

## **FREQUENTLY ASKED QUESTION #2**

### **(A) SYSTEM ACCESS CHARGES (SAC) AND REGULATORY FRAMEWORK**

1. With reference to section 6.20, where the  $M_{RED}$  is greater than the total  $M_{GC}$  due to the Green Consumer's lower energy usage, the amount of energy greater than the  $M_{GC}$  shall be deemed as free energy, does the RECs in this instant belong to the RED as the RED is not being compensated through NEDA for the output injection into the grid? Further, will this output be registered in  $M_{RED}$ ?

**In the scenario outlined in Section 6.20, where the  $M_{RED}$  is greater than the total  $M_{GC}$  due to the Green Consumer's (GC) lower energy usage (not resulting from the GC's withdrawal), the Renewable Energy Certificates (RECs) associated with the free energy will belong to the Renewable Energy Developer (RED). This free energy is part of the energy metered at the  $M_{RED}$ , and the System Access Charge (SAC) is applicable for this free energy.**

2. With reference to section 8.12, where the exported energy of RED is greater than the maximum monthly energy demand by the Green Consumer due to imbalance between generation and demand, such exported energy will not be compensated. In this instance, does the RECs belong to the RED? Since the RED is not being compensated through NEDA for the output injection into the grid? Further, will this output be registered in  $M_{RED}$ ?

**In the scenario outlined in Section 8.12, where the  $M_{RED}$  is greater than the total  $M_{GC}$  due to the Green Consumer's (GC) lower energy usage (not resulting from the GC's withdrawal), the Renewable Energy Certificates (RECs) associated with the free energy will belong to the Renewable Energy Developer (RED). This free energy is part of the energy metered at the  $M_{RED}$ , and the System Access Charge (SAC) is applicable for this free energy.**

3. With reference to section 8.14 (a) and (b), what would be the price difference in the System Access Charge (SAC) for a Green Energy Plant (GEP) with and without a BESS?

**The SAC as published on the Energy Commission's website at [www.st.gov.my](http://www.st.gov.my)**

4. In section 11, it is stated that “SAC shall be reviewed in every Regulatory Period”. What is the definition of “Regulatory Period” and is there an assumption of how volatile the SAC will change (if any).

**Please refer to the definition under the guidelines**

5. With reference to section 11.3, SAC will be reviewed every Regulatory Period, will there be a threshold set for SAC for firm and non-firm output during the Regulatory Period?

**With reference to Section 11.3, while SAC will be reviewed every Regulatory Period, any thresholds for firm and non-firm output during this time will ultimately depend on government approval. These details are typically determined as the review process unfolds, so specific thresholds will only be known once they are set in the upcoming Regulatory Period.**

**(B) GRID CONNECTION AND TECHNICAL REQUIREMENTS**

6. How are the BESS and GEP connected to the grid? Are they DC-connected and share one grid connection point and metering point connected? If not, do the BESS and GEP have separate grid connections and metering points?

**According to the CRESS Guidelines, Clause 8.14, Renewable Energy Developer (RED) shall install BESS with direct connection to fulfill the firming requirement. The size of BESS is at least 50% of the GEP registered capacity or the tested capacity during commissioning – whichever lower.**

- a. **Direct connection here means the GEP and BESS are directly connected to 132kV busbar at RED facility via either 132/33kV or 132/11kV step up transformer individually. These transformers shall be appropriately sized (in MVA) to allow maximum delivery from GEP and BESS without overloading their individual transformers while doing this.**
- b. **The minimum GEP size under the CRESS program is 30MW, therefore, based on the required firming, BESS shall be at least 15MW, 4hours. As such, the BESS and GEP connection is required to be AC-coupled**
- c. **In the CRESS Guideline, a meter  $M_{RED}$  is required and will be installed at the Interconnection Facility by the EUC (electricity utility company, in this case TNB) for energy billing purposes. However, RED is**

**encouraged to install individual meter at its GEP and BESS, especially if the GEP and BESS are at different locations – to be ready for future use.**

7. Will the GSO require the BESS to be capable of providing grid forming and/or black start capability as part of this section 8.16 requirement? What other functions/capabilities shall the GSO be testing the BESS for in connection to this section?

**The inverter types chosen by RED for either BESS or solar shall follow the requirement of Grid Code for Peninsular Malaysia and as advised by EUC at the point of requesting for grid connection (via PSS). The inverters may be required to provide grid forming and/or blackstart functions. For detail information on BESS Compliance tests, please refer to Appendix D of RE SAA. The agreement will be provided by EUC upon CRESS application.**

8. Refer to the following:
- i. PV Export = Solar Farm Export Capacity in MWac
  - ii. BESS Power = energy storage power capacity in MWac

What is the Injection Capacity to the Grid? Is it PV Export, BESS Power or other values in between?

**Injection capacity that will be metered is only PV Export for billing purposes.**

9. Due to potential price, financing cost, supply chain, and other related project risks, installed BESS prices may become higher relative to the regulator's financial models/economic studies used to develop Guidelines for CRESS. As such, the hard constraint on the sizing of BESS in section 8.14(a) may be cause for the Levelized Cost of Energy (LCOE) of the combined GEP and BESS energy solution for potential GCs to be potentially higher than the current benchmark price received from the TNB. Would the regulators be open to consider relaxing the rule or allowing REDs to determine the financially feasible size of BESS to ensure that competitive pricing are achievable and investors get acceptable returns on investment?

**Please adhere to the requirement in the CRESS Guidelines.**

10. With reference to section 8.10, in the event of a withdrawal of Green Consumer, can the RED re-apply to participate in CRESS if they found a new Green Consumer to replace the one who had withdrawn? Will that new Green Consumer need to be a new electricity user?

**REDs are allowed to re-apply to participate in CRESS if a Green Consumer withdraws. However, the new Green Consumer must be an existing customer of EUC with new additional demand or new customers which shall enter into CRESA with EUC, in compliance with the guidelines. The re-application process may require government approvals, including amendments to the RED's license, and could involve additional evaluations to ensure compliance and feasibility. To minimize the risk of withdrawal and potential disruptions, REDs are strongly encouraged to select reliable and reputable Green Consumers who are committed to long-term participation in CRESS.**

**(C) GREEN CONSUMER AND RENEWABLE ENERGY DEVELOPER (RED) POLICIES**

11. With reference to section 6.5, we understand that a RED is allowed to contract with more than 1 Green Consumer, but can a RED have more than 1 projects sites for 1 Green Consumer? Example, 1 Green Consumer with a demand of 150 MW under 2 site locations (100 MW and 50 MW)

**Under the Guidelines, a Green Consumer is allowed to source green electricity from more than one RED up to its maximum energy as declared in the CRESA with the EUC.**

12. With reference to section 6.15, EUC may also offer billing services to RED and Green Consumer for energy supplied by RED to Green Consumer, what do these "billing services" entail and what are the charges for it?

**EUC (TNB) will provide monthly billing and collection services on behalf of REDs to their GCs for green energy consumption and SAC. The charges is subjected to negotiation.**

13. Based on our understanding of sections 8.1 and 8.19, qualified Green Consumers (GC) should be existing customers, connected to the high and/or medium voltage lines, which has or will receive electricity on or after September 30, 2024. Would the regulator consider expanding the start date of qualified GCs in order to have a greater pool of demand for RED to provide supply to and to justify investments at scale?

**Energy Commission is currently focused on maintaining the existing start date for qualified GCs, as the Government has approved this requirement to align with the broader market framework and strategic objectives.**

14. With respect to the classification of a new Green Consumer, we are enquiring on behalf of a potential data centre off-taker, with an ESA for a 450 MVA connection with TNB. The data centre site has already energised at a very minimal power usage for testing and commissioning in preparation for their client in Q1 and Q2 next year, can they still be considered as a new Green Consumer under CRESS?

**Consumer may only participate in CRESS for new additional demand from the existing supply contract.**

**(D) APPLICATION PROCESS AND DOCUMENTATION**

15. With reference to section 7.2, will the template contracts for the CRESA, RE SAA, NEDA Agreement, Backfeed Agreement be released soon?

**Applicants can access draft copies of these agreements exclusively during the application process. Full versions will not be publicly released at this stage but will be available for review as part of the standard application procedure.**

16. What is the timeline for receiving the results as a successful bidder/complete application assume if we submit the application on September 30, 2024?

**There is no closing date. Application shall be submitted and processed by Single Buyer. The application process is as illustrated in Appendix 2 of the Guidelines.**

17. With reference to section 13.1, we understand that Single Buyer will start accepting applications from 30 September 2024 onwards, however, to clarify is there a timeline to submit (as were the case in CGPP)?

**With reference to Section 13.1, while the Single Buyer will begin accepting applications from 30 September 2024, there is currently no specified timeline or deadline for submissions at this time.**

18. With reference to section 13.4, if our application is incomplete, will we be given opportunities to submit further documents throughout the application process?

**With reference to Section 13.4, we recommend ensuring that all required documents are complete prior to submission to avoid any delays in the application process.**

19. Referring to Section 13.4(g) the approved PSS is needed for Submission Application and Appendix 2 requires the Application to be submitted first before conducting PSS Studies. Can we assume that Section 13.4(g) refers to PSS Stage 1 and Appendix 2 refers to PSS Stage 2? Would this mean that the PSS Study Stage 1 can already conducted starting 30th September 2024?

- i. **Applicants must strictly adhere to the procedures outlined in the process flow chart provided in Appendix 2 of the Guidelines when submitting their CRESS applications.**
- ii. **As stipulated in Section 13.2, the application must be submitted via the Single Buyer's website at [www.singlebuyer.com.my](http://www.singlebuyer.com.my). Following submission, the applicant is required to undertake a Power System Study (PSS) to comply with the technical requirements of the CRESS application process.**
- iii. **The scope of the PSS for each application shall encompass a comprehensive analysis, including steady-state and dynamic (transient) studies, as well as Reactive Power and Power Quality studies. These studies are mandated to ensure the proposed system's reliability and technical compliance.**
- iv. **Upon completion of the PSS, applicants must secure approval for the study and submit the approval documentation as part of the CRESS application process.**
- v. **It is imperative to note that the PSS study and its approval only address the technical requirements of the application. Applicants are reminded that all other requirements stipulated in the CRESS guidelines must also be fulfilled to achieve application completeness.**

20. For Section 13.4 (h), can the Land Lease Agreement be substituted with a MoU/Term Sheet for the purpose of application submission and only proceed to execute the definitive contract upon successful application, as it was the case with CGPP.

**With reference to Section 13.4(h), applicants are required to secure a definitive contract/agreement at the application stage. This requirement is in place to affirm a committed partnership and support the reliable delivery of the project. While we understand this may necessitate additional time and resources, the definitive agreement is essential to meet the standards outlined in the guidelines.**

21. With reference to section 13.4(i), can we clarify if this refers to the full-fledged, definitive contract between the RED and the Green Consumer? Or can a MoU/Term Sheet suffice for application purposes, to be followed by the definitive contract upon successful application? If it's the former, due to the amount of time and resources required in negotiating and executing this contract, it will cause a delay of around 6 months, or possibly more, to get the submission ready, with no guarantee that the application would be successful. For better efficiency, we would like to ask if EC is willing to consider allowing the RED to submit an MoU with Term Sheet and only proceed to execute the definitive contract upon successful application, as it was the case with CGPP.

**With reference to Section 13.4(i), applicants are required to secure a definitive contract/agreement at the application stage. This requirement is in place to affirm a committed partnership and support the reliable delivery of the project. While we understand this may necessitate additional time and resources, the definitive agreement is essential to meet the standards outlined in the guidelines.**

22. With reference to section 13.4(j), can we clarify what are the default declaration documents to be furnished? Further to this, will ST release appendices/forms similar to those required under the CGPP?

**The default declaration will be provided in the CRESS registration form.**

**(E) GUIDELINES COMPLIANCE AND OPERATIONAL CLARIFICATIONS**

23. In section 8.16, mentions that the “GSO shall have the right to instruct GEP to reduce, maintain or increase the output subject to system condition”. Will the Renewable Energy Developer (RED) be compensated if dispatched for this purpose? If yes how much?

The energy generated by GEP and exported to the grid is deemed energy delivered to its Green Consumers, including the energy delivered under this provision 8.16.

The need for GSO to instruct GEP to 'reduce' its output only arises when the system condition calls for it, i.e. during grid disturbance.

24. With reference to section 8.20, to clarify, if an existing customer has a demand of 10MW and an additional new demand of 5MW, is the minimum threshold calculated as follows:  $100\% \times 15\text{MW} \times 0.52 \times 730$  hours?

**Based on guideline, the calculation to set the minimum threshold under CRESS are as follows:-**

***8.20 For existing customer who participates with new additional demand, 100% of the existing maximum demand declared multiply by load factor of 0.52 x 730 (hours) will be used to set the minimum threshold under CRESS programme. The minimum threshold will be used for billing calculation.***

**Minimum Threshold for billing =  $(10\text{MW}) \times 0.52 \times 730 = 3,796,000\text{kWh}$**

25. With reference to section 6.11, it states that “The meter reading at RED and Green Consumer premises shall be coordinated in such a way that the readings reflect the supply and consumption of electricity that occur within the same time during the Billing Period.”, what does “same time” entail? Is this down to the very minute and hour or this is referring to the same monthly/billing cycle during the Billing Period? This section does seem to contradict sections 6.20 and 8.12.

**Billing Period referring to monthly bill starting from 1st of the month until end of the month. The same Billing Period will be use for :-**

- i. TNB bill the GC for Maximum Demand and balance of energy**
- ii. TNB bill RED for backfeed usage**
- iii. SB bill RED for SAC**

26. With reference to section 14.1(a), in the event that the GEP is not implemented according to schedule or not completed by the scheduled COD, the Commission reserves the right to revoke participant, does this mean that there is a sunset COD stipulated under CRESS that the RED needs to comply with?



The project schedule represents a commitment by the GEP, which must be adhered to in compliance with the established guidelines. While there is no specific "sunset COD" stipulated under CRESS, the Commission expects participants to follow the agreed-upon timeline to ensure project completion as scheduled. Any significant deviations may lead to the revocation of participation rights, as outlined in the guidelines.

27. Similarly to the CGPP, will there be a commitment bond imposed on the RED?

**No bond is required during CRESS submission. But Bank Guarantees will be required under:**

- i. NEDA CRESS Deed of Accession for the System Access Charge payment**
- ii. RESAA for Interconnection Facility works**

**(F) REGULATORY AND POLICY CLARIFICATIONS**

28. How is ST regulating the point of interconnection? With the understanding that "LSS5" still yet to award.

**We will ensure that the LSS5 evaluation and award process smoothly without impacting the CRESS programme.**

29. With reference to the definition "EUC", does this include other licenced EUC that is not part of the TNB group?

**EUC refers to Tenaga Nasional Berhad.**

30. With reference to section 7.8, do clarify who are the "relevant parties" involved when the generation and consumption data of RED and Green Consumer is shared? Is the sharing limited to billing purposes?

**Yes, sharing limited to billing purpose only.**