NON-CONFIDENTIAL

Request IR-1:

The program vendor for the Home Energy Report (Opower) received customer data from NSPI.

(a) Did EfficiencyOne request that customer database or subsequent information from NSPI for its own use?

(b) If so, what was NSPI's complete response? Was the data provided?

(c) If not, why was the data not provided to EfficiencyOne?

Response IR-1:

(a-c) NS Power is not aware of a request for the customer data from E1. The sharing of data was discussed during contract negotiation. It was agreed by all parties that Opower would receive the customer data and a system was put in place that allowed E1 access to customer data if the customer contacted ENS to discuss participation and details of the program.

After implementation, E1 did request that NS Power provide all 'Time of Use' accounts so that they could advise those customers that they were ineligible, should they attempt to register for the Home Energy Report. NS Power provided a list of active customer account numbers that did not meet Home Energy Report program eligibility. The criteria used to build that list included:

(i) Time of use
(ii) Two meters at premise
(iii) Net metering
(iv) Non-residential rate

(v) Customer does not have valid connect date on their account (i.e. data anomaly)

(vi) Customer has an HERR (Home Energy Report Removal) or HERA (Home Energy Report Anonymous) contact on their account in Nova Scotia Power's Customer Information System.

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Request IR-2:

Did EfficiencyOne request that the customer database be supplied to the independent evaluator (Econoler), either directly by NSPI or through EfficiencyOne?

(a) If so, did NSPI provide an exact copy of the original database to Econoler or to Efficiency One for transmittal to Econoler?

(b) If not, what response was provided and what were the reasons for not providing the data?

Response IR-2:

(a-b) NS Power is not aware of such a request from E1 for the independent evaluator.

NON-CONFIDENTIAL

Request IR-3:

Does NSPI have a record of the exact customer dataset (with customer identifiers) that was provided to the program vendor (Opower) as the original dataset for the Home Energy Report project?

(a) Would NSPI now provide the dataset to Econoler and to EfficiencyOne, if requested? If not, please explain.

(b) Would NSPI provide five years of back data for these cases to Econoler and EfficiencyOne, if requested? If not, please explain.

Response IR-3:

Yes.

(a-b) NS Power would only be able to provide information to Econoler if the request complied with NS Power's obligations respecting customer privacy.

NON-CONFIDENTIAL

Request IR-4:

Does NSPI believe that standalone DSM behavioral programs such as the Home Energy Report produce conserved kWh that are as valuable and reliable for resource planning purposes as conserved kWh from primarily technical (equipment based) DSM programs, technical/regulatory DSM programs, or generated kWh?

Response IR-4:

NS Power has insufficient data to determine if DSM behavioural programs in Nova Scotia such as the Home Energy Report will produce conserved kWh as valuable and reliable for resource planning purposes as conserved kWh from technical (equipment based) DSM programs. Based on NS Power's experience, behavioural programs are considered less reliable and have shorter sustained lifetimes compared to technology-based program types.

NON-CONFIDENTIAL

Request IR-5:

For power planning, does NSPI simply accept and use the results of DSM evaluations as to energy savings or does it also introduce a discounting factor to minimize risk and insure reliability of service?

(a) If additional discounting is used in the power planning process, please explain the rationale and the range of discounts used and where they are applied in the process.

Response IR-5:

NS Power currently uses the results of DSM verifications as energy savings in historical load reporting. NS Power uses Board-approved DSM programs and reflects these energy and demand figures in the Company's Load Forecast.

(a) NS Power produces a 10-Year Outlook Report as well as a 25-year assessment in its Integrated Resource Plan. There are no margins for compliance with legislated emissions or renewables sales targets.

As a member of the Northeast Power Coordinating Council (NPCC), NS Power is required to comply with the NPCC reliability criteria. NS Power maintains a minimum capacity-based planning reserve margin equal to 20 percent of its firm system peak in order to comply with the NPCC criteria. In order to fully realize the value that DSM can provide from a peak demand management perspective, NS Power must be confident that the demand savings estimates provided by E1 are as accurate as possible. NS Power does not yet have confidence in the demand figures provided by E1, and recommends that the Board require E1 to refine its estimation, evaluation and verification of these quantities.

As stated in NS Power's Evidence,[1] the Company believes there should be a greater focus on the estimation, implementation and verification of demand (i.e. kW) savings.

[1] Page 36, lines 3-5, and lines 10-13.

NON-CONFIDENTIAL

Request IR-6:

Shortly after ENSC was established as the DSM Administrator, NSPI was requested to provide monthly energy use information (with customer identifiers) for customer participant houses in a housing energy conservation program, and also for a comparison group of similar houses outside the program. At that time, NSPI provided the data for participant houses since participant customers were required to sign permission for use of their customer information for program analysis purposes. However, NSPI was reluctant to provide the same information for non-participant homes without a signature for each home. A work-around solution was reached whereby NSPI provided the information for a group of non-participants matched in various ways so as to be similar to participant homes, but without providing the individual customer identifier data for each non-participant home (which was retained by NSPI).

The Home Energy Report program differs from most other home programs in that it is an opt-out program. That is, customers do not choose to enter the program, but are assigned to the program without their knowledge and then can take the initiative to opt-out. There was no individual customer sign-off for each participant house to grant permission to use customer data for program purposes or for analysis purposes. Similarly, for the non-participant control group there was no individual customer sign-off.

(a) Please provide the reasons why NSPI provided customer data with identifiers to Opower for

(i) houses to be assigned to participate in the Home Energy Report program and, separately, for

(ii) houses assigned to be held back from participation in the Home Energy Report program.

(b) Does this rationale mean there is now a permanent work-around so that NSPI can provide access to any customer data required by EfficiencyOne for operation of programs or analysis of programs for future and current participants and non-participants?

Response IR-6:

(a) (i-ii) ENS, Opower and NS Power jointly entered into a service agreement for the Home Energy Report. Opower identified which households were assigned to be participants versus non-participants.

(b) Please refer to Peach IR-3 regarding sharing of information between NS Power and ENS. There is no permanent "work-around" in place, each request to provide data (such as was the case for the Home Energy Report) requires scoping, design, building, testing and delivery (i.e. IT resources) from both NS Power and E1 (or third parties) to implement.

NON-CONFIDENTIAL

Request IR-7:

Given that Nova Scotia now has two regulated and related major "utilities" -- a traditional utility to sell electricity (NSPI) and an efficiency utility (EfficiencyOne) to reduce customers' need to use electricity, and that both require access to the customer database, will NSPI now provide complete access to the customer database to EfficiencyOne for use by EfficiencyOne employees and consultants?

(a) If not, please explain the reasons why not.

(b) Also, please explain in detail the process that NSPI intends to use to grant access to the customer database (with identifiers) for EfficiencyOne program purposes and for EfficiencyOne evaluations, and the approximate time gap from initial request to provision of required data.

Response IR-7:

(a-b) No. Information will only be provided to E1 as necessary and in accordance with privacy laws. Please refer to Peach IR-3.

NON-CONFIDENTIAL

Request IR-8:

Is it NSPI's understanding that the Electricity Efficiency and Conservation Restructuring (2014) Act (Act) creates a "first franchise holder" for energy efficiency and that the franchise holder is deemed by the Act to be a public utility?

Response IR-8:

Section 2(b) of the *Electricity Efficiency and Conservation Restructuring (2014) Act* defines "first franchise holder" as "the body corporate that is granted the first franchise pursuant to Section 79C of the *Public Utilities Act*".

Subsections 79C (1) and (2) of the *Public Utilities Act* state as follows:

> 79C (1) Upon application pursuant to Section 79B, the Minister may grant an electricity efficiency and conservation franchise pursuant to this Section.
>
> (2) A franchise
>
> (a) gives the franchise holder the exclusive right to supply Nova Scotia Power Incorporated with reasonably available, cost-effective electricity efficiency and conservation activities for the purpose of this Act;
>
> (b) is for a term of nine years ending December 31st in the ninth year of the franchise;
>
> (c) is subject to any terms or conditions specified by the Minister in the grant of the franchise; and
>
> (d) may be terminated by the Minister for a breach of a term or condition specified by the Minister in the grant of the franchise, for a failure by the franchise holder to achieve a performance requirement established by the Board pursuant to subsection 79M(1) or 79R(4) or if the agreement between the franchise holder and Nova Scotia

> Power Incorporated is terminated by the Board pursuant to clause 79N(2)(c).

A "franchise holder" is defined in Section 79A(d) as "a body corporate granted a franchise pursuant to Section 79C".

Subsection 79G(2) of the *Public Utilities Act* states:

> (2) For the purpose of Sections 15 to 19, 21, 22, 25, 27 to 29, 34, 46, 47, 49 to 51, 63, 76, 79, 80, 83 to 85, 88 to 106 and 111 to 118, a franchise holder is deemed to be a public utility in relation to its franchise activities and those Sections apply *mutatis mutandis* to the franchise holder with respect to those activities.

The first franchise was granted by the Minister to E1 pursuant to Section 79C of the *Public Utilities Act* effective as of January 1, 2015.

NON-CONFIDENTIAL

Request IR-9:

When in the 2016-2018 DSM Plan NS Power Evidence, NSPI proposes a ruling to apply to the efficiency utility, is NSPI also, at the same time, looking to have the same type of ruling and same degree of restriction applied reflexively to its own operations and reporting requirements? Or, does NSPI envision itself as somehow fundamentally different from the efficiency utility? If so, please explain, comprehensively, why the two utilities should be regulated differently and not be regulated equally.

Response IR-9:

In Nova Scotia, the *Public Utilities Act* governs the regulation of public utilities. The regulation of the franchise holder as a public utility is set out under Section 79G(2) which states:

> (2) For the purpose of Sections 15 to 19, 21, 22, 25, 27 to 29, 34, 46, 47, 49 to 51, 63, 76, 79, 80, 83 to 85, 88 to 106 and 111 to 118, a franchise holder is deemed to be a public utility in relation to its franchise activities and those Sections apply mutatis mutandis to the franchise holder with respect to those activities.

The Board's general supervisory authority over the franchise holder is set out in Section 79G (2) which states:

> **Board supervision**
>
> 79G (1) The Board has the general supervision of a franchise holder in relation to the franchise holder's franchise activities, and may make all necessary examinations and inquiries, keep itself informed as to the compliance by the franchise holder with the law and obtain from the franchise holder all information necessary to enable the Board to fulfil its duties.[1]

[1] Bill 41, *Electricity Efficiency and Conservation Restructuring (2014) Act*, 1st Sess., 62nd General Assembly, Nova Scotia, 2014 (First Reading: April 7, 2014).

The regulatory framework, reporting obligations and practices applicable to NS Power have been developed under the Board's oversight following decades of operation as a vertically integrated public utility. Given this is the first appearance of E1 before the Board and rulings rendered in this proceeding will lay the foundation for the regulation of this new utility, potentially for a decade, the Company does not expect that rulings of the Board in this matter to alter the regulatory regime under which NS Power operates. The Company's Evidence is presented with the objective that it support the cost-effective and affordable operation of the new utility in a transparent manner, consistent with regulatory standards in Nova Scotia and in a manner which serves the interest of NS Power customers.

Request IR-10:

With reference to the 2016-2018 DSM Plan NS Power Evidence, Page 45 of 51, Section 9.0, Reserve Fund, NSPI states that it is opposed to permitting the energy conservation utility from establishing a reserve fund.

(a) Does NSPI maintain a "for profit" equivalent to a reserve fund or an economic or financial arrangement that can function as a reserve fund for its franchised operations?

(b) If so, please list by name and accounting category in NSPI's system of accounts all such funds and state current size of reserves in dollar value.

(c) If NSPI operates without reserves, or recommends that major corporations operate without reserves please explain how this is possible and why it is a good business practice for a corporation to operate without reserves.

Response IR-10:

(a) No, NS Power does not maintain a reserve fund. Recovery is based on incurred or accrued costs within the period, consistent with Generally Accepted Accounting Principles.

(b) Not applicable.

(c) In a cost of service utility, rates are based on the forecast of prudently incurred costs necessary to provide utility service. The utility is expected to provide service consistent with its mandate within the revenue requirement approved by the regulator.

A reserve implies collecting from customers in advance in anticipation of potential future events. Collection in advance from customers would result in incremental costs to customers.

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Request IR-11:

Utilities, whether traditional for-profit generating utilities or the new not-for-profit energy conservation/energy efficiency utilities operate under regulatory oversight and using planning processes. In their nature, planning processes model the future and estimate or project future conditions. In any planning process there will be errors of various kinds and there are often changes in external conditions that invalidate some of the planning projections. Together, such factors can result in unexpected costs. It may also happen that customer choices change or become different in some ways than those expected, requiring changes in operations, reprioritization of programs/operations, redevelopment of the contents of programs/operations and reprogramming of budget allocations. Given such realities of real world business operations:

(a) Please explain how NSPI would contrast their conception of utility financial responsibility and the buffering or insulation from financial risks provided to various deferral accounts including cost overruns experienced by NSPI by the operation of the Fuel Adjustment Mechanism (FAM) as differentiated from the use of a reserve fund by the efficiency utility to deal with the natural gap between program planning and ongoing encounter with the realities of field operations and delivery of programs and unexpected developments that may result in increased cost or differential participation for the efficiency utility.

(b) Are these equal situations or are they not? If NSPI feels that they are not, then please describe exactly how they are not equal in terms of utility financial responsibility and the provision of a reasonable regulatory mechanism to keep the utility whole (the regulatory provision of the FAM or other balancing accounts for NSPI and the regulatory provision of a reserve fund facility for the efficiency utility).

(c) Is the FAM essentially a balancing account such that if NSPI has a cost overrun in this area in a particular year, NSPI can be eventually made whole by a rate adjustment to collect additional revenue from customers that takes effect in a subsequent year?

(d) Please describe the currently operative FAM rate adjustment as a percentage rate increase by whatever cost of service groups to which the rate adjustment applies and the total amount of dollars to be recovered.

Response IR-11:

(a) The Fuel Adjustment Mechanism (FAM) is designed to ensure customers pay only the true cost of fuel used to produce electricity. Changes in energy commodity prices can have a significant impact on NS Power's fuel costs and are in large part beyond the control of the Company. Fuel rates are based on the actual forecasted fuel costs for the period plus the recovery or refund of prior period under- or over-collection of actual fuel costs. There are no allowances for collection of reserve fund within the fuel rates. NS Power's FAM is subject to an extensive audit process to ensure all costs within the FAM were prudently incurred on behalf of the customer. NS Power does not have a similar mechanism in place for non-fuel costs, which are a comparable cost category to the costs incurred by E1 in which they are seeking a reserve. Any variations in expected costs or revenues as compared to what was included in the computation of revenue requirement for the period are managed by NS Power and are at the risk of NS Power's shareholder, not customers.

(b) These are not equal situations. The FAM is a regulatory mechanism designed to ensure that customers pay the actual prudently incurred cost of fuel consumed to provide utility service. It is not a reserve account in place to fund the Company's operations in the event of negative financial outcomes. Additionally, the FAM process is subject to an extensive auditing process to ensure all costs have been prudently incurred.

(c) Please refer to parts (a) and (b).

(d) The table below provides the 2015 FAM AA/BA Riders by class as approved by the UARB, in absolute and percentage terms.

FAM Amounts as a percentage of Base Cost Rate Revenues in 2015

Rate Class	Revenues at base cost rates	FAM Amounts			FAM Amounts as a percentage of Revenue		
		FAM AA	FAM BA	Total	FAM AA	FAM BA	Total
Residential	$680,910,208	$5,391,295	$25,624,405	$31,015,699	0.8%	3.8%	4.6%
Small General	$36,290,800	$159,395	$1,481,608	$1,641,003	0.4%	4.1%	4.5%
General Demand	$314,438,213	$1,137,949	$14,782,583	$15,920,531	0.4%	4.7%	5.1%
Large General	$43,770,051	$29,552	$806,991	$836,543	0.1%	1.8%	1.9%
Small Industrial	$30,829,434	$50,573	$1,427,561	$1,478,134	0.2%	4.6%	4.8%
Medium Industrial	$53,943,278	$77,114	$1,218,909	$1,296,023	0.1%	2.3%	2.4%
Large Industrial	$64,392,715	$74,955	$2,147,033	$2,221,988	0.1%	3.3%	3.5%
Municipal	$20,901,124	$29,232	$227,785	$257,017	0.1%	1.1%	1.2%
Unmetered	$22,316,663	$8,780	$553,049	$561,828	0.0%	2.5%	2.5%
Total	**$1,267,792,486**	**$6,958,844**	**$48,269,922**	**$55,228,766**	0.5%	3.8%	4.4%

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Request IR-12:

With reference to performance expectations and the expectation of buffering by additional funding collected from NS Power customers (Page 45 of 51, lines 21-22):

(a) Does NSPI have an account in its system of accounts that is used to assign dollar amounts that are eventually classified as uncollectible and is this account maintained to develop an uncollectible amount that is requested to be recovered from paying customers in a subsequent rate case in order to make the utility whole?

(b) If so, please briefly describe the current operation of this account and its application in the most recent rate case to which cost recovery for uncollectible amounts was requested.

(c) Does NSPI understand this arrangement to be a financial buffer for the Company by providing additional funding collected from NS Power customers when collections performance varies from plan? If not, how does NSPI understand or characterize this financial facility?

Response IR-12:

(a) In accordance with Generally Accepted Accounting Principles (GAAP), NS Power's bad debt expense includes all accounts written-off during the current period, less any recoveries on accounts previously written-off, plus an allowance for existing accounts receivables that are anticipated to be written off in future periods based on historical experience. To the extent that the current period bad debt expense exceeds the amount that was included in the calculation of rates, the variance is a current period cost which is not subject to carry forward and recovery from customers in a future period. NS Power's bad debt expense included in its operating costs is subject to external audit as part the annual audit of its financial results.

(b) No amounts were included in current rates with respect to an account that was deemed to be uncollectable in a prior period under Generally Accepted Accounting Principles.

(c) Bad debt expense is not a financial buffer as it is based on current period costs and there are no carryovers to future periods.

Request IR-13:

Does NSPI agree that the efficiency utility is a not-for-profit organizational entity?

Response IR-13:

The *Public Utilities Act* does not require the franchise holder to be a not-for-profit organizational entity. However, E1 confirmed in its Application that it was incorporated in July 2014 under the *Canada Not-for-profit Corporations Act*. NS Power understands that the current franchise holder has been structured by its parent entity as a not-for-profit entity for its own internal reasons.

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Request IR-14:

Would approval of a Reserve Fund arrangement for the efficiency utility by the regulatory authorities be a legitimate exercise of regulatory authority? If not, please explain, comprehensively, why not.

Response IR-14:

The Company summarized its position regarding E1's request for a reserve fund reserve at page 47 of its Evidence:[1]

> In summary, NS Power submits that the protections afforded E1 under its franchise and through effective EECA implementation are sufficient to avoid the need for ratepayers to further insulate E1 from market challenges. In addition, mitigation requirements of many of the risks can be brought before the UARB for consideration at the appropriate time.
>
> Through this Application E1 has undertaken to provide NS Power and its customers with electricity efficiency and conservation services. It falls to E1 to deliver on this undertaking. Additional insulation from NS Power customers should not be required.
>
> NS Power recommends the Board reject E1's application to establish a reserve fund.

The terms of the Supply Agreement are subject to the approval of the UARB pursuant to Section 79L(2) of the *Public Utilities Act* (Act). Section 79L(8) provides that the UARB may approve the Supply Agreement if it determines it is in the best interests of NS Power customers.

As such, the approval of a Supply Agreement with a reserve fund arrangement would be a legitimate exercise of regulatory authority if the UARB determined it was in the best interests of NS Power customers.

[1] NS Power, DSM Evidence, April 10, 2015, page 47.

NON-CONFIDENTIAL

Request IR-15:

Would NSPI recommend, in general, that not-for-profit organizations avoid creation of a reserve fund? If so, why would this be a functional business practice? If not, why is the situation of the efficiency utility different?

Response IR-15:

Please refer to Peach IR-14. In the context of the Application before the UARB, NS Power has analyzed E1's request for a reserve fund and recommends it not be approved for the reasons set out at pages 45 through 47 of NS Power's Evidence.

Request IR-16:

At several points in the 2016-2018 DSM Plan NS Power Evidence, there is mention of affordability.

(a) Please provide NSPI's definition of "affordability" as used in this document.

(b) Please list by affected customer groups used in cost of service analysis all rate increases and decreases since the beginning of 2009, providing the rate increase/decrease percentage and an explanation of the purpose of each rate increase/decrease.

Response IR-16:

(a) Please refer to CA IR-38.

(b) The table below provides UARB-issued Matter and Exhibit numbers of NS Power's General Rate Applications (GRA) and Fuel Adjustment Mechanism (FAM) Applications that can be referenced at the following link:

http://uarb.novascotia.ca/fmi/iwp/cgi?-db=UARBv12&-loadframes

Attachment 1, also filed electronically, provides the year over year (yoy) increases to rates since 2009.

Project	Year	Application	Matter No.	Date Filed	Exhibit No.
General Rate Application (GRA)	2012	P-892 - NSPI 2012 GRA	M04104	May 11, 2011	N-1(i-x)
	2013	P-893 - NSPI 2013 GRA	M04972	May 8, 2012	N-3(i-x)

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Project	Year	Application	Matter No.	Date Filed	Exhibit No.
Fuel Adjustment Mechanism (FAM) – Base Cost of Fuel	2011	2011 FAM Base Cost of Fuel	M03285	August 16, 2010	N-10
FAM Actual Adjustment/Balance Adjustment	2010	P-887(1) – Nova Scotia Power Inc. (NSPI) – Annual Fuel Adjustment Mechanism (FAM) for 2010 – Annual Adjustment	M02306	November 13, 2009	N-3
	2011	P-887(2) NSPI 2011 Fuel Adjustment Mechanism (FAM) Hearing & Actual Adjustment (AA) and Balance Adjustment (BA) Proceeding	M03285	November 12, 2010	[No Exhibit#] Filed as Evidence under Related Documents
	2012	P-887(3) Nova Scotia Power Inc. 2012 Fuel Adjustment Mechanism (FAM)	M04557	November 10, 2011	N-1
	2013	P-887(4) – Nova Scotia Power Inc. - 2013 – Annual Fuel Adjustment Mechanism (FAM) – Actual Adjustment and Balance Adjustment	M05359	November 14, 2012	N-1
	2015	P-887(6) – Nova Scotia Power Inc. – 2015 FAM AA/BA – NSPI	M06536	November 27, 2014	N-1(i-vi)

1

	2009	2010	2011	2012	2013	2014	2015	Y-O-Y Increase 2010	2011	2012	2013	2014	2015
Residential													
Energy Charge with FAM	11.796	11.612	12.074	13.336	13.79	14.251	14.947	-1.56%	3.98%	10.45%	3.40%	3.34%	4.88%
Small General													
Energy Charge 1st Block - with FAM	13.066	12.869	13.362	14.095	14.567	15.092	15.774	-1.51%	3.83%	5.49%	3.35%	3.60%	4.52%
Energy Charge 2nd Block - with FAM	11.495	11.298	11.791	12.487	12.851	13.278	13.960	-1.71%	4.36%	5.90%	2.92%	3.32%	5.14%
General													
Energy Charge 1st Block - with FAM	9.603	9.393	9.895	10.66	10.92	11.208	11.841	-2.19%	5.34%	7.73%	2.44%	2.64%	5.65%
Energy Charge 2nd Block - with FAM	6.781	6.571	7.073	7.762	7.821	7.929	8.562	-3.10%	7.64%	9.74%	0.76%	1.38%	7.98%
Large General													
Energy Charge with FAM	6.539	6.338	6.821	7.742	7.884	8.029	8.236	-3.07%	7.62%	13.50%	1.83%	1.84%	2.58%
Small Industrial													
Energy Charge 1st Block - with FAM	8.389	8.187	8.666	9.629	9.862	10.090	10.687	-2.41%	5.85%	11.11%	2.42%	2.31%	5.92%
Energy Charge 2nd Block - with FAM	6.399	6.197	6.676	7.512	7.615	7.707	8.304	-3.16%	7.73%	12.52%	1.37%	1.21%	7.75%
Medium Industrial													
Energy Charge with FAM	5.972	5.751	6.241	7.028	7.145	7.241	7.505	-3.70%	8.52%	12.61%	1.66%	1.34%	3.65%
Large Industrial													
Firm - Energy Charge with FAM	5.995	5.793	6.247	7.015	7.344	7.620	7.958	-3.37%	7.84%	12.29%	4.69%	3.76%	4.44%
Interruptible - Energy Charge with FAM	5.924	5.722	6.176	7.015	7.167	7.222	7.540	-3.41%	7.93%	13.58%	2.17%	0.77%	4.40%

(1) Note these rates are the energy charge only and do not include Customer charges or Demand charges

(2) These rates do not include DSM

NON-CONFIDENTIAL

Request IR-17:

Does NSPI believe that E1 is free in some respects to compete with it? If so, please provide a comprehensive answer as to how and subject to what constraints E1 may to compete with it in helping customers reduce their energy bills.

Response IR-17:

In its Evidence, NS Power recognizes the need for DSM as a valuable system planning tool.

> NS Power recognizes that DSM is more flexible in its implementation than some supply alternatives. Failing to adjust DSM spending to match system needs leaves the value of DSM flexibility unrealized. As a result, NS Power recommends continuing investment in DSM at a more moderate level than proposed by E1, with a focus on demand as well as energy savings. NS Power considers energy savings of approximately 100 GWh/year with the associated demand savings to be appropriate. This will provide the associated cumulative demand savings required to avoid adding any additional generation capacity until 2032.[1]

Under an optimized DSM scenario, there would be no competition between the franchise holder and NS Power as there would be a balance between affordability and system resource requirements.

[1] E1's 2015 programs, targeting 120 GWh/year, are projected to provide 21MW of peak demand mitigation.

Request IR-18:

NSPI suggests *removing autonomy and flexibility from E1 as an organization*. (Reference to 2016-2018 DSM Plan NS Power Evidence, Page 4, Line 13 to Page 5, Line 5).

How does NSPI envision the appropriate autonomy and flexibility of the DSM Administrator, E1, and of the individual program managers within the E1 organization?

Response IR-18:

The full reference reads as follows and is intended to express NS Power's concerns relative to E1's Application:

> Beyond the high spending level, E1 has also requested a considerable level of autonomy and flexibility be afforded to E1 under the E1 DSM Plan. In particular, NS Power is concerned, among other things, with the following items:
>
> - the adequacy of the description and understanding of the scope of DSM services;
> - the proposal of a three year cumulative deliverable target rather than annual deliverables;
> - providing E1 with broad decision-making authority for the potential shifting of budgets among programs or altering the design of the portfolio;
> - compensation that is proposed to be paid to E1 over the course of the contract but based on E1 achieving the cumulative energy and demand savings at the end of the three year contract period; and
> - the creation of a "reserve fund" financed by NS Power customers with 50 percent of any surplus balance being placed in a reserve fund for the benefit of E1 and the remaining 50 percent being returned to NS Power as an offset to the next supply agreement.[1]

[1] E1 Evidence, February 27, 2015, page 55.

The Company's recommendations for autonomy and flexibility are listed under transparency and accountability and specifically state:

> **2.1 Transparency and Accountability**
>
> The new franchise system created under the Act for the supply of DSM was intended to change the model of DSM delivery in Nova Scotia. Accountability and affordability for NS Power customers are key factors in this new model. Indeed, the Act now deems the franchise holder to be a public utility for the purposes of carrying out its activities.
>
> In NS Power's view, this Application must be viewed in the context of E1's new status as a regulated public utility and the fact that they are proposing to spend $121.5 million of NS Power's customers' money during the Contract Period. Prior to approval, E1 should be subject to the same rigour in demonstrating the prudency of its expenditures as any other public utility.
>
> The requirement for transparency and accountability on the part of E1 in justifying the E1 DSM Plan is clear from the fact that under the Act, the Board can only approve the Supply Agreement if it is satisfied that it is in the best interests of NS Power customers. In making that assessment, the Board must take into account the affordability to NS Power customers. Specifically, Sections 79L(8) and (9) of the Act state as follows:
>
> > (8) The Board shall approve an agreement pursuant to this Section if, in addition to any other matters considered appropriate by the Board, it is satisfied that the agreement, including the proposed electricity efficiency and conservation activities that are the subject of the agreement, **is in the best interests of Nova Scotia Power Incorporated's customers** and satisfies the requirements of Section 79J.
> >
> > (9) The Board's assessment of the proposed electricity efficiency and conservation activities for the purpose of the approval **must take into account their affordability to Nova Scotia Power Incorporated's customers**, along with any other matters considered appropriate by the Board or as may be prescribed.
> >
> > [**emphasis added**]

> E1 acknowledges there may be an impact to the rates paid by NS Power customers as a result of the E1 DSM Plan.[2] As a result, NS Power believes this is all the more reason why the Board should be concerned with ensuring a high level of transparency by E1 in the development of a DSM plan for the Contract Period, and providing information in the level of detail required for the Board, NS Power and other stakeholders to make a determination in this matter.
>
> This level of transparency is not reflected in E1's application. As noted in the evidence of David Pickles: "The EfficiencyOne proposal does not support the level of oversight, information, and management supervision necessary to ensure prudent delivery of the programs and is inconsistent with standard industry practice.[3][4]

As is evident from the foregoing, NS Power is not proposing to "*remov[e] the autonomy and flexibility from E1 as an organization"* or otherwise limit the general supervisory authority of the Board under the *Public Utilities Act.* Rather, the Company is seeking to establish a regulatory framework that is transparent and consistent with established utility regulatory practice in Nova Scotia.

[2] E1 Evidence, February 27, 2015, page 38.
[3] Please refer to Appendix A, Direct Testimony of David Pickles, April 10, 2015, page 27, lines 16-19.
[4] NS Power DSM Evidence, pages 9-10, April 10, 2015.

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Request IR-19:

NSPI notes that it is concerned with the "description and understanding" of the scope of DSM services and suggests that other jurisdictions commonly require various items of detailed information. (Reference 2016-2018 DSM Plan NS Power Evidence, Page 4, Line 18 and Page 13, Lines 4-22). Yet E1, though a new organizational form, has been running DSM programs and generally achieving targets now for several years.

Please explain why in the context of a utility organization (E1) with a track record of savings as approved by the Board expansion of effort in program filings is not a request for over-elaboration.

Response IR-19:

The rationale for NS Power's request for more detailed information than that provided by the franchise holder is detailed in several locations in the Evidence. The overarching theme is that, under the revised legislation, the franchise holder has not provided sufficient information to allow the Board and stakeholders, including NS Power, to ensure that its Application provides the most cost-effective and affordable DSM program as required by the legislation. NS Power's expert provides the UARB with additional insight on why the information sought is required at page 8 of his testimony which reads:

> WHY DO YOU BELIEVE THAT INSUFFICIENT INFORMATION HAS BEEN PROVIDED WITH RESPECT TO THE PROGRAMS?
>
> A. In order to assess the prudence of the activities and budget associated with each proposed program (and to enter into a contract providing for the implementation of that program), it is necessary to review the details of the program. As noted later in my testimony, EfficiencyOne provides only a very brief (averaging less than one page) narrative description of each program, and omits key items such as: incentive strategy, eligible measure descriptions, promotional plans, program activities, annual goals, staffing plans, and a detailed budget. Without these items, which, in my experience, are commonly required by

> regulators in other jurisdictions with third party implementers *before* approving such large expenditures, it is impossible to compare the programs to other programs and develop benchmarks demonstrating the reasonableness of the costs, nor is it possible to finalize an implementation contract that accurately describes the work to be performed. Later in my testimony, I provide a complete list of the information I recommend be submitted before approval of the programs and the contract by the UARB.

The legislation itself seems to contemplate a very broad and deep information requirement as it states at Section 79(G):

> **79G (1)** The Board has the general supervision of a franchise holder in relation to the franchise holder's franchise activities, and may make all necessary examinations and inquiries, keep itself informed as to the compliance by the franchise holder with the law and obtain from the franchise holder all information necessary to enable the Board to fulfil its duties

And then at Section 79(M):

> 79M (1) In making an order approving an agreement pursuant to Section 79L, the Board shall establish such performance requirements for the franchise holder as the Board considers appropriate.

Request IR-20:

NSPI expresses concern that E1 has requested a three year cumulative deliverable target rather than annual deliverables. (Reference 2016-2018 DSM Plan NS Power Evidence, Page 4, Lines 20-21). In this context:

(a) NSPI uses the term "Third Party". Does NSPI see E1 as a "Third Party" or does it recognize E1 as the utility responsible for accomplishing DSM energy savings?

(b) Has NSPI done a study of jurisdictions in which DSM is mature with regard to the length of DSM cycles in years? If so, what are the results?

(c) Please explain why going back to a one-year cycle would not result in unnecessary secondary work effort.

Response IR-20:

(a) As per section 79G(2) of the *Energy Efficiency and Conservation Act*, NS Power acknowledges ENS as a public utility in relation to its franchise activities and that NS Power and ENS enter into a supply agreement for the 2016-2018 period.

(b) Please refer to Attachment B of Appendix A of NS Power's Application.

NS Power has not completed such a study. However, E1's response to NS Power IR-3 included the following table addressing both approval timeframes and annual versus multi-year performance targets.

2016-2018 Supply Agreement for EECA M06733 (E-ENS-R-15)
E1 Responses to NSPI Information Requests

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	APPROVAL TIMEFRAME		PERFORMANCE TIMEFRAME	
Jurisdiction	**Annual Approval**	**Multi-year Approval**	**Annual Performance Target**	**Multi-year Performance Target**
Vermont		✓		✓
District of Columbia	✓		✓	
Massachusetts		✓	✓	
Hawaii	✓		✓	
Oregon	✓		✓	
Ontario		✓		✓
Ohio		✓		✓
California		✓		
New York		✓	✓	
Wisconsin		✓		✓

(c) NS Power is not opposed to the three year term of the agreement, but is concerned with performance targets that are based on a three-year cumulative target rather than annual deliverables. Please refer to Multese IR-13.

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Request IR-21:

NSPI is concerned with "providing E1 with broad decision-making authority for the potential shifting of budgets among programs or altering the design of the portfolio." (Reference 2016-2018 DSM Plan NS Power Evidence, Page 4, Lines 23-24.) In this context:

(a) Given that E1 is a utility that specializes in DSM, and NSPI is a utility that has given up the DSM Administrator function, and that there is a multi-party DSM Working Group, please elaborate on the nature of NSPI concern.

(b) Please describe NSPI's current capability to be a DSM Administrator including the number and levels of staff dedicated to that function.

Response IR-21:

(a) Please refer to Peach IR-18.

(b) Section 79(b)(3) of the *Public Utilities Act* prohibits NS Power from being the Electricity Efficiency and Conservation Activities franchise holder.

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Request IR-22:

NSPI is concerned with the pattern of compensation proposed by E1, specifically with "compensation that is proposed to be paid to E1 over the course of the contract but based on E1 achieving the cumulative energy and demand savings at the end of the three year contract period". (Reference 2016-2018 DSM Plan NS Power Evidence, Page 4, Lines 26-28 and Page 41, Line 18 through Page 42, Line11). Further, NSPI proposes that "If E1 does not spend the full annual amount in a given year, it should be deducted from the amount owing in the following year or otherwise refunded to NS Power customers." (Page 41, Lines 25-27).

(a) Does NSPI find it unusual that a utility that is a DSM Administrator would request a three-year program cycle absent the provision for refunding any unspent funds at the end of a year?

(b) If NSPI were still the DSM Administrator does it envision requesting refunding of unspent DSM funds at one-year intervals?

(c) Is it NSPI's expectation that planning projections always correctly project the real world experience of the activities and programs planned? Or, is it simply a fact that field implementations of programs are almost always more or less different from plans.

(d) NSPI notes that changes during program implementation could modify unit cost of the overall portfolio (Page 5, Lines 5-6). Also that costs can shift from plan, modifying the manner in which costs are distributed among customers (Page 5, Lines 6-7). Would NSPI expect this not to occur if compensation periods were to be shortened to a year by year basis?

(e) Does NSPI recognize that a one-year system of compensation might produce some perverse economic incentives?

Response IR-22:

(a) Yes. While a deemed public utility under Section 79G(2) of the *Public Utilities Act*, the franchise holder is a single purpose entity that will be operating under a Board-approved contract with NS Power for specific deliverables. Such a provision would discourage funds from being moved between program years without appropriate approvals.

(b) Please refer to Section 79B(3) of the *Public Utilities Act*. This section prohibits NS Power from being the franchise holder.

(c) It is not NS Power's expectation that planning projections always precisely project the real world experience of the activities and programs planned. NS Power does not object to changes being made to the approved plan, but does have concerns about E1 having the discretion to make significant changes that could affect the outcome without the approval of the Board and input from NS Power and other stakeholders.

(d) No. However, in ENS's 2014 Q3 report (ENSC - 2014 Q3 DSM Report-- E-ENSC-R-14(7)/M06500), page 1, ENS states the following:

> Efficiency Nova Scotia is confident it will achieve its 2014 energy savings goal of 137.8 GWh within its approved investment amount of $47.5 million.

The report was issued on October 31, 2014 and at that time, ENS did not communicate that 2014 actual costs could vary greatly from the UARB-approved budget and that there would be such a large surplus at year end.[1] NS Power is concerned with this approach.

(e) NS Power does not see how this practice would provide incentive to E1 to manage funds in a "perverse economic" manner. With carefully set performance measurements and targets set by the UARB, NS Power's proposed compensation approach would enable a more close alignment between the timing of DSM funds transferred to E1 and implementation of DSM activity.

[1] ENS 2014 Financial Statement, page 3.

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Request IR-23:

NSPI proposes that the DSM portfolio be oriented towards low unit costs (Reference 2016-2018 DSM Plan NS Power Evidence, Page 24, Line 5 to Page 25, Line 19).

(a) Please differentiate this recommendation from "cream skimming" or "high-grading" which lower costs for a current year but dramatically increase costs of obtaining full DSM potential from a long term affordability perspective.

(b) Please also differentiate "low-cost/no-cost" cosmetic programs "information only" programs.

(c) Typically, programs that have a market transformation dimension require costs for several years with no immediate return in savings in order to influence the market. Does NSPI recognize the damage done to long-term effectiveness and market leverage of E1 if the portfolio is oriented towards short-term thinking about low unit costs?

(d) A climate perspective would require a focus not on maintaining the lowest cost measures but on funding deep measures offering deep savings and moving the building stock towards near net zero for the long term. Has NSPI taken near net zero goals and physical risk and durability of measures into account from a customer perspective in recommending that the DSM portfolio be oriented towards low unit costs? If so, how?

Response IR-23:

(a) Please refer to SBA IR-5.

NS Power has suggested that there could be ways for E1 to reduce the overall cost of DSM to address the issue of affordability, including focusing on lower unit cost measures and programs at this time. The more costly DSM measures may well cost less in future, for example those technologies which are early in the market and whose costs are likely to decline. There can be greater confidence in near term assumptions than in the longer term and for that reason DSM should continue, but with greater sensitivity to the near term considerations. It should be noted that E1 was able to achieve a much lower unit cost than it had proposed in reaching, and actually exceeding its 2014 DSM goals

As discussed in NS Power's Evidence, delaying some of the more expensive technology measures may well result in their later provision at a lower cost, or see their effects in Nova Scotia without the need for significant subsidies[1].

(b) The question is not clear to NS Power. NS Power has not made reference to the categories mentioned in the IR.

(c) NS Power believes that the amount of DSM undertaken should be designed to match the needs of customers and the utility keeping affordability as a top priority. As illustrated in NS Power's Evidence, a lower cost plan would be more consistent with DSM spending levels elsewhere in Canada.

(d) "Near net zero goals" have not been embedded in public policy in Nova Scotia and are not the mandate of NS Power or the UARB under the legislation. Such goals would have significant cost and affordability implications which would need to be vetted publicly before approval and adoption.

[1] NS Power Evidence, page 26, line 7 to page 29, line 2.

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Request IR-24:

NSPI is concerned that E1 requests to change the cost-effectiveness testing method from TRC to the Program Administrator's Cost Test or PACT (historically, the Utility Cost Test or UCT). (Reference to Page 6, Lines 7-8 and Page 43, Lines 1-28).

(a) NSPI mentions E1's request to move testing from the program level to the sector level but does not enter any objection. Does NSPI accept E1's request to move testing to the sector level? If not, why not?

(b) Please provide a list of NSPI's understanding of the advantages and disadvantages of the PACT/UCT in contrast to the historical TRC test.

(c) Although NSPI raises the type of test to serve as primary test as an issue, it does not discuss selection of the discount rate to use in the primary test. Practice across jurisdictions varies. Some use a market rate of one type or another. Some use the utility cost of capital. Others use the actual borrowing rate for the utility. And a few use a social discount rate, typically a government bond rate. Given that DSM reduces risk for the customer what discount rate does NSPI see as relevant for the test?

Response IR-24:

(a) NS Power does not support E1's request. As stated at line 10 of page 43 of NS Power's Evidence, the Company considers a move from economic screening at the Program level to the Sector level to be an unnecessary relaxation of cost effectiveness testing that increases the risk of selection of uneconomic Programs and Measures.

(b) Please refer to NS Power's Evidence at page 43 for a discussion of some of the disadvantages of PAC testing and the benefits of TRC tests.

(c) The Company recommends the Board not approve E1's request to change the cost-effective testing from TRC to PAC. NS Power has not provided a recommendation on the applicable discount rate.