NOVA SCOTIA ENERGY BOARD

IN THE MATTER OF: *The Public Utilities Act, as amended*

IN THE MATTER OF: An Application by EfficiencyOne for Approval of the 2027-2031 Demand-Side Management (DSM) Purchase Agreement between EfficiencyOne and Nova Scotia Power Incorporated, the establishment of a final agreement between the parties, and approval of a 2027-2031 Demand Side Management (DSM) Resource Plan

RESPONSES OF SOLAR NOVA SCOTIA (SNS) TO INFORMATION REQUESTS OF THE SMALL BUSINESS ADVOCATE ON INTERVENOR EVIDENCE (EXHIBIT E-24) (NON-CONFIDENTIAL)

To: Melissa P. MacAdam, Blackburn Law Inc., Small Business Advocate

From: David Brushett, Chair, Solar Nova Scotia (SNS)

Date: July 17, 2026

Contact: brushettd@gmail.com

Response to Request IR-1:

Refer to M12780, Exhibit E-24, Solar Nova Scotia (SNS) Evidence, dated June 23, 2026 ("SNS Evidence"), Executive Summary, page 3 of 16, 3rd paragraph.

(a) *Did SNS, or one of its members, participate in the above referenced "Energy Manager-supported projects" that accounted for the existing buildings custom program savings?*

Solar Nova Scotia does not have access to EfficiencyOne's project-level data and therefore cannot provide a complete list of Existing Buildings Custom Program projects in which its members participated. However, SNS can confirm the following.

Many SNS members, including contractors, consultants, and distributors, are also members of EfficiencyOne's Efficiency Preferred Network and support the delivery of DSM projects that extend beyond solar. SNS members have also worked directly with EfficiencyOne Energy Managers to deploy numerous solar projects. Further, during the period when solar photovoltaics was an eligible custom measure, SNS members supported many custom projects.

SNS notes that its evidence on the role of Energy Manager-supported projects in Existing Buildings Custom Program savings is based on EfficiencyOne's own responses to SNS information requests, not on member project experience.

(b) *Does SNS, or do any of SNS's members, participate in EfficiencyOne ("E1") programs in the capacity of a third-party energy manager?*

No. Neither SNS nor, to SNS's knowledge, any of its members act as third-party energy managers within EfficiencyOne programs.

SNS's interest in Energy Manager-type support arises instead from its members' direct experience delivering complex projects. The same enabling supports that drive complex custom efficiency projects, engineering analysis, business case development, implementation support, procurement assistance, and funding applications, are equally essential to delivering distributed energy resource projects such as solar and battery storage. Federal incentives, including the Clean Technology Investment Tax Credit and accelerated capital cost allowance, now support heat pumps, solar photovoltaics, and battery storage alike, meaning a single DSM-funded technical resource could efficiently help small businesses capture funding across both efficiency and DER measures. In SNS's view, DSM delivery needs to move toward a more integrated approach, because a single customer project can now span multiple DSM resources, including energy efficiency, electrification, demand response, and DERs.

Response to Request IR-2:

Refer to M12780, Exhibit E-24, SNS Evidence, Section 2.3, Energy Manager-Supported Projects Are the Main Source of Custom Savings, page 6 of 16, 3rd and 4th paragraphs.

(a) *How did SNS confirm, for its evidence cited above, that none of the roving Energy Managers are dedicated to the small business sector?*

SNS relied on EfficiencyOne's own description of its DSM-funded Energy Manager complement. In E1 (SNS) IR-09(c) (Exhibit E-15), EfficiencyOne stated that, of the four partially DSM-funded positions, three are roving within the industrial sector and one is embedded with an institution. That is the complete DSM-funded Energy Manager complement as described by EfficiencyOne. By EfficiencyOne's own account, the three roving positions serve the industrial sector and the embedded position serves an institution; no position is described as serving, or dedicated to, the small business segment.

(b) *What do you mean by "…the customers least able to access that support…"? Why are small businesses the least able to access the support and what is your basis for saying that they receive "none of it"?*

Small businesses are the least able to access Energy Manager-type support for structural reasons. Unlike industrial and institutional customers, small businesses generally have no in-house energy management, engineering, or facilities staff. They are typically owner-operated, with limited time and internal capacity to identify opportunities, develop business cases, navigate program and funding applications, and manage implementation. Individual small business projects are also too small to justify hiring dedicated technical support, and

small businesses cannot host an embedded Energy Manager in the way an institution or large industrial customer can. These are precisely the functions that Energy Manager support provides to the customers that currently receive it.

The statement that small businesses receive "none of it" refers to the DSM-funded Energy Manager capacity described by EfficiencyOne in E1 (SNS) IR-09(c): three positions roving within the industrial sector and one embedded with an institution. None of that DSM-funded capacity is dedicated to or deployed in the small business segment.

(c) *Does SNS provide Energy Manager type support to customers? If so, for how many small business customers and over what time frame and how are these services funded?*

No. SNS is an industry association and does not provide Energy Manager or similar services to customers. Please also refer to the response to SBA IR-1(b).

(d) *If E1 were to dedicate more of its DSM Plan funding to support Energy Managers, how much would this cost per year? What would the energy savings be per additional Energy Manager?*

EfficiencyOne is best positioned to answer this question, as it holds the cost data for its existing Energy Manager positions and the project-level savings data for Energy Manager-supported projects. SNS notes that EfficiencyOne declined to disclose this information in response to E1 (SNS) IR-09(c) and (d).

SNS can, however, offer the following observations. The annual cost of an Energy Manager position is essentially the DSM-funded share of a single salaried position, a modest amount relative to the program incentive budgets in the Preferred Plan. EfficiencyOne's own delivery experience demonstrates that a single Energy Manager, or one or two sector-based positions, can support a sector containing hundreds or even thousands of businesses; EfficiencyOne's sector-based support to the agriculture and fisheries sectors, which include many small businesses, illustrates this model. Notably, based on EfficiencyOne's enumeration of its four DSM-funded positions in E1 (SNS) IR-09(c), that sector support does not appear to be DSM-funded. With respect to savings per position, EfficiencyOne's responses to SNS information requests establish that Energy Manager-supported projects accounted for nearly all Existing Buildings Custom Program savings in 2024 and 2025; the savings attributable per position can therefore be derived directly from EfficiencyOne's own data, and SNS would support the Board directing EfficiencyOne to provide that analysis.

Response to Request IR-3:

Refer to M12780, Exhibit E-24, SNS Evidence, Section 3.4, Recommended Direction for SBES, pages 9-10 of 16.

(a) *What is meant by the reference to "funding-navigation support" and who would provide this type of support?*

Funding-navigation support means helping a small business identify, apply for, and combine the funding sources available for an energy project. Beyond DSM incentives, small businesses may be eligible for federal support, including the Clean Technology Investment Tax Credit and accelerated capital cost allowance, as well as financing programs where available. Larger customers routinely receive this type of assistance from in-house staff, Energy Managers, or paid consultants; small businesses typically have no comparable capacity, and as a result eligible federal support goes uncaptured and DSM dollars are spent covering costs that other funding sources could bear.

This support would be provided as part of the redesigned SBES delivery model, by EfficiencyOne staff performing an Energy Manager-type function for the small business segment, by qualified private-sector providers engaged under the program (see response to part (c)), or by a combination of the two.

(b) *What is meant by "reasonable cost-share incentives" and how would the reasonableness be determined?*

A reasonable cost-share incentive is one set high enough to enable the customer to proceed with a cost-effective project, but no higher than necessary once other available funding is taken into account. The current SBES default of full-cost, no-cost-to-customer direct install represents a 100 percent DSM subsidy. Where a small business can access the federal Clean Technology Investment Tax Credit and accelerated capital cost allowance for measures such as heat pumps, solar photovoltaics, and battery storage, a full-cost DSM subsidy simply displaces funding the customer could have obtained elsewhere, and drives the high unit costs identified in SNS's evidence.

Reasonableness would be determined by EfficiencyOne through program design, having regard to: (i) the customer's after-incentive payback and cash-flow position once federal and other funding is counted; (ii) the incentive levels used in comparable small business programs in other jurisdictions, which commonly employ cost-sharing rather than full-cost delivery; and (iii) the resulting DSM cost per unit of saved energy relative to the direct-install baseline. The objective is not a fixed percentage but a design principle: DSM should pay the share of project cost needed to make projects happen, not the whole cost by default.

(c) *What is the definition of "qualified private-sector providers" and how are they different from the third-party consultants referred to by E1 in response to SBA IR 2(b)?*

By "qualified private-sector providers," SNS means firms, including engineering and energy consultants, contractors, and energy service providers, that meet qualification criteria established by EfficiencyOne (relevant expertise, training on E1 programs, and quality and reporting requirements) and are engaged under the SBES program to deliver

Energy Manager-style technical assistance, project development, and funding-navigation support to small business customers.

The difference from the third-party consultants described in E1's response to SBA IR-02 (Exhibit E-14) lies in how they are engaged and paid, and whom they reach. In E1's description, third-party consultants are retained and paid by the customer, with E1 offering incentives to offset a portion of feasibility study and energy modelling costs. That model works for larger customers that already know the programs exist and can afford to retain a consultant. It does not work for small businesses, which generally lack the awareness, time, and resources to initiate and pay for such an engagement. That is the barrier SNS's recommendation is intended to address. Under SNS's recommendation, the support would be embedded in the program itself: procured and coordinated by EfficiencyOne and delivered proactively to small business customers, in the same way that EfficiencyOne already engages private-sector delivery contractors for direct install. The change SNS recommends is in what is delivered, enabling support and cost-shared projects rather than full-cost installed product, not in the principle of using private-sector delivery capacity.

(d) *Who does SNS recommend bear the cost of the proposed qualified private-sector providers?*

The cost would be borne by the DSM Plan, within the existing SBES budget envelope, through reallocation of funds from the current full-cost direct-install approach. SNS is not recommending incremental DSM spending. Its evidence is that the proposed SBES design carries high unit costs precisely because DSM pays the full cost of installed measures; redirecting a portion of that spending to enabling support and cost-shared incentives, which also unlock federal funding, is intended to lower the DSM cost per unit of savings and serve more small businesses within the same budget.

Response to Request IR-4:

Refer to M12780, Exhibit E-24, SNS Evidence, Section 4.1, New Controllable Load is a Demand Response Resource, page 10 of 16, 2nd paragraph of this section.

(a) *Please provide the support for the statement "…at the same time that controllable residential load is expected to grow rapidly"?*

The support is set out in the first paragraph of the same section of SNS's evidence (Exhibit E-24, Section 4.1, page 10 of 16), immediately preceding the paragraph quoted in this request. Nova Scotia's 2026 Load Forecast indicates that the 2027-2031 DSM Plan period will add 31,399 electric vehicles and 106,475 heat pumps. In addition, based on NRCan data and Nova Scotia Power's finding that 78 percent of residential water heaters are electric, Nova Scotia has approximately 191,880 residential electric water heaters; assuming a 10- to 15-year replacement cycle, roughly 63,960 to 95,940 of these units may

be replaced during the Plan period, each replacement representing an opportunity to install a demand-response-capable unit.

(b) *What does SNS mean by the statement that "…the capacity value those devices could provide is left unsecured"?*

A controllable device provides capacity value to the electricity system only if it can actually be called upon to reduce load at times of system peak. That requires the device to be enrolled in a demand response program, connected and dispatchable, subject to verification of its performance. When those conditions are met, the device's peak reduction is "secured": it can be measured, counted on in resource planning, and used to reduce or defer the supply-side capacity that Nova Scotia Power must otherwise procure at ratepayer expense.

SNS's point is that the Preferred Plan creates a growing gap between the two. DSM funds are being used to deploy controllable devices, smart thermostats, connected water heater controllers, and heat pumps, through efficiency programming, yet the Plan limits new residential demand response enrollment and has closed enrollment in EcoShift. A device that DSM has paid to put in a home, but that is not enrolled in demand response, provides no dispatchable capacity: the system operator cannot call on it, its peak reduction cannot be verified or counted in capacity planning, and Nova Scotia Power must meet peak demand with other resources as though the device did not exist. Its capacity value is, in that sense, left unsecured, and ratepayers thereby pay for the device without receiving the capacity benefit it could provide, a benefit that, as SNS's evidence notes, is among the lowest-cost sources of incremental demand response available, since the acquisition cost of the device has already been incurred.

Response to Request IR-5:

Refer to M12780, Exhibit E-24, SNS Evidence, Section 4.2, Smart Thermostats Illustrate the Missed Opportunity, page 10 of 16, 2nd paragraph of this section.

(a) *How is SNS's proposal put forward above different than E1's current residential DR program?*

First, the current program runs through two disconnected channels. One is fully paid Direct Install, where E1 bears the cost of installing a smart thermostat for free and enrolling the customer in DR at the same time. The other is Bring Your Own Device (BYOD), where a customer who already owns, or separately buys, a smart thermostat, often with support from E1's Instant Savings retail rebate, must then separately find out about, apply for, and enroll in DR through the BYOD channel (M10473, E-30; M12780, E-3). Instant Savings and DR enrollment are decoupled: E1 subsidizes the thermostat at the point of sale, but nothing in that transaction enrolls the device in DR. SNS's proposal collapses that gap: wherever DSM funds deploy a controllable device, DR enrollment (subject to consent and

override protections) would be built into the transaction itself, rather than left to a separate program the customer may never encounter.

A comparable model is already operating at scale in British Columbia. Under Power Smart 2.0, BC Hydro is offering eligible residential customers with electric baseboard heat up to five free smart thermostats per home (Mysa and Sinopé units), valued at approximately $350 per home. Customers order directly through the manufacturers' online platforms and self-install the devices, but each unit arrives pre-enrolled in BC Hydro's Peak Saver DR program, with participants earning $50 per year ($100 for income-qualified customers) and retaining the ability to override at any time. BC Hydro expects this channel alone to add 75,000 Peak Saver households by 2030, on top of roughly 200,000 existing participants, toward an 800 MW peak-capacity target by fiscal 2030 (BC Gov News, July 6, 2026). This demonstrates the core mechanic SNS is proposing, enrollment bundled into device acquisition rather than a separate step, without requiring a utility-paid install visit, since the customer installs the unit themselves.

Second, and more fundamentally, the current program is closed to growth but not to cost. The Preferred Plan holds Residential DR flat at 2026 Extension levels, with E1 confirming it does not intend to enroll new customers over 2027-2031 (M12780, E-16, IR-52; M12780, E-11, IR-04). But the Plan does not freeze thermostat deployment along with it: E1 keeps installing thermostats for free through the costlier Direct Install channel and keeps funding Instant Savings incentives for BYOD-eligible thermostats, without capturing DR value from either going forward. SNS's proposal is the more cost-effective route: retire Direct Install rather than keep paying its higher per-unit cost, and pre-enroll, or make enrollment a condition of the incentive for, thermostats procured through Instant Savings, so the capacity already being subsidized does not go uncaptured. The BC Hydro model is a useful proof point that self-install plus pre-enrollment can substitute for a utility-paid install truck roll without losing participation.

(b) *Are you recommending automatic enrollment or incentives that are conditional on enrollment? If so, how would that work with instant rebates?*

Both, applied to different channels, because E1's point of control differs by channel.

For channels where E1 (or its device-deployment partner) controls the transaction directly, such as any future manufacturer-direct-ship model analogous to BC Hydro's, SNS recommends automatic pre-enrollment, consistent with the Peak Saver design: the device is registered to the DR program before or at commissioning, with clear disclosure and an always-available override, rather than requiring the customer to take a further affirmative step. This is a low-friction addition, since E1 already has the customer's account information and installation record from the DSM transaction itself.

For Instant Savings, an unconditional automatic-enrollment model is harder to implement cleanly, because the rebate is applied at third-party retail and E1 typically does not capture the same account-linked data at the point of sale. SNS recommends enrollment-conditional incentive design instead: the customer still gets the instant price reduction at checkout, but receiving (or retaining) the incentive is conditioned on completing a short registration step during device commissioning, most practically embedded in the manufacturer's app-based setup process that DR-capable thermostats already require to function, mirroring how BC Hydro's partner devices link to the utility account during onboarding rather than at the cash register. That preserves the "instant" customer experience at retail while closing the enrollment gap that currently lets BYOD and Instant Savings thermostats go uncaptured.

In both cases, consent disclosure and customer override rights should be uniform regardless of mechanism; the difference between the two channels is only where in the transaction enrollment is captured.

Response to Request IR-6:

Refer to M12780, Exhibit E-24, SNS Evidence, Section 4.5, Recommended Direction for Demand Response, pages 11-12 of 16.

(a) *Referring to the 1st bullet, has SNS discussed this recommendation with IESO Nova Scotia? If so, (i) What is the status of these discussions with IESO Nova Scotia?*

SNS has not held formal discussions with IESO Nova Scotia regarding this recommendation. The recommendation is directed to the Board because IESO Nova Scotia's procurement mandate is the natural home for the longer-term contracting function that SNS's evidence identifies as missing, and because coordination between the DSM Plan and system-level resource procurement is a matter appropriately addressed in this proceeding, in which all affected parties are participating.

(ii) What is meant by "performance-incentive certainty beyond the DSM Plan term"?

Capital-intensive demand response assets, such as customer-sited batteries, involve a significant upfront customer investment that is recovered over the asset's operating life, typically ten years or more. A customer (or an aggregator financing such assets) deciding whether to invest will count demand response performance incentives in the business case only to the extent those payments can be relied upon. Under the current framework, demand response incentives are offered through a DSM Plan approved for a five-year term; there is no assurance that the incentive will exist, or at what level, beyond that term. The result is that only a fraction of the asset's economic life is bankable.

EfficiencyOne itself acknowledged this in its response to E1 (SNS) IR-10(b) (Exhibit E-15): while the DSM Plan duration does not prevent EfficiencyOne from supporting distributed energy resources, customer investment decisions in capital-intensive resources

may depend on economics that extend beyond the five-year approval period. "Performance-incentive certainty beyond the DSM Plan term" therefore means a contracting or procurement mechanism, such as a multi-year capacity contract from IESO Nova Scotia, as the entity responsible for resource procurement, under which the payment stream for verified demand response performance is committed for a period long enough to support the customer's investment decision, rather than being limited to the horizon of a single DSM Plan.

(b) *Referring to the 3rd bullet, what is the current duration of existing batteries and does SNS recommend that this direction be applied to the current DSM plan before the Board for approval? Under what program?*

SNS notes that customer-sited batteries are addressed in the first bullet of its recommendations; the third bullet concerns back-up generator and hybrid heating demand response. SNS responds to both aspects of the question.

With respect to duration: the duration of a battery depends on the power level at which it is dispatched. Typical residential customer-sited battery systems currently installed are capable of approximately four hours of discharge at rated power, with longer durations available at reduced output. Back-up generators and hybrid heating systems, by contrast, are fuel-supplied resources whose call duration is limited by fuel supply rather than stored energy, which is why the third bullet identifies them as the resources naturally suited to providing longer-duration (for example, eight-hour) calls.

Yes, SNS recommends that this direction be applied to the 2027-2031 DSM Plan now before the Board. The delivery vehicles already exist within the Plan: the Demand Response Program's back-up generator component, through which EfficiencyOne is targeting approximately 6 MW of back-up generator capacity according to the Demand Response Technical Tables (Exhibit E-1(iii)), and EfficiencyOne's Innovation/Enabling Strategies activities, which already include a residential generator back-up for heat pumps project and a commercial demand response with battery storage project (E1 (SNS) IR-14, Exhibit E-15). SNS's recommendation is that these existing components be scaled and focused, with an emphasis on new construction, where enrollment costs are lowest, and that longer-duration call capability be built into their design, rather than deferred to a future plan.

Response to Request IR-7:

Refer to M12780, Exhibit E-24, SNS Evidence, Section 5.5, Recommended Direction for Strategic Electrification, page 14 of 16.

(a) *Has SNS confirmed whether E1 already has access to hourly modeling capabilities?*

SNS has not confirmed, through an information request or otherwise, whether EfficiencyOne has in-house hourly modelling capability. What the record indicates is that the strategic electrification analysis EfficiencyOne performed for this Application was not conducted on an hourly basis: EfficiencyOne's description of its Round 1 and Round 2 strategic electrification scenario modelling refers to results "under optimal assumptions where there are no peak impacts arising from the strategic electrification measures," which indicates that hourly load-shape and peak effects were assumed rather than modelled, and Synapse's evidence (Exhibit E-23) notes that the methodology underlying EfficiencyOne's electricity cost impact analysis was not provided.

SNS also notes that its recommendation does not depend on EfficiencyOne building an hourly modelling capability from scratch. The necessary system inputs, hourly load, avoided cost, and emissions data, are maintained by Nova Scotia Power and IESO Nova Scotia for system planning purposes, and Nova Scotia Power's evidence in this proceeding (Exhibit E-22) itself recommends that hourly modelling of strategic electrification impacts be required. The capability can be accessed through collaboration with those entities or through consultants, for whom hourly (8760) analysis of electrification measures is standard practice.

(b) *If E1 does not have access to hourly modeling capabilities, is SNS aware of the time/cost for obtaining such capabilities?*

SNS has not obtained a quotation and cannot speak to EfficiencyOne's internal costs.

(c) *Are the recommendations in this section being recommended to be carried out as part of the 2027-2031 DSM Plan or for development during the 2027-2031 DSM Plan and for actual execution during the next DSM Plan?*

Both development and execution within the 2027-2031 DSM Plan. SNS's position is that strategic electrification should be included as a program now, even though it may not independently pass the cost-effectiveness test on a stand-alone basis, because it can pass at the portfolio level.

This is grounded in the Board's own framework. In the 2025 BCA Decision, the Board rejected E1's proposed new test, directed use of the PAC test, and mandated portfolio-level screening for strategic electrification specifically, because the Public Utilities Act's requirement to evaluate cost-effective DSM applies to "the aggregate amount of demand-side management programs," meaning that, provided the overall portfolio passes the cost-effectiveness test, individual measures do not need to pass on their own (M12282, Board Order; M12780, E-23, pp. 22-24). E1's own rebuttal evidence in that proceeding made the identical argument: evaluating cost-effectiveness at the portfolio level "allows for measures that may not" pass individually to be included in support of policy objectives such as strategic electrification and low-income support (M12282, E-24, p. 5). Consistent with that, E1's own Plan already contemplates providing "specific justification, on an

individual basis, for each measure that fails" the test, rather than excluding it outright (M12780, E-1, p. 412).

On that basis, a strategic electrification program should be included in the 2027-2031 Plan now, rather than conditioned on first proving it passes cost-effectiveness on its own; the portfolio-level test the Board has already adopted exists to accommodate exactly this kind of measure. The hourly modelling and pathway development would then continue during the Plan period to refine which specific measures qualify and build the individual justification record, rather than serving as a gate to inclusion in the first place.

(d) *If the answer to question (c) above is that the recommendations are for development during the 2027-2031 DSM Plan only, does SNS recommend that any of the results from the recommendations referenced above be used as a trigger to introduce a mid-plan adjustment in the 2027-2031 DSM Plan?*

This question is conditional on an answer SNS is not giving: SNS's position in part (c) is that development and execution both belong in the 2027-2031 Plan, not development only. In the alternative, however, if the Board were to treat this as development-during-the-Plan work, SNS's answer is yes: the results of the hourly modelling and pathway analysis should serve as the trigger for a mid-plan adjustment, rather than being held for the next DSM Plan filing.