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**Item No. 13.1.1**  
**Environment and Sustainability Standing Committee**  
**August 6, 2025**

**TO:** Chair and Members of Environment and Sustainability Standing Committee

**FROM:** Brad Anguish, Commissioner of Operations

**DATE:** June 04, 2025

**SUBJECT:** **Halifax Solar City Program Update - 2024**

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**INFORMATION REPORT**

**ORIGIN**

December 4, 2018 Halifax Regional Council motion (Item No. 14.2.1):

MOVED by Deputy Mayor Mancini, seconded by Councillor Whitman

THAT Halifax Regional Council:

1. Approve the continuation of the Solar City Program as a clean energy, community-based program; and,
2. Direct staff to provide annual reports on the Solar City Program to the Environment and Sustainability Standing Committee.

MOTION PUT AND PASSED

**BACKGROUND**

Since 2013, the Solar City Program (the Program) has offered financing to property owners who wish to install a solar energy system at their property. Eligible property owners include residential, not for profits and places of worship. As of 2016, eligible technologies include solar electric (photovoltaic), solar hot air and solar hot water. With guidance from the Solar City administrator, property owners select their preferred solar energy system and solar contractor. The administrator provides a level of review and due diligence to help ensure that proposed solar energy systems meet industry standards and will provide energy and cost savings over the lifetime of the system.

Solar City financing for systems is considered low risk, as a lien is placed on the property and not lifted until full repayment. There are no credit checks required to confirm eligibility; however, property owners must be in good financial standing with respect to property taxes, local improvement charges, and any other relevant municipal charges. Financing is repaid separately from the annual property tax bill at a fixed interest rate of 4.75% over ten years. Property owners have the option to pay in full at any time without penalty. If a participant sells their property before full repayment, they have the option to pay in full at the point of sale or pass the charge to the next property owner. Program financing is authorized under the Halifax Regional

Municipality (HRM) Charter and Energy Equipment By-law Number S-500. This type of financing is common across Canada, with over 40 other municipalities offering similar programming.

## **DISCUSSION**

### **Measuring Program Performance**

As summarized in Table 1, 916 Solar City Participant Agreements of differing technologies have been executed, totaling \$27 million in financing committed to the installation of solar energy technologies. These systems are expected to save property owners a total of \$1.9 million annually in utility costs and reduce annual greenhouse gas (GHG) emissions by approximately 6,600 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e). To date, the Program has supported the installation of 9.8 megawatts (MW) of renewable energy in the municipality. Since 2023, there has been a 40% drop in Executed Solar City Participant Agreements. As the program has remained unchanged, this drop could be due to external factors like unfavorable market conditions, the use of alternative financing options, or the cancellation of supportive rebate programs, the latter of which are discussed in further detail below.

*Table 1: Summary of program statistics for all solar technologies up to December 31, 2024<sup>1</sup>*

Key Performance Indicators	2016-2018	2019	2020	2021	2022	2023	2024	Total
Capacity (MW)	1.69	2.07	1.16	1.46	0.86	1.21	1.35	<b>9.8</b>
Energy generated per year (eMWh)	2,000	2,500	1,300	1,700	1,000	1,400	1,400	<b>11,300</b>
GHG emissions offset per year (tonnes CO <sub>2</sub> e)	1,290	1,550	850	1,040	570	610	720	<b>6,600</b>
First year utility savings (K)	\$320	\$410	\$220	\$290	\$180	\$240	\$250	<b>\$1,910</b>
System costs, HST included (M)	\$4.90	\$5.80	\$3.10	\$3.80	\$2.40	\$3.50	\$3.60	<b>\$27.10</b>
Executed Solar City Participant Agreements	224	217	109	127	72	102	65	<b>916</b>

While three different solar technologies can be financed through the Program, the majority of financing has been committed to installing solar electric. This popularity can be attributed to innovative financing initiatives like this Program, increased market competition, Nova Scotia Power's Self Generation Program (formerly known as the Enhanced Net Metering Program), the Canada Greener Homes Loan program, the Canada Greener Homes Grant program (discontinued) and the Provinces SolarHomes Rebate Program (discontinued). As shown in Table 2, 870 solar electric system agreements were executed through the Program. All but two systems connect to Nova Scotia Power Inc.'s transmission and distribution grid. These systems are expected to save property owners an average of \$2,200 on their utility bills in the first year of operation. With the escalation of fuel costs, property owners can expect to save a total of \$75,000 over the expected system life. This results in a levelized cost of energy<sup>2</sup> (LCOE) of about 15.37 cents per kilowatt hour (¢/kWh), less than the current residential rate. This rate is effectively locked in for the lifetime of the system, independent of increasing energy costs.

<sup>1</sup> Totals may not reflect the exact sum of years 2016 to 2024 due to rounding.

<sup>2</sup> Levelized cost is the average expected unit cost over the 25-year system lifespan

Table 2: Summary of solar electric system statistics through the Solar City Program up to 31 Dec 2024<sup>3</sup>

Key Performance Indicators	Average	Total
Executed Solar City Participant Agreements	-	870
Energy generated (eMWh)	12.81	11,000
GHG emissions avoided (tonnes CO2e)	7.58	6,500
System costs (HST included)	\$30,300	\$26,000,000

### Industry Impacts

The Program has contributed to the growth of a competitive solar industry. In 2016, five solar contractors from across the province were participating in the Program. Today, there are 91 listed under Efficiency Nova Scotia's Preferred Partner directory, 71 of which are operating in the Halifax Region.<sup>4</sup> The contractors who are actively participating in the Program have expressed that the unbiased advice and education offered to interested property owners has greatly assisted them with the cost of acquisition. This initial guidance allows contractors to streamline the quoting process. By encouraging property owners to contact several solar contractors and evaluate each based on price, experience, and quality, the value being offered has remained high, while costs through the Program have reduced and stabilized.

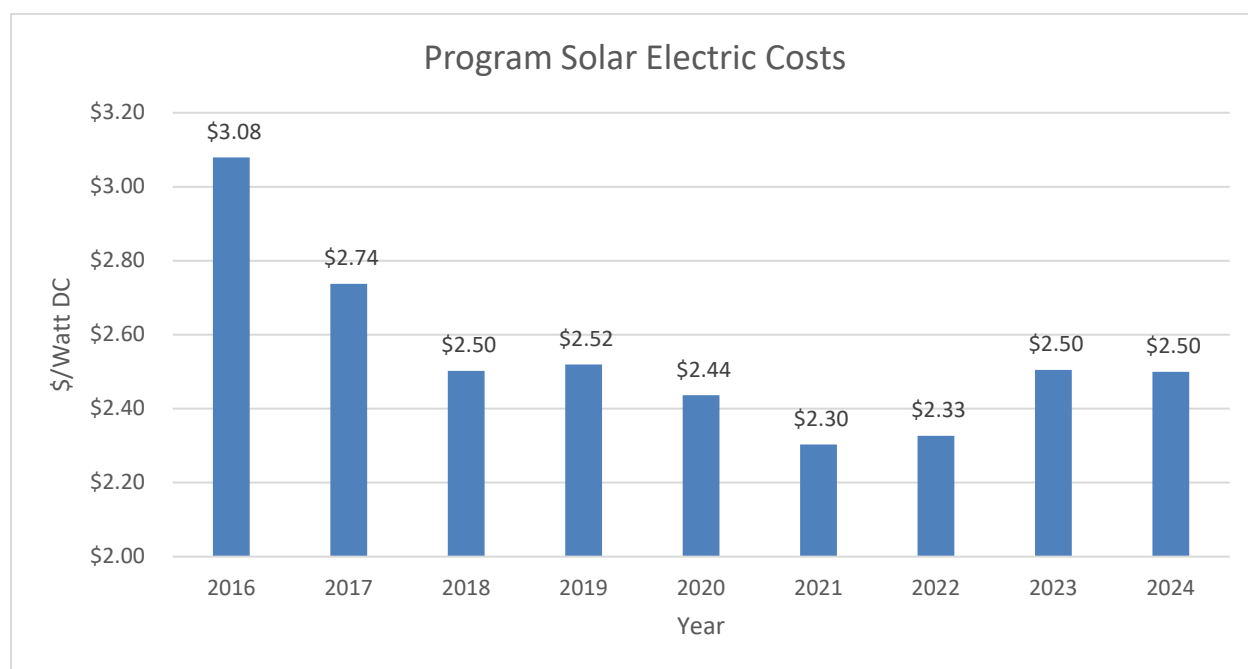


Figure 1: Installed unit cost (before HST) for solar electric systems approved through the program. Average pricing has declined from roughly \$3.08/Watt (DC) in 2016 to \$2.50/Watt (DC) in 2024.

In 2024, Nova Scotia Power reported that a total nameplate capacity of 45.4 MW of solar was installed in the Halifax Region by Domestic customers. Installs through the Solar City Program account for 22% this<sup>5</sup>. While some property owners opt to use alternative financing, the Program routinely supports those looking for unbiased advice and education on the various solar technologies, industry trends, and average pricing.

<sup>3</sup> Statistics do not include the SolarHomes Rebate.

<sup>4</sup> Preferred Partners. Efficiency Nova Scotia, <https://www.energycyns.ca/preferred-partners/>

<sup>5</sup> Nova Scotia Power, Net Metering Report, December 31, 2024

<sup>6</sup> The reflected percentage assumes a ratio of 1.2 between Nova Scotia Power nameplate capacity, measured in AC units and Solar City installed capacity, measured in DC.

### **Rebates and Incentives**

Effective incentives are critical for stimulating demand within the sector, promoting healthy competition among contractors, and reducing the up-front costs of system installations. As of June 04, 2025, property owners can access Natural Resources Canada's (NRCan) Greener Loan program. This program offers property owners financing to complete efficiency upgrades and solar installations. After undergoing a credit check and paying for a Home Energy Assessment, property owners may be eligible for a 10-year, \$40,000 interest-free loan. Property owners are routinely combining this loan with Solar City financing to either offset project costs not approved by NRCan or to bridge the financing costs until the NRCan loan is distributed. NRCan's Greener Homes Grant and the Province's SolarHomes Rebate program have been discontinued.

Despite fluctuating and uncertain federal and provincial incentive programs, the Solar City program has provided long-term, stable support to property owners and the solar industry. To maintain momentum and public interest in solar installations, staff are launching a communications plan aimed at educating, engaging and motivating property owners to install solar through the program.

### **FINANCIAL IMPLICATIONS**

Administration and marketing expenses to support the Solar City program are budgeted under cost center D935 Environment and Climate Change. To fully capture the program's costs, a notional charge will be recorded against M532 Solar City each quarter. This charge represents the interest income the municipality forgoes when using its own funds for Solar City financing instead of investing the funds elsewhere.

The program offers a fixed interest rate of 4.75% to participants. If HRM's actual investment returns are lower than 4.75%, the program will generate a small surplus. If returns are higher, a small deficit will occur. Over time, these fluctuations are expected to balance out however this balance will be monitored closely.

### **COMMUNITY ENGAGEMENT**

Community engagement was not formally conducted as part of this report. Engagement with the community has been ongoing through the Solar City Program administration through email and phone.

### **LEGISLATIVE AUTHORITY**

*Halifax Regional Municipality Charter, SNS 2008, c39, Clause 104A(1)* "The Council may make by-laws imposing, fixing and providing methods of enforcing payment of charges for the financing and installation of any of the following on private property with the consent of the property owner:...(b) energy-efficiency equipment"

*Energy Equipment By-law Number S-500*

### **ATTACHMENTS**

None.