

27 Farnham Avenue
Toronto, Ontario

System Rating:
4.6 kW PV

Ballasted Rooftop:
BIPV Canopy

Number of Modules:
24

Module Type:
SANYO HIP190-DA3

Inverter:
SMA SunnyBoy 5000US

Mounting System:
Schletter Solar Mount



AVACOS SOLAR is pleased to announce the first Canadian residential photovoltaic system featuring a combination of the SANYO HIT (Heterojunction with Intrinsic Thin-Layer) Double Bifacial solar PV modules and the DuROCK Tio-Coat reflective 'cool' roof membrane coating.

Project Overview

The project consists of the implementation of a 4.6kW self-ballasted rooftop photovoltaic energy array including a building integrated PV canopy structure installed at 27 Farnham Avenue in Toronto, Ontario.

The system is expected to produce approximately 8020 kWh/year of power generation due to the high efficiency of the SANYO HIT® Double PV modules that generate power from both sides, resulting in up to 30% higher energy output than standard single-sided PV modules, making it ideal for flat roof top surfaces, carports, canopies and porch coverings.

The system will also feature the DuROCK Tio-Coat, a high-strength white elastomeric urethane roof coating that provides 89% solar radiation reflectivity and weather resistance, reducing the energy usage required for the building compared to traditional roof coverings.

Together, the overall performance of the solar array is improved due to the cooling effect of Tio-Coat on the roof and the additional reflectivity providing light for the back side of the bifacial modules.



Balance of System

The solar PV arrays will be mounted on the German-made Schletter Solar Mounting self-ballasted system. Schletter is now based in Windsor, Ontario and will therefore meet the Ontario domestic content. The self-ballasted system will ensure that there is no required roof penetration as well as provide the most optimal quality in mounting systems available. The structure will be made of 100% aluminum components and feature locally made concrete ballast blocks.

The inverter specified for this project is the SMA Sunny Boy 5000US. The system will also feature the Sunny Web Box for online data monitoring of the system's power generation and performance.

Economical Benefit

The system is registered to the Ontario Power Authority's microFIT program. This will ensure the power generation is sold back to the utility grid. Under the OPA's Feed-in Tariff program the paid rate for this system is 80.2 cents/kWh produced. The estimated annual revenue from the system will be approximately \$6,432.04 /yr. The contract is for a term of 20 years and thereby provides a total contract income of approximately \$128,640.80.

Environmental Benefit

The environmental impact of this solar initiative will result in the offset of approximately 98 tonnes of CO2 emissions, 96 barrels of oil and the removal of 11 cars off the road annually and will continue to do so over the life of the system.



About AVACOS Solar Energy Inc.

AVACOS Solar, is a leading residential and commercial solar photovoltaic energy developer in Ontario. Providing its clients with services ranging from conceptual planning and design to project completion. Specializing in clean energy solutions as well as project procurement, turnkey installation and integration. AVACOS Solar provides solar-generated PV energy systems to a broad and diverse client base of residential, commercial, municipal and utility customers.

For more information, please visit: www.avacos.ca email: gosolar@avacos.ca call: 416.567-2502