

FAIR TRADING COMMISSION

BARBADOS

NO.: FTCUR/ORDEST/20230628

FAIR TRADING COMMISSION

IN THE MATTER of the Fair Trading Commission Act, Cap. 326B of the Laws of Barbados;

AND IN THE MATTER of the Utilities Regulation Act, Cap. 282 of the Laws of Barbados;

AND IN THE MATTER of the Utilities Regulation (Procedural) Rules, 2003 and the Utilities Regulation (Procedural) (Amendment) Rules, 2009;

AND IN THE MATTER of the Electric Light & Power Act, 2013-21;

AND IN THE MATTER of the Decision of the Fair Trading Commission dated June 28, 2023 on pilot Energy Storage Tariffs and Framework.

BEFORE:

Tammy Bryan John Griffith Ankie Scott-Joseph Samuel Wallerson Chairman Commissioner Commissioner Commissioner **WHEREAS** the Government of Barbados in the Barbados National Energy Policy 2019-2030 ('BNEP') has outlined a roadmap for transitioning the country from a fossil fuel dependent nation to one that is 100% renewable energy ('RE') based and carbon neutral;

AND WHEREAS the Fair Trading Commission ('Commission') has undertaken to determine energy storage tariffs and framework on a pilot basis pursuant to its powers under Section 4(3) of the Fair Trading Commission Act, CAP. 326B and Section 24B (4) of the Utilities Regulation Act, CAP. 282 of the Laws of Barbados;

AND WHEREAS in recognition of the issues that have been considered and determined throughout the Commission's public consultation on energy storage tariffs;

AND UPON READING AND CONSIDERING the written submissions of the following parties in response to the Commission's public consultation: Arcalis Energy; Barbados Renewable Energy Association; Blue Circle Energy; Emera Caribbean Renewables Limited; Green Charge Capital Inc.; HDF Energy; Iken Renewables Group Inc.; North Beach Management Inc.; Solar Genesis; Soleco Energy; and Williams Caribbean Capital;

AND UPON CONSIDERING the Commission's own research.

IT IS HEREBY ORDERED THAT:-

I. The pilot shall be for a duration of four (4) years. The first two (2) years is expected to see the design, procurement, installation and connection of the Battery Energy Storage Systems ('BESS') equipment. The remaining two (2) years cover the operation of the projects and collection of the relevant data to assess the performance and viability of the projects. Project participants whose applications and/or registrations are verified, shall receive the rate available at the date of verification. Participants licensed during the pilot phase of this

storage programme shall be eligible to receive the associated tariffs for ten (10) years.

- II. In order to receive the Energy Storage Tariff ('EST'), projects must meet the "used and useful" criteria. This means that the project must be able to provide three (3) or more storage power services and two (2) or more voltage/reactive power services simultaneously or temporally, and actively deliver these services to the grid. The services required are peak shaving with renewables, renewable energy firming & ramping, renewable curtailment reduction, spinning reserve, frequency response, distribution hosting capacity control, voltage control and power factor control.
- III. The BESS shall participate in the autonomous grid services or utility dispatch signal which on average, should add up to the power capacity of storage to prove to be "used and useful" or demonstrate that 365 cycles per year are utilized. The kWh capacity of the BESS should not fade more than 50% over ten (10) years and more than 5% per year based on 365 cycles per year of use.
- IV. Participants in the pilot shall submit quarterly reports to the Commission which summarize the data collected and provide insights into the project's progress, challenges, and outcomes. Participants shall be required to complete annual duration and power tests.
- V. Where it is found that a battery's capacity has degraded more than 50% over the ten (10) year period, or more than 5% in any one given year, there shall be a true-up mechanism where payments made to projects on the basis of full capacity are refunded in proportion to the level of degradation.
- VI. The Barbados Light and Power Company Limited ('BLPC') and the project owners shall be required to retain all data generated during the pilot project. The Commission reserves the right to perform random checks on the batteries,

as well as perform audits as necessary. The Commission shall prepare a final pilot project report at the end of the pilot, consolidating all the data, findings, and recommendations for stakeholders.

- VII. The EST and associated framework shall be reviewed every two (2) years. However, the Commission reserves the right to conduct reviews on a more frequent basis should market conditions deem it prudent.
- VIII. The pilot tariffs and associated size categories are as follows:

Table 1: Size Categories and EST Rates for a two (2) hour battery

Size Category	LCOS(BBD\$/kWh)	LCOS(BBD\$/kW- month)
Up to 25 kW	0.675	56.78

Table 2: Size Categories and EST Rates for a three (3) hour battery

Size Category	LCOS(BBD\$/kWh)	LCOS(BBD\$/kW- month)
> 25 kW - 1 MW	0.404	33.95
> 1 MW - 10 MW	0.292	24.61

Table 3: Size Categories and EST Rates for a four (4) hour battery

Size Category	LCOS(BBD\$/kWh)	LCOS(BBD\$/kW- month)
> 25 kW - 1 MW	0.374	41.95
> 1 MW - 10 MW	0.270	30.34

Dated this 28th day of June, 2023

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Tammy Bryan Chairman				
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John Griffith Commissioner	Ankie Scott-Joseph Commissioner			
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