



# ENERGY HUB

## BARBADOS SET FOR CARIBBEAN'S LARGEST GREEN HYDROGEN PLANT

By Emmanuel Joseph

Barbados is poised to become home to the largest and most technologically advanced renewable energy power plant in the English-speaking Caribbean, with construction of a \$350 million hybrid facility expected to begin by March next year, senior officials told **Barbados TODAY** on Friday.

The project will create around 150 jobs during construction and a further 20 permanent roles once this hybrid power plant, to be built at Harrow Plantation in St Philip, becomes operational in about two years, the executives said.

Aidan Rogers is the strategic adviser to the project, which is being developed by Renewstable (Barbados) Inc. (RSB) — a special purpose vehicle that will act as an independent clean

energy producer selling the electricity generated to the Barbados Light and Power Company (BLPC), the operator of the national grid.

The project is expected to fully contract its capacity through a 25-year power purchase agreement with Light and Power.

Currently, RSB has an application before the Fair Trading Commission (FTC) requesting approval for the kind of rate it can charge BLPC for buying its power.

The FTC says the application will be assessed by means of a consultative process, and it is asking members of the public to make written input no later than September 1.

Rogers said the plant, which is jointly owned by Hydrogène de France (HDF Energy) (49 per cent) and Rubis Caribbean Holdings Inc. (51 per cent), will supply power to the grid 24

hours a day.

"The RSB project is basically a utility-scale green hydrogen renewable energy power project which combines the use of various technologies, including hydrogen power, to produce non-intermittent electricity to the grid," he told **Barbados TODAY**.

"I wouldn't describe it [the project] as unusual. It is, however, innovative. In fact, there is a similar project developed by HDF Energy under construction in French Guiana. Hydrogen is a mature technology that can be used as a storage medium. The technology being used combines the use of an electrolyser, which is used to split water (H<sub>2</sub>O) into hydrogen and oxygen. The hydrogen is captured and stored in tanks, while the oxygen is dispersed into the atmosphere.

"Fuel cells then convert the hydrogen into electricity which is injected into the grid. The batteries are used for additional storage and frequency support. The reason we use this combination of technologies is to produce large-volume storage capacity to be able to supply a stable amount of clean energy to the grid on demand."

The project has a total CAPEX investment of US\$175 million (\$350 million), which Rogers said includes debt financing. "If you think of it visually, the solar PV component of the project would be five times the size of the BLPC plant (10MW) at Trent's, St Lucy, since our project will comprise 50MW solar PV and will be the largest solar plant in the country," he added.

Rogers then turned his attention more specifically to the rate which the RSB is seeking from the regulator.

"The reason why the project has made an application to the [Fair Trading Commission] for a rate is because RSB is not a feed-in tariff-based project," he said. "The RSB project provides a non-intermittent source of renewable energy to the grid via a combination of storage technologies, including water electrolysis, hydrogen fuel tanks, fuel cells and battery energy storage to ensure a stable power supply. What the FTC is evaluating under the current consultation is what the rate(s) for a project of this scale and type would look like, or more accurately, what the methodology for calculating such a rate would look like," the strategic adviser stressed.

He emphasised that the tariff is not being sought from consumers.

Rogers said: "We need a rate to sell the electricity we produce to the Barbados Light and Power Company. The law as it stands does not allow independent power producers to sell electricity to third parties. The project will produce and supply electricity solely to the utility."

Development specialist Meshia Clarke said that while 150 jobs will be made available during the construction phase, the additional 20 permanent staff are expected to work in the operation and maintenance phase of the hydrogen power centre and in the sheep farm, "which we expect to host 800 blackbelly sheep".

Clarke, who is environmental, social and governance, gender and project communications lead for HDF Caribbean, disclosed that there will be job opportunities in other areas such as transport.

"During construction there will be quite a bit of work available, including in the transportation and logistics associated with the project," she told **Barbados TODAY**. "The project will utilise available local resources and technical firms where possible in areas such as site preparation, electrical services and communications."

The project has already received Town and Country Planning approval, is duly licensed by the Ministry of Energy and has passed the required Environmental Impact Assessment (EIA).

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### WREATH OF HEALING

Prime Minister Mia Mottley was presented with the award-winning SUCOTETO Wreath of Remembrance, Hope, and Healing on Friday during a meeting with the Rt Rev Dr Rosemarie Mallett, Bishop of Croydon, at the Parliament Buildings. The wreath is a symbolic tribute to the millions of Africans who were kidnapped, enslaved, and forced to produce goods that continue to benefit the global economy. During the meeting, Mottley and Reverend Mallett discussed a wide range of topics, including education reform, immigration, the role of the church in community engagement, and the global reparations movement. (OPM)