Battery research and development seychelles

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Masdar, Abu Dhabi Future Energy Company, will helpthe Public Utilities Corporation (PUC) in building a five-megawatt (MW) solar photovoltaic (PV) power plant with battery storage in the Republic of Seychelles.

The project is being financed by a AED31 million loan from Abu Dhabi Fund for Development (ADFD), the leading national entity for development aid, as well as funds from PUC"s own equity.

The project"s engineering, procurement and construction (EPC) contract scope includes subsea cabling, switchgear extensions, and an underground water piping system for module cleaning.

The 5MW Ile de Romainville Solar Park will be located on the same site as the existing ADFD-financed AED103 million Port Victoria Wind Farm. Built by Masdar, this 6MW renewable energy wind farm has been generating power for the Seychelles" capital since 2013.

The new project will also include an energy storage system (ESS) with a capacity of 5MW and 3.3 megawatt-hours (MWh), allowing for the safe and stable supply of electricity to the main island of Mah?, while also ensuring the grid stability and safe operation of PUC"s conventional fuel-fired power station.

Due for completion in Q2 2019, the 5MW Ile de Romainville Solar Park is part of ADFD and International Renewable Energy Agency (IRENA) Project Facility. ADFD has committed US$350 million in concessionary loans over seven funding cycles to support the establishment of renewable energy projects in developing countries.

"Seychelles has placed climate change at the centre of its sustainable development strategy," said His Excellency Mohammed Saif Al Suwaidi, Director General of ADFD. "Contributing to the financing of this solar park with integrated battery storage will bolster ADFD"s efforts in supporting the island country"s priorities, especially with regard to mitigating carbon emissions through the deployment of renewable energy. Cutting-edge projects like the Ile de Romainville Solar Park demonstrate the benefits of renewable energy ventures in long-term socio-economic development."

Mohamed Jameel Al Ramahi, Chief Executive Officer of Masdar, said: "Masdar is honoured to have been selected to partner with ADFD and PUC in the development of Seychelles" latest renewable energy project, and to build on our successful involvement in the Port Victoria wind project. This collaboration will be an opportunity to harness the latest efficiency enhancements in solar power technology, including the optimisation benefits of battery storage."

Seychelles currently relies on fossil fuels to meet its electricity demand, with fossil fuels accounting for

around 20 per cent of the country"s imports. In response, it has set a target of 5 per cent renewables by 2020 and 15 per cent by 2030. It is estimated that the Ile de Romainville solar project will save approximately 2,000,000 litres of fuel annually.

Philippe Morin, CEO of PUC, said: "By combining solar energy with wind power, Seychelles will double its renewables capacity while freeing up resources for economic development. The battery storage component will also address the intermittency challenges of renewables, further consolidating Seychelles" energy security."

The new solar PV project will be installed on the same artificial island hosting five of the eight wind turbines of the Port Victoria Wind Farm. The PV array has been specifically designed to maximise the use of available land, while allowing for the maintenance of the wind turbines and minimising any shading losses resulting from them.

Operational since 2013, the eight wind turbines of the Port Victoria Wind Farm supply approximately 2,100 households on Mah?, Seychelles" largest island, home to its capital city Victoria.