CEB SCHEME FOR SERVICE PROVIDERS OFFERING PUBLIC CHARGING OF ELECTRIC VEHICLES (EVs) SERVICE

INTRODUCTION

The **CEB SCHEME FOR SERVICE PROVIDERS OFFERING PUBLIC CHARGING OF ELECTRIC VEHICLES (EVs) SERVICE** is an initiative launched pursuant to the measure enunciated at the Paragraph B.3. (b) (ii) of the Government Budget Speech 2021-2022.

In this initial and current phase of the Scheme, the CEB will consider application from service providers having installed or intend to install electric chargers to provide electric vehicles (EVs) charging service to the public.

The service providers can be individuals or organizations holding active electricity contract accounts; the purpose of which is to offer charging of EVs service through net zero CO_2 emission principle by installing appropriately sized solar photovoltaic (PV) installation(s).

The grid interconnection of the solar PV installations, accepted under this Scheme, shall be made strictly in accordance with the applicable Grid Codes (download Grid Codes) and terms & conditions defined for the Scheme. The grid interconnection will be planned for commissioning in sequential order based on the effective date of completion of each project, as would be agreed by the parties.

The CEB will start taking application under the Scheme as from 26 April 2022.

Interested service providers and the public at large are advised to **read carefully** the information on the Scheme given in the following sections.

THE PURPOSE AND KEY OBJECTIVE OF THE SCHEME

The purpose of the Scheme is to implement the Budget 2021-2022 measure, which states that *"… the uptake of Electric Vehicles will be promoted to support the transition to zero emission road transport by - (ii) setting up a scheme to encourage private investment in fast charging infrastructure points across the island …"*

One of the objectives of this initial phase of the Scheme is to integrate in the Mauritius grid a cumulated capacity of ten (10) megawatts (MW) of solar photovoltaic (PV) power generation to enable service providers meeting the equivalent annual energy requirement of the fleet of electric vehicles (EVs) calling at their services.

Applications received after the allocation of the 10 MW capacities under the Scheme will be placed on a waiting list.

Note:
In the event that the allocated 10 MW capacity is not fully taken up, the remaining capacity will be reallocated to other renewable energy (RE) Schemes.

MAIN GOALS OF THE SCHEME

Amongst others, the main goals of the CEB SCHEME FOR SERVICE PROVIDERS OFFERING PUBLIC CHARGING OF ELECTRIC VEHICLES (EVs) SERVICE are as follows: -

- The Scheme is part of Government's mitigation strategy to abate CO_2 emission in the Transport Sector.
- The Scheme will help in pursuing the decarbonisation of the national electricity grid and contribute in achieving the national target of 60% shares of RE in the electricity mix by 2030.
- The Scheme offers the opportunity to democratize the electricity generation business by providing grid access to service providers who shall engage in electricity production to support the transition to zero emission road transport.
- Through this Scheme, CEB confirms its support to promote the uptake of EVs while supporting distributed solar photovoltaic (PV) generation with the common objective of ensuring the sustainable development of the National Power System.

METERING PRINCIPLE OF THE SOLAR PV INSTALLATION UNDER THE SCHEME

The **gross-metering method** will be applied to meter energy generated and exported by a solar PV installation accepted under the Scheme. For the purpose of the gross-metering method, each solar PV installation installed under the Scheme shall be equipped with a production meter and an import-export meter.

The meters will be provided by CEB and the latter will keep total control – administrative and/or technical controls, whichever would be applicable – of the meters and their associated metering equipment. **The CEB will provide free-of-charge the metering equipment**. Other related costs for metering shall be borne by the service provider.

The location of the meters and metering equipment within the electrical setup of each concerned solar PV installation shall be in accordance with the Schematic Diagram provided in the relevant Grid Code(s) and the CEB standard practices.

Notwithstanding the published streamlined procedure (click to read the procedure) for grid interconnection of the distributed renewable energy generation (small-scale and medium-scale), on a case-to-case basis, special consideration will be given to ensure the optimal solution for the metering of the solar PV installation purposely to ensure best commercial practices.

KEY COMMERCIAL TERMS OF THE SCHEME

In accordance with the gross-metering principle, as formulated for this Scheme, all energy produced by the solar PV installation shall be injected or shall be considered as injected into the grid.

In accordance with the terms and conditions of the Scheme, as from the commercial operation date (COD) of the solar PV installation, developed under this Scheme, CEB will buy all the energy (kWh) produced, as metered by the production meter, at the fixed **Tariff (T).**

The **Tariff (T)**, denominated in Mauritian rupees, will be revised every year if deemed necessary. It is expected that the revised Tariff will be determined and approved by the Utility Regulatory Authority (URA) after it has been filed by CEB. For the current year, the **Tariff (T) is MUR 4.20 per kWh.** The Tariff (T) will be allocated at the time of the signing of the Connection Agreement.

Note:
Where electricity tariff(s) lower than the Tariff (T) has/have been allocated to the electricity contract account(s) linked to the intended solar PV installation, **the Tariff (T) will be adjusted to the Tariff (T_w)**, which shall be a weighted average of T and the applicable electricity tariff(s) allocated to the account(s). The weights will be the shares of energy imported, under each electricity contract account, and the energy production by the solar PV project.

BENEFITS OF THE SCHEME

The benefits of the Scheme are as follows: -

- Subject to satisfying the established streamlined procedure (click to read the procedure), interested service providers will participate in the production of clean electricity.
- The service providers' solar PV installations will be supported by CEB's grid to stabilize the intermittent power generation of the solar PV installations; hence, no energy storage system will be required.
- The service providers will be able to lower their investment costs in their solar PV projects as an energy storage system (ESS) will not be required. This will enable them to minimize their exposure to financial, technological and/or operational risks associated with ESS.
- By engaging in this Scheme, the service providers will participate in promoting the use of renewable energy; hence, upholding our national and international commitment for sustainable energy development.
- The service providers will have the opportunity to contribute in energy supply security and protection of the environment, while participating in the strengthening and supporting the inclusive development of the National Power System.

INCENTIVES PACKAGE OFFERED UNDER THE SCHEME

The incentives package offered to support the initial phase of the Scheme includes the following: -

- Where applicable, the CEB 50/50 Cost Sharing Principle to finance the capital contribution for the electric network extension to connect the service provider's solar PV installation to the grid will be applied. However, the cost of the electric transformer shall be fully borne by the service provider.
- Free metering equipment for metering electricity supply from the grid to the public EVs charging facility.
- Consideration for on-site or off-site installation of the solar PV system which will enable off-setting fully the annual energy (kWh) requirement of the fleet of EVs the service provider planned to service.

SIZING OF SOLAR PV SYSTEMS UNDER THE SCHEME

Under this Scheme, subject to satisfying all terms and conditions of the Scheme, a service provider will be allowed to install an on-site or off-site solar PV system of a capacity (kWp DC) equivalent to meet the annual energy (kWh) needs of the fleet of EVs calling for the service provider's public charging service.

The service provider shall properly size the solar PV installation so as to meet the cumulated annual energy requirement of the fleet of EVs. The formula below can be used to determine the size of the intended solar PV installation.

$$\text{Proposed capacity (kWp DC) of the Solar PV System} = \sum_{i=1}^{n} \Big(\text{EV}_i \text{ Energy consumption per kilometer (kWh/km)} \times \text{EV}_i \text{ average daily kilometer travelled} \times \text{365 days} \div \text{1600 hours} \Big)$$

The allowed capacity of the solar PV system and the type of electricity supply, based on the declared/connected load of the public EVs charging facility, including the metering configuration shall be finalized by CEB after the submission of the application. **In the present phase of the Scheme, the CEB will not consider solar PV systems of capacity above 2.0 MWp DC.**

Note:

- The annual energy exported should not exceed 10% of the total energy imported for the EVs consumption. Surplus energy exported above the 10% will not be remunerated.
- The service provider shall make an official application for a separate electricity supply for the public EVs charging facility, which shall be metered through a dedicated set of metering equipment under a specific electricity contract account.

KEY TERMS & CONDITIONS OF THE SCHEME

The key terms and conditions of the Scheme are: -

1. Interested service providers should submit the duly filled-in application form (click to download the application form) applicable for the Scheme in any CEB Customer Services Centre and pay the non-refundable processing fee (click to view the applicable Processing Fee). Payment of the processing fee does not guarantee registration into the Scheme.

2. The service provider's premises, where the solar PV system will be installed and where the public charging of EVs facility will be located, electrical load is effectively declared to CEB. If required, CEB will perform sites surveys to ascertain the accuracy of the declared load. For this purpose, the service provider would authorize and provide CEB's personnel necessary permission and access to carry out the detailed load survey.

3. As would be warranted, the declared or assessed electrical load of the service provider premises, linked to the related electricity contract account, will be updated in the CEB's information system for billing purposes.

4. The installation of the solar PV system will have to be completed within a period of six (6) months as from the date of the signing of the Connection Agreement, except otherwise as provided in the Connection Agreement, provided the EVs charging facility is operational.

5. The solar PV system shall at all times comply with all requirements of the relevant applicable Grid Code (download the Grid Codes) including its subsequent amendments.

   Note:
   For safety and quality electricity production reasons, the concerned service provider is strongly advised to seek the support of a qualified person in the field of PV technology prior to filling in the Application Form.

6. The service provider shall provide CEB with the web-link access, free of charge, for the downloading of the power output of the installed solar PV system.

7. Where necessary, as and when required, the service provider shall give full free access to CEB for downloading data series directly from the inverter and/or energy management system of the solar PV system. For the on-site and/or off-site data downloading, the service provider shall provide CEB a free copy of the required operating software and application(s).

8. Following a notice from CEB, the service provider shall give full and free access to CEB personnel and/or its associate(s) to the solar PV system.

9. The service provider shall pay all relevant charges and costs, including the connection fee, for the setting up of the solar PV system.

10. Until properly remedied, a solar PV system not complying with the applicable Grid Code and not satisfying all terms and conditions of this Scheme and other regulatory requirements, will not be considered for the grid interconnection.

11. The service provider shall obtain all necessary applicable authorizations, licenses, permits, etc. prior to the commissioning of the solar PV system by CEB and ensure compliance to relevant legislations and regulations at all times for both the solar PV system and the EVs public charging facility.

12. Where applicable, the total monthly electricity (kWh) consumption of the concerned service provider shall be calculated by the formula below.

    C = P + I – E

    Where, **C** is the total monthly electricity (kWh) consumption;
    P is the total energy (kWh) production by the solar PV installation;
    I is the total energy (kWh) imported from CEB; and
    E is the total energy (kWh) exported to CEB.

    Note:
    Where an electricity contract account, linked to the service provider's solar PV system, is in a 3rd party name, prior to the signing of the Connection Agreement, the concerned service provider shall obtain the written acceptance of the 3rd party for the above formula and for reclassifying the account in the specific CEB Customer Category for the purpose of billing and invoicing of the monthly electricity consumption of the account.

13. The service provider and any of its associates would have no objection to the addition of other necessary terms and/or conditions, identified following the inspection of the installation, required for the grid interconnection of the solar PV system.

14. As notified, the service provider shall implement timely all CEB's recommendations.

15. The service provider shall submit the duly signed, legally-binding Connection Agreement when submitting the Application Form applicable under this Scheme. Both the Application Form and the standard Connection Agreement are available for download from the CEB website http://ceb.mu

16. By participating in this Scheme, the service provider and its representatives unreservedly authorize CEB or its associates, suppliers, contractors, etc. to share all information provided by them. In addition, the service provider would have no objection that any of the mentioned parties contacting it for administrative or non-administrative matters in respect of the setting up of the solar PV system.

17. Where applicable, the service provider may be required to make an official application for a separate electricity supply for the public EVs charging facility, which shall be metered through a dedicated set of metering equipment under a specific electricity contract account.

ELIGIBILITY TO APPLY FOR THE SCHEME

All service providers holding active electricity contract accounts for the purpose of using electricity to offer public charging of electric vehicles (EVs) service are eligible to apply for the Scheme. The service provider should provide a copy of its registered Business Registration Card, among other documents.

Application from a service provider who does not submit the duly filled-in Application Form (click to download the application form) will not be considered for the Scheme.

Application from a service provider who is in litigation with the CEB, unless the litigation is effectively settled, or already operating a renewable energy installation under the same electricity contract account(s), unless the existing agreement is terminated, will not be considered for this Scheme.

WHERE TO SUBMIT THE APPLICATION FORM AND THE CONNECTION AGREEMENT?

The duly filled-in Application Form accompanied with all required documents and the duly filled-in and signed Connection Agreement, should be submitted at one of the CEB's Customer Service Centres as from 26 April 2022.

The Application Form, the standard Connection Agreement and other information on the Scheme are available on the CEB website https://ceb.mu

A non-refundable processing fee (click to view the applicable Processing Fee) is payable upon submission of the Application Form.

FOR MORE INFORMATION ON THE SCHEME

Interested service providers, wishing to benefit from this Scheme, can obtain additional information on the Scheme: -

- On the CEB's website http://ceb.mu . This is highly recommended to save time and effort.
- By sending an e-mail to querypcevscheme@ceb.intnet.mu .
- By contacting one of the Customer Service Centres (CSCs): click https://ceb.mu/contact-us to get telephone numbers of the CSCs.

IMPORTANT ADVICE

- Given technicalities and financial implications in setting up of solar PV project, sufficient care should be exerted when designing system.

- To properly design the solar PV system, taking into account the cumulated annual energy requirements of the EVs to be serviced, seek support from knowledgeable qualified people who shall be able to prepare not only the technical part but equally the financial assessment of the investment in the public charging of EVs facility and the solar PV installation.

- Keep regular contacts and work closely with CEB. Whenever needed, seek the support services of the CEB for guidance.

- Ensure full compliance, at all times, with the applicable Grid Code(s) and its amendments and the relevant Connection Agreement.

- To avoid delays in the implementation of the project, ensure that all documentations together with the project details are submitted to the CEB. Ensure all materials are submitted as indicated.

- Securing an agreement for the grid interconnection of the intended solar PV system is mandatory. Make sure it has been agreed and signed prior to the setting up of the system. It is strongly advised that payment(s) for equipment of the installation be initiated only after all agreements, licenses and permits, as applicable, have been properly secured.

- The solar PV system is an investment which shall bring benefits. Therefore, it is necessary to ensure its security all over its life. This will enable maximizing the return on the investment. In addition, carrying out regular maintenance of the solar PV system, with the support of a technically qualified person or the supplier of the equipment, will also contribute in maximizing gain.

- Modification of the setup of the solar PV installation, without prior CEB's authorization, will result in an automatic disconnection of the installation from the CEB's network and the suspension of the Connection Agreement and thereof all the therein CEB's obligations.