

GHANA CATHOLIC CHURCHES



Location
Ghana

PROJECT SUMMARY

Over 900 properties owned by the Catholic Church of Ghana could be fitted with rooftop solar panels to provide clean and affordable electricity as part of a REPP-supported project.

UK-based Greenheart AAAi (Ghana) Limited (Greenheart AAAi) has begun carrying out site surveys on cathedrals, churches, schools, hospitals and mission houses across five of the Ghanaian Catholic Church's 20 dioceses thanks to a US\$290,000 development loan from REPP. The surveys will evaluate the suitability of the buildings for the solar photovoltaic (PV) panels and are expected to be finished by mid-2021.

Following the initial assessment stage, an additional US\$1.42m long-term loan from REPP may be made available to complement Greenheart AAAi's and its prospective project partner's costs of installing the panels.

Around 40 jobs will be created during the construction phase of the project, and a further 20 during operation. Once installed, the panels will have a combined generating capacity of 12.5MWp and will provide an alternative source of daytime power for air conditioners, lighting, water heaters and other appliances. The buildings will continue to rely on grid-supplied energy for night-time requirements and when daytime demand outstrips the rooftops' supply capacity.

Greenheart AAAi is one of three companies or consortiums to be awarded contracts by the Catholic Church of Ghana to supply and install solar PV rooftop systems on its 2,700 buildings. The overarching project is a demonstration of the Church's commitment to responding to Pope Francis' encyclical on safeguarding the environment.

Ghana has abundant solar energy potential that remains largely untapped with 98.6% of electricity being generated by large hydropower and hydro-carbon-fired plants. Not only will the rooftop solar be an effective solution for reducing its rapidly rising electricity bills, which have more than doubled in two years, but the project will also help the country to meet its Nationally Determined Contributions as part of the Paris Agreement.

The project is expected to help establish a template for other, similar developments through the use of a hire purchase agreement.

AT A GLANCE

Technology

Rooftop solar PV

Project type

Supplementary off-grid



Offtaker

Archdiocese of Accra;
Dioceses of Keta-Akatsi,
Donkorkrom, Goaso and
Koforidua

KPIs



Greenhouse gas emissions avoided: 13,688 tonnes CO2e per year



Installed capacity: 12.5MWp

FUNDING STRUCTURE

Signed: 19 December 2019

Type: Development capital; long-term loan (TBC)

REPP funding: US\$0.29m and US\$1.42m (TBC), respectively

SDGs



"This is a great example of installing renewable energy right where the power is needed, embedding small-scale generation within the properties. By working with the Catholic Church of Ghana, we are able to deliver the benefits throughout a larger number of properties and the wider region. Having REPP alongside us enables the development and delivery of this exciting project, which will not only benefit the Catholic Church in Ghana, but also its congregation and the wider community."

David Eyre, Director, Greenheart AAAi (Ghana) Ltd