## Will Antigua and Barbuda have a 100% renewable power system?

The current power system of Antigua and Barbuda was used to calibrate the model in HOMER, and subsequently various scenarios were considered to provide the Government with the least-cost pathway for a 100% renewable energy power system by 2030. The study has considered the following five main scenarios:

How much energy does Antigua & Barbuda use per year?

Based on the information provided by the Government of Antigua and Barbuda, the average household consumes just over 3 000 kilowatt-hoursper year (kWh/year) or 8.25 kWh/day. Based on this, it was estimated that a 3 kW solar PV system with battery storage would be added on the rooftop of each household.

Which energy source is most dominant in Antigua and Barbuda?

From the figure, it is also clear that the HOMER optimisation has estimated solar energyto be the more dominant source of electricity in Antigua and Barbuda to serve most of the load. The dominance of solar PV in meeting most of the total load in this scenario is clearer when observing the installed capacity by technology in Figure 21.

Can Antigua and Barbuda achieve a fully decarbonised power system?

As analysed in the roadmap, the deployment of solar PV and battery systems for the residential sector of Antigua and Barbuda will be an important element, as planned by the Government, for achieving a fully decarbonised power system by 2030.

Is Antigua and Barbuda's power system dominated by fossil fuels?

The results of the optimisation performed for the current power system of Antigua and Barbuda have confirmed that today's power system is highly dominated by fossil fuelswith merely 3.55% of the electricity share coming from renewables.

Does Antigua & Barbuda have a solar system?

It is important to note that there is no battery storage systemcurrently deployed in Antigua and Barbuda,hence the solar systems can only generate electricity during the day when sunlight is available. This makes it indispensable for the heavy fuel oil generators to cover the entire load during evening hours.

## ANTIGUA AND BARBUDA ENERGY BACKUP SYSTEM

Customers who have systems in excess of 5KW will be governed under the "Buy all, sell all" net billing system. The Customer pays the Utility, at the published tariff rate, for all of the power ???

The Barbuda Energy Resilience Project is one of two major UK grant-funded projects for Antigua and Barbuda under the UKCIF, which has a total allocation of EC\$58.9 million within the programme. It is scheduled to be ???



The project will underground 8 km of transmission and distribution mains; provide backup power for key public buildings by installing hybrid solar systems; and provide reconnection support for customers who remain disconnected ???





## **ANTIGUA AND BARBUDA ENERGY BACKUP SYSTEM**

The UK Government is providing EC\$10.17 million in grant funding to the Government of Antigua and Barbuda for this project which aims to increase the resilience of the electricity distribution system on Barbuda, ???

Antigua and Barbuda Project Profile: Barbuda Energy Resilience This project will improve the resilience of the electricity distribution network in Barbuda and provide more inclusive access ???

This renewable energy roadmap for Antigua and Barbuda has subsequently been developed by the International Renewable Energy Agency (IRENA) at the request of the Ministry of Health, Wellness and the Environment. charting a path for ???







