

CARBON NEUTRAL INDUSTRIAL SECTOR (CNIS) RENEWABLE ENERGY SCHEME

INFORMATION LEAFLET

INTRODUCTION

In the last national Budget Speech 2022-2023 (*ref* Measures 194 to 199), Government has set forth its commitment to ensure carbon neutrality in the Industrial Sector by 2030. Within this overarching national goal, as mentioned in the Budget Speech *"a renewable energy transition framework is being implemented…"*

Pursuant to the Budget Speech, with a view to ensuring effective implementation of the enunciated Measures, a series of consultations with the Mauritius Export Association (MEXA), a key representative of the Industrial Sector and Association of Mauritian Manufacturers (AMM), was held at the level of the Ministry of Energy and Public Utilities.

The outcomes of the exchanges have resulted in the formalisation of the **CARBON NEUTRAL INDUSTRIAL SECTOR (CNIS) RENEWABLE ENERGY (RE) SCHEME**, which is presented in this information leaflet.

In the initial and current phase of the CNIS RE Scheme, the CEB will consider application for renewable energy (RE) projects **(solar and wind sources only)** from Industrial Customers, which are not operating in the Sugar and Energy Sectors, both in Mauritius and Rodrigues.

A total cumulated capacity of one hundred (100) megawatts (MW) has been earmarked for the present phase of the Scheme in Mauritius. For Rodrigues, the allocation of capacity will be based on the outcomes of the *Rodrigues Ile Verte* study.

In any case, the maximum capacity of a project, under the Scheme, should not exceed fifteen (15) MW ac.

Interconnection of each RE project to the CEB grid shall strictly be made in accordance with the applicable legislations, codes and CEB's requirements which will be communicated during discussion(s) with each project developer.

The grid interconnection of the RE projects 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. After the allocation of the 100 MW capacities, RE projects which could not be considered will be placed in a waiting list.

The CARBON NEUTRAL INDUSTRIAL SECTOR (CNIS) RENEWABLE ENERGY (RE) SCHEME has been officially launched on 30 January 2023.

In the following sections, important information on the Scheme is given. Eligible Industrial Customers and the public at large are advised to <u>read carefully</u> the information provided.

MAIN GOALS OF THE CNIS RE SCHEME

The CNIS RE Scheme is in line with Government strategy to support the Industrial Sector in its quest towards carbon neutrality by 2030 while pursuing and accelerating the decarbonisation of the national grid.

It is expected that the Scheme will speed up actions to meet the national target of 60% shares of RE in the electricity mix by 2030. The Scheme is coherent with Government Long-Term Energy Strategy and Renewable Energy Roadmap 2030.

The Scheme offers the opportunity to eligible Industrial Customers to engage in clean, renewable electricity production.

The Scheme will enable eligible Industrial Customers to produce their electricity requirements while benefitting the reliability of the CEB grid. The grid will provide the required support to mitigate power supply risks associated with intermittent renewable energy power generation.

Through this Scheme, CEB confirms its support to eligible Industrial Customers in the setting up of RE projects with the common objective of ensuring sustainable development of the national Power System.

WHAT IS THE CNIS RE SCHEME?

The CNIS RE Scheme, **officially launched on 30 January 2023**, has been designed on the basis of key inputs from MEXA and AMM.

It will provide a viable option to Industrial Customers engaging in economic activities, other than sugar production and energy generation, to invest in renewable energy power generation (solar and wind sources only) for their own consumption.

Inherently, the Scheme has as objectives to provide Industrial Customers an option to mitigate the impact of electricity tariff increases and enabling them to switch to the use of sustainable and clean energy which will contribute to enhancing the appeal of their respective products.

Under the present phase of the Scheme, CEB plans to integrate a total cumulated capacity of **100 MW** of renewable energy (solar and wind sources only) facilities (SSDG, MSDG and LSDG sizes¹) into the Mauritian grid. All proposed RE projects, under this Scheme, will be subject to either a network impact assessment or a network survey, whichever would be warranted. Thereafter, the Industrial Customer (IC) will have to implement all the recommendations of the assessment/survey.

KEY FEATURES OF THE CNIS RE SCHEME

The key features of the CNIS RE Scheme are as follows: -

1. Each eligible Industrial Customer (IC) engaging in the Scheme will become a Prosumer, irrespective of the siting of its RE facility, which can be located on-the-site or off-the-site.

¹ SSDG is Small-Scale Distributed Generation of capacity not exceeding 50 kW; MSDG is Medium-Scale Distributed Generation of capacity ranging from 50 kW to 2 MW; and LSDG is Large-Scale Distributed Generation of capacity above 2 MW.

- **2.** The Scheme will operate under the principle of off-setting of energy exported against energy imported from the grid with the mandatory application of an unbundled time-of-use tariff which the CEB will allocate.
- **3.** The typical structure of the unbundled time-of-use tariff, which will be filed to the Utility Regulatory Authority for gazetting, applicable on a monthly basis, is shown in the table below.
 - Until further notice, the Running Charge (energy import) rates for the different time of the day shall have the differentials whereby the evening (peak) rate shall be 48.2% higher than the day rate and the night rate shall be 35.4% below the evening (peak) rate.

	Import Tariff	Export Tariff	
Identifier	Rate (Rs per kWh)	Rate (Rs per kWh)	
[A]	Maximum revised Running Charge	Same as [A]	
	rate of existing Tariff as per		
	General Notice No. 1804 of 2022		
[B]	48.2 percent higher than [A]	Same as [A]	
[C]	35.4 percent lower than [B]	Same as [C]	
Other Charges ²			
Rs 0.040 per kWh consumed		-	
Rs 0.400 per kWh consumed -			
Rs 0.015 per kWh consumed -			
Rs 242 per kVA (apparent power supplied) -			
subject to a minimum of 20 kVA			
Rs 427.00 per month -			
	[A] [B] [C] Rs Rs 242 p	IdentifierRate (Rs per kWh)[A]Maximum revised Running Charge rate of existing Tariff as per General Notice No. 1804 of 2022[B]48.2 percent Notice No. 1804 of 2022[B]48.2 percent higher than [A][C]35.4 percent lower than [B]Rs 0.040 per kWh consumed Rs 0.400 per kWh consumed Rs 0.015 per kWh consumedRs 242 per kVA (apparent power supplied) subject to a minimum of 20 kVA	

The **Minimum Charge, Power Factor Clause, Security Deposits** and **Meter Rentals** shall be as per the General Notice No. 1804 of 2022 and shall be billed as per existing billing practice.

• For the purpose of calculating the monthly bill, the total monthly electricity (kWh) consumption of the concerned Prosumer 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 RE facility;

I is the total energy (kWh) imported from CEB; and

E is the total energy (kWh) exported to CEB.

- 4. The structure / rates of the above time-of-use (ToU) tariff shall be subject to future revision, as and when necessary. Nonetheless, as far as possible, consideration will be given to ensure that the Running Charge (energy import) rates for the different time of the day shall have the differentials whereby the evening (peak) rate shall be 48.2% higher than the day rate and the night rate shall be 35.4% below the evening (peak) rate.
- 5. The Prosumer will be allowed to install on-site and/or off-site RE facilities that can generate up to 150 percent of its annual electricity requirements, based on latest monthly consumption. Each RE facility will be identified by a unique electricity contract account number assigned by CEB.
- **6.** The rate for the purchase of incidental excess energy (if any), which shall be valid during the four initial years of the RE facility, shall be Rs 1.86 per kWh. After the initial four years, excess energy

² The Other Charges will be lumped into and appeared as a single-line item on the electricity bill.

generated will be banked and rolled over to successive billing periods. However, the counter of the banked energy shall be reset to zero on 1st January every year thereafter.

- **7.** The deadline for the initiation of a RE Project under the Scheme has been fixed for June 2023. A Letter of Commitment (LOC) as proof of the RE Project's implementation shall be provided two weeks after the issue of the Letter of Intent (LOI).
- **8.** Consideration will be given to eligible Industrial Customers willing to transfer their applications from other CEB RE Scheme operating under the gross-metering principle, especially the MSDG Scheme, to this Scheme subject to payment of a new processing fee.
- **9.** The eligible Industrial Customers applying for this Scheme will have to implement energy efficiency (EE) measures identified following the completion of an energy audit exercise. Evidence(s) in relation to the implementation of EE measure(s) will have to be produced prior to the commissioning of the RE facility.

SIZING OF THE RE FACILITY

Under this Scheme, an eligible Industrial Customer (IC) will be allowed to install a renewable energy facility to meet its total annual electricity requirements. However, in any case, the maximum capacity per facility should not exceed fifteen (15) megawatts (MW) AC. For RE facility of capacity above 2 MW, the CEB will provide the grid interconnection and network expansion requirements in due course.

The final capacity (size) of each RE facility shall be determined after the network impact assessment (NIA) or network survey (NS) has been carried out by CEB and the declared electrical load of the active electricity contract account(s) linked to the intended solar PV system is effectively updated in the CEB information system. Upon the completion of NIA and/or NS, the IC will have to implement all the recommendations made by the CEB within given deadline(s).

Subject to the terms and conditions for the Scheme, each eligible IC should determine the capacity of its each RE facility based on its expected annual electricity (kWh) demand, calculated on the basis of the latest consumption; **oversizing of the RE facility is not recommended.**

METERING REQUIREMENTS UNDER THE CNIS RE SCHEME

Although the Scheme will operate under the principle of energy offsetting, separate metering equipment will be required, especially in cases where the RE facilities would be located off-sites.

For metering purpose, all the RE projects under this Scheme shall be equipped with production and import-export meters. The meters will be provided by the CEB. The latter will keep total administrative and technical control of the meters and their associated metering equipment. All related costs for metering shall be borne by the concerned Customers (Prosumers).

The location of the meters and metering equipment within the electrical setup of each concerned RE project will be determined during the mandatory network impact assessment or mandatory network survey, whichever would be warranted.

On a case-to-case basis, special consideration will be given to ensure the optimal solution for the metering of the RE project purposely to ensure best commercial practices and billing requirements.

KEY TERMS & CONDITIONS OF THE CNIS RE SCHEME

The key terms and conditions of the CNIS RE Scheme are: -

- Every eligible Industrial Customer should fill and submit the relevant application form (for RE facility capacity of up to 2 MW) or project proposal document (for RE facility above 2 MW), together with full details of the intended renewable energy project.
- 2. Upon the submission of the duly filled application form or project proposal document, the Customer pays the applicable non-refundable processing fee (<u>click to view the applicable processing fee</u>) to enable processing the application. Payment of the processing fee does not guarantee registration into the Scheme.
- **3.** The electrical load of the Customer's relevant electricity contract account(s) is effectively declared to CEB. If required, CEB will perform a site survey to ascertain the accuracy of the declared load. For this purpose, the Customer would authorize and provide CEB's personnel necessary permission and access to carry out the detailed load survey.
- **4.** As would be warranted, the declared or assessed electrical load, linked to an electricity contract account, will be updated in the CEB's information system for billing purposes.
- **5.** For RE facility of capacity up to 2 MW Agreement, the IC (Project Developer) shall complete the construction of the facility within a period of 12 months as from the date of the signing of the Connection Agreement (CA).
- **6.** For RE facility of capacity above 2 MW Agreement, the IC (Project Developer) shall complete the construction of the facility within a period of 17 months as from the date of the signing of the Interconnection Agreement (IA).
- **7.** Only RE facilities (projects) initiated before the end of June 2023 will benefit from the advantages of the Scheme. A Letter of Commitment (LOC) as proof of the RE Project's implementation shall be provided two weeks after the issue of the Letter of Intent (LOI).
- **8.** The RE facility 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 reasons, the concerned Customer is strongly advised to seek the support of a qualified person in the field of RE technology prior to filling and submitting the application.
- **9.** The Prosumer shall provide CEB with web-link access, free of charge, for the downloading of the power output of the RE facility.
- **10.** Where necessary, as and when required, the Prosumer shall give full free access to CEB for downloading data series directly from the inverter and/or energy management system of the RE facility. For the on-site and/or off-site data downloading, the Prosumer shall provide CEB a free copy of the required operating software and application(s).
- **11.** Following a notice from CEB, the Prosumer shall give full and free access to CEB personnel and/or its associate(s) to the RE facility.
- **12.** The Prosumer shall pay all relevant charges and costs, including the connection fee, for the setting up of the RE facility.
- **13.** Until properly remedied, a RE facility 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 and/or disconnected from the grid.

- **14.** The Prosumer shall obtain all necessary applicable authorizations, licenses, permits, etc. prior to the commissioning of the RE facility by the CEB.
- **15.** Where applicable, the total monthly electricity (kWh) consumption of the concerned Prosumer 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 RE facility;
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 Prosumer RE facility is in a 3rd party name, prior to the signing of the Agreement (CA or IA), the concerned Prosumer shall obtain the written acceptance of the 3rd party for the above formula and for reclassifying the account in a specific CEB Customer Category for the purpose of billing and invoicing of the monthly electricity consumption of the account.
- **16.** Further to the network impact assessment or network survey, whichever would be warranted, the Prosumer and any of its associates would have no objection to the addition of other necessary terms and/or conditions for the grid connection/interconnection of the RE facility.
- **17.** As notified by CEB, the Prosumer shall implement all recommendations of the network impact assessment or network survey, whichever would be applicable, within the given time.
- 18. For each RE facility, the Prosumer should submit the Certificate of Compliance confirming compliance to the applicable Grid Code, CEB's network impact assessment's or network survey's recommendations and terms & conditions of the Scheme. The Certificate of Compliance shall be certified by an independent qualified technical officer for RE capacity not involving installation of HT switchgear or an independent registered engineer for RE system involving installation of HT switchgear, whichever would be applicable, after the latter has performed all technical and non-technical verifications.
- **19.** The Prosumer shall sign the legally binding CA for RE facility up to 2 MW and relevant IA for capacity above 2 MW as per given deadlines.
- **20.** By submitting an application, either in the application form or a project proposal document, whichever is applicable, the Customer and its representatives unreservedly authorize CEB or its associates, suppliers, contractors, etc. to share the information provided therein. In addition, the Prosumer 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 RE project (facility).
- **21.** Other terms and conditions shall be provided in the relevant Agreement (CA or IA). The key features of the Scheme are inherent part of the Agreement. Not complying to the Agreement would entail automatic rejection of the RE project under the Scheme.

APPLYING FOR THE CNIS RE SCHEME AND SIGNING OF THE AGREEMENT

The application and signing of the relevant Agreement procedure for the CNIS RE Scheme is explained in this section.

- 1. Eligible Industrial Customers willing to participate in the Scheme should submit the duly filled-in relevant Application Form or Project Proposal Document (PPD) together with all required documents for the proposed renewable energy projects.
- For RE project of capacity up to two (2) megawatts (MW), the eligible Customer should submit the relevant Application Form as from 20 February 2023. The relevant application form (click to download the Application Form) is provided for download from the CEB website http://ceb.mu.
- 3. For RE project of capacity above 2 MW, the eligible Customer should submit the detailed RE Project Proposal Document (PPD) as from 27 February 2023. A standard template of the PPD (click to download) is available in the webpage dedicated for the Scheme https://ceb.mu/projects/carbon-neutral-industrial-sector-cnis-scheme on the CEB website.
- **4.** After a project has been accepted under the Scheme, the CEB will issue a Letter of Intent (LOI) to the concerned eligible and qualified Industrial Customer.
- **5.** The **LOI will remain valid for a period of two months**, within which the Industrial Customer shall submit the duly filled-in signed Agreement (CA or IA), whichever would be applicable, to the CEB. The model IA and standard CA will be available for download on the CEB website shortly.
- 6. As from the date of the signing of the relevant agreement, the Industrial Customer shall commence the commercial operation of the RE facility within a period of 17 months for RE project above 2 MW and within a period of 12 months for RE project of up to 2 MW; failing which relevant provisions of the Agreement shall be exercised.

ELIGIBILITY TO APPLY FOR THE SCHEME

The Scheme is opened to all Industrial Customers involved in economic activities other than the sugar production and energy generation.

The RE project of a party who is in litigation with the CEB will be kept into abeyance, until the litigation is effectively settled.

An eligible Industrial Customer holding an Agreement under another RE Scheme for the same electricity Contract Account Number will have to either open a new electricity contract account or request to cancel the existing Agreement and thereafter submit an application under the new CNIS RE Scheme.

WHERE TO SUBMIT THE APPLICATION?

The duly filled-in **Application Form** (for projects of capacity up to 2 MW) and the duly filled-in **Project Proposal Document** (for projects above 2 MW) <u>enclosed in a properly sealed, clearly labelled</u> <u>envelope</u>, together with all required documents should be submitted/addressed to as follows: -

Application Form	Project Proposal Document (PPD)	
In any CEB Customer Services Center (CSC)	The Renewable Energy & Strategic Projects	
	(RESP) Manager	
Contact details and addresses of CEB CSCs are	Central Electricity Board	
available on the CEB website <u>https://ceb.mu</u>	CEB Corporate Office,	
	Rue du Savoir,	
	Cyber City, Ebène	
	Republic of Mauritius	

Note:

- The **PPD** should be accompanied with the bank cheque for payment of the applicable processing fee (click to view the applicable processing fee)
- The CEB will start accepting Application Form (projects of capacity up to 2 MW) as from 20
 February 2023. Application Form received prior to that date will not be considered.
- The CEB will start accepting PPD (projects of capacity above 2 MW) as from 27 February 2023. PPD received prior to that date will not be considered.
- Upon receipt of the application, the CEB will raise the applicable processing fee (click to view the applicable processing fee) for payment.
- The processing of the application will start only after payment of the applicable processing fee.

FOR MORE INFORMATION ON THE CNIS RE SCHEME

Interested Industrial Customers, wishing to benefit from the CNIS RE Scheme, can obtain additional information on the Scheme: -

- On CEB's website <u>http://ceb.mu</u>. This is highly recommended to save time and effort.
- By sending an email to <u>querycnisscheme@ceb.mu</u>, or
- By contacting CEB Renewable Energy and Strategic Projects Department and MSDG Unit on telephone numbers 404-2000 and 601-1100 respectively

BENEFITS OF THE CNIS RE SCHEME

Amongst others, the benefits of the Scheme are as follows: -

- Subject to the compulsory network impact assessment (NIA) or network survey (NS), whichever would be warranted, interested eligible Industrial Customers (Prosumers) will participate in the production of clean electricity.
- The Prosumers will net off their electricity import from the grid with the energy generated by the RE facility pursuant to the applicable attractive unbundled time-of-use tariff; thus reducing their monthly electricity bills for a period of 20 years; a worthy financial risk mitigation.
- The Prosumers' RE facilities will be supported by CEB grid to stabilize the intermittent power generation; hence no investment for energy storage system. Consequently, the Prosumers will be able to lower their investment costs in the RE projects as an energy storage system (ESS) will not be required. This will enable them to minimize their exposure to associated financial, technological and/or operational risks.
- By engaging into this Scheme, the Prosumers will promote the use of renewable energy; hence, upholding national and international commitment for sustainable energy development. At the same time, they will improve the carbon footprint of their respective business activities, by extension enhancing the appeal of their products.
- The Prosumers 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.

IMPORTANT ADVICE

- Pursuant to the prevailing Electricity Act and ensuing regulations, every person (individual or entity) is legally required to register with the Utility Regulatory Authority (URA) and thereof apply for a relevant electricity generation licence. For more information on this legal obligation, contact the URA at <u>https://uramauritius.mu/</u>.
- Given the technicalities and financial implications in setting up of renewable energy project, sufficient care should be exerted when soliciting third party's supports. Contracting the services of an experienced consultant in the field is strongly recommended.
- The RE facility has to be fully compliant with the applicable Grid Code. In order to design properly the RE facility, seek support from knowledgeable qualified people who shall be able to prepare not only the technical part but equally the financial assessment of your investment in the facility. Keep regular contacts and work closely with the CEB.
- To avoid delays in the implementation of the project, ensure that all documentation together with the application form or project proposal document are submitted to the CEB. Ensure that the submission is made as instructed.
- Securing a Connection Agreement (CA) or Interconnection Agreement (IA), whichever is relevant, for the grid interconnection of the intended RE project (facility) is mandatory. Make sure that it has been agreed and signed prior to the setting up of the project (facility). It is strongly advised that payment(s) for equipment of the facility be initiated only after all agreements, licenses and permits, as applicable, have been properly secured.
- Whenever needed, seek the support services of CEB, who may provide useful guidance.
- The RE project/facility 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 project (facility), with the support of a technically qualified person or the supplier of the equipment, will also contribute in maximizing gain.
- Ensure full compliance, at all times, with the applicable Grid Code and its amendments and the Agreement (CA or IA).
- Modification of the setup of the RE facility, without prior CEB's authorization, will result in an automatic disconnection of the RE facility from CEB network and the suspension of the Agreement (CA or IA) and thereof all CEB's therein obligations.