

# **Evidence Submission**

## **EfficiencyOne 2027–2031 Demand Side Management Plan Matter M12780**

**Prepared by Solar Nova Scotia**

June 23, 2026

*Focus areas: business-sector program design, Energy Manager-type support, demand response and flexible load, and strategic electrification.*

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## Executive Summary

Solar Nova Scotia supports a 2027–2031 DSM Plan that continues to deliver cost-effective energy efficiency while also preparing Nova Scotia for the next phase of demand-side resources: flexible load, demand response, strategic electrification, and distributed energy resources. This evidence focuses on three connected issues: redesigning business-sector delivery for a post-lighting market; treating new controllable load as a demand response resource rather than as unmanaged load growth; and bringing strategic electrification into the DSM Plan as a practical, managed, and cost-disciplined resource.

The proposed DSM Plan shows that business programs deliver most first-year electricity savings at materially lower unit cost than residential programs. Within the business sector, however, lighting saturation is changing the economics of traditional prescriptive and direct-install programs. Business Energy Rebates (BER) and Small Business Energy Solutions (SBES) face sharply rising unit costs as lighting opportunities decline, while the Custom Program has become the dominant source of business savings.

The evidence indicates that the future of cost-effective business DSM depends less on increasing rebate levels or free direct-install measures, and more on expanding the technical assistance, project development, funding navigation, and customer support that has already proven effective in the Custom Program. Energy Manager-supported projects accounted for nearly all Existing Buildings Custom Program savings in 2024 and 2025, according to EfficiencyOne's responses to Solar Nova Scotia information requests. Yet EfficiencyOne funds only four partial Energy Manager positions through DSM, none of which serve the small business segment, and it has chosen to direct available funds to financial incentives rather than to this enabling support.

At the same time, Nova Scotia's load forecast shows a large increase in controllable residential load, electric vehicles, heat pumps, and electric water heaters, over the Plan period. These loads are an emerging demand response resource. The Preferred Plan, however, limits new residential demand response enrollment and declines to enroll the tens of thousands of smart thermostats it is funding, even where those devices are technically capable of providing demand response.

Strategic electrification should be treated in the same way: not as unmanaged load growth, and not as a research-only activity through 2031, but as a managed demand-side resource. Hybrid heat pumps, managed EV charging, controllable water heating, and other flexible electrification measures can reduce emissions, improve utilization of the existing grid, support customer affordability, and enable further renewable and distributed energy deployment when they are designed with controls, rate signals, external funding, and customer support.

Solar Nova Scotia recommends that the Board direct EfficiencyOne to revise the Plan in three ways:

1. **Revise SBES and related business-sector delivery:** reduce reliance on full-cost direct install, set unit-cost targets, expand Energy Manager-type advisory support, use

reasonable cost-share incentives that allow customers to capture federal tax support, and enable qualified private-sector providers where appropriate.

2. **Treat new controllable load as a demand response resource:** require DSM-funded controllable devices to be demand-response capable and enrolled where feasible, grow longer-duration capacity from hybrid heating and back-up generation, and address the DSM-duration barrier facing capital-intensive resources such as customer-sited batteries.
3. **Develop a strategic electrification pathway within the 2027–2031 Plan:** include hourly modelling, EV incentives conditional on managed charging, targeted hybrid heat pumps, integration with demand response, use of federal incentives and tax credits, and Energy Manager-type support for customer decision-making.

## 1. Introduction and Purpose of Evidence

This evidence is submitted in relation to EfficiencyOne's application for approval of the 2027–2031 DSM Resource Plan and associated DSM Purchase Agreement in Matter M12780. Solar Nova Scotia recognizes the long-standing value of Nova Scotia's DSM framework and the continued importance of electricity efficiency. However, the 2027–2031 period is materially different from earlier DSM cycles.

The portfolio is entering a post-lighting market. Low-cost lighting savings that historically supported high-volume prescriptive and direct-install programming are declining. At the same time, Nova Scotia's electricity system is becoming more winter-peaking, more capacity-constrained, and more dependent on customer-side flexibility. The DSM Plan therefore needs to evolve from a portfolio dominated by customer rebates and free installed measures into a resource-planning tool that can support deeper efficiency, flexible load, demand response, strategic electrification, and distributed energy resources.

Solar Nova Scotia's evidence is focused on practical program design. It does not recommend abandoning cost discipline. Rather, it recommends redirecting DSM resources toward delivery models and measures that can produce more durable savings and broader system value at lower unit cost.

## 2. Business Sector DSM and the Role of Energy Manager Support

### 2.1 Business Programs Are Carrying Most First-Year Savings

The overall savings and cost-effectiveness of the proposed 2027–2031 DSM Plan are heavily weighted toward the business sector. Business, non-profit and institutional (BNI) programs are expected to deliver 71.1 percent of total first-year electricity savings at an overall unit cost of \$0.36/kWh, compared with \$1.15/kWh for residential programs.

*Table 1. Comparison of BNI and Residential programs in the proposed 2027–2031 DSM Plan.*

| Sector      | Investment (\$M) | First-Year Savings (GWh) | Unit Cost (\$/kWh) | % of Total First-Year Savings |
|-------------|------------------|--------------------------|--------------------|-------------------------------|
| BNI         | \$112.8          | 309.4                    | \$0.36             | 71.1%                         |
| Residential | \$144.9          | 126.1                    | \$1.15             | 28.9%                         |

Source: Solar Nova Scotia analysis based on proposed 2027–2031 DSM Plan technical tables.

## 2.2 Lighting Saturation Is Changing the Business Portfolio

Within the business sector there is a major structural shift underway due to the saturation of LED lighting as a DSM measure. As lighting opportunities decline, programs such as Business Energy Rebates and Small Business Energy Solutions are experiencing lower savings and rising unit costs. At the same time, the Custom Program has become the dominant source of business-sector savings.

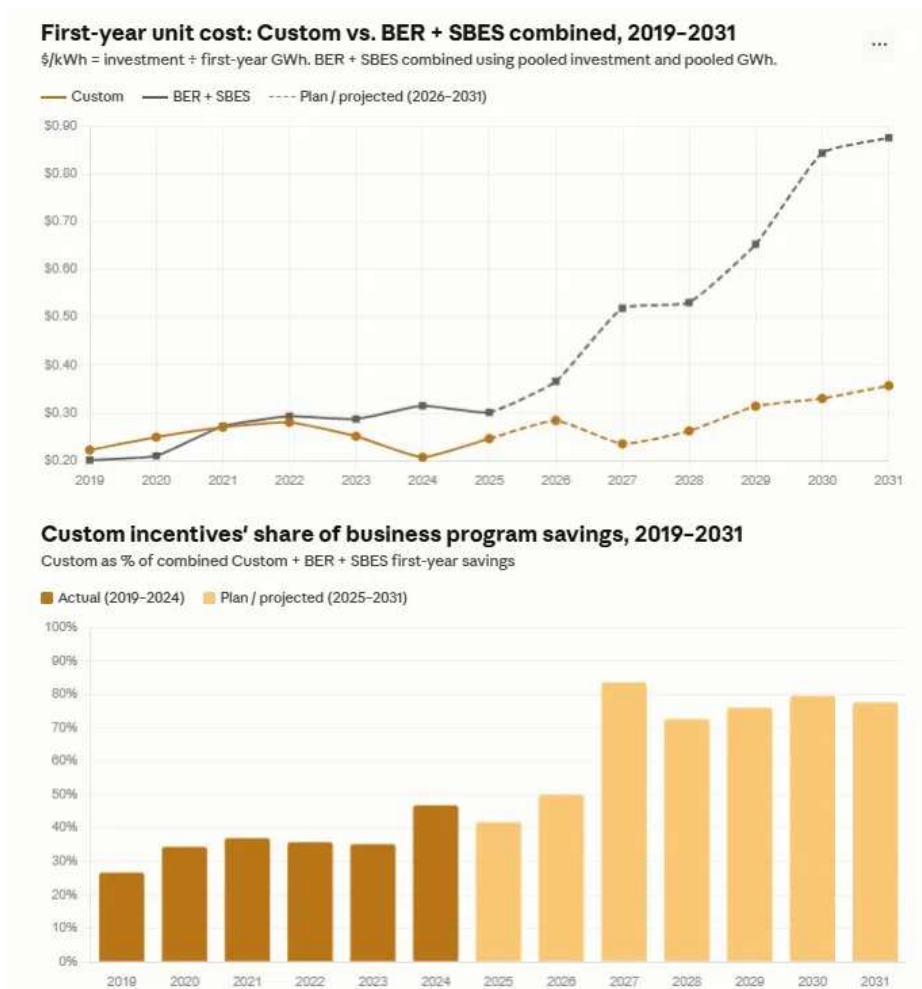


Figure 1. Custom first-year unit cost vs. combined BER + SBES first-year unit cost, and Custom share of the BNI portfolio, 2019–2031.

Source: Solar Nova Scotia analysis based on E1 annual progress filings and proposed 2027–2031 DSM Plan technical tables.

Figure 1 shows two related trends. First, the combined first-year unit cost of BER and SBES rises sharply in the proposed plan period, while Custom Program unit costs remain comparatively stable. Second, Custom savings have grown from roughly one-quarter of business portfolio savings in 2019 to close to 80 percent in the 2027–2031 DSM Plan.

## **2.3 Energy Manager-Supported Projects Are the Main Source of Custom Savings**

EfficiencyOne stated in response to Solar Nova Scotia information request E1 (SNS) IR-08(e) that 94 percent of Custom Program savings under the Existing Buildings stream were achieved through Energy Manager-supported projects in 2024, and 90 percent in 2025. The Custom Program is now the central source of cost-effective business savings in the DSM portfolio, and Energy Managers support nearly all of those savings in the Existing Buildings stream.

This result is also intuitive. Custom projects are generally more complex, capital-intensive, and site-specific than prescriptive measures. They require technical assessment, project development, funding navigation, internal business-case support, and coordination among customers, contractors, and incentive programs. Specialized support helps move projects from opportunity identification to implementation.

Despite the central role of this delivery model, the Energy Manager capacity funded through DSM is very limited. EfficiencyOne confirmed that, as of the end of the first quarter of 2026, only four Energy Manager positions were partially funded by DSM, of which three are roving within the industrial sector and one is embedded with an institution (E1 (SNS) IR-09(c)). None are dedicated to the small business segment. The delivery model responsible for the large majority of cost-effective business savings is therefore supported by a small, industrially focused complement of DSM-funded staff, and the customers least able to access that support, small businesses, receive none of it.

Businesses that do not have access to this type of support are at a disadvantage. As traditional low-cost prescriptive opportunities become more limited, expanding access to Energy Manager-type support will be important to maintaining cost-effective business savings and enabling deeper projects across a broader range of customers.

The same Energy Manager-type support can also enable strategic electrification, distributed energy resources such as solar and batteries, locational DSM, demand response, and uptake of federal tax incentives. For this reason, Solar Nova Scotia recommends that DSM delivery place greater emphasis on customer enablement rather than simply increasing measure incentives.

## **3. Small Business Energy Solutions and Business Energy Rebates**

### **3.1 Rising Unit Costs in BER and SBES**

The proposed measure mix for BER and SBES does not appear to replace the scale of savings historically delivered by lighting. Figures 2 and 3 show that both programs are materially affected by LED lighting saturation. As lighting measures decline, first-year electricity savings fall sharply while program unit costs increase.

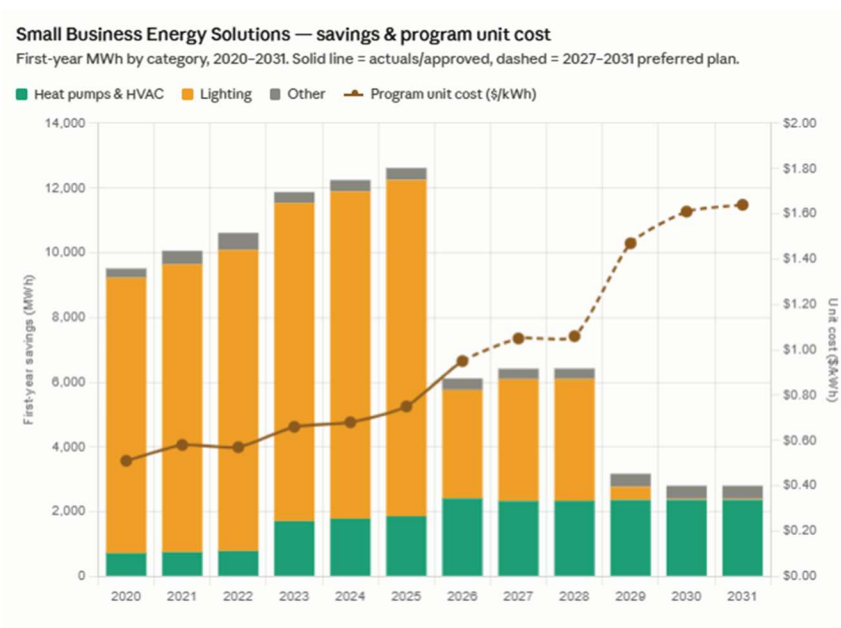


Figure 2. Small Business Energy Solutions savings and program unit cost, 2020–2031.

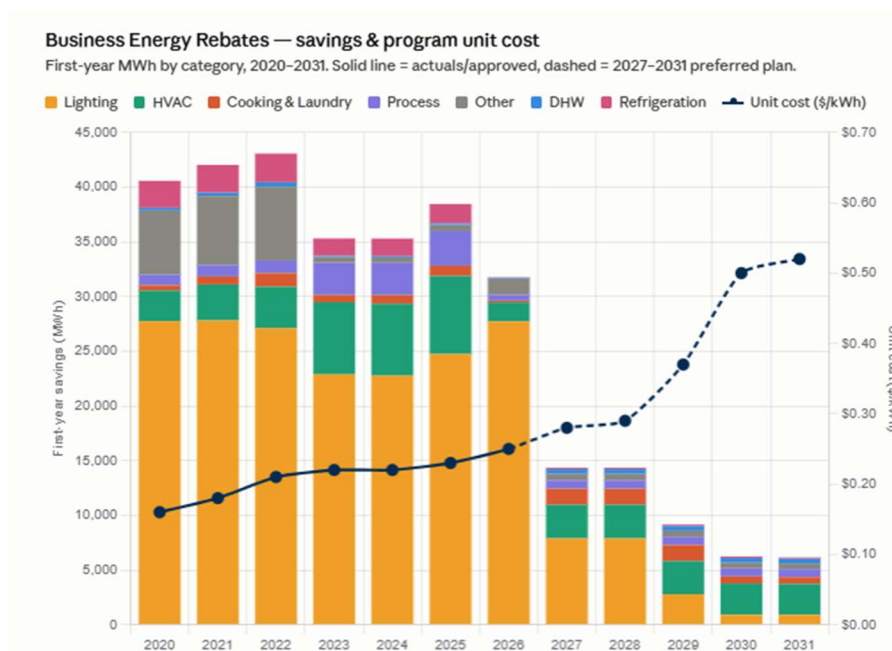


Figure 3. Business Energy Rebates savings and program unit cost, 2020–2031.

Source for Figures 2 and 3: Solar Nova Scotia analysis based on proposed 2027–2031 DSM Plan technical tables and past annual progress filings.

### 3.2 Replace Default Free Direct Install with Advisory Support and Cost Share

EfficiencyOne correctly identifies two key barriers facing small businesses: an awareness gap, where participants may not understand the costs, benefits, and appropriateness of projects for their business; and a capacity gap, where participants may lack the time and capacity to manage energy efficiency projects (Appendix A, Table 40, p. 72). The proposed SBES

response, an end-to-end, no-cost direct-install model, addresses those barriers by taking the project away from the customer.

That approach may be useful for some customers, but as a default model it risks driving higher program costs, limiting the number of participants that can be served with available DSM funds, and narrowing the range of projects the program can support. In a post-lighting market, a free direct-install model for higher-cost measures such as heat pumps may not be the most efficient way to address awareness and capacity barriers.

EfficiencyOne considered this type of delivery and chose not to adopt it. In response to Solar Nova Scotia IR-07(d), EfficiencyOne confirmed that it considered a Roving Energy Manager model for SBES, but determined that program investment should remain focused on customer incentives rather than on hiring additional technical support staff. In IR-09(a), EfficiencyOne similarly states that the Plan prioritizes maximizing the share of DSM investment directed to customer incentives. Solar Nova Scotia submits that this allocation choice is the core problem, not the solution. Maximizing the share of DSM dollars spent on incentives is only an appropriate objective if incentives are the most effective use of those dollars. The evidence from the Custom Program indicates they are not: where projects are complex, the binding constraint is advisory and project-development capacity, not incentive levels. A model that directs available funds to incentives while under-resourcing the enabling support the Custom Program shows to be decisive is optimizing the wrong variable.

This matters at scale. EfficiencyOne estimates there are more than 30,000 eligible small business customers in Nova Scotia (E1 (SNS) IR-07(a)), only a small fraction of which participate in SBES in any given year. A delivery model that funds 100 percent of installed costs for a limited number of projects will reach fewer of these customers than a model that combines targeted advisory support with reasonable cost-share.

A more efficient response would be to provide small businesses with Energy Manager-style advisory and project-development support. This support would help customers understand energy use, identify and prioritize opportunities, assess costs and benefits, navigate funding, and carry projects through to implementation. Rather than funding 100 percent of installed costs by default, EfficiencyOne could combine technical assistance with reasonable cost-share incentives.

This would directly address the barriers EfficiencyOne has identified, stretch DSM dollars across more participants and projects, build lasting customer capability, and position SBES to support a broader set of DSM resources, including deeper efficiency, strategic electrification, demand response, and distributed energy resources.

### **3.3 Federal Incentive Leverage**

This design issue is especially important for heat pumps and other clean technology investments. Where a business incurs an eligible capital cost, it may be able to access the federal Clean Technology Investment Tax Credit (ITC) and accelerated capital cost allowance (CCA). The Clean Technology ITC is a refundable tax credit for eligible clean technology property, and eligible property includes air-source and ground-source heat pumps. The federal



rules also require capital cost to be reduced by government or non-government assistance received or expected to be received. For DSM design, this means a fully free installation can reduce or eliminate the capital cost base available for tax support, while a cost-share approach may allow federal dollars to be leveraged alongside DSM funding.

Table 2. Illustrative federal support for a \$50,000 commercial heat pump.

| Item                                                                                        | Amount          | % of sticker price |
|---------------------------------------------------------------------------------------------|-----------------|--------------------|
| Sticker price                                                                               | \$50,000        | —                  |
| Clean Technology ITC (30%, refundable)                                                      | \$15,000        | 30.0%              |
| CCA depreciation shield (up to 100% first-year write-off on \$35,000 post-ITC base × 10.5%) | \$3,675         | 7.3%               |
| <b>Total federal support</b>                                                                | <b>\$18,675</b> | <b>37.3%</b>       |
| <b>Net cost to business</b>                                                                 | <b>\$31,325</b> | <b>62.7%</b>       |

*Illustrative only. Assumes a \$50,000 eligible installed cost; a 30 percent refundable Clean Technology ITC; a first-year CCA deduction of up to 100 percent on the post-ITC capital base (available for eligible Class 43.1 property in use before 2030, reducing to 75 percent in 2030 and 2031); and a combined 10.5 percent Nova Scotia small business tax rate (federal 9 percent plus provincial 1.5 percent). Air-source heat pump eligibility for Class 43.1 is narrower than for ground-source systems. Customers should confirm eligibility and tax treatment with a qualified tax advisor.*

In the illustrative example above, full DSM funding could forfeit up to roughly \$18,675 in federal support that could otherwise be brought into Nova Scotia. A cost-share model, supported by Energy Manager-style advisory assistance, would allow a business to capture federal support while reducing the required DSM contribution.

This has direct implications for program unit cost. EfficiencyOne has indicated that it does not incorporate federal incentives into its program design or cost-effectiveness screening, citing uncertainty about the availability, duration, and eligibility of federal programs, and noting that the approved Program Administrator Cost (PAC) test takes the perspective of the utility and excludes host-customer costs (E1 (SNS) IR-07(c); E1 (SNS) IR-11(d)). Solar Nova Scotia is not asking EfficiencyOne to change the perspective of the PAC test. It is asking that SBES be held to a lower unit-cost target, and that federal support be used as a means of achieving it. Where a business captures the Clean Technology ITC and accelerated capital cost allowance on a cost-shared project, the DSM contribution required to complete that project falls, which directly lowers the program's first-year unit cost. EfficiencyOne already performs the enabling function this requires: it states that its Energy Managers help customers access non-DSM funding to strengthen project business cases (E1 (SNS) IR-09(a)). Solar Nova Scotia therefore recommends that the Board direct EfficiencyOne to adopt a lower unit-cost target for SBES and to achieve it by combining Energy Manager-style advisory support, reasonable cost-share, and active leverage of federal incentives, rather than by funding 100 percent of installed costs.

### 3.4 Recommended Direction for SBES

Solar Nova Scotia recommends that the Board require EfficiencyOne to revise the proposed SBES design to reduce unit costs and move away from a default no-cost direct-install model. The Board should direct EfficiencyOne to:

- establish a lower target unit cost for SBES, with a defined baseline and method, and report performance by measure category against that target;
- replace full-cost direct install as the default approach with Energy Manager-style technical assistance, project development, and funding-navigation support;

- use reasonable cost-share incentives that allow small businesses to access federal tax incentives and stretch DSM dollars further;
- permit this support to be delivered by qualified private-sector providers where appropriate; and
- design SBES to support a broader set of DSM resources, including deeper efficiency, strategic electrification, demand response, and distributed energy resources.

This approach would better align SBES with the barriers EfficiencyOne has identified, improve leverage of federal funding, and position the program to deliver more durable savings in a post-lighting market.

## **4. Demand Response and Flexible Load**

### **4.1 New Controllable Load Is a Demand Response Resource**

Nova Scotia's 2026 Load Forecast indicates that the 2027–2031 DSM period will add significant new controllable residential load, including 31,399 electric vehicles and 106,475 heat pumps. Nova Scotia also has approximately 191,880 residential electric water heaters, based on NRCan data and Nova Scotia Power's finding that 78 percent of residential water heaters are electric. Assuming a 10- to 15-year replacement cycle, roughly 63,960 to 95,940 of these water heaters may be replaced during the Plan period. These loads represent not only new electricity demand but an emerging demand response resource.

Solar Nova Scotia agrees with Nova Scotia Power's evidence that demand response should play a larger and more disciplined role in the DSM portfolio, and should be treated as a dispatchable system-capacity resource rather than merely another customer program. The Preferred Plan, however, limits new residential demand response enrollment and has closed enrollment in EcoShift at the same time that controllable residential load is expected to grow rapidly. The result is that DSM funds are being used to deploy controllable devices while the capacity value those devices could provide is left unsecured.

### **4.2 Smart Thermostats Illustrate the Missed Opportunity**

This issue is especially clear with smart thermostats. EfficiencyOne plans to incentivize 121,039 smart thermostats over the Plan period, including 68,539 provided at no cost through direct-install programming, yet confirmed in response to Solar Nova Scotia IR-01(e) that it will not require or encourage those devices to enroll in demand response, even where technically eligible. Tens of thousands of DSM-funded controllable devices are therefore being deployed without securing the demand response capability they could provide.

Solar Nova Scotia recommends that DSM-funded controllable devices, including smart thermostats, electric water heaters, and heat pumps, be made demand-response capable and integrated into DR programming wherever technically feasible, subject to appropriate customer consent, override protections, and annual reporting on verified peak reduction and capacity value. Enrolling devices that DSM is already paying to deploy is among the lowest-cost sources of incremental demand response available to the portfolio.

### **4.3 Longer-Duration Capacity: Hybrid Heating and Back-up Generation**

The E3 Effective Load Carrying Capability (ELCC) analysis underscores the value of longer-duration demand response. Hybrid heating systems and back-up generators are well suited to participate in longer-duration calls because they can sustain load reductions over extended periods, including during the multi-hour winter peaks that increasingly drive Nova Scotia's capacity needs.

EfficiencyOne should actively grow its hybrid heating and back-up generator demand response portfolio, with particular emphasis on new commercial construction, where controls and equipment can be incorporated at lower incremental cost, and should enable these resources to provide longer-duration (for example, eight-hour) calls. The DSM Plan demand response technical tables indicate that EfficiencyOne is targeting approximately 6 MW of total back-up generator capacity in its Demand Response Program. The scale of the available opportunity is considerably larger, particularly as hybrid heating and back-up systems become more common in the commercial building stock.

### **4.4 Capital-Intensive Demand Response and the DSM-Duration Barrier**

More capital-intensive demand response assets, such as customer-sited batteries, face a structural barrier in the current framework. EfficiencyOne has acknowledged that, while the DSM Plan duration does not prevent it from supporting distributed energy resources, customer investment decisions in capital-intensive resources may depend on economics that extend beyond the five-year approval period (E1 (SNS) IR-10(b)). Batteries and similar assets require longer-term performance-incentive certainty than a five-year DSM Plan can provide.

This is a significant limitation: the resources best able to provide sustained, dispatchable flexibility are the ones least well served by short-duration program commitments. Addressing the barrier requires a procurement or contracting mechanism that can offer revenue certainty beyond the DSM Plan term, a function that falls naturally to IESO Nova Scotia as the entity now responsible for system planning and resource procurement.

### **4.5 Recommended Direction for Demand Response**

Solar Nova Scotia recommends that the Board:

- direct IESO Nova Scotia, as the Independent Energy System Operator responsible for resource procurement, to procure longer-term demand response and aggregator capacity, so that capital-intensive demand response such as customer-sited batteries, which require performance-incentive certainty beyond the DSM Plan term to be economic, can be unlocked;
- require that DSM-funded controllable devices (smart thermostats, electric water heaters, and heat pumps) be demand-response capable and enrolled in demand response wherever technically feasible, with appropriate customer consent and override protections;

- direct EfficiencyOne to grow back-up generator and hybrid heating demand response capacity, with a focus on new construction, and to enable these resources to provide longer-duration (e.g., eight-hour) calls;
- require EfficiencyOne to bias residential demand response acquisition toward enabling new equipment at the point of purchase while still enrolling the controllable devices DSM is already deploying, to reduce incremental customer-acquisition costs; and
- require EfficiencyOne to report annually on demand response enrollment, verified peak reduction, capacity value, and customer opt-outs.

## 5. Strategic Electrification

### 5.1 Strategic Electrification Should Be a Core DSM Resource

Solar Nova Scotia supports strategic electrification as a core component of Nova Scotia's DSM framework. Strategic electrification is no longer merely an adjacent climate-policy objective. It is expressly included in Nova Scotia's DSM framework and should be treated as a demand-side resource that can reduce emissions, improve customer affordability, support system planning, and enable more efficient use of the electricity grid.

Solar Nova Scotia generally agrees with Nova Scotia Power's evidence that the DSM Plan should move more quickly from traditional electricity savings toward demand response and strategic electrification. The issue is not whether strategic electrification has value. The issue is whether the DSM Plan has been designed to capture that value in a cost-effective way. EfficiencyOne's conclusion that the specific measures it modelled did not pass the modified PAC test should not be interpreted as evidence that strategic electrification lacks value. It should instead be treated as evidence that strategic electrification must be designed differently: targeted to the right customers, paired with controls and flexible load, integrated with rate design and system planning, and supported through external funding where available.

Solar Nova Scotia recognizes that several of these measures may not pass the modified PAC test on a stand-alone basis under EfficiencyOne's current approach. EfficiencyOne has confirmed that cost-effectiveness is assessed at the portfolio level, with measure-level results provided for information, and that measures failing the test on their own may still be included with justification (E1 (SNS) IR-12(e)). Solar Nova Scotia submits that strategic electrification should be assessed within that portfolio framework rather than excluded measure-by-measure, and that the Board should direct EfficiencyOne to screen strategic electrification using a test that reflects its full value, including avoided non-electric fuel costs, emissions reductions, and peak and capacity impacts, rather than electricity savings alone. The question is not whether to abandon cost discipline, but whether the test is measuring the right costs and benefits.

The emissions rationale for strategic electrification will grow over the Plan period. As Nova Scotia's electricity supply becomes cleaner, the greenhouse-gas value of simply reducing electricity consumption will decline, while the value of displacing direct fossil-fuel use in buildings and transportation will increase. DSM should therefore not be limited to reducing

electricity consumption. It should also support customer-side actions that reduce total energy costs and emissions while avoiding unnecessary peak demand growth.

## **5.2 EV Incentives Conditional on Managed Charging**

Solar Nova Scotia recommends that EfficiencyOne include a modest transportation electrification measure in the 2027–2031 DSM Plan. The measure should incent new eligible electric vehicle purchases or leases, and/or eligible Level 2 charging equipment, only where the customer enrolls in managed charging. This makes DSM funding conditional on measurable system value rather than functioning as a general vehicle subsidy.

This approach aligns with E3's *The Economics of Electrification in Nova Scotia*. E3 found that electric vehicles reduce emissions, save customers money, and produce average ratepayer savings, and that time-of-use rates and vehicle-grid integration can help reduce costs and manage peak impacts. Because unmanaged charging can add load during system peak periods, any DSM incentive should require passive or active managed charging.

The program should be designed to leverage the federal Electric Vehicle Affordability Program, which provides purchase and lease incentives for eligible new EVs, rather than duplicate federal support. DSM funding should be a targeted top-up, managed-charging enrollment incentive, or charging-equipment incentive tied to verified participation. EfficiencyOne should report annually on enrollment, charging load shape, peak-period charging reduction, customer opt-outs, and federal incentive leverage.

## **5.3 Hybrid Heat Pumps and Fuel-Oil Displacement**

The same principle applies to building electrification. E3 found that heat pump adoption can provide positive participant, ratepayer, and societal benefits in important use cases, particularly where heat pumps displace fuel oil. E3 also found that dual-fuel mini-split systems can provide participant, ratepayer, and societal benefits while reducing peak impacts by using backup heating during the coldest hours.

This evidence is highly relevant to Nova Scotia because the Province remains heavily exposed to heating oil, and because winter peak demand is a central system-planning concern. Hybrid heat pumps should therefore be treated as a practical strategic electrification measure, not as a compromise outside DSM. They can electrify most annual heating load, reduce emissions, reduce customer exposure to fuel oil, and limit incremental peak demand in the hours when the system is most constrained.

## **5.4 Energy Manager-Type Support for End-of-Life Replacement Decisions**

Strategic electrification should also be linked to affordability and asset management. Electric technologies are often more efficient than fossil-fuel systems, but customers do not experience that value automatically. Customers need support to understand lifecycle costs, rate options, equipment sizing, controls, service-upgrade requirements, demand-response opportunities, and available funding.

This is particularly important for small business, commercial, institutional, and non-profit customers, where electrification decisions are often made at the time of asset replacement. Energy Manager-type support is therefore a critical DSM delivery function. Rather than relying primarily on high incentives or free equipment, EfficiencyOne should use DSM funding to provide technical assistance, project development, rate and funding navigation, and support for end-of-life replacement decisions.

Strategic electrification can also support renewable integration and the continued build-out of distributed energy resources. Flexible new loads, including managed EV charging, controllable water heating, thermal storage, and building controls, can be scheduled to use electricity during periods of lower system cost and higher renewable output. This can reduce future renewable curtailment risk and improve the value of solar and other distributed resources. However, this benefit will only be realized if electrification is intentionally designed as flexible load, not simply treated as unmanaged load growth.

### **5.5 Recommended Direction for Strategic Electrification**

Solar Nova Scotia recommends that the Board require EfficiencyOne to develop a strategic electrification pathway within the 2027–2031 DSM Plan, rather than deferring strategic electrification to research-only activities. That pathway should include:

- hourly modelling of costs, emissions, and peak impacts;
- a modest EV incentive conditional on enrollment in managed charging, leveraging available federal EV incentives;
- targeted hybrid heat pump programming for fuel-oil customers;
- integration with demand response, controls, and rate design;
- use of federal tax credits and other external funding to reduce DSM costs;
- Energy Manager-type support for commercial, institutional, non-profit, and small business customers; and
- annual reporting on strategic electrification performance, including peak impacts, emissions reductions, participant economics, and ratepayer impacts.

Solar Nova Scotia is not recommending that the Board approve uneconomic electrification measures without discipline. Rather, Solar Nova Scotia recommends that the Board require EfficiencyOne to redesign strategic electrification so that it can meet the statutory objectives of reducing emissions and reducing electricity costs. Strategic electrification should be treated as one of the central DSM resources needed for Nova Scotia's next phase of decarbonization, affordability, and distributed energy development.

## **6. Conclusion**

The 2027–2031 DSM Plan should be approved only with a clearer path to program redesign. The evidence shows that business-sector savings are increasingly dependent on complex, customer-specific projects and that Energy Manager-type support is already central to the success of the Custom Program, yet that support is barely funded through DSM and reaches no



small business customers. At the same time, the Plan treats a large and growing pool of controllable load as unmanaged demand rather than as a demand response resource, and it underdevelops strategic electrification even though properly designed electrification can create emissions, customer, and ratepayer benefits.

Solar Nova Scotia therefore recommends that the Board direct EfficiencyOne to:

1. **Redesign SBES and related business programming:** move away from default full-cost direct install, reduce unit costs, expand advisory and project-development support, and use cost-share incentives that leverage external funding.
2. **Expand Energy Manager-type support:** make technical assistance, funding navigation, and customer project support available to a broader range of businesses, including small businesses.
3. **Treat new controllable load as demand response:** require DSM-funded controllable devices to be DR-capable and enrolled where feasible, grow longer-duration hybrid heating and back-up generation capacity, and direct IESO Nova Scotia to procure longer-term capacity for capital-intensive resources such as customer-sited batteries.
4. **Develop a strategic electrification pathway:** include EV incentives conditional on managed charging, hybrid heat pumps, hourly modelling, flexible-load controls, and integration with demand response and distributed energy resources.

These changes would better align DSM spending with the post-lighting market, improve ratepayer value, and position DSM to support Nova Scotia's transition to a cleaner, more flexible, more distributed electricity system.

## References

- EfficiencyOne. 2027–2031 Demand Side Management Resource Plan Application, Matter M12780, including Appendix A and technical tables.
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- Canada Revenue Agency. Clean Technology Investment Tax Credit, and What property qualifies – Clean Technology Investment Tax Credit.

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- Government of Nova Scotia / Canada Revenue Agency. Corporate income tax rates (combined Nova Scotia small business rate).
- Natural Resources Canada. Powering Canada Strong: A National Strategy for an Electrified Canadian Economy; residential electric water heater stock data.
- Transport Canada. Electric Vehicle Affordability Program.