scotia Power (“NSPI”) to EfficiencyOne under a multi-year supply
7 contract approved by the Nova Scotia Utility and Review Board (“UARB”);
- 8 2 Outline the types of financing alternatives; and
- 9 3 Determine the process and timeline involved in obtaining financing.

10 We reserve the right, but are under no obligation, to review all comments and conclusions included in
11 or referred to in this Report and, if we consider it necessary, to revise our conclusions in light of any
12 information existing at the Report date that subsequently becomes known to us following the date of
13 our Report.

14 You have agreed that you will use our Report only for the purpose stated above. No other use is
15 intended or permitted without the prior written consent of Grant Thornton LLP.

16 All amounts contained in this Report are expressed in Canadian dollars unless otherwise stated.

17 **Independence and qualifications**

18 The Report has been prepared by qualified Chartered Professional Accountants, Chartered Business
19 Valuers and Chartered Financial Analysts. The professional work to prepare this Report and the
20 attached analyses was performed by Troy MacDonald, CPA, CA, CBV and Kevin Fraser, CPA, CA,
21 CFA, with the assistance of qualified professional staff. The conclusions expressed herein are the
22 opinions of Troy MacDonald and Kevin Fraser. Mr. MacDonald’s and Mr. Fraser’s résumés are
23 attached as **Appendix C**.

24 We confirm that Mr. MacDonald and Mr. Fraser, and other professional staff assisting in this
25 engagement, prepared this Report acting independently and objectively. We confirm we are aware that
26 in submitting our Report to EfficiencyOne, we have a duty to assist EfficiencyOne and not be an
27 advocate for any party.

28 We confirm this Report has been prepared in accordance with that duty and, if we are called to give
29 oral or written testimony, we will give testimony in conformity with that duty.

30 To the best of our knowledge, we have no conflicts of interest. Our fees were not contingent on the
31 conclusions of our Report or on any action or event resulting from the use of our Report.

32 **Summary of conclusions**

33 Our conclusions are based on the scope of our review and subject to the assumptions, restrictions, and
34 qualifications noted herein.

35 **Potential financing alternatives and cost**

36 Although highlighted in greater detail further in our Report, we collectively received feedback from the
37 lender group approached that the most logical structure to pursue for this financing was either through
38 (i) a traditional term loan structure with upfront commitments for all or a portion of the required
39 financing in support of the initial three year supply agreement as approved by the UARB on August 12,
40 2015 (the “DSM Plan”), or (ii) a revolving financing arrangement (the “Revolver”) whereby approval is
41 provided for the full balance of the DSM Plan with such drawdowns against the Revolver limit made at
42 the discretion of EfficiencyOne with such Revolver limit to reduce as each principal payment is made
43 by EfficiencyOne.

44 Key observations/conclusions:

- 45 • There is an appetite from the lending community for this transaction on the basis that the financing
46 can be appropriately structured and that any operating/execution risk of EfficiencyOne can be
47 sufficiently mitigated as a result.
- 48 • The lending community has responded in unison that significant further due diligence will need to be
49 performed on their behalf on the enforceability, in particular in the event of default, of the
50 contractual commitment of NSPI under the DSM Plan to fund the annual debt service obligations
51 (defined as scheduled annual principal and interest payments owing by EfficiencyOne, or its
52 assignee, to a third party lender) associated with the third party financing put in place.
- 53 • It was clear from the initial responses provided by the lending community that their interest in this
54 financing opportunity was heavily influenced by the strength of NSPI’s balance sheet, external credit
55 rating and demonstrated capacity to fund the annual required payments to EfficiencyOne should an
56 external debt structure be pursued.
- 57 • Key risk areas identified by the lending community included (i) the risk of investment overspending
58 by EfficiencyOne as compared to their annual budget; (ii) the risk of non-achievement of required
59 energy efficiency targets and the resulting impact, if any, on the required annual funding by NSPI of
60 EfficiencyOne’s debt service obligations; and (iii) the risk of non-payment by NSPI of the remaining
61 funding commitments associated with EfficiencyOne’s debt service obligations in the event the
62 franchise agreement is revoked with EfficiencyOne or the future period’s DSM Plans are not
63 approved by the UARB.

- 64 • The lender community perceived the negotiation of the initial DSM Plan to be acrimonious between
65 EfficiencyOne and NSPI (each a “Party” and collectively the “Parties”), thus leading to increased
66 concern as to the ability of the Parties to successfully negotiate future DSM Plans as well as resolve
67 any potential future service delivery issues and/or investment overspending, if applicable, without
68 the oversight of the UARB in resolving such issues.
- 69 • Given the magnitude of the financing sought in support of the DSM Plan in the amount of \$102.1
70 million over the 2016 – 2018 three-year period (based on the August 12, 2015 UARB decision), there
71 were mixed results from the lending community as to their ability to provide a formal commitment
72 for the full amount of the required funding beyond the 2017 calendar year without surety of pricing.
73 The full quantum of such pricing implications can only be determined by the lending community
74 following their in-depth due diligence review during the formal financing process, should
75 EfficiencyOne seek to proceed with the process and given the approval by the UARB to do so.
- 76 • Such commitments for the full DSM Plan is achievable in the market; however, there will be
77 increased interest rate implications to EfficiencyOne if the preference is to arrange a full three-year
78 commitment prior to the 2016 tranche for each of the 2017 and 2018 tranches. If the risk profile of
79 EfficiencyOne is consistent during each year of the DSM Plan, the lending community has indicated
80 that the likelihood is low of not successfully arranging a commitment of the 2nd and 3rd year tranches
81 well in advance of the required advance dates.
- 82 • Initial feedback from the lending community suggested that an unlimited corporate guarantee would
83 be required from NSPI in support of the debt obligations of EfficiencyOne under this arrangement,
84 if pursued; however, as this process has unfolded to date, we believe that the lending community
85 now has a greater understanding of the legal funding obligation that the DSM Plan places on NSPI
86 as a result of the ruling of the UARB and that NSPI does not have the legal ability to not fund any
87 required debt service obligations of EfficiencyOne associated with the financing arranged by
88 EfficiencyOne to fund the DSM Plan, assuming that EfficiencyOne does not overspend in any year
89 over and above the limits established in the DSM Plan.
- 90 • The risk of investment overspending by EfficiencyOne was identified as a significant concern of the
91 lending community given language in the UARB filings that indicate that NSPI is not responsible to
92 fund any overspending over and above the limits approved in the DSM Plan. The strength of the
93 historical achievement of spending levels against plan (under the previous Efficiency Nova Scotia
94 Corporation (“ENSC”) structure), the internal control processes in place and the frequency of the
95 financial monitoring practices employed by EfficiencyOne were all tabled as significant mitigating
96 factors to protect against this risk. Despite these internal processes, as EfficiencyOne is a non-profit
97 entity with limited alternative sources of funding, this risk continues to be of significance, and further
98 comfort by the lending community will be required in this area in order to successfully arrange the
99 financing.
- 100 • The risk of non-achievement of energy efficiency targets and the resulting impact on the financial
101 commitment by NSPI to fund the debt service obligations of EfficiencyOne under the DSM Plan
102 was also raised as a significant point of concern for the lenders. Similar to the above point, we did
103 highlight the historical performance of ENSC in this area as well as the internal control processes in

- 104 place and the frequency of measurement and reporting of performance against energy efficiency
105 targets as significant mitigating factors to protect against this risk. Further due diligence will need to
106 be performed by the lending community to further understand all other mitigating factors that may
107 be available to EfficiencyOne to reduce this risk should such an event occur in the future.
- 108 • Preliminary indicative all-in pricing ranges provided by the lending community suggest that
109 EfficiencyOne could arrange external financing within a range of pricing in the area of **3.5% - 4.5%**.
110 It is important to note that these are indicative pricing ranges provided on a non-binding basis by the
111 lenders we approached and are subject to change based on their formal due diligence review;
112 however, should such due diligence sufficiently mitigate those risk factors noted above, this pricing
113 range would seem to be supportable and potentially closer to the lower end as opposed to the upper
114 end of the range. **This can only be validated through the initiation of a formal financing**
115 **process, including management presentations, full legal documentation review and further**
116 **validation of the enforceability of the DSM Plan and the strength of the internal processes in**
117 **place to mitigate the risks as identified.**
- 118 • There will be up-front costs for EfficiencyOne associated with arranging this financing, such costs in
119 particular to include professional fees, arrangement fees, commitment fees, standby fees and
120 potentially, third party lender consultant fees, if applicable. While the quantum of such fees can't be
121 determined with accuracy at this preliminary stage, the requirement for bank fees has been tabled by
122 a number of the lenders that were approached. Given the size of the financing request and the
123 requirement for a committed (as opposed to demand) structure from the successful lender(s), we
124 suspect such upfront costs could be in the area of \$500,000 - \$700,000 (subject to negotiation of
125 required standby fees if the full financing commitment for the DSM Plan is pursued at this time.) A
126 determination of how such fees will be funded will need to be made as well as a calculation of the
127 cost / benefit of incurring such up-front costs against the savings that will accrue to the ratepayer via
128 funding of the DSM Plan using an implied interest rate in the area of 4% per annum.

129 **Proposed financing process and timeline**

130 We propose the following next steps and associated timeline in support of securing long term
131 financing:

- 132 a EfficiencyOne to discuss Report findings with their internal Finance Committee, NSPI and the
133 UARB and determine acceptable structure.
134 Timing: Fall 2015
- 135 b Preparation of a formal financing package for submission to potential lenders.
136 Timing: Weeks 1 & 2 following approval from the UARB to proceed
- 137 c Confirmation of potential lenders to be approached (full market canvas).
138 Timing: Weeks 1 & 2
- 139 d Presentation of the financing package to potential lenders.
140 Timing: Weeks 3 & 4

141 e Negotiation of non-binding term sheets with potential lenders.
142 Timing: Weeks 7 & 8

143 f Closing of the financing transaction.
144 Timing: Weeks 9 through 12

145 We estimate the financing process would take approximately 12 weeks from start to completion (steps
146 b through to f) which would ensure that the financing arrangement is in place prior to the initial
147 required 2016 funding date of January 1, 2016.

148 DSM in Nova Scotia – summary overview

149 **October 1, 2010 – December 31, 2014**

150 The responsibility and accountability for DSM administration was transferred from NSPI to ENSC
151 effective October 1, 2010. ENSC was an independent non-profit company that received funding both
152 from ratepayers (through an efficiency charge on electricity bills called DSM Cost Recovery Rider) for
153 electricity efficient programs and from the Nova Scotia government for non-electricity programs.
154 Efficiency targets and funding levels for electricity programs were determined by the UARB.

155 **January 1, 2015 and onwards**

156 Revisions to the *Public Utilities Act*, proposed through the *Electricity Efficiency and Conservation Restructuring*
157 *(2014) Act*, were proclaimed on May 1, 2014. Some of the highlights are as follows¹:

- 158 • ENSC ceased to exist as the provider of DSM in Nova Scotia as of January 1, 2015. The Efficiency
159 Nova Scotia franchise was created and awarded by the Nova Scotia Minister of Energy. The
160 franchise gives the franchise holder the exclusive right to supply NSPI with reasonably available, cost
161 effective electricity efficiency and conservation activities. It also allows the franchise holder to use
162 the Efficiency Nova Scotia brand when offering electricity efficiency and conservation activities and
163 for other fuels, under contract with the province of Nova Scotia. The franchise was awarded for a 9
164 year term from January 1, 2016 to December 31, 2024, with an initial one-year transition period
165 added to the term for 2015.
- 166 • EfficiencyOne was granted the first Efficiency Nova Scotia franchise (which is exclusive).
167 EfficiencyOne was incorporated in July 2014 under the Canada Not-for-Profit Corporations Act.
168 The Board of Directors of EfficiencyOne consists of the same individuals as the Board of Directors
169 of ENSC, absent the provincially appointed non-voting representative.
- 170 • All business information, agreements, employees, assets, liabilities and obligations of ENSC were
171 transferred to EfficiencyOne on January 1, 2015. The sole exception was that any claim related to
172 ENSC's historical HST issue was not transferred. This asset, along with the subsequent collection,
173 will remain with ENS Transition Corporation.
- 174 • As of January 1, 2015, NSPI is required by regulation to undertake cost-effective electricity efficiency
175 and conservation activities that are reasonably available in an effort to reduce costs for its customers.

¹ *Public Utilities Act, section 79A to 79V, and Electricity Efficiency and Conservation Restructuring (2014) Act.*

- 176 As the franchise holder, EfficiencyOne is considered to be a public utility in relation to these
177 activities.
- 178 • The supply of electricity efficiency and conservation activities will be administered by the Efficiency
179 Nova Scotia franchise on a contractual basis with NSPI, with the contract being approved by the
180 UARB. For the 2015 transition year, NSPI and EfficiencyOne were deemed to have entered into an
181 initial agreement. In 2015 only, the legislation limited the dollar amount approved by the UARB to
182 be spent on electricity efficiency and conservation activities to not more than \$35 million, plus any
183 over-recovery of funds by ENSC from 2013. The costs NSPI can recover from ratepayers for the
184 2015 year, beginning in 2016, is over an 8 year period. Please note that the 8 year amortization
185 period only applied to 2015. For 2016 and beyond, the amortization period has yet to be
186 determined. It remains a decision of the UARB as to what the reasonable amortization period would
187 be and what evidence they are presented to make that decision.
- 188 • The legislation states that the UARB shall establish such performance requirements for the franchise
189 holder as it considers appropriate.
- 190 • EfficiencyOne, as the franchise holder, is required to enter into an agreement for a term of three
191 years with NSPI for the supply of electricity efficiency and conservation services (“Supply
192 Agreement”), which agreement is subject to approval of the UARB.
- 193 • EfficiencyOne and NSPI were unable to reach agreement on all required terms of the Supply
194 Agreement and, therefore, EfficiencyOne and NSPI applied to the UARB for a decision with respect
195 to a Supply Agreement. In support of their respective applications, both EfficiencyOne and NSPI
196 filed evidence with the UARB. To the extent possible, EfficiencyOne and NSPI have reached
197 agreement on certain elements of the Supply Agreement.
- 198 • EfficiencyOne, as the franchise holder, assumes all financial risk associated with the delivery of DSM
199 in Nova Scotia. That is, EfficiencyOne is solely responsible if it is unable to meet its obligations to
200 provide NSPI with the UARB approved, contracted amount of energy savings, within the contract
201 price. EfficiencyOne is not able to request additional dollars from NSPI. Although this is a risk,
202 EfficiencyOne believes its internal controls, such as monthly reporting (both financial and energy
203 savings), and its budgeting process assist the organization in making sure it does not spend more
204 than what it receives in funding and that it achieves its efficiency targets. Furthermore, if there are
205 extra-ordinary items, unusual, or unforeseen events, EfficiencyOne believes it would have the ability
206 to request additional funding support from the UARB. (See more on this below.)
- 207 • If EfficiencyOne’s franchise agreement is terminated prior to December 31, 2024, all assets and
208 liabilities of the Efficiency Nova Scotia franchise would follow the franchise agreement and would
209 be assumed by the new franchise holder. Similarly, if EfficiencyOne’s franchise agreement was not
210 renewed at the end of the 9 year period, all assets and liabilities of the Efficiency Nova Scotia
211 franchise would follow the franchise agreement and would be assumed by the new franchise holder.

212 **Summary of EfficiencyOne's proposed DSM plan 2016-2018²**

213 EfficiencyOne's proposed plan calls for an investment of \$121.5 million over a three year period –
214 specifically, \$38.5 million in 2016; \$40.3 million in 2017; and \$42.6 million in 2018. As well,
215 EfficiencyOne is proposing a three year contracted deliverable of cumulative energy and peak demand
216 savings.

217 Furthermore, EfficiencyOne proposes to undertake regular reporting to the UARB and DSM Advisory
218 Group for the 2016 - 2018 period, consisting of (1) annual progress report, (2) quarterly meetings and
219 reports, and (3) evaluation reports, impact evaluation and process evaluation.

220 Also as part of the proposed DSM plan, EfficiencyOne has requested that a reserve fund be approved
221 since EfficiencyOne, as the franchise holder, assumes all financial risk associated with the delivery of
222 DSM in Nova Scotia. That is, EfficiencyOne is solely responsible if it is unable to meet its obligations
223 to provide NSPI with the UARB approved, contracted amount of energy savings within the contract
224 price. EfficiencyOne is not able to request additional dollars from NSPI if unforeseen events occur.
225 Any investment used to establish a DSM reserve fund would be available through NSPI ratepayer
226 funded investment.

227 EfficiencyOne has also requested that the UARB approve a change to the primary cost-effectiveness
228 testing methodology from the Total Resource Cost test ("TRC") to the Program Administrator Cost
229 ("PAC") test.

230 **Summary of NSPI's proposed DSM plan 2016-2018³**

231 NSPI recommends a DSM plan with a spending level of approximately \$22 million per year or \$66
232 million over the three year period. NSPI also made, among others, the following requests:

- 233 • The contract price to be paid by NSPI under the Supply Agreement should be allocated on an annual
234 basis over the three year contract period, such that if EfficiencyOne does not spend the full amount
235 in a given year, it is to be deducted from the amount owing in the following year.
- 236 • A decision of the allocation and recovery of costs of any approved DSM Plan from NSPI should be
237 deferred until an application is made by NSPI.
- 238 • EfficiencyOne's request for the establishment of a reserve fund as part of the DSM Plan should be
239 rejected.
- 240 • EfficiencyOne's request to change the cost effectiveness testing methodology from TRC to PAC for
241 subsequent DSM plans should be rejected.
- 242 • A standardized filing for future DSM applications should be established.

² Evidence of EfficiencyOne 2016-2018 DSM Plan, filed February 27, 2015 with the Nova Scotia Utility and Review Board.

³ Evidence of Nova Scotia Power, 2016-218 DSM Plan, filed April 10, 2015, with the Nova Scotia Utility and Review Board.

243 **Summary of Quantum Agreement⁴**

244 On June 16, 2015, EfficiencyOne entered into an agreement (“Quantum Agreement”) with the
245 Consumer Advocate, Small Business Advocate, Affordable Energy Coalition, and Ecology Action
246 Centre. Some of the highlights are as follows:

- 247 • The parties support a reduction in investment level for DSM activities over the 2016 - 2018 contract
248 period from the proposed \$121.5 million to \$113.5 million as follows: \$36.9 million in 2016; \$37.8
249 million in 2017; and \$38.8 million in 2018.
- 250 • EfficiencyOne’s cumulative energy and demand savings’ targets shall be 405.9 GWh and 62.5 MW,
251 respectively, as set out in EfficiencyOne’s DSM 2016 - 2018 plan.
- 252 • The DSM programs in 2016 - 2018 will be as set out in EfficiencyOne’s DSM 2016 - 2018 plan.
- 253 • The parties agree to work to achieve consensus as to the methodology and assumptions of the cost-
254 effectiveness screening test to be applied to future DSM plans.

255 **Summary of Consensus Agreement⁵**

256 On June 16, 2015, EfficiencyOne entered into an agreement (“Consensus Agreement”) with Nova
257 Scotia Power Incorporated, Consumer Advocate, Small Business Advocate, Industrial Group,
258 Affordable Energy Coalition, and Ecology Action Centre. Some of the highlights are as follows:

- 259 • The parties agreed to the establishment of a standardized filing for future applications, the substance
260 of which will be vetted through the DSM Advisory group for UARB approval.
- 261 • In lieu of the proposed DSM reserve fund, the parties agreed they will not challenge EfficiencyOne’s
262 ability to apply on an expedited basis to the UARB for recovery of funds to address extraordinary or
263 unforeseen circumstances outside of normal operations, if required, provided EfficiencyOne has
264 made a good faith effort to mitigate the costs of the extraordinary or unforeseen circumstances.
265 EfficiencyOne agreed that if a budget surplus exists at the end of the three year contract period, the
266 surplus will be returned to NSPI for the benefit of ratepayers as determined by the UARB.
- 267 • The parties agreed to performance targets and performance indicators. The performance targets are
268 set over the three year contract period, rather than annually.
- 269 • The parties agreed to collaboratively work to develop new DSM cost allocation and DSM cost
270 recovery models to be submitted by October 31, 2015 for approval by the UARB.
- 271 • The parties agreed on a number of evaluation and reporting items.

⁴ *Quantum Agreement, 2016-2018 DSM Plan, dated June 16, 2015, entered into by EfficiencyOne, Consumer Advocate, Small Business Advocate, Affordable Energy Coalition, and Ecology Action Centre.*

⁵ *Consensus Agreement, 2016-2018 DSM Plan, dated June 16, 2015, entered into by EfficiencyOne, Nova Scotia Power Incorporated, Consumer Advocate, Small Business Advocate, Industrial Group, Affordable Energy Coalition, and Ecology Action Centre.*

272 **UARB Decision⁶**

273 On August 12, 2015, the UARB submitted its decision. A summary of the UARB's findings is as
274 follows:

- 275 • The UARB did not approve the Quantum Agreement; however, it does approve an aggregate
276 spending of \$102.2 million, which is a 10% reduction in the amount agreed to in the Quantum
277 Agreement, with no inflation increases over the three years. The approved spending is \$33.2 million
278 in 2016, \$34 million in 2017 and \$34.9 million in 2018.
- 279 • The UARB considers that the target energy and demand savings included in the EfficiencyOne DSM
280 Plan can be achieved within the approved spending.
- 281 • While not approving the Quantum Agreement, the UARB has no difficulty with certain aspects of it
282 - specifically, the proposed discussion of a potential development of a DSM Expenditure
283 Justification Criteria, the Small Business Energy Study, the referral of cost effectiveness screening
284 tests to the DSM Advisory Group, and the provision of the results of the Clean Nova Scotia Low
285 Income Program to the UARB and stakeholders.
- 286 • The UARB approves the Consensus Agreement, which refers a number of matters to the DSM
287 Advisory Group.
- 288 • The UARB finds that the TRC for cost effectiveness screening is to remain in place for the time
289 being.
- 290 • In approving the Consensus Agreement, the UARB notes that it contains a provision which will
291 ensure that, where consensus cannot be reached after consultation with stakeholders, the parties will
292 bring outstanding matters back to the UARB no later than June 30, 2016, which allows sufficient
293 time to deal with such matters prior to the submission of the DSM Plan for the next three year term
294 of the franchise.
- 295 • The UARB directs EfficiencyOne to undertake research and to make recommendations on a more
296 rigorous program for determining incentives, which should be filed with the UARB by March 31,
297 2016.
- 298 • In future application, EfficiencyOne is to provide one or more alternate scenarios of DSM budgets
299 for the UARB to consider, and NSPI is to provide rate impact analysis on those scenarios.
- 300 • The Department of Energy ("DOE") raised the issue of deferral and amortization of certain of the
301 DSM costs, noting it is permitted by the Public Utilities Act. The DOE indicated that a decision on
302 deferral should generally be made at the time the DSM budget is set. The UARB does not see any
303 logical reason why a deferred amount should be put in NSPI's rate base at a cost of 7.78% when
304 bank financing is available to qualified borrowers at approximately 3%. EfficiencyOne is directed to
305 enter into discussions with the DOE and with commercial lenders to see if there is a less expensive
306 way to finance any deferrals and whether that is authorized by the Public Utilities Act. The UARB
307 would be much more inclined to order a deferral if it does not attract a financing cost of 7.78%.

⁶ Nova Scotia Utility and Review Board Decision, dated August 12, 2015.

Efficiency Nova Scotia programs – summary overview

EfficiencyOne operates Canada's first electricity efficiency utility as the franchise holder of Efficiency Nova Scotia. Efficiency Nova Scotia provides the following DSM services⁷:

Residential programs

- *Efficient Product Rebates* – consists of point-of-purchase discounts and incentives for the retirement of old, inefficient appliances.
- *Existing Residential* - consists of the Residential Direct Install, Rental Properties and Condos, Home Energy Assessment, Green Heat, Residential Solar components, and Low Income Homeowner services. The Existing Residential program is designed to help reduce electricity consumption for space and water heating and lighting.
- *New Residential* – consists of working with the client and their builder to integrate energy efficiency technologies into building plans. New Residential services are offered to builders and owners of new houses, including row housing and semi-detached houses.
- *Energy Savings Actions* – enables participating households to compare their energy usage with similar neighbouring homes. This program is anticipated to end at the beginning of 2016.

Business, non-profit and institutional programs

- *Efficient Product Rebates* – consists of both mail-in and point-of-purchase incentives. The Efficient Product Rebates program provides financial incentives through prescriptive rebates on a wide variety of products to encourage end users to reduce electrical energy consumption and peak demand.
- *Custom Incentives* – consists of the Customer Retrofit, Custom New Construction, Custom Existing Building Commissioning, and Energy Management Information Systems program components. The Custom Incentives program provides financial incentives to help commercial, industrial, not-for-profit and institutional customers reduce their electrical energy consumption and peak. Incentives are provided to help eligible participants complete energy audits and implement technical changes within their existing or new facilities.

⁷ Evidence of EfficiencyOne 2016-2018 DSM Plan, filed February 27, 2015 with the Nova Scotia Utility and Review Board.

- *Direct Installation* – consists of the Business Energy Solutions and the Rental Properties and Condos Common Area services. The Direct Installation program is designed to assist small- to medium-sized businesses reduce their energy consumption with turnkey solutions identified through a no-charge assessment. The program is delivered through contracted delivery agents that manage product procurement, product installation, and disposal and recycling of removed products. The total project cost is shared with the customer, with the option for approved customers to finance their portion for up to 24 months of interest free payments on their power bills.

Enabling strategies

Enabling strategies include Education and Outreach, Development and Research, and Other Strategies such as innovative financing, capacity building, working with governments and code and standards.

Enabling Strategies ensure that EfficiencyOne is able to increase awareness about energy efficiency, evolve service and provide information and tools needed by Nova Scotians to make informed energy choices.

347 Financing structures – comparable entities

348 We performed an industry scan to determine financing structures currently utilized by comparable
349 entities (i.e., other independent energy efficiency entities) across Canada and the United States.

350 EfficiencyOne is the only independent electricity efficiency utility in Canada where all other electricity
351 efficiency programming is administered by the electric utilities (either Crown Corporations and / or
352 investor-owned utilities). Manitoba is currently considering an independent administration model⁸.

353 In the United States, we have identified the following states where DSM is delivered by a third-party
354 Organization, somewhat similar to the model in Nova Scotia: Oregon, Vermont, District of Columbia,
355 Hawaii, and Wisconsin. We have summarized the operations of each respective organization below.
356 Unfortunately, we were unable to identify comparable financing structures as none of these states'
357 respective efficiency organizations have third party debt outstanding.

358 **Energy Trust of Oregon, Inc.⁹**

359 Energy Trust of Oregon, Inc. ("Energy Trust") is an independent, non-profit organization based in
360 Portland, Oregon that helps utility customers in Oregon benefit from efficient energy use and generate
361 renewable energy. Through state legislation, tariffs and other requirements, Energy Trust is funded by
362 customers of Portland General Electric, Pacific Power, NW Natural and Cascade Natural Gas.
363 Customers of all four utilities pay a dedicated percentage of their utility bills to support a variety of
364 energy-efficiency and renewable energy services and programs. The operations of the Energy Trust are
365 regulated by the Oregon Public Utility Commission.

366 We reviewed Energy Trust's external audited financial statements for the fiscal period ending
367 December 31, 2014. The Energy Trust did not have any outstanding long-term debt facilities.

368 **Vermont Energy Efficiency Utility Fund¹⁰**

369 The Vermont Public Service Board established the Vermont Energy Efficiency Utility Fund
370 ("VEEUF") to fund state wide electric and thermal energy and process fuels efficiency programs.

⁸ <http://www.winnipegfreepress.com/local/energy-agency-still-not-a-go-315189191.html>

⁹ <http://energytrust.org/about/>

¹⁰ *Report on 2013 Energy Efficiency Utility Program Revenues and Expenditures, by the Vermont Public Service Board, dated January 22, 2015.*

371 The Vermont Public Service Board appoints energy efficiency utilities to deliver energy efficiency
372 services. Currently, two entities serve as energy efficiency utilities: Vermont Energy Investment
373 Corporation (o/a Efficiency Vermont) to deliver energy efficiency services throughout most of the
374 state through December 31, 2021, and the City of Burlington Electric Department to deliver energy
375 efficiency services within its service territory.

376 The Vermont Department of Public Service, a separate state agency, serves as the State's energy office
377 and as the public advocate in proceedings before the Vermont Public Service Board. The Vermont
378 Department of Public Service is the lead entity for evaluating and monitoring the Vermont Energy
379 Investment Corporation and the City of Burlington Electric Department.

380 The Vermont Public Service Board established a volumetric charge to customers, the Energy Efficiency
381 Charge ("EEC"), for the support of energy efficiency programs. The EEC is collected by distribution
382 utilities throughout the State and remitted to the VEEUF on a monthly basis.

383 We reviewed the VEEUF's external audited financial statements for the fiscal period ending December
384 31, 2013 (December 31, 2014 were not yet available), and the fund did not have any outstanding long-
385 term debt facilities.

386 **Sustainable Energy Trust Fund¹¹¹²**

387 In 2008, the Council of the District of Columbia enacted the Clean and Affordable Energy Act, which
388 established a public benefits fund named the Sustainable Energy Trust Fund ("SETF") and the creation
389 of a "Sustainable Energy Utility" to be operated by a private company under contract to the District
390 Department of the Environment ("DDOE"). The Sustainable Energy Utility would be responsible for
391 administering sustainable energy programs in the District.

392 Following a public bid process in 2011, the DDOE contracted with the Vermont Energy Investment
393 Corporation and eight other local partners, forming the Sustainable Energy Partnership. Under this
394 contract, the District of Columbia Sustainable Energy Utility ("DCSEU") began operating in March
395 2011.

396 The DCSEU's funding comes from the SETF. The SETF is financed by a surcharge on all electric and
397 natural gas utility ratepayers in the District of Columbia.

398 We were unable to locate external financial statements for SETF.

399 **Hawaii Energy¹³**

400 In 2009, the Hawaii Public Utilities Commission ("HPUC") contracted with a third party, Leidos
401 Engineering, LLC, to administer Hawaii Energy. Hawaii Energy is a public benefits fund financed by a
402 surcharge on utility bills. The surcharge is based on a percentage of total utility revenue and funds a
403 number of clean energy incentive, rebate, and exchange programs.

¹¹ <https://www.dcsen.com/about-dcsen>

¹² <http://energy.gov/savings/sustainable-energy-trust-fund>

¹³ <https://hawaiienergy.com/about>

404 We were unable to locate external financial statements for Hawaii Energy.

405 **Focus on Energy¹⁴**

406 Focus on Energy is Wisconsin utilities' state-wide energy efficiency and renewable resource program.
407 Since 2001, the program has worked with eligible Wisconsin residents and businesses to install cost-
408 effective energy efficiency and renewable energy projects. Focus on Energy is funded by the state's
409 investor-owned energy utilities, as required under legislation, and participating municipal and electric
410 cooperative utilities.

411 We were unable to locate external financial statements for Focus on Energy.

¹⁴ <https://focusonenergy.com/>

412 Potential financing alternatives and cost

413 Overview

414 Investments in energy efficiency produce savings that last many years after the initial investment. For
415 example, investments in electricity efficiency made in the 2016 to 2018 period are expected to return
416 financial benefits to ratepayers for up to 16 years, according to EfficiencyOne management. NSPI may
417 seek to recover the cost of each three-year agreement from ratepayers over a period of time that
418 matches the cost of electricity efficiency with its benefits. This means that if NSPI seeks to recover the
419 annual investment over a longer period than that respective fiscal year, it will be able to recover its
420 weighted average cost of capital (“WACC”) on any unamortized regulatory asset balance.

421 Ultimately, the goal of this Report is to determine, on a preliminary basis, whether financing for
422 investments that are recovered from ratepayers can be obtained directly by EfficiencyOne, or
423 alternatively, a special purpose entity owned and controlled by EfficiencyOne, at a lower financing cost
424 than NSPI’s WACC, which currently stands at 7.78% (pre-tax) and 6.49% (after-tax)¹⁵. We understand
425 that if the financial benefit to the ratepayers is sufficiently material over the life of the current and
426 successive supply agreements, then the UARB may instruct EfficiencyOne to formally explore a direct
427 financing arrangement with a third party lender(s).

428 Process

429 Grant Thornton performed a preliminary market sounding exercise in order to determine expected
430 interest levels by the finance community by approaching a select cross section of potential lenders
431 including traditional chartered banks, life insurance companies and pension funds (each a “Lender” and
432 collectively the “Lenders”). Specifically, we took the following steps in an effort to estimate, based on
433 preliminary indications from the Lenders, the cost of financing investments in electricity energy
434 efficiency activities for EfficiencyOne, such costs to take into consideration actual interest rates on the
435 debt, arrangement fees, commitment fees, standby fees, professional fees, etc., as follows:

- 436 • Identified the types of long-term financing alternatives;
- 437 • Identified the potential types of lenders and identified all relevant potential lenders within each
- 438 lender type and selected a sample from each; and

¹⁵ Nova Scotia Power, 2014 IRP – Final Assumptions, dated April 11, 2014.

- Provided a brief financing package (and related appendices) and obtained preliminary non-binding indications of interest from certain of the Lenders.

Long-term financing alternatives

The two primary sources of long-term financing as initially identified through this process are (1) fixed and / or variable rate term loans, and (2) revolving funding arrangements.

Although a bond-like private placement structure was tabled with the Lenders for consideration, the general consensus from the Lenders at this preliminary stage is that the nature of the financing sought did not appropriately lend itself to a private placement bond-like structure, given the requirement by EfficiencyOne for amortization of the debt and the increasing nature of the capital funding in each successive year of the financing arrangement (i.e., 100% of the funding proceeds in support of the initial three year supply agreement are not required by EfficiencyOne on Day 1). Bond-like structures typically require the payment of the principal value at maturity as opposed to over a set period of time and thus are non-amortizing in nature.

The main characteristics of the term loan and revolving funding arrangements are as follows based on the preliminary feedback from the Lenders:

Term loan

- Paid off over some number of years with preliminary assumption of an 8-year amortization period applied to each annual advance (“Tranche”). This period was selected based on the required 8-year amortization period on the 2015 DSM funding by NSPI in support of the EfficiencyOne investments. However, feedback from the Lenders indicates that there is market appetite for an amortization period longer than 8 years if approved by the UARB.
- Usually negotiated with commercial banks, insurance companies, or some other financial institution.
- In some cases, there is a distinction between the term and amortization period of the loans. The amortization period represents the repayment period (in years) over which the annual principal and interest payments (collectively, the “Debt Service Obligations”) are calculated. The term of the loan represents that period of time over which the Lender commits to the approval and pricing (if fixed rate, fixed term loan, or interest rate swap arrangement) of the loan.
- If the term of the loan does not match the amortization period of the loan, then this will create refinancing risk, both in terms of commitment and pricing, for EfficiencyOne. Preliminary feedback from the Lenders indicates an appetite for terms ranging from a demand facility (essentially a one-year term) to an 8-year term to match the assumed amortization period. As the term extends, the capital cost to the Lender (and thus the required return for the Lender for providing the credit) increases, resulting in higher required interest rates to be charged on the term loan.

- 474 - We understand that in the event EfficiencyOne arranges for external financing, the rate of interest
475 on this financing would need to be fixed at the time of each annual Tranche drawdown in order for
476 the required Debt Service Obligations of EfficiencyOne and thus, the required funding amounts
477 from NSPI, to be known with certainty over the repayment term related to each Tranche. If
478 EfficiencyOne were to select a floating rate pricing structure, such payment certainty could not be
479 assured as the Debt Service Obligations in aggregate would fluctuate as the underlying benchmark
480 rate and the specific risk rating of EfficiencyOne changes, if applicable, during the repayment
481 period.
- 482 - As it relates to fixed rate pricing options, on a broad basis, certain Lenders have indicated a
483 willingness to consider fixing the rate via a traditional fixed rate, fixed term structure whereby the
484 pricing for each Tranche is determined shortly before each annual drawdown date and fixed over
485 the term of the financing related to each specific Tranche. Alternatively, certain Lenders have
486 indicated that they are prepared to fix the rate only through the utilization of an interest rate swap
487 arrangement with a term of the swap matching the amortization period of the loan. This type of
488 structure is most notably preferred by the traditional chartered bank community as they can achieve
489 a more competitive rate structure for EfficiencyOne utilizing swaps as opposed to a traditional
490 fixed rate, fixed term arrangement. The financial statement disclosure implications to
491 EfficiencyOne should be investigated in the event that an interest rate swap arrangement is
492 considered due to the annual mark-to-market ("MTM") requirements for such a derivative
493 instrument. While non-cash in nature, such MTM adjustments may materially impact the annual
494 statement of operations of EfficiencyOne.

495 **Revolving funding structure**

- 496 - Upfront approval for 100% of the required financial commitment with such revolver limit to be
497 reduced each year as the annual Tranche is drawn down and converted to a term loan arrangement.
- 498 - Eliminates the requirement to seek future credit commitments from the Lender as such
499 commitment is in place at the time of approval of the full amount of the Revolver, subject to fixed
500 rate pricing established for each Tranche at the time of drawdown, whether via a traditional fixed
501 rate, fixed term loan or alternatively, an interest rate swap arrangement.
- 502 - Expectation for reduced arrangement fees and professional fees associated with future conversions
503 to a term loan structure due to pre-approval nature of the Revolver, subject to validation of the risk
504 profile of EfficiencyOne consistent with such assessment established at the time of initial approval.
- 505 - Higher up-front arrangement, commitment and stand-by fees, as these Lender fees are determined
506 based on market driven basis point fees measured against the total amount of the Revolver
507 commitment. For example, if the Revolver was established for \$102.1 million reflecting the DSM
508 Plan, if there is a 35 basis point arrangement / commitment fee totalling \$357,350 and year one
509 stand-by fees of 25 basis points totalling \$255,250, total year one bank fees before the
510 consideration of third-party lender consultant fees, if required, as well as legal and financial advisory
511 fees could be in the range of \$600,000. It should also be noted that the stand-by fee is payable each
512 year (typically on a quarterly basis) on the reducing on-drawn portion of the lending commitment.

513 The main advantages and disadvantages of each are further summarized below:

	Term loan	Revolving funding
Advantages	Lower (or no) stand-by fees Lower arrangement and professional fees in Year 1	Reduced refinancing risk - upfront approval for entire 3 year DSM Plan Lower arrangement and professional fees over the 3 year DSM Plan
Disadvantages	Higher arrangement and professional fees over the 3 year DSM Plan Refinancing risk – required approval for each successive Tranche	Stand-by fees on any unused portion – could be significant in Year 1 Higher arrangement and professional fees in Year 1

514 **Potential lenders**

515 **Appendix A** contains the full listing of all potential lenders by type that we identified which we believe
516 would have an interest in providing EfficiencyOne with long term financing. The potential lenders
517 shaded in grey are the ones we selected to approach as part of obtaining preliminary indications of
518 interest.

519 We provided a brief financing package (see **Appendix B**) to 7 potential lenders. The individual
520 feedback of each is to remain confidential until such time as a decision is made by EfficiencyOne, with
521 the approval of the UARB, to initiate the formal financing process.

522 **Summary of key observations**

523 Included below is a summary of our key observations through our various discussions with the
524 Lenders:

- 525 • There is an appetite from the lending community for this transaction on the basis that financing can
526 be appropriately structured and that any operating/execution risk of EfficiencyOne can be
527 sufficiently mitigated as a result.
- 528 • The lending community has responded in unison that significant further due diligence will need to be
529 performed on their behalf on the enforceability, in particular in the event of default, of the
530 contractual commitment of NSPI under the DSM Plan to fund the annual Debt Service Obligations
531 (defined as scheduled annual principal and interest payments owing by EfficiencyOne, or its
532 assignee, to a third party lender) associated with the third party financing put in place.
- 533 • It was clear from the initial responses provided by the lending community that their interest in this
534 financing opportunity was heavily influenced by the strength of NSPI's balance sheet, external credit

- 535 rating and demonstrated capacity to fund the annual required payments to EfficiencyOne should an
536 external debt structure be pursued.
- 537 • Key risk areas identified by the lending community included (i) the risk of investment overspending
538 by EfficiencyOne as compared to their annual budget; (ii) the risk of non-achievement of required
539 energy efficiency targets and the resulting impact, if any, on the required annual funding by NSPI of
540 EfficiencyOne's Debt Service Obligations; and (iii) the risk of non-payment by NSPI of the
541 remaining funding commitments associated with EfficiencyOne's Debt Service Obligations in the
542 event the franchise agreement is revoked with EfficiencyOne or the future period's DSM Plans are
543 not approved by the UARB.
- 544 • The lender community perceived the negotiation of the initial DSM Plan to be acrimonious between
545 EfficiencyOne and NSPI (each a "Party" and collectively the "Parties"), thus leading to increased
546 concern as to the ability of the Parties to successfully negotiate future DSM Plans as well as resolve
547 any potential future service delivery issues and/or investment overspending, if applicable, without
548 the oversight of the UARB in resolving such issues.
- 549 • Given the magnitude of the financing sought in support of the DSM Plan in the amount of \$102.1
550 million over the 2016 – 2018 three-year period (based on the August 12, 2015 UARB decision), there
551 were mixed results from the lending community as to their ability to provide a formal commitment
552 for the full amount of the required funding beyond the 2017 calendar year without surety of pricing.
553 The full quantum of such pricing implications can be calculated by the lending community following
554 their in-depth due diligence review during the formal financing process, should EfficiencyOne seek
555 to proceed with the process and given the approval by the UARB to do so.
- 556 • Such commitments for the full DSM Plan is achievable in the market; however, there will be
557 increased interest rate implications to EfficiencyOne if the preference is to arrange a full three-year
558 commitment prior to the 2016 Tranche for each of the 2017 and 2018 Tranches. If the risk profile
559 of EfficiencyOne is consistent during each year of the DSM Plan, the lending community has
560 indicated that the likelihood is low of not successfully arranging a commitment of the 2nd and 3rd year
561 Tranches well in advance of the required advance dates.
- 562 • Initial feedback from the lending community suggested that an unlimited corporate guarantee would
563 be required from NSPI in support of the debt obligations of EfficiencyOne under this arrangement,
564 if pursued; however, as this process has unfolded to date, we believe that the lending community
565 now has a greater understanding of the legal funding obligation that the DSM Plan places on NSPI
566 as a result of the ruling of the UARB and that NSPI does not have the legal ability to not fund any
567 required debt service obligations of EfficiencyOne associated with the financing arranged by
568 EfficiencyOne to fund the DSM Plan, assuming that EfficiencyOne does not overspend in any year
569 over and above the limits established in the DSM Plan.
- 570 • The risk of investment overspending by EfficiencyOne was identified as a significant concern of the
571 lending community given language in the UARB filings that indicate that NSPI is not responsible to
572 fund any overspending over and above the limits approved in the DSM Plan. The strength of the
573 historical achievement of spending levels against plan (under the previous ENSC structure), the

- 574 internal control processes in place and the frequency of the financial monitoring practices employed
575 by EfficiencyOne were all tabled as significant mitigating factors to protect against this risk. Despite
576 these internal processes, as EfficiencyOne is a non-profit entity with limited alternative sources of
577 funding, this risk continues to be of significance, and further comfort by the lending community will
578 be required in this area in order to successfully arrange the financing.
- 579 • The risk of non-achievement of energy efficiency targets and the resulting impact on the financial
580 commitment by NSPI to fund the Debt Service Obligations of EfficiencyOne under the DSM Plan
581 was also raised as a significant point of concern for the lenders. Similar to the above point, we did
582 highlight the historical performance of ENSC in this area, as well as the internal control processes in
583 place, and the frequency of measurement and reporting of performance against energy efficiency
584 targets as significant mitigating factors to protect against this risk. Further due diligence will need to
585 be performed by the lending community to further understand all other mitigating factors that may
586 be available to EfficiencyOne to reduce this risk should such an event occur in the future.
- 587 • Preliminary indicative all-in pricing ranges provided by the lending community suggest that
588 EfficiencyOne could arrange external financing within a range of pricing in the area of **3.5% - 4.5%**.
589 It is important to note that these are indicative pricing ranges provided on a non-binding basis by the
590 lenders we approached and are subject to change based on their formal due diligence review;
591 however, should such due diligence sufficiently mitigate those risk factors noted above, this pricing
592 range would seem to be supportable and potentially closer to the lower end as opposed to the upper
593 end of the range. **This can only be validated through the initiation of a formal financing**
594 **process, including management presentations, full legal documentation review and further**
595 **validation of the enforceability of the DSM Plan and the strength of the internal processes in**
596 **place to mitigate the risks as identified.**
- 597 • There will be up-front costs for EfficiencyOne associated with arranging this financing, such costs in
598 particular to include professional fees, arrangement fees, commitment fees, standby fees and
599 potentially, third party lender consultant fees, if applicable. While the quantum of such fees can't be
600 determined with accuracy at this preliminary stage, the requirement for bank fees has been tabled by
601 a number of the Lenders. Given the size of the financing request and the requirement for a
602 committed (as opposed to demand) structure from the successful lender(s), we suspect such upfront
603 costs could be in the area of \$500,000 - \$700,000. A determination of how such fees will be funded
604 will need to be made as well as a calculation of the cost/benefit of incurring such upfront costs
605 against the savings that will accrue to the ratepayer via funding of the DSM Plan using an implied
606 interest rate in the area of 4% per annum.

607 Proposed financing process and timeline

608 We propose the following next steps and associated timeline in support of securing long term
609 financing.

610 **Next steps and timing**

611 a EfficiencyOne to discuss Report findings with their internal Finance Committee, NSPI and the
612 UARB and determine acceptable structure.
613 Timing: Fall 2015

614 b Preparation of a formal financing package for submission to potential lenders.
615 Timing: Weeks 1 & 2 following approval from the UARB to proceed

616 c Confirmation of potential lenders to be approached (full market canvas).
617 Timing: Weeks 1 & 2

618 d Presentation of the financing package to potential lenders.
619 Timing: Weeks 3 & 4

620 e Negotiation of non-binding term sheets with potential lenders.
621 Timing: Weeks 7 & 8

622 f Closing of the financing transaction.
623 Timing: Weeks 9 through 12

624 We estimate the financing process would take approximately 12 weeks from start to completion (steps
625 b through to f) which would ensure that the financing arrangement is in place prior to the initial
626 required 2016 funding date of January 1, 2016.

627 Grant Thornton LLP would be happy to assist EfficiencyOne with all or a portion of the above noted
628 next steps. The provision of such services would be provided under a separate engagement letter,
629 which would outline the proposed fees for each of the identified steps.

630 Restrictions and qualifications

631 **Restrictions**

632 This Report is not intended for general circulation or publication nor is it to be reproduced or used for
633 any purpose other than that outlined herein without our prior written permission in each specific
634 instance. We will not assume any responsibility or liability for losses occasioned to the intended users
635 or any third party as a result of the circulation, publication, reproduction or use of this Report contrary
636 to the provisions of this paragraph.

637 The liability of Grant Thornton LLP and any of our employees or other personnel for any claim in tort
638 or contract related to the professional services provided pursuant to our agreement is limited to the
639 amount of professional fees actually paid for those services.

640 We reserve the right, but are under no obligation, to review all comments and conclusions included in
641 or referred to in this Report and, if we consider it necessary, to revise our conclusions in light of any
642 information that subsequently becomes known to us following the date of our Report.

643 **Qualifications**

644 In preparing this Report, we have relied upon the documents and information listed herein.

645 We are not guarantors of the information upon which we have relied in preparing our Report and,
646 except as stated, we have not audited or otherwise attempted to verify any of the underlying
647 information or data contained in this Report.

648 We certify that we have no active or contemplated interest in EfficiencyOne nor are our fees
649 contingent upon our conclusion.

650 Copies of Mr. MacDonald's and Mr. Fraser's résumés are attached as **Appendix C** of this Report.

651 Scope of work

652 **Scope**

653 In completing this assignment, we reviewed and relied upon the following information, documents and
654 data:

- 655 a Electricity Efficiency and Conservation Restructuring (2014) Act, dated May 1, 2014.
- 656 b Public Utilities Act, dated May 1, 2014, Section 79.
- 657 c Evidence of EfficiencyOne, 2016-2018 DSM Plan, filed February 27, 2015 with the Nova
658 Scotia Utility and Review Board.
- 659 d Evidence of Nova Scotia Power, 2016-2018 DSM Plan, filed April 10, 2015 with the Nova
660 Scotia Utility and Review Board.
- 661 e Nova Scotia Power, 2014 IRP – Final Assumptions, dated April 11, 2014.
- 662 f Using Less Energy: Nova Scotia's Electricity Efficiency and Conservation Plan, prepared by
663 the Province of Nova Scotia, dated April 2014.
- 664 g Quantum Agreement, 2016-2018 DSM Plan, dated June 16, 2015, entered into by
665 EfficiencyOne, Consumer Advocate, Small Business Advocate, Affordable Energy Coalition,
666 and Ecology Action Centre.
- 667 h Consensus Agreement, 2016-2018 DSM Plan, dated June 16, 2015, entered into by
668 EfficiencyOne, Nova Scotia Power, Consumer Advocate, Small Business Advocate, Industrial
669 group, Affordable Energy Coalition and Ecology Action Centre.
- 670 i Efficiency Nova Scotia Corporation external audited financial statements for the year ended
671 December 31, 2014.
- 672 j Efficiency Nova Scotia Corporation Financial Analysis and Discussion for the year ended
673 December 31, 2014.
- 674 k Efficiency Nova Scotia's website: <http://www.efficiencyns.ca/>.
- 675 l EfficiencyOne's website: <http://www.efficiencyone.ca/>.
- 676 m Energy Trust of Oregon website: <http://www.energytrust.org>.

- 677 n Report of Independent Auditors and Financial Statements for Energy Trust of Oregon, Inc.
678 December 31, 2014 and 2013.
- 679 o Efficiency Vermont website: <https://www.efficiencyvermont.com/>.
- 680 p Report on 2013 Energy Efficiency Utility Program Revenues and Expenditures by the
681 Vermont Public Service Board, dated January 22, 2015.
- 682 q Winnipeg Free Press website: [http://www.winnipegfreepress.com/local/energy-agency-still-](http://www.winnipegfreepress.com/local/energy-agency-still-not-a-go-315189191.html)
683 [not-a-go-315189191.html](http://www.winnipegfreepress.com/local/energy-agency-still-not-a-go-315189191.html).
- 684 r DC Sustainable Energy Utility website: <https://www.dcseu.com/about-dcseu>.
- 685 s US Department of Energy website: <http://energy.gov/savings/sustainable-energy-trust-fund>.
- 686 t Hawaii Energy website: <https://hawaiienergy.com/about>.
- 687 u Focus on Energy website: <https://focusonenergy.com/>.
- 688 v Various discussions with EfficiencyOne management.
- 689 w EfficiencyOne DSM Fund projected results for the years ended December 31, 2016-2018.
- 690 x Nova Scotia Utility and Review Board Decision, dated August 12, 2015.
- 691 y Various discussions with the Lenders.
- 692 We did not audit or otherwise verify the data and information contained in these documents.

693 Assumptions

694 In preparing our Report, we have made a number of assumptions that may affect our conclusions. The
695 major assumptions are as follows:

696 – We have assumed that NSPI will seek to recover the cost of each yearly efficiency investment
697 amount over a period of time in order to match the cost of electricity efficiency with its benefits.
698 This means NSPI will be able to recover its WACC on any unamortized regulatory asset. If NSPI
699 does not seek to amortize yearly efficiency investment, the exercise of seeking third party long-
700 term financing would no longer be of relevance; and

701 – We assumed that the UARB will allow NSPI to defer the recovery of costs incurred beyond the
702 cumulative limit of \$100.0 million.

703 It should be noted that if the assumptions on which this Report was based are found to be incorrect,
704 our conclusion might be rendered invalid.

705 Appendix A: Potential lenders

EfficiencyOne - potential lenders listing

Pension funds	Short description
Caisse de Depot et Placement du Quebec	Caisse de Depot et Placement du Quebec is a privately owned investment manager. The firm primarily provides its services to pension funds, insurance plans and other organizations. It also provides advisory services to its clients. The firm primarily invests in public equity and fixed income markets across the globe. It also invests in real estate, infrastructure, and hedge funds. The firm's private equity activities specialize in direct and fund of fund investments. It invests in leveraged buyout, growth capital, venture capital, distressed debt, mezzanine debt, and restructuring opportunities in privately held companies and may also invest in public companies. The firm seeks to invest in Quebec.
Ontario Teachers' Pension Plan	The Ontario Teachers Pension Plan (OTPP) is a privately owned pension fund. The firm manages equity, fixed income, and alternative investment portfolios. It invests in the public equity, fixed income, and alternative investment markets of Canada and across the globe. Ontario Teachers Pension Plan was founded in 1917 and is based in Toronto, Ontario.
British Columbia Investment Management Corp.	BC Investment Management Corporation (bcIMC) is a privately owned investment manager. The firm also provides consulting and investment operation services to its clients. It primarily provides its services to public sector pension plans, the Province of British Columbia, provincial government bodies, and publicly administered trust funds. BC Investment Management Corporation was founded in July 1999 and is based in Victoria, British Columbia.
Ontario Municipal Employees Retirement System	OMERS Administration Corp. is a privately owned pension fund. The firm provides its services to employees of Ontario municipalities, local boards, public utilities and school boards (non-teaching staff). It provides a variety of retirement and death benefit programs and services, and administers other programs dedicated to protecting the financial security of its members. The firm manages equity, fixed income, and alternative investment portfolios. OMERS Administration Corp. was founded in 1963 and is based in Toronto, Ontario with additional offices in New York, New York and London, United Kingdom.
Healthcare of Ontario Pension Plan	Hospitals of Ontario Pension Plan (HOPP) is a privately owned investment management firm. The firm provides its services to Pensioners, Deferred Pensioners, and Participating Employers. It manages pension funds and principal investment funds for its clients. The firm invests in the public equity and fixed income markets of the United States and other international economies. The firm also invests in alternative investments and real estate markets. It also makes limited partnership investments. Hospitals of Ontario Pension Plan was founded in 1991 and are based in Toronto, Canada.
Alberta Investment Management Corp	Alberta Investment Management Corporation is a crown corporation of the Province of Alberta. The firm primarily provides its services to pension plans and endowment funds. It manages portfolios for its clients. The firm invests in the public equity, fixed income, private equity, and alternative investment markets across the globe. Alberta Investment Management Corporation was formed in March 2007 and is based in Edmonton, Canada with additional offices in Toronto, Canada and London, United Kingdom.
Ontario Pension Board	Ontario Pension Board is pension fund manager. It manages Ontario's Public Service Pension Plan. The firm invests in public equity and fixed income markets across the globe. It makes its fixed income investments in cash, short-term fixed income instruments. The firm also invests in real estate. Ontario Pension Board is based in Toronto, Ontario.
OPSEU Pension Trust	The OPSEU Pension Trust (OPTrust) is the fund manager and administrator of the OPSEU Pension Plan. OPTrust manages a diversified investment portfolio that includes Canadian and global public equities, fixed income, real estate, private equity and infrastructure investments. OPTrust is jointly sponsored by the Government of Ontario and the Ontario Public Service Employees Union. OPTrust was launched on January 1, 1995 and is based in Toronto, Ontario.
Life insurance companies	Short description
The Great-West Life Assurance Company	The Great-West Life Assurance Company, together its subsidiaries, provides life insurance, health insurance, investments, savings, and retirement income and reinsurance solutions primarily in Canada and Europe. The company was founded in 1891 and is headquartered in Winnipeg, Canada. The Great-West Life Assurance Company is a subsidiary of Great-West Lifeco Inc.
Industrial Alliance	Industrial Alliance Insurance and Financial Services Inc., doing business as, iA Financial Group, primarily provides various life and health insurance products in Canada. It operates through five segments: Individual Insurance, Individual Wealth Management, Group Insurance, Group Savings and Retirement, and Other Activities. The company was founded in 1892 and is headquartered in Quebec City, Canada.
Manulife Financial	Manulife Financial Corporation, together with its subsidiaries, provides financial protection and wealth management products and services to individual, corporate, and business customers primarily in Asia, Canada, and the United States. It offers various individual life and health insurance, and individual and group long-term care insurance products through insurance agents, brokers, banks, financial planners, and direct marketing. Manulife Financial Corporation was founded in 1887 and is headquartered in Toronto, Canada.
Sun Life Financial	Sun Life Financial Inc., a financial services organization, provides protection and wealth products and services to individuals and corporate customers worldwide. It operates through Sun Life Financial Canada, Sun Life Financial United States, MFS Investment Management, and Sun Life Financial Asia segments. Sun Life Financial Inc. was founded in 1999 and is headquartered in Toronto, Canada.
Canada Life Assurance Company	The Canada Life Assurance Company provides insurance and wealth management products and services to individuals, families, and business owners in Canada, the United Kingdom, the Isle of Man, Germany, and Ireland. The company was founded in 1847 and is headquartered in Toronto, Canada. The Canada Life Assurance Company is a subsidiary of Canada Life Financial Corporation.
Stonebridge Merchant Capital (as an agent)	StoneBridge Merchant Capital Corp. is a private equity firm specializing in growth capital, strategic acquisitions or expanded product/service offerings, family succession, management buyouts of private companies or divisions of large companies, and divestitures or spin-offs of large companies. The firm seeks to invest in middle market and mature companies. StoneBridge Merchant Capital Corp. was founded in 1996 and is based in located in Calgary, Canada.
Domestic and international banks	Short description

RBC Capital Markets	RBC Capital Markets LLC offers corporate and investment banking services to corporations, governments, and institutions. The firm's services include public and private placement of debt and equity securities, strategic alliances, mergers and acquisitions advice, corporate finance, equity and debt underwriting, and structured and project finance. It also offers corporate credit, real estate advisory services, syndicated loans, equity research, sales and trading, risk management, asset securitization, fixed income, money market, and foreign exchange services. The company was founded in 1909 and is based in Toronto, Canada with additional offices in Spain, Netherlands, Israel, Hong Kong, Singapore, Australia, Switzerland, United Kingdom, United States, Canada, and Japan.
CIBC World Markets	CIBC World Markets, Inc. offers banking and financial advisory services. It provides cash management, correspondent brokerage, corporate lending, debt and equity financing, mergers and acquisitions, and prime brokerage services. Additionally, the firm offers risk management, sales and trading, securities lending, and securitization services. It caters to energy, financial, government, mining, power and utilities, real estate, and technology and media sectors. The firm is based in Toronto, Canada. CIBC World Markets, Inc. operates as a subsidiary of Canadian Imperial Bank of Commerce.
Scotia Capital	Scotia Capital Inc. provides investment banking services to communications, media, technology, consumer products, real estate, forest products, infrastructure, industrial products, power, mining, and oil and gas sectors. The firm offers mergers and acquisitions advisory, private placement, negotiation assistance, due diligence, and restructuring services. Additionally, it provides research, equity sales and trading, foreign exchange management, merchant banking, short-term funding, investment research, and structured leasing services. The company was founded in 1999 and is headquartered Toronto, Canada with additional offices in Halifax, Montreal, Calgary, and Vancouver, Canada; Atlanta, Georgia; Chicago, Illinois; Dublin, Ireland; London, United Kingdom; Hong Kong; and Singapore. Scotia Capital Inc. operates as a subsidiary of The Bank of Nova Scotia.
BMO Capital Markets	BMO Capital Markets Corp. provides investment banking and financial advisory services. The firm offers mergers and acquisitions advisory, private placements, securitization, and equity and debt underwriting services. Additionally, it provides security brokerage, corporate lending, project financing, and market risk management services. The firm caters to aerospace, food, chemicals, mining, healthcare, energy and power, and media and entertainment industries. BMO Capital Markets Corp. was formerly known as Harris Nesbitt Corp and changed its name in June 2006. BMO Capital Markets was founded in 1988 and is based in New York, New York. BMO Capital Markets Corp. operates as a subsidiary of BMO Financial Corp.
National Bank of Canada	National Bank Financial, Inc. is a boutique investment banking firm. It provides merchant and corporate banking, retail and institutional brokerage, mergers and acquisitions advisory, corporate finance, and securities clearing services. The company provides federal, provincial, municipal and corporate bonds; Canada and provincial savings bonds; strip bonds and residuals; treasury bills and commercial papers; investment certificates and term deposits; investment certificates; and NHA mortgage-backed securities. The firm also provides foreign currency-denominated bonds and retirement savings bonds. In addition, it offers common and preferred shares, derivative products, retirement savings plans, income funds, annuities, education savings plans, investment and economic research, portfolio management, tax shelters, and provincial stock savings plans. It operates through more than 90 offices in Canada, United States, and United Kingdom. National Bank Financial was founded in 1902 and is based in Montreal, Canada with an additional office in Toronto. National Bank Financial, Inc. operates as a subsidiary of National Bank Group Inc.
TD Securities	TD Securities Inc. provides capital market products and services to corporate, government, and institutional clients. The company's business segments include investment banking, debt capital markets, institutional equities, private equity, and foreign exchange. Its services include advising on mergers and acquisitions, divestitures, private placement, and risk management; underwriting and distribution of debt and equity issues; securities brokerage; and foreign exchange sales and trading. The company makes private equity investments through TD capital. TD Securities is headquartered in Toronto, Canada with additional offices in Calgary, Vancouver, and Montreal, Canada; New York City; Houston, Texas; Chicago, Illinois; Mexico City; Santiago, Chile; London, United Kingdom; Dublin, Ireland; Tokyo, Japan; Taipei, Taiwan; Mumbai, India; Hong Kong; Singapore; Jakarta, Indonesia; and Sydney, Australia. TD Securities Inc. operates as a subsidiary of The Toronto-Dominion Bank.
BNP Paribas	BNP Paribas SA provides banking and financial services to individual, young people, and professional customers, as well as to companies and institutional investors worldwide. Its retail banking business offers current account management and financial solutions in the areas of corporate financing and asset management; project financing, leasing, factoring, cash management, international payments, and on-line services, as well as international banking, financial risk management, and securities brokerage services; and equipment leasing, online savings and trading, personal finance, insurance, asset management, real estate, and private banking services. The company's corporate and institutional banking business provides securities, fixed income, corporate finance, equity and financial derivative, and corporate banking services. The company was formerly known as Banque Nationale de Paris and changed its name to BNP Paribas SA in May 2000. BNP Paribas SA was founded in 1848 and is based in Paris, France.
Investec	Investec plc, a specialist bank and asset manager, provides various financial products and services in the United Kingdom, South Africa, Australia, and internationally. It operates in three divisions: Asset Management, Wealth & Investment, and Specialist Banking. The company was founded in 1974 and is based in London, the United Kingdom.
HSBC Infrastructure	HSBC Infrastructure Ltd. is a principal investment firm specializing in investments in PFI/PPP infrastructure projects. The firm was founded in 1997 and is based in London, United Kingdom. HSBC Infrastructure Ltd. operates as a subsidiary of InfraRed Capital Partners.

706 Appendix B: Financing proposal



Financing Demand Side Management

EfficiencyOne

August 2015

Introduction and process

Introduction

EfficiencyOne (“E1” or the “Organization”) has requested that Grant Thornton identify the following in regards to Financing Demand Side Management (“DSM”) investments:

- Estimate the cost of financing investments in electricity energy efficiency activities, back-stopped with payments from Nova Scotia Power (“NSPI”) to E1 under a multi-year supply contract approved by the Nova Scotia Utility and Review Board (“UARB”).

Process

We are performing a preliminary market sounding exercise at the request of our client, E1, in order to determine expected interest levels by the finance community on a preliminary non-binding basis in providing such financing and under what terms and conditions.

We will be meeting with E1 management in late August to review the discussion papers in further detail, with the expectation that a decision as to next steps will be made at that time as to those financial institutions with whom E1 will want to pursue further negotiations in pursuit of a formal term sheet in relation to the proposed financing.

For full transparency to all financial institutions participating in this process, we are making available the following information contained in this brief financing proposal and related appendices.

DSM in Nova Scotia – summary overview

October 1, 2010 – December 31, 2014

The responsibility and accountability for DSM administration was transferred from NSPI to Efficiency Nova Scotia Corporation (“ENSC”) effective October 1, 2010. ENSC was an independent non-profit company that received funding both from ratepayers (through an efficiency charge on electricity bills called DSM Cost Recovery Rider) for electricity efficient programs and from the Nova Scotia government for non-electricity programs. Efficiency targets and funding levels for electricity programs were determined by the UARB.

January 1, 2015 and onwards

Revisions to the *Public Utilities Act*, proposed through the *Electricity Efficiency and Conservation Restructuring (2014) Act*, were proclaimed on May 1, 2014. Some of the highlights are as follows¹:

- ENSC ceased to exist as the provider of DSM in Nova Scotia as of January 1, 2015. The Efficiency Nova Scotia franchise was created and awarded by the Nova Scotia Minister of Energy. The franchise gives the franchise holder the exclusive right to supply NSPI with reasonably available, cost effective electricity efficiency and conservation activities. It also allows the franchise holder to use the Efficiency Nova Scotia brand when offering electricity efficiency and conservation activities and for other fuels, under contract with the province of Nova Scotia. The franchise was awarded for a 9 year term from January 1, 2016 to December 31, 2024, with an initial one-year transition period added to the term for 2015.
- E1 was granted the first Efficiency Nova Scotia franchise (which is exclusive). E1 was incorporated in July 2014 under the Canada Not-for-Profit Corporations Act. The Board of Directors of E1 consists of the same individuals as the Board of Directors of ENSC, absent the provincially appointed non-voting representative.
- All business information, agreements, employees, assets, liabilities and obligations of ENSC were transferred to E1 on January 1, 2015. The sole exception was that any claim related to ENSC’s historical HST issue was not transferred. This asset, along with the subsequent collection, will remain with ENS Transition Corporation.

¹ *Public Utilities Act, section 79A to 79V, and Electricity Efficiency and Conservation Restructuring (2014) Act.*

- As of January 1, 2015, NSPI is required by regulation to undertake cost-effective electricity efficiency and conservation activities that are reasonably available in an effort to reduce costs for its customers. As the franchise holder, E1 is considered to be a public utility in relation to these activities.
- The supply of electricity efficiency and conservation activities will be administered by the Efficiency Nova Scotia franchise on a contractual basis with NSPI, with the contract being approved by the UARB. For the 2015 transition year, NSPI and E1 were deemed to have entered into an initial agreement. In 2015 only, the legislation limited the dollar amount approved by the UARB to be spent on electricity efficiency and conservation activities to not more than \$35 million, plus any over-recovery of funds by ENSC from 2013. The costs NSPI can recover from ratepayers for the 2015 year, beginning in 2016 and over an 8 year period. Please note that the 8 year amortization period only applied to 2015. For 2016 and beyond, the amortization period has yet to be determined. It remains a decision of the UARB what the reasonable amortization period would be and what evidence they are presented to make that decision.
- The legislation states that the UARB shall establish such performance requirements for the franchise holder as it considers appropriate.
- E1, as the franchise holder, is required to enter into an agreement for a term of three years with NSPI for the supply of electricity efficiency and conservation services (“Supply Agreement”), which agreement is subject to approval of the UARB.
- E1 and NSPI have been unable to reach agreement on all required terms of the Supply Agreement and, therefore, E1 and NSPI have applied to the UARB for a decision with respect to a Supply Agreement. In support of their respective applications, both E1 and NSPI filed evidence with the UARB. To the extent possible, E1 and NSPI have reached agreement on certain elements of the Supply Agreement.
- E1, as the franchise holder, assumes all financial risk associated with the delivery of DSM in Nova Scotia. That is, E1 is solely responsible if it is unable to meet its obligations to provide NSPI with the UARB approved, contracted amount of energy savings, within the contract price. E1 is not able to request additional dollars from NSPI. Although this is a risk, E1 believes its internal controls such as monthly reporting (both financial and energy savings) and its budgeting process assist the organization in making sure it does not spend more than what it receives in funding and it achieves its efficiency targets. Furthermore, if there are extra-ordinary items, unusual, or unforeseen events, E1 would have the ability to request additional funding support from the UARB, see more on this below.
- If E1’s franchise agreement is terminated prior to December 31, 2024, all assets and liabilities of the Efficiency Nova Scotia franchise would follow the franchise agreement and would be assumed by the new franchise holder. Similarly, if E1’s franchise agreement was not renewed at the end of the 9 year period, all assets and liabilities of the Efficiency Nova Scotia franchise would follow the franchise agreement and would be assumed by the new franchise holder.

Summary of E1's proposed DSM plan 2016-2018²

E1's proposed plan calls for an investment of \$121.5 million over a three year period – specifically, \$38.5 million in 2016; \$40.3 million in 2017; and \$42.6 million in 2018. As well, E1 is proposing a three year contracted deliverable of cumulative energy and peak demand savings.

Furthermore, E1 proposes to undertake regular reporting to the UARB and DSM Advisory Group for the 2016-2018 period, consisting of (1) annual progress report, (2) quarterly meetings and reports, and (3) evaluation reports, impact evaluation and process evaluation.

Also as part of the proposed DSM plan, E1 has requested that a reserve fund be approved since E1, as the franchise holder, assumes all financial risk associated with the delivery of DSM in Nova Scotia. That is, E1 is solely responsible if it is unable to meet its obligations to provide NSPI with the UARB approved, contracted amount of energy savings, within the contract price. E1 is not able to request additional dollars from NSPI if unforeseen events occur. Any investment used to establish a DSM reserve fund would be available through NSPI ratepayer funded investment.

E1 has also requested that the UARB approve a change to the primary cost-effectiveness testing methodology from the Total Resource Cost test ("TRC") to the Program Administrator Cost ("PAC") test.

Summary of NSPI's proposed DSM plan 2016-2018³

NSPI recommends a DSM plan with a spending level of approximately \$22 million per year or \$66 million over the three year period. NSPI also made, among others, the following requests:

- The contract price to be paid by NSPI under the Supply Agreement should be allocated on an annual basis over the three year contract period, such that if E1 does not spend the full amount in a given year, it is to be deducted from the amount owing in the following year.
- A decision of the allocation and recovery of costs of any approved DSM Plan from NSPI should be deferred until an application is made by NSPI.
- E1's request for the establishment of a reserve fund as part of the DSM Plan should be rejected.
- E1's request to change the cost effectiveness testing methodology from TRC to PAC for subsequent DSM plans should be rejected.
- A standardized filing for future DSM applications should be established.

² *Evidence of Efficiency One 2016-2018 DSM Plan, filed February 27, 2015 with the Nova Scotia Utility and Review Board.*

³ *Evidence of Nova Scotia Power, 2016-218 DSM Plan, filed April 10, 2015, with the Nova Scotia Utility and Review Board.*

Summary of Quantum Agreement⁴

On June 16, 2015, E1 entered into an agreement (“Quantum Agreement”) with the Consumer Advocate, Small Business Advocate, Affordable Energy Coalition, and Ecology Action Centre. Some of the highlights are as follows:

- 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: \$36.9 million in 2016; \$37.8 million in 2017; and \$38.8 million in 2018.
- E1’s cumulative energy and demand savings’ targets shall be 405.9 GWh and 62.5 MW, respectively, as set out in E1’s DSM 2016-2018 plan.
- The DSM programs in 2016-2018 will be as set out in E1’s DSM 2016-2018 plan.
- 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 plans.

Summary of Consensus Agreement⁵

On June 16, 2015, E1 entered into an agreement (“Consensus Agreement”) with Nova Scotia Power Incorporated, Consumer Advocate, Small Business Advocate, Industrial Group, Affordable Energy Coalition, and Ecology Action Centre. Some of the highlights are as follows:

- The parties agreed to the establishment of a standardized filing for future applications, the substance of which will be vetted through the DSM Advisory group for UARB approval.
- In lieu of the proposed DSM reserve fund, the parties agreed they will not challenge E1’s ability to apply on an expedited basis to the UARB for recovery of funds to address extraordinary or unforeseen circumstances outside of normal operations, if required, provided E1 has made a good faith effort to mitigate the costs of the extraordinary or unforeseen circumstances. E1 agreed that, if a budget surplus exists at the end of the three year contract period, the surplus will be returned to NSPI for the benefit of ratepayers as determined by the UARB.
- The parties agreed to performance targets and performance indicators. The performance targets are set over the three year contract period, rather than annually.
- The parties agreed to collaboratively work to develop new DSM cost allocation and DSM cost recovery models to be submitted by October 31, 2015 for approval by the UARB.
- The parties agreed on a number of evaluation and reporting items.

⁴ *Quantum Agreement, 2016-2018 DSM Plan, dated June 16, 2015, entered into by EfficiencyOne, Consumer Advocate, Small Business Advocate, Affordable Energy Coalition, and Ecology Action Centre.*

⁵ *Consensus Agreement, 2016-2018 DSM Plan, dated June 16, 2015, entered into by EfficiencyOne, Nova Scotia Power Incorporated, Consumer Advocate, Small Business Advocate, Industrial Group, Affordable Energy Coalition, and Ecology Action Centre.*

E1 expects the UARB to render its final decision in early Fall 2015. Firstly, the UARB will determine the amount of DSM investment dollars and energy savings i.e. do they agree with the terms of the Quantum Agreement or another level of investment dollars and energy savings. Secondly, the UARB will determine whether they agree with the terms of the Consensus Agreement. Both the Quantum and Consensus Agreements need UARB final approval or approval with recommendation for changes.

Efficiency Nova Scotia programs – summary overview

E1 operates Canada's first electricity efficiency utility as the franchise holder of Efficiency Nova Scotia. Efficiency Nova Scotia provides the following DSM services⁶:

Residential Programs

- *Efficient Product Rebates* – consists of point-of-purchase discounts and incentives for the retirement of old, inefficient appliances.
- *Existing Residential* - consists of the Residential Direct Install, Rental Properties and Condos, Home Energy Assessment, Green Heat, Residential Solar components, and Low Income Homeowner services. The Existing Residential program is designed to help reduce electricity consumption for space and water heating and lighting.
- *New Residential* – consists of working with the client and their builder to integrate energy efficiency technologies into building plans. New Residential services are offered to builders and owners of new houses, including row housing and semi-detached houses.
- *Energy Savings Actions* – enables participating households to compare their energy usage with similar neighbouring homes. This program is anticipated to end at the beginning of 2016.

Business, non-profit and institutional programs

- *Efficient Product Rebates* – consists of both mail-in and point-of-purchase incentives. The Efficient Product Rebates program provides financial incentives through prescriptive rebates on a wide variety of products to encourage end users to reduce electrical energy consumption and peak demand.
- *Custom Incentives* – consists of the Customer Retrofit, Custom New Construction, Custom Existing Building Commissioning, and Energy Management Information Systems program components. The Custom Incentives program provides financial incentives to help commercial, industrial, not-for-profit and institutional customers reduce their electrical energy consumption and peak. Incentives are provided to help eligible participants' complete energy audits and implement technical changes within their existing or new facilities.

⁶ Evidence of EfficiencyOne 2016-2018 DSM Plan, filed February 27, 2015 with the Nova Scotia Utility and Review Board.

- *Direct Installation* – consists of the Business Energy Solutions and the Rental Properties and Condos Common Area services. The Direct Installation program is designed to assist small- to medium-sized businesses reduce their energy consumption with turnkey solutions identified through a no-charge assessment. The program is delivered through contracted delivery agents that manage product procurement, product installation, and disposal and recycling of removed products. The total project cost is shared with the customer, with the option for approved customers to finance their portion for up to 24 months of interest free payments on their power bills.

Enabling strategies

Enabling strategies include Education and Outreach, Development and Research, and Other Strategies such as innovative financing, capacity building, working with governments and code and standards.

Enabling Strategies ensure that E1 is able to increase awareness about energy efficiency, evolve service and provide information and tools needed by Nova Scotians to make informed energy choices.

Financing structures - comparable entities

We performed an industry scan to determine financing structures currently being utilized by comparable entities (i.e., other independent energy efficiency entities) across Canada and the United States.

E1 is the only independent electricity efficiency utility in Canada where all other electricity efficiency programming is administered by the electric utilities (either Crown Corporations and/or investor-owned utilities). Manitoba is currently considering an independent administration model⁷.

In the United States, we have identified the following states where DSM is delivered by a third-party organization somewhat similar to the model in Nova Scotia: Oregon, Vermont, District of Columbia, Hawaii, and Wisconsin. Unfortunately, we were unable to identify comparable financing structures as none of these states' respective efficiency organizations have third party debt outstanding.

⁷ <http://www.winnipegfreepress.com/local/energy-agency-still-not-a-go-315189191.html>

DSM Fund projected results – (2016 – 2018)

E1 management has prepared projections for E1's Demand Side Management Fund (current state) for the fiscal years ending December 31, 2016 - 2018.

The main assumptions underlying these projections consist of:

- Level of funding is per the Quantum Agreement as discussed previously in this package;
- E1 will receive the funding on an annual basis; and
- E1 will spend the annual amount in full.

Projected statement of operations and changes in fund balance – Demand Side Management Fund

EfficiencyOne

Statement of Operations and Changes in Fund Balance - Demand Side Management Fund
For 2016, 2017 & 2018

Estimates Only.	2016	2017	2018
Revenue	36,900,000	37,800,000	38,800,000
Expenses			
Direct Costs			
Incentives	25,547,000	26,182,000	26,887,000
Evaluation & verification	970,000	993,000	1,019,000
Program support	1,145,000	1,173,000	1,204,000
	27,662,000	28,348,000	29,110,000
Other Program & Administrative Costs			
Bad debts	-	-	-
Bank charges	-	-	-
Information technology	370,000	379,000	390,000
Marketing, outreach & education	2,278,000	2,334,000	2,396,000
Meetings & travel	175,000	179,000	184,000
Office & insurance	167,000	172,000	176,000
Professional fees & consulting	382,000	391,000	401,000
Rent	476,000	476,000	476,000
Salaries & benefits	5,183,000	5,309,000	5,449,000
Training & development	207,000	212,000	218,000
	9,238,000	9,452,000	9,690,000
Total Costs	36,900,000	37,800,000	38,800,000
Net Surplus (deficit)	-	-	-
Fund Balance - Opening	-	-	-
Net Surplus (deficit)	-	-	-
Funding Balance - Closing	-	-	-

Projected statement of financial position – Demand Side Management Fund

EfficiencyOne

Statement of Financial Position - Demand Side Management Fund

For 2016, 2017 & 2018

Estimates Only.	2016	2017	2018
Assets			
Cash	3,075,000	3,150,000	3,233,000
Liabilities			
Accounts Payable & Accrued Liabilities (approx. 1 month of expense)	3,075,000	3,150,000	3,233,000
Fund Balance	-	-	-
	3,075,000	3,150,000	3,233,000

Financing request

E1 is seeking long-term financing in the form of a committed term loan facility, with E1's annual principal and interest payment requirements being back-stopped with payments from NSPI to E1.

Initially, E1 is looking to secure financing for the total investment requirement of the first Supply Agreement. At this time, the total investment amount for the period of 2016-2018 is unknown and will be determined by the UARB in the fall of 2015. Therefore, for the purposes of this preliminary market sounding exercise, we ask that you assume the total investment requirement is \$100M spread out equally over the three year period, or \$33.3M per annum.

We would intend on approaching the lending community separately for the financing of the second (2019-2021) and third instalment (2022-2024) of the supply contract. Note that both E1 and NSPI will be required to negotiate new supply agreements for each of the second and third instalment.

Investments in energy efficiency produce savings that last many years after the initial investment. For example, investments in electricity efficiency made in the 2016 to 2018 period are expected to return financing benefits to ratepayers for up to 16 years per E1 management. NSPI may seek to recover the cost of each three-year agreement from ratepayers over a period of time that matches the cost of electricity efficiency with its benefits. This means that if NSPI seeks to recover the annual investment over a longer period than that respective fiscal year, it will be able to recover its weighted average cost of capital (WACC") on any unamortized regulatory asset balance.

Ultimately the goal of this market sounding exercise is for E1 to determine whether financing for investments that are recovered from rate payers can be obtained at a lower cost than NSPI's WACC, which currently stands at approximately 7.78% (pre-tax) and 6.49% (after-tax).

In the Appendices, we have included an excel model which summarizes the mechanics of the current state (NSPI provides annual funding for E1's investments and recovers those amounts from rate payers over time) and the proposed state (E1 borrows the annual required investment amount from a third party, in return NSPI provides annual funding to E1 to cover the principal and interest on the third party term loan).

Appendices

- a Electricity Efficiency and Conservation Restructuring (2014) Act, dated May 1, 2014.
- b Public Utilities Act, dated May 1, 2014, section 79.
- c Evidence of EfficiencyOne, 2016-2018 DSM Plan, filed February 27, 2015 with the Nova Scotia Utility and Review Board.
- d Evidence of Nova Scotia Power, 2016-2018 DSM Plan, filed April 10, 2015 with the Nova Scotia Utility and Review Board.
- e Using Less Energy: Nova Scotia's Electricity Efficiency and Conservation Plan, prepared by the Province of Nova Scotia, dated April 2014.
- f Efficiency Nova Scotia Corporation external audited financial statements for the year-ended December 31, 2014.
- g Efficiency Nova Scotia Corporation Financial Analysis and Discussion for the year ended December 31, 2014.
- h EfficiencyOne DSM Fund projected results for the years-ended December 31, 2016-2018.
- i Excel model which illustrates the current state and proposed state.
- j Efficiency Nova Scotia's website: <http://www.efficiencyns.ca/>.
- k EfficiencyOne's website: <http://www.efficiencyone.ca/>.

707 Appendix C: Résumés

Troy MacDonald

CPA, CA, CBV



Partner

Troy is an advisory services partner based in our Toronto office, specializing in Corporate Finance and Infrastructure.

Experience

Troy is our firm's national leader for corporate finance. He specializes in advising public and private sector clients on implementing transactions and debt and equity financing solutions in both domestic and international markets. Troy specializes in advising on power and infrastructure projects.

Previously, Troy was a member of the Grant Thornton capital markets team based in London, England with Grant Thornton UK LLP. This team focused on implementing public market transactions in global capital markets.

Troy is also a member of the Grant Thornton LLP Partnership Board.

Industry experience

Prior to joining Grant Thornton, Troy spent over three years working in the corporate development team of Emera Inc. (TSX: EMA), an energy company in the power utility sector. During this time, he acted as project manager on acquisitions and green field project developments for independent power generation, power transmission and midstream energy infrastructure with capital values ranging between \$50 million and \$500 million.

As a project manager, he was responsible for working with executive leadership, external advisers and legal counsel in the negotiation of legal agreements, due diligence (legal, financial and operational), valuation and assessing capital

structure alternatives. He was also a member of the project team for the \$900 million purchase of Bangor Hydro, the first purchase of a US power utility by a Canadian energy company.

As exemplified by the following overview of recent engagements, Troy has a unique blend of financing and transaction experience in power and infrastructure:

- In 2014 / 2015, acting as engagement partner for a shareholder that is undertaking a strategic review of its power distribution utility. Scope of work included valuation, transaction structure, negotiation support and financing strategies.
- In 2014, acted as engagement partner in a proposed three way merger amongst three power distribution utilities. This engagement included acting for all three parties to the merger, including transaction structuring, valuation, financial modelling, financing strategies and presentations to the Board of Directors for each party.
- In 2013 / 2014, acted as engagement partner in regards to a buy-side mandate for a power distribution utility in regards to the acquisition of a neighboring power distribution utility, including bid development, project management, valuation, financial modelling, arranging debt financing, due diligence and stakeholder presentations to the Board of Directors and City Council.
- In 2013, acted as engagement partner in advising on the strategy development for a power distribution utility in regards to

- evaluating options for acquisition, merger or divestiture. This included presentation to the Board of Directors.
- In 2013, acted as engagement partner in advising a power distribution utility in the development of financial modelling and transaction structure for power generation projects.
 - In 2013, acted as cost of capital expert to the Newfoundland Public Utilities Commission in regards to the 2013 / 2014 Newfoundland Power general rate hearing. Newfoundland Power is a subsidiary of Fortis Inc. (TSX:FTS). This included testifying during the rate hearing.
 - In a series of engagements from 2010 to 2013, acted as engagement partner for value for money and infrastructure procurement review for Metrolinx in regards to the PRESTO fare card. These engagements included regular presentations to the Metrolinx Board of Directors.
 - From 2010 through 2014, acted as engagement partner to Rank Incorporated in regards to the infrastructure project for the World Trade Centre in Halifax, Nova Scotia.
 - In 2012, acted as engagement partner for a biomass power development project with a regional manufacturer. This engagement included financial modelling of the project and sourcing debt and equity capital.
 - In 2012, acted as co-engagement partner to the City of Edmonton on a regulatory rate review and hearing in regards to the Epcor water rate hearing.
 - In 2012, acted as co-engagement partner for the refinancing of a fleet of renewable power generation projects totalling 23MW.
 - From 2010 through to 2014, acted as engagement partner in regards to the valuation of power generation and infrastructure projects for Connor Clark & Lunn, an asset manager with \$49 billion in assets under management.
 - From 2010 through to 2014, acted as engagement partner in regards to financial modelling engagements for infrastructure projects for Brookfield Financial.
 - From 2009 through to 2014, acted as engagement partner in regards to financial modelling engagements for infrastructure projects for Forum Equity.
 - In 2009 and 2010, acted as financial advisor to the Columbia Power Corporation, a provincial crown corporation in British Columbia, in regards to the development and financing of the 335MW Waneta Expansion, a \$900M project. This engagement included multiple presentations to the Board of Directors.
 - In 2011, acted as co-engagement partner in regards to a financial modelling and tax engagement in support of a transmission development between Quebec and New York State.
 - In 2009, acted as engagement partner in regards to the development of a tolling financial model for a LNG facility in Eastern Canada.
 - In 2009, acted as engagement partner in regards to a financial modelling engagement for an 800MW gas fired power plant in Mississauga, Ontario.
 - In 2009, acted as engagement partner in regards to a financial modelling engagement for an 800MW gas fired power plant in Northern Toronto, Ontario.
 - In 2009, acted as engagement partner for the valuation of wastewater facility in support of a transaction between the City of Edmonton and Epcor. This engagement included presentation at City Council.
 - In 2009, acted as engagement partner for the private sector consortium that was successful in the Gateway Highway project in New Brunswick.
 - As a member of the Grant Thornton UK capital markets team from 2006 through

2007, provided financial advisory services acting as nominated advisor on public listings. Power industry highlights from this experience include advising on the public flotation of a 400MW hydro power plant in India, a clean coal power technology company and a North American a biodiesel power generation company.

In addition to his power & infrastructure experience, Troy also has significant experience providing transaction and financing advice to clients in other industries:

- Valuation engagements for a wide range of clients, including the valuation of a publicly traded business services company for a \$600M lending syndicate.
- Engagement partner for confidential debt financing mandates in manufacturing, real estate, business logistics and business services during 2012 and 2013 with financing values of \$5M to \$200M.
- Co-engagement partner on fairness opinions for TSX listed companies - CA Bancorp, Primary Metals Fund, Armco Capital and Erdene Gold.
- Engagement partner for confidential sell side, buy side and merger mandates in technology, financial services, media, manufacturing, retail, real estate, and business services during 2012 and 2013 with enterprise values of \$10M to \$100M. As specific public disclosed examples, Troy was the engagement partner for the \$24M acquisition of Island Petroleum by Parkland Fuels, the acquisition of Metro General Insurance by Intact Insurance and the recent merger of AMI Partners and Toron Capital Markets. Also acted as financial advisor on the proposed merger of Pharmachoice and Pharmasave, which would represent the creation of an 800 unit system with sales in excess of \$2 billion.

Professional qualifications and memberships

- Chartered Business Valuator (2002)
- Chartered Accountant, Nova Scotia (1996)
- Canadian Institute of Chartered Accountants
- Canadian Institute of Chartered Business Valuators
- Bachelor of Commerce, Saint Mary's University (1994)

Community involvement

- Member, Infrastructure Committee, Toronto Board of Trade
- Past President, Past Vice-President, Past-Treasurer & Chair, Finance Committee, VON of Greater
- Past Chair, Chartered Business Valuator workshop committee

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Kevin Fraser

CPA, CA, CFA



Partner

Kevin is an advisory services partner based in our Halifax office, specializing in Corporate Finance.

Experience

Kevin has over 22 years' experience providing financial advisory services to clients through his experience in public accounting, commercial banking and corporate finance.

Kevin is our firm's Atlantic Canadian leader for corporate finance and plays a lead role with the firm's mergers and acquisition practice, and has significant experience in areas such as debt and transaction advisory support, capital structuring, investment analysis, financial and operational due diligence, negotiation support and financial modeling.

Kevin is also responsible for leadership of the firm's National Debt Advisory practice with a focus on advising clients on complex capital structures and market driven financing solutions.

Kevin is also a member of the firm's Nova Scotia business unit Management Committee.

Industry experience

Kevin has led or been involved in numerous financing, transaction and due diligence advisory assignments across a number of industry sectors including healthcare, wholesale, manufacturing, distribution, agriculture, telecommunications, transportation, retail and real estate.

Prior to joining Grant Thornton, Kevin spent three years with CIBC World Markets, where he was responsible for structuring and monitoring various financing arrangements for large corporate and public sector clients throughout Atlantic Canada.

Selected corporate finance projects include:

- Corporate finance advisory to a large regional commercial construction firm in support of an \$800 million syndicated debt structure comprising participation by a majority of Canada's largest financial institutions.
- Divestiture of an Atlantic Canadian based home heating oil distribution business to a large Canadian public company.
- Management buyout transaction of a privately owned national window manufacturing company.

- Management buyout of a regionally based, privately held manufacturer providing support to global power producers.
- Shareholder buyout transaction of a National, privately held specialized pharmacy business with locations in each Canadian province.
- Divestiture of a privately owned Atlantic Canadian based food processing company.
- Due diligence analysis in support of a public company listing on the London AIM exchange.
- Divestiture of a privately owned heavy truck and trailer sales and service company.
- Capital structuring and financing advisory services in support of the capital investment and residence renovation programs for two of Atlantic Canada's major universities.
- Acquisition and financing advisory services, as well as due diligence services in support of the acquisition of a regional machinery distribution company.
- Due diligence services in support of a large acquisition transaction between two of the region's larger privately owned family enterprises.

Professional qualifications and memberships

- Chartered Financial Analyst (2000)
- Chartered Accountant, Nova Scotia (1995)
- Member, Institute of Chartered Accountants of Nova Scotia
- Member, Canadian Institute of Chartered Accountants
- Member, Association for Investment Management and Research
- Bachelor of Commerce, Saint Mary's University (1992)

Community involvement

- Board Chair (Acting), Cole Harbour Place, Cole Harbour, Nova Scotia
- Former Treasurer & Chair, Finance Committee, Canadian Cancer Society (Nova Scotia Division)
- Past Vice-President & Chair, Finance Committee, VON of Greater Halifax

Contact details

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