



GSI boosts the renewable energy capacity of Montserrat's health sector: installed 3 solar PV systems, conducted NABCEP PV training

25th May 2023

By: Green Solutions International SKN Incorporated (GSI)

Under the Caribbean Development Bank (CDB) and the Basic Needs Trust Fund (BNTF) 10th Project Cycle, the BNTF in collaboration with the Montserrat Department of Energy successfully spearheaded the installation of two 4.5kWp hybrid solar PV systems at the Salem and St Peter's Health Centres, and a 9kWp system at St John's Dental Clinic. Green Solutions International SKN Incorporated (GSI) was contracted to design, supply, install and commission these systems and train 11 Montserratians on using and installing solar photovoltaics (PV). The systems are designed with the requisite capacity to meet the health facilities' power demand and annual energy consumption with appropriate battery backup. They will supply power 24/7 to the buildings so clinic functionality, dental procedures and access to digital records will not be disrupted during power outages.

The training of 11 Montserratians will positively impact the island as Montserrat progresses with its Green Energy Initiatives to become more energy efficient. There is tremendous benefit in building the capacity of a pool of individuals with the necessary knowledge, skills, and credibility to safely and efficiently install, inspect, commission and maintain solar PV systems across the island for commercial and residential use. At the end of their training, participants were awarded the following North American Board of Certified Energy Practitioners (NABCEP) certifications: NABCEP Associate, PV Installation Professional, PV Systems Inspector, and PV Commissioning and Maintenance.

At the project's commissioning ceremony, Jennifer Meade, Project Manager of the BNTF of Montserrat, indicated that "Part of Government's energy policy is to move towards a sustainable energy future, renewable energy will assist in mitigating some of the effects of climate change. A critical objective of this project is to strengthen the climate change resilience of local health centres. Montserrat lies within the hurricane belt, which has seen an increase in hurricane activities within the last decade; therefore, we need to beef up our systems to reduce reliance on fossil fuels. In the event of a storm, we need our health centres to be up and running quickly. The development of this project involved the BNTF, the Department of Energy of the Government of Montserrat and the CDB. The CDB is responsible for funding many projects across the Caribbean region and impacting the lives of nationals for more than 40 years. We hope that its support for Montserrat will continue. We are quite pleased with the progress to make this a reality."

The training programmes were designed to give participants the knowledge and skills to function proficiently and safely in a solar PV environment while demonstrating competencies for PV installation, inspection, commissioning, and maintenance. Dr Wayne Archibald, Executive Director, GSI, shared, “We recognise that a well-managed energy sector is pivotal to economic growth and that the renewable energy sector plays an important role in achieving broader development objectives over the longer term, especially in smaller islands such as Montserrat. In order to maintain the solar PV systems that we installed, the Government of Montserrat ensured that those tasked with managing and operating these facilities have the skills necessary for the job and the ability to transfer those skills to future generations as time and technology increases.”

“The installation took place in sync with the training aspect; it was conducted using a combination of online learning and hands-on practical experience during the installation phase. Training and certifying participants increased not only Montserrat's renewable energy capacity but also that of the entire Caribbean region, which is moving towards a more sustainable, greener energy future.”

Marissa Allen, Energy Officer, Energy Department, Ministry of Communications, Works, Energy and Labour, also weighed in on the project's impact: "This project aimed to improve the resilience of the health system while building local capacity in solar PV installation, commissioning, and maintenance. Employees of the two health clinics and the dental unit, as well as the residents who utilise these establishments, can now know that the energy being used is from a clean, sustainable, and reliable source. The Government of Montserrat will not only benefit from a reduced electricity bill from these establishments but also from the trained persons on the island who can safely and properly design and install solar PV systems for residential and commercial buildings. We extend our deepest gratitude to GSI for all their hard work and support in implementing this project. We also want to thank BNTF in Montserrat, and the funding agent, CDB, for the support provided.”

GSI subcontracted Switchlogix to undertake the turnkey design/build of these three solar power installations in Montserrat. Thomas Hodge, Director, Switchlogix, provided technical insight, “We are a turnkey provider of energy audits and solar power solutions. The three projects we implemented in Montserrat were at the Salem Health Centre, St Peter’s Health Centre, and the St John’s Dental Unit. These solar systems operate independently of the Montserrat utility grid and include lithium battery storage to continuously provide electricity to these facilities at night. It was a delight to work in Montserrat. Given the abundance of foliage and mountains there, we had to carefully choose the locations for placing the PV modules which could have prevented us from harvesting continuous sunlight. One of our biggest challenges was redesigning the system to accommodate local inspectorate and utility requirements amid the limited availability of local materials. Nonetheless, we found appropriate areas for the PV modules and imported additional equipment to ensure local compliance.”

In 2020, fossil fuel importation into Montserrat accounted for almost 99.4% of the island’s energy consumption and 96.7% of its electricity generation. Therefore, this milestone is in keeping with the Government of Montserrat’s Energy Policy to ensure that by 2030, Montserrat has "Reliable, low-cost, sustainable provision of energy services matched to the societal and development needs of the island." To realise these renewable energy targets by 2030, greater local capacity is required, and thus the Human Resource Development/Skills Training Renewable Resource Resilience Certification project was developed and funded by the CDB.

Training participant Kenaud Ryan, Manager, Water & Waste Water Division, Montserrat Utilities Limited, reflected on the course, “The programme was very interesting and thought-provoking. It was one of the best online courses I have been to, and it helped me to add to what I already know. I decided to

undertake this training to help develop my knowledge and skills in the solar energy industry and to help my island of Montserrat to attain 100% renewable energy production in the future. This training and certification will assist me significantly as I recently established a renewable energy technologies company, and it would give me greater confidence working with clients in the future.”



Photo Caption

From left: Taiyi West, Executive Assistant, GSI; Dr Wayne Archibald, Executive Director, GSI; Premier of Montserrat, Honourable Joseph Easton Taylor-Farrell and Jennifer Meade, Project Manager, BNTF of Montserrat, discuss the completion of the project.



Photo Caption

Taiyi West of the GSI team shows Trainee, Adia Page, how to install PV panels.

- ENDS –

About GSI: <https://greensolutionsskn.com/>

For further information:

Dr. Wayne Archibald, Executive Director, Green Solutions International SKN Incorporated,
9th Floor PanJam Building, 60 Knutsford Boulevard, Kingston 5, Jamaica
wayne@greensolutionsskn.com ; (+1 876) 559 2515