

# Global Climate Change Alliance Plus Trinidad and Tobago

## “Support to the Implementation of Trinidad and Tobago’s Nationally Determined Contribution”

### CARINA



The Caribbean Institute of Astronomy (CARINA) was established 15 years ago to encourage interest in astronomy across the Caribbean. The Institute grew out of the Physics Department of the University of the West Indies, and over the years has engaged in several events to promote and develop practical astronomy.

Every 2 years, CARINA hosts a Caribbean wide conference as part of its public outreach program, engaging schools and members of the public who have a keen interest in learning more about astronomy. CARINA currently operates from two main locations, one is the Tracking Station, at Macqueripe on the north-western peninsular of Trinidad and the other at Frederick Settlement in Central Trinidad. While both locations are in Trinidad their reach is beyond the shores of the country to other Caribbean islands; some of that reach achieved through science.

In 2020 CARINA was the recipient of a sophisticated telescope capable of being robotically controlled to enable remote guidance and imaging. This telescope provides valuable information for the Institute and for the wider international astronomical community. The telescope is housed in a refurbished 20-foot container, which is pegged to be used as a mobile observatory, enhancing their outreach strategy, and allowing for location changes for observation.

Electricity is required for the operation of the mobile observatory and its equipment, as such, it would be best served by an independent power supply. A solar photovoltaic (PV) installation would be a great boon to CARINA as an off-grid, self-sustaining source of energy. Use of this type of renewable energy dovetails with one of the core tenets of the Institute, which is advocacy for the mitigation of contributors to light pollution. The GCCA+ Project is proud to partner with CARINA in doing their part to enhance the use of renewable energy and ultimately save the planet.



### Contacts:

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## TECHNICAL SPECS:

Site Name	Caribbean Institute of Astronomy
Load Characteristics	Lighting and Electronics
PV system size	1.2kW
Estimate Annual Energy Production (kWh)	1916
Estimated CO <sub>2</sub> Emissions avoided annually ( kg of CO <sub>2</sub> ).	1249.3
Core Business	Science Technology Engineering and Mathematics (STEM)

## ALIGNMENT TO SUSTAINABLE GOALS (SDGs):



<https://www.un.org/sustainabledevelopment/>

### ABOUT GCCA+

Global Climate Change Alliance Plus (GCCA+) is a European Union flagship initiative aimed at helping the world's most vulnerable countries to address climate change. This EU initiative helps mainly Small Islands Developing States (SIDS) and Least Developed Countries (LDCs) increase their resilience to climate change. <https://www.gcca.eu/>.

### ABOUT UNDP:

UNDP is the leading United Nations organisation fighting to end the injustice of poverty, inequality, and climate change. Working with our broad network of experts and partners in 170 countries, we help nations to build integrated, lasting solutions for people and planet. Learn more at [www.ttundp.org](http://www.ttundp.org) or follow at @UNDPTT.

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