

# **GUIDELINES**

## **FOR COMMUNITY RENEWABLE ENERGY AGGREGATION MECHANISM (CREAM)**



**GUIDELINES FOR COMMUNITY  
RENEWABLE ENERGY AGGREGATION  
MECHANISM (CREAM)**

# Registration Record

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**ELECTRICITY SUPPLY ACT 1990 [Act 447]**

**GUIDELINES FOR COMMUNITY RENEWABLE ENERGY AGGREGATION  
MECHANISM**

**GP/ST/No. 55/2025**

IN exercise of the powers conferred by section 50C of the Electricity Supply Act 1990 [Act 447], the Commission issues the following guidelines.

**Citation and commencement**

1. These Guidelines may be cited as the Guidelines for Community Renewable Energy Aggregation Mechanism.
2. These Guidelines shall come into operation on the date of registration of these Guidelines.

**Purpose**

3. The purpose of these Guidelines is to regulate the direct procurement of green electricity generated from Local Community Solar Plant ("LCSP") owned by Local Energy Generator and Aggregator ("LEGA") to the Local Green Consumers registered with the Electricity Utility Company ("EUC") via Electricity Supply Network in Peninsular Malaysia.

## **Amendment and Variation**

4. The Commission may at any time revise, amend, modify, or revoke these Guidelines, and promulgate any requirement on the use, production and installation of LCSP installation to ensure true cost of supply and fairness to all consumers and the security and reliability of the Electricity Supply Network.

Date: 28 March 2025



**SITI SAFINAH BINTI SALLEH**

Chief Executive Officer

Energy Commission

## TABLE OF CONTENTS

1. OBJECTIVES	5
2. APPLICATION	5
3. INTERPRETATION	6
4. INTRODUCTION	10
5. LEGAL AND REGULATORY REQUIREMENTS	11
6. COMMUNITY RENEWABLE ENERGY AGGREGATION MECHANISM (CREAM)	11
7. CONTRACTUAL FRAMEWORK	16
8. CRITERIA FOR LOCAL COMMUNITY SOLAR PLANT (LCSP)	18
9. REQUIREMENTS AND PREREQUISITES FOR PARTICIPATION IN CREAM AND OTHER RELEVANT MECHANISM	19
10. TECHNICAL OBLIGATION OF EUC	22
11. LICENSING REQUIREMENT	23
12. RENEWABLE ENERGY CERTIFICATE	23
13. COMMUNITY ACCESS CHARGE	23
14. DECOMMISSIONING OF LOCAL COMMUNITY SOLAR PLANT	24
15. SUBMISSION OF APPLICATION FOR PARTICIPATION	25
16. RIGHTS OF ENERGY COMMISSION	26

## LIST OF APPENDICES

1. Appendix 1: Sample of CREAM Billing Calculation
2. Appendix 2: Indicative Application Process

## LIST OF FIGURES

1. Figure 1: Physical and Financial Framework for the CREAM
2. Figure 2: Contractual Framework for CREAM

## **1. OBJECTIVES**

1.1. These Guidelines are developed by the Commission for the following objectives:

- (a) to introduce the Community Renewable Energy Aggregation Mechanism (CREAM) in Peninsular Malaysia as a platform to facilitate the Local Green Consumers sourcing renewable energy directly from the Local Energy Generator and Aggregator through an Open Access to Peninsular Malaysia Electricity Supply Network;
- (b) to describe the principles of the CREAM;
- (c) to set out the requirements and prerequisites for participation in the CREAM;
- (d) to outline the application and approval process for participation in the CREAM;
- (e) to set out the roles, functions and responsibilities of the relevant parties under the CREAM; and
- (f) to provide for any other matters which may be or incidental to the implementation of the CREAM.

## **2. APPLICATION**

2.1. These Guidelines shall apply to:

- (a) the Local Energy Generator and Aggregator (“LEGA”);
- (b) the Electricity Utility Companies (“EUC”) who holds a licence to supply and distribute electricity in Peninsular Malaysia and whose system is to be connected with the Local Community Solar Plant (“LCSP”) and Local Green Consumer;

- (c) the Local Green Consumers;
- (d) any parties who are involved in the implementation and operation of the CREAM; and
- (e) any parties who intend to participate in the CREAM.

- 2.2. These Guidelines are not intended in any way to circumvent the application of and obligations or requirements under any other written law and any regulatory frameworks, guidelines, and industrial standards.
- 2.3. Any person who wishes to participate in the CREAM shall have the full responsibility to conduct an independent analysis of its proposal, including gathering and presenting all necessary information.
- 2.4. Any person who wishes to participate in the CREAM shall be fully responsible for any decisions taken in relation to the preparation and submission of the application for participation in the CREAM, whether or not in reliance on any information supplied by the Commission or any other related parties or any of their personnel or representatives.
- 2.5. Any person who wishes to participate in the CREAM shall refer to the relevant laws, procedures and documents issued by the relevant authorities for further information (if required).

**3. INTERPRETATION**

- 3.1. In these Guidelines, unless the context requires, the definitions of the terms are as follow:

<b>“Act”</b>	means the Electricity Supply Act 1990 [Act 447];
<b>“Bilateral Energy Supply Contract”</b>	means a special agreement pursuant to section 29 of the Act, entered between Local

	Green Consumer and LEGA for supply of electricity generated from LCSP;
<b>“Billing Period”</b>	has the meaning assigned to it under the Guidelines for New Enhanced Dispatch Arrangement;
<b>“Codes”</b>	means all codes issued by the Commission, pursuant to section 50A of the Act;
<b>“Commission”</b>	has the meaning assigned to it under the Energy Commission Act 2001 [ <i>Act 610</i> ];
<b>“Community Access Charge (or CAC)”</b>	means charges levied to LEGA to recover the cost of network infrastructure and other necessary charges in delivering green electricity from LEGA to the Local Green Consumer;
<b>“CREAMA”</b>	means a Community Renewable Energy Aggregation Mechanism Agreement between Local Green Consumer and EUC to allow the transfer of electricity from LCSP to Local Green Consumer;
<b>“Commencement Date”</b>	means the commencement date of the CREAMA;
<b>“Direct Connection”</b>	means a direct physical link between LCSP and Distribution System;
<b>“Distribution System”</b>	means the system of electric lines with voltage levels below 66 kV, within the area of supply owned or operated by the distributor/ embedded distributor, for distribution of electricity from grid supply points or generating units or other entry points to the point of delivery to customers or other distributors, and includes any electrical plant and meters owned or operated by the distributor/ embedded distributor in connection with the distribution of electricity;
<b>“DRESAA”</b>	means the Distribution Renewable Energy System Access Agreement entered between the LEGA and EUC to allow transfer of electricity generated from LCSP to the System;
<b>“Electricity Supply Network”</b>	means the system consisting (wholly or mainly) of electric lines which are owned or operated

	by EUC and used for the distribution of electricity to electricity consumers or other Distributors in Peninsular Malaysia;
<b>“Electricity Utility Company (or EUC)”</b>	means the holder of a license granted by the Commission under section 9 of the Act to distribute and supply electricity in the Peninsular Malaysia with the electricity supplied from the Single Buyer Market;
<b>“Excess Energy”</b>	means the export energy of the LEGA that is greater than the maximum monthly energy demand due to withdrawal of Local Green Consumer from the programme.
<b>“Excess Energy Date”</b>	means the date on which the Excess Energy shall be supplied by the LEGA;
<b>“Government”</b>	means the Government of Malaysia;
<b>“Guidelines”</b>	means these Guidelines;
<b>“Guidelines for Single Buyer”</b>	means the Guidelines for Single Buyer Market (Peninsular Malaysia) 2018;
<b>“Guidelines on Licence Application”</b>	means the Guidelines on Licence Application under the Electricity Supply Act 1990 [Act 447];
<b>“Homeowner”</b>	means individual or legal entity that holds the legal title or ownership of a residential or landed property. This includes those with rights to lease or manage the property for purposes aligned with CREAM program, provided such rights are clearly documented. The homeowner is responsible for entering agreements with the LEGA and ensuring compliance with the program's terms and conditions.
<b>“LCSP” (Local Community Solar Plant)</b>	means the rooftop solar photovoltaic power generation system owned by LEGA that is connected to the System under CREAM;
<b>“LEGA” (Local Energy Generator and Aggregator)</b>	means the rooftop solar photovoltaic plant owner whose plant is connected to the System under CREAM;
<b>“Local Green Consumer (or LGC)”</b>	means an owner or occupier of a premise who is required to be supplied with electricity by EUC and LEGA. Local Green Consumer can

be both existing and new customer of EUC which shall enter into CREAMA with EUC;

<b>“MLEGA”</b>	means the Meter LEGA, being the energy meter installed and owned by EUC at the site of the LEGA to measure and record the energy delivered to the Distribution System and energy received from Distribution System;
<b>“MLGC”</b>	means the Meter Local Green Consumer, being the energy and maximum demand meter installed and owned by EUC at the Local Green Consumer premise to measure and record the energy delivered and associated maximum demand;
<b>“NEDA”</b>	has the meaning assigned to it under as in the Guidelines for New Enhanced Dispatch Arrangement;
<b>“NEDA Agreement”</b>	has the meaning assigned to it under the Guidelines for New Enhanced Dispatch Arrangement;
<b>“NEDA Guidelines”</b>	has the same meaning as in the Guidelines for NEDA, as amended from time to time;
<b>“Open Access”</b>	means non-discriminatory access to the electricity Distribution System provided to eligible consumers and generators;
<b>“Public Generation Licence”</b>	means the generation licence granted by the Commission under section 9 of the Act for the purpose of generating electricity and supply to or for the use of any other person;
<b>“Regulatory Period”</b>	means the period under Incentive Based Regulation mechanism;
<b>“Single Buyer”</b>	has the meaning assigned to it under the Act;
<b>“Single Buyer Market”</b>	has the meaning assigned to it under the Guidelines for Single Buyer Market (Peninsular Malaysia) 2018;
<b>“System”</b>	has the meaning assigned to it under the Act; and
<b>“TNB”</b>	means Tenaga Nasional Berhad, a limited liability company with the address at Pejabat

Setiausaha Syarikat, Tenaga Nasional Berhad, Tingkat 16, Tower A, TNB Platinum, No. 3, Jalan Bukit Pantai, Bangsar, 59100 Kuala Lumpur.

- 3.2. Subject to paragraph 3.1 and unless expressly indicated to the contrary or unless the context otherwise requires, terms adopted and used in these Guidelines shall bear the same meaning as they are defined in the Act.

#### **4. INTRODUCTION**

- 4.1. Malaysia is committed to a sustainable future and has set ambitious targets to reduce its carbon footprint. The nation aims to achieve 70% renewable energy in its energy mix by 2050, aligning with global efforts to combat climate change. This commitment is further strengthened by the increasing adoption of Environmental, Social, and Governance (ESG) principles by businesses and corporations.
- 4.2. To realize this vision, the Government has implemented various initiatives, including feed-in tariffs, net energy metering, and large-scale solar projects. These policies have fostered a conducive environment for renewable energy adoption and investment.
- 4.3. In recent years, the Government has introduced innovative programs to empower both individuals and businesses to contribute to a greener future. The Corporate Green Power Programme (CGPP) and the Corporate Renewable Energy Supply Scheme (CRESS) are key examples of these initiatives. These programs enable businesses to source renewable energy directly, reducing their carbon footprint and aligning with their ESG goals.
- 4.4. Subsequently, in 2025, the Government introduced a program to encourage community participation in renewable energy generation. By incentivizing individuals to lease their rooftops for solar photovoltaic installations, the program aims to enable communities to generate clean energy and earn

additional income by selling excess solar power directly to Local Green Consumers.

## **5. LEGAL AND REGULATORY REQUIREMENTS**

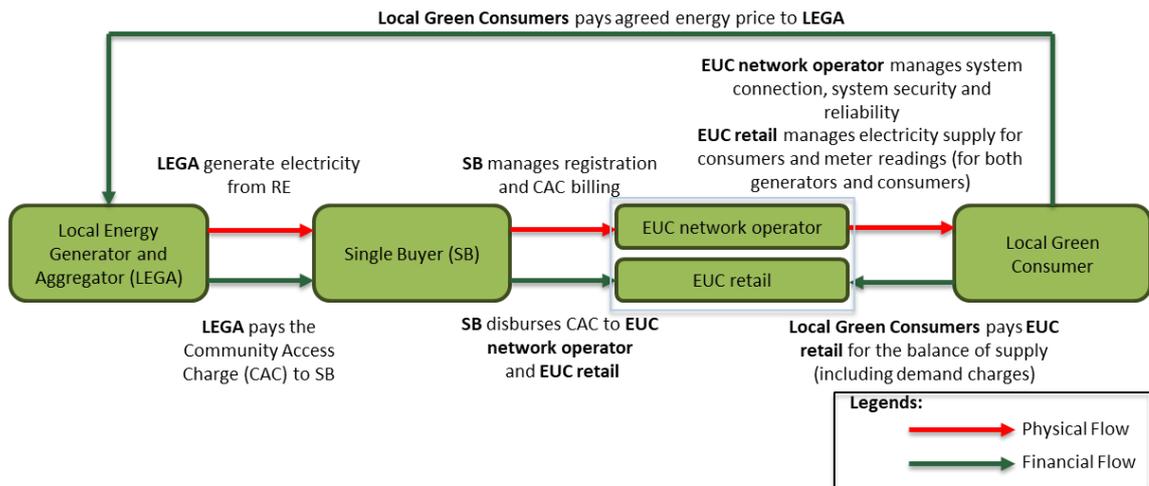
- 5.1 The CREAM is in accordance with the provisions and requirements of the current legal and regulatory frameworks, the market mechanism and system operation and dispatch principles, the tariff structures, the electricity tariff setting principles and the metering and billing system as well as with reference to the various technical guidelines of EUC. This is to ensure that it can be implemented under the current frameworks and industry structure with no changes to the current practices, without affecting the current tariffs and without unfair financial implication to other consumers.
- 5.2 The main legal and regulatory frameworks which the CREAM will be subject to the requirements under the Act and the subsidiary legislations made under it.
- 5.3 The participants are strongly advised to study and understand the principles provided in the NEDA Guidelines, the Single Buyer Market operation, the tariff structure and any other legal requirement before participating in the CREAM.

## **6. COMMUNITY RENEWABLE ENERGY AGGREGATION MECHANISM (CREAM)**

- 6.1 The CREAM provides an avenue for Local Green Consumers to procure green electricity directly from the LEGA through Open Access to the Distribution System.

6.2 In line with the Government’s policy, this CREAM will be implemented using the NEDA mechanism and involve several parties such as LEGA, Local Green Consumer, Single Buyer and the EUC.

6.3 The CREAM framework is as illustrated in **Figure 1** (Physical and Financial Framework).



**Figure 1: Physical and Financial Framework for the CREAM**

6.4 The LEGA shall be responsible for the development, ownership, operation, and maintenance of the LCSP, ensuring the efficient generation and aggregation of renewable energy. The LEGA shall also manage contractual agreements with Local Green Consumers, comply with technical and regulatory requirements, and facilitate the delivery of electricity through the Electricity Supply Network in accordance with these Guidelines.

6.5 The LEGA shall develop, own and operate a new LCSP with a Direct Connection for its Local Green Consumer. The energy produced by the LCSP is exported through the Electricity Supply Network in accordance with NEDA Guidelines and relevant Codes and agreement.

6.6 The LEGA is allowed to contract with more than one (1) Local Green Consumer up to the maximum registered export energy for the CREAM.

- 6.7 The Single Buyer shall administer the registration of LEGA as a NEDA participant and manage the CAC billing and settlements.
- 6.8 The energy produced by LEGA shall be wheeled through to the Local Green Consumer using the Electricity Supply Network and subject to the CAC.
- 6.9 A Local Green Consumer is allowed to source green electricity from more than one (1) LEGA up to its maximum energy as declared in the CREAMA with the EUC, within approximately a 5 km radius as determined by EUC.
- 6.10 The EUC shall manage the last mile connection and relevant services to the Local Green Consumer. The EUC shall also be responsible as the supplier of last resort as per declared demand contracted with the EUC in the event where LEGA is not able to generate and supply electricity to the Local Green Consumer.
- 6.11 The EUC shall carry out the billing process and issue the relevant bill to the Local Green Consumer based on meter readings at both LEGA ( $M_{LEGA}$ ) and Local Green Consumer ( $M_{LGC}$ ) premises. The LEGA ( $M_{LEGA}$ ) meter readings for billing are based on net energy after subtracting the import energy recorded. The meter reading at LEGA and Local 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. The meter reading and billing activities shall be carried out on a monthly basis. LEGA and Local Green Consumer shall also grant EUC and Single Buyer the access for  $M_{LEGA}$  and  $M_{LGC}$ .
- 6.12 The EUC shall provide the meter readings of  $M_{LEGA}$  and  $M_{LGC}$  to the Single Buyer and LEGA on the first (1<sup>st</sup>) day of the month, for the purpose of billing process and issuance of the relevant bill to LEGA by Single Buyer and to the Local Green Consumer by LEGA.
- 6.13 The bill issued by the EUC to the Local Green Consumer shall contain, but not limited to, the following information:

- (a) Period covered by meter reading and billing;
- (b) Quantity of energy consumed by the Local Green Consumer ( $M_{LGC}$ );
- (c) Quantity of energy exported and supplied by LEGA ( $M_{LEGA}$ );
- (d) Quantity of energy supplied by the EUC as a supplier of last resort ( $M_{LGC}-M_{LEGA}$ );
- (e) Amount to be paid to the EUC for the supplied energy, relevant fixed charges and other services; and
- (f) Actual metered maximum demand.

6.14 EUC will issue an electricity bill to the Local Green Consumer for every billing cycle period, being:

- (a) the period beginning on the Commencement Date and ending on the date on which the first bill is issued by EUC to the Local Green Consumer, following the occurrence of such Commencement Date;
- (b) each one (1) month period thereafter during the term of the CREAMA; and
- (c) the period beginning from the date following the last date of the immediate preceding bill and ending on the date the CREAMA expires or terminates in accordance with its terms.

6.15 The EUC may also offer billing services to LEGA and Local Green Consumer for energy supplied by LEGA to Local Green Consumer.

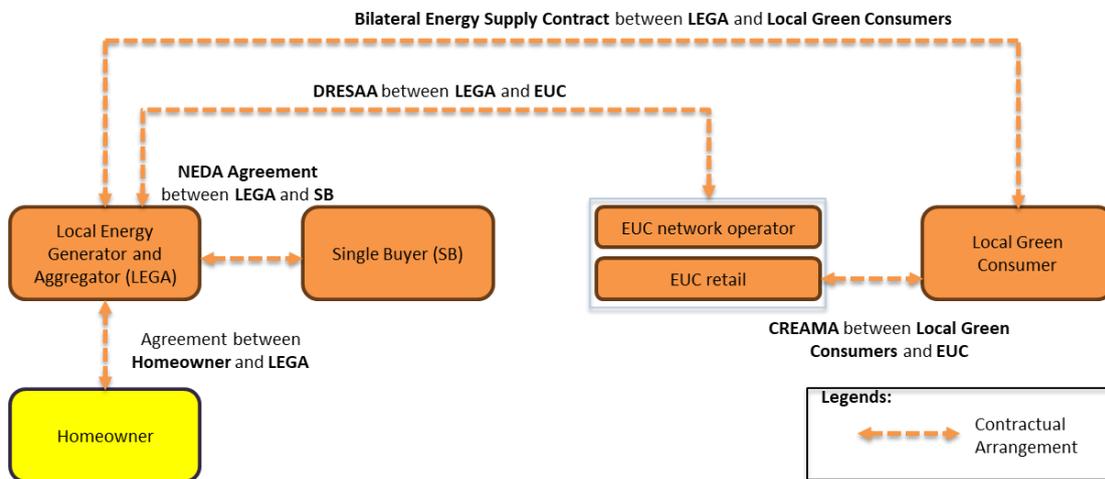
6.16 The Local Green Consumer shall make payment due to the EUC for electricity supplied by EUC in accordance with the CREAMA. The Local Green Consumer shall also make payment to LEGA for green electricity supplied from LEGA in accordance with the Bilateral Energy Supply Contract.

- 6.17 For the same Billing Period as mentioned in item 6.11, 6.12 and 6.13, the Single Buyer shall carry out the billing process and issue the relevant bill to the LEGA based on the summation of  $M_{LEGA}$  meter reading at LEGA premises. Billing period for CREAM programme shall start on the 1<sup>st</sup> of the month.
- 6.18 The bill issued by the Single Buyer to the LEGA shall contain, but not limited to, the following information:
- (a) Billing Period covered by meter reading;
  - (b) Summation of quantity energy exported and supplied by LEGA ( $M_{LEGA}$ );
  - (c) CAC (based on 6.18(b)), relevant NEDA charges, and other services (if any);
  - (d) Quantity of Excess Energy (if any); and
  - (e) Net amount to be paid to the Single Buyer after netting off amount related to Excess Energy.
- 6.19 The LEGA shall make payment due to the Single Buyer in accordance with the settlement provisions stipulated in the NEDA Guidelines.
- 6.20 In the event where  $M_{LEGA}$  is greater than the total of  $M_{LGC}$  due to Local Green Consumer's lower energy usage, the amount of energy greater than  $M_{LGC}$  shall be deemed as free energy to the Electricity Supply Network.
- 6.21 Upon receiving the payment from the LEGA, the Single Buyer shall then disburse the components of CAC to the relevant parties.
- 6.22 The maintenance of the LCSP, any transfer of obligations due to the sale of the property, and liabilities arising from damage to the property shall be solely governed by the agreement between the Homeowner and the LEGA.
- 6.23 The Commission, Single Buyer, and EUC shall not be responsible for any disputes, damages, or liabilities arising from agreements between the

Homeowner and the LEGA, and it shall be the responsibility of the LEGA to ensure that the Homeowner fully understands their contractual obligations before entering into the agreement.

## 7. CONTRACTUAL FRAMEWORK

7.1 The overview of the contractual framework for this CREAM is as illustrated in **Figure 2**.



**Figure 2: Contractual Framework for CREAM**

7.2 There are at least four (4) separate agreements involved in this CREAM. The agreements are as follows:

- (a) Bilateral Energy Supply Contract;
- (b) DRESAA;
- (c) NEDA Agreement between LEGA and the Single Buyer for the invoicing and collecting of the relevant CAC and compliance to the NEDA Guidelines and these Guidelines; and
- (d) CREAMA.

7.3 The Bilateral Energy Supply Contract shall include, but not limited to, the following items:

- (a) the roles and responsibility of LEGA in supplying the energy to Local Green Consumer by applying the prudent utility practices;
- (b) the concern or right of the Local Green Consumer with regards to the quality of supply;
- (c) the information regarding LEGA which includes but not limited to the installed capacity, location, commencement date, commercial operation date, interconnection and metering;
- (d) the information on the energy sales which includes but not limited to the term of agreement, rate and energy payment;
- (e) the information on billing which includes but not limited to the billing period, calculation, statement, meter reading, bill payment, disputes on non-accuracy and records;
- (f) the information for during supply interruption, emergency operation, scheduling and maintenance;
- (g) the information on the green attribute arrangement (if any); and
- (h) the force majeure event and suspension of sales and purchase of energy by both parties.

7.4 The LEGA shall register as a NEDA participant and execute the NEDA Agreement. The NEDA Agreement shall bind the LEGA to the NEDA Guidelines which will be part of the mechanism for the CREAM implementation.

7.5 In addition, the LEGA shall enter into DRESAA with the EUC which binds the LEGA to the technical requirements for the network access. DRESAA ensures that the LEGA complies with the relevant technical Codes and Guidelines and other related obligations.

- 7.6 In managing item 7.3(f), the LEGA may also enter into an agreement with the EUC to manage the billing and payment collection from the Local Green Consumer on behalf of the LEGA.
- 7.7 In managing CREAM, LEGA and Local Green Consumer shall allow generation and consumption data to be shared by all relevant parties.
- 7.8 In addition to the Bilateral Energy Supply Contract, the Local Green Consumer shall also enter into the CREAMA with the EUC as the supplier of last resort. CREAMA shall reflect and cover the necessary arrangement as highlighted in item 6.10 to 6.14.

## **8. CRITERIA FOR LOCAL COMMUNITY SOLAR PLANT (LCSP)**

- 8.1 LCSP must be located within residential properties, specifically on landed houses. Multi-dwelling units such as condominiums or apartments are not eligible under this criterion.
- 8.2 The electricity generated by the LCSP shall be in the form of renewable energy, specifically from rooftop solar photovoltaic systems.
- 8.3 LCSP installed capacity shall not be less than 100kWp and not exceeding 2MWp per 11kV feeder, subject to the power system study and have a Direct Connection to the Electricity Supply Network at low voltage.
- 8.4 The maximum export capacity from LCSP to the Distribution System shall be determined based on the outcome of power system study, with a minimum export capacity is 100kW.
- 8.5 The LCSP and the Local Green Consumer must be located within approximately a 5 km radius of each other for the supply of green electricity.

The location of EUC substations connecting the LCSP and Local Green Consumer shall be used to determine the distance permitted.

- 8.6 Homeowners participating in the CREAM shall sign an agreement with the LEGA. This agreement must detail the terms and conditions, including the leasing of the house roof for solar photovoltaic installations. A new agreement shall be made in the event of any change of Homeowners participating in the CREAM.
- 8.7 Homeowners must agree to lease their roof space for the installation of solar photovoltaic systems. The leasing arrangement, including duration, compensation, and maintenance responsibilities, should align with the provisions of the agreement signed with LEGA.
- 8.8 In the event of any disputes between Homeowners and LEGA, the Commission shall not mediate or otherwise become involved in the resolution process. All disputes must be resolved exclusively in accordance with the terms of the commercially executed agreement between the Homeowner and LEGA, under which the Commission, Single Buyer and EUC shall not be held liable. Furthermore, both parties are required to fully comply with all contractual provisions to ensure the successful implementation and ongoing operation of the LCSP.

## **9. REQUIREMENTS AND PREREQUISITES FOR PARTICIPATION IN CREAM AND OTHER RELEVANT MECHANISM**

- 9.1 A Local Green Consumer must be a registered low or medium voltage consumer under any category with the EUC in Peninsular Malaysia.
- 9.2 Local Green Consumer can be both existing and new customers of EUC operating in Peninsular Malaysia.

- 9.3 The LEGA can be the owner of the LCSP and Local Green Consumer.
- 9.4 The LEGA shall be operating in Peninsular Malaysia with at least fifty one percent (51%) local ownership which shall be part of the licence condition.
- 9.5 Connection between the LCSP and the Local Green Consumer shall be a Direct Connection through Electricity Supply Network.
- 9.6 The LEGA shall declare its maximum monthly energy output during registration as CREAM participant.
- 9.7 Excess Energy can be sold to the Distribution System through NEDA mechanism at 8 cent/kWh or any other rate as may be determined by the Commission, or a committee chaired by the Commission, subject to the Distribution System condition. In such a case where LEGA is selling the Excess Energy to the Distribution System, CAC does not apply to LEGA
- 9.8 The LEGA shall provide a written notification on the discontinuation of the Bilateral Energy Supply Contract to Single Buyer prior to thirty (30) days of the Excess Energy Date.
- 9.9 Exported energy by LEGA that is greater than the maximum monthly energy demand by Local Green Consumer due to imbalance between generation and demand, will not be compensated through NEDA mechanism. Such energy will be considered as free energy to the Distribution System.
- 9.10 The LEGA may supply to more than one (1) Local Green Consumer and shall comply with the following conditions:
- (a) The LCSP and the Local Green Consumer located within approximately a 5 km radius and total installed capacity shall not be less than 100kWp and not exceeding 2 MWp per 11kV feeder. The location of EUC substations connecting the LCSP and Local Green Consumer shall be used to determine the distance permitted.

- (b) LEGA shall declare the amount of energy allocated for each of its Local Green Consumer in percentage of maximum monthly energy output declared during registration;
- (c) In the event where the total monthly energy output of LEGA is lower than the declared maximum monthly energy output, the EUC shall use the allocated percentage and actual total monthly energy output in the billing calculation for the Local Green Consumer;
- (d) In the event where the total monthly energy output of LEGA is greater than the declared maximum monthly energy output, the EUC shall use the allocated percentage and declared maximum monthly energy output in the billing calculation for the Local Green Consumer;
- (e) Any changes on the percentage of energy allocated for the Local Green Consumer can be made in writing by LEGA to the Commission and copied to the Single Buyer and EUC no later than one hundred twenty (120) days prior to the effectiveness of the intended changes. Effectiveness of the changes will only occur on the first (1<sup>st</sup>) day of any calendar month;
- (f) Any changes or replacement of Local Green Consumer shall be made in writing by LEGA to the Commission and copied to the Single Buyer and the EUC no later than one hundred twenty (120) days before the effectiveness of the changes. Effectiveness of the changes will only occur on the first day of any calendar month; and
- (g) In the event that billing for Local Green Consumers needs to be issued outside the normal billing cycle, the calculation of green energy consumed will be prorated.

9.11 The approval of CREAM application is subject to:

- (a) Successful registration under NEDA;
- (b) Completeness of all related agreement or contract as stipulated in item 7.2; and

- (c) Compliance to the prerequisites and requirements as stated in these Guidelines.

9.12 The sample of CREAM billing calculation is provided in **Appendix 1**.

9.13 The LEGA shall allocate the necessary land area to accommodate the Community Energy Storage System (CESS) that will be installed by EUC for both greenfield and brownfield areas.

## **10. TECHNICAL OBLIGATION OF EUC**

10.1 EUC is responsible for—

- (a) ensuring that the integration of renewable energy through Local Community Solar Plant (LCSP) is seamless and includes localized supply balancing to maintain the stability and reliability of the distribution system;
- (b) deploying and maintaining Voltage Regulating Distribution Transformers (VRDTs) to manage fluctuations in voltage caused by intermittent renewable energy generation.
- (c) implementing local balancing solutions such as community-based energy storage systems to optimize energy distribution.
- (d) identifying and implementing necessary upgrades to the Distribution System to support LCSP integration, including the deployment of Online Feeder Pillars and localized enhancements in areas with high renewable energy penetration; and

- (e) implementing the smart community infrastructure that is essential for real-time monitoring and control and ensuring a reliable and secure supply of electricity.

## **11. LICENSING REQUIREMENT**

- 11.1 The LEGA shall apply for a licence for the operation of the LCSP as stipulated under the “Guidelines on Licence Application under the Electricity Supply Act 1990 [Act 447].

## **12. RENEWABLE ENERGY CERTIFICATE**

- 12.1 Under the CREAM framework, the green attributes belong to the LEGA. The green attributes may be transferred to the Local Green Consumers in accordance to the Bilateral Energy Supply Contract.
- 12.2 Redemption of the green attributes in the form of the Renewable Energy Certificates (RECs) by Local Green Consumer shall be done in Malaysia according to international standards.
- 12.3 In the event that LEGA sells Excess Energy to the Distribution System the corresponding green attributes shall belong to the Single Buyer.

## **13. COMMUNITY ACCESS CHARGE**

- 13.1 The LEGA shall be charged with CAC for the use of Peninsular Malaysia Electricity Supply Network and associated services.

- 13.2 The Single Buyer shall be invoicing and collecting the relevant CAC from the LEGA based on the amount of energy exported by LEGA into the Distribution System. The amount shall exclude the Excess Energy that is sold to the Single Buyer through NEDA.
- 13.3 The CAC shall be fixed for a period of three (3) years in accordance with the Incentive Based Regulation (IBR) Regulatory Period. Any revision to the charge shall only take effect at the commencement of a new Regulatory Period, subject to a maximum variation rate of 15% from the prevailing charge.
- 13.4 The CAC as published in the Commission's website at [www.st.gov.my](http://www.st.gov.my)

#### **14. DECOMMISSIONING OF LOCAL COMMUNITY SOLAR PLANT**

- 14.1 The application to establish a LCSP must include a decommissioning plan which contain the following details:
- (a) The name, address, telephone number, and e-mail address of the person(s) or entity(ies) responsible for implementing the decommissioning plan;
  - (b) A statement of conditions that require the decommissioning plan to be implemented;
  - (c) Identification of all components of the LCSP;
  - (d) A plan with timeline and estimated cost for removing all components of the LCSP from the property in the event of decommissioning; and
  - (e) A plan for recycling or otherwise reusing all components to the greatest extent practicable.

14.2 A LCSP shall be subject to decommissioning if it has not been in operation for a period of twelve (12) consecutive months or ceased operation. If decommissioned, the LCSP shall be removed by the LEGA within a period of twelve (12) consecutive months or within the period specified in the decommissioning plan. The plan shall comply with:

- (a) the requirements under the Act and subsidiary legislations made under it;
- (b) the laws of the relevant local authorities;
- (c) standards, directives and notices issued by the Commission and any other authorities having jurisdiction over the facility works and operation of the LCSP; and
- (d) the technical and any other documents published by the EUC on the relevant technical and commercial requirements, specifications, standards, etc. for the decommissioning of the LCSP.

In the absence of such guidelines, standards, directives and notices, the requirements shall be in accordance with the acceptable prudent industry practices as may be determined by the Commission.

## **15. SUBMISSION OF APPLICATION FOR PARTICIPATION**

15.1 The application for participation in the CREAM shall start from 1 June 2025.

15.2 The submission of application shall be made through the Single Buyer's website at [www.singlebuyer.com.my](http://www.singlebuyer.com.my)

15.3 The LEGA is responsible to submit the application for participation on behalf of its Local Green Consumer.

15.4 The submission of application by the LEGA shall include, but not limited to, the following information:

- (a) Company profile of the LEGA and relevant supporting documents including authorisation and bank statement;
- (b) Company profile for Local Green Consumer and relevant supporting documents;
- (c) LCSP project details including project costs, preliminary technical specifications, relevant drawings and project schedule;
- (d) Monthly export energy and allocation to every Local Green Consumer;
- (e) Report of power system study and letter of approval;
- (f) Copy of the rooftop lease agreement;
- (g) Copy of the executed Bilateral Energy Supply Contract between the LEGA and the Local Green Consumer;
- (h) Default declaration document of the LEGA and Local Green Consumer;
- (i) Decommissioning plan; and
- (j) Any other documents, as may be determined by Single Buyer or the Commission.

15.5 The indicative application process is as illustrated in **Appendix 2**.

15.6 The information on the application process shall be made available in the Single Buyer website at [www.singlebuyer.com.my](http://www.singlebuyer.com.my).

## **16. RIGHTS OF ENERGY COMMISSION**

16.1 The Commission reserves the right to revoke the participant registration, under the following circumstances:

- (a) the construction of the LCSP is not implemented according to the project schedule in the application for participation submitted or not

completed by the scheduled commercial operation date, or as may be extended and agreed by the Single Buyer; and/or

- (b) non-compliance of the CREAM participant on the Act and subsidiary legislations made under it, terms and conditions of the licence granted under section 9 of the Act and these Guidelines.

16.2 The interested CREAM participants agree to waive its right to commence any legal actions against the Commission, Single Buyer and EUC at all times and for any reason whatsoever for matters arising from or in connection to these Guidelines.

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# Appendix 1

Principle Billing Calculation:

- 1) Actual Energy Output are based on NET energy after netting off import energy from solar generation ( $M_{LEGA}$ ).
- 2) If Actual Energy Output is higher than Declared Maximum Monthly Energy Output, the Declared Maximum Monthly Energy Output will be used as Billable Energy Output
- 3) If Actual Energy Output is equal to or lower than Declared Maximum Monthly Energy Output, the Actual Energy Output will be used as Billable Energy Output
- 4) When the Billable Energy Output is equal to or lower than Total Consumption Local Green Consumers:

i) First, determine Billable Energy Output from LEGA:

$$\frac{\text{Billable Energy Output}}{\text{Total Billable Energy Output}} \times \text{Total Billable Energy Output} \times \text{Allocated Percentage Local Green Consumer}$$

ii) Second, determine Maximum Consumption of Local Green Consumer

$$\frac{\text{Allocated Percentage Local Green Consumer}}{\text{Total Allocated Percentage Local Green Consumer by LEGAs}} \times \text{Consumption Local Green Consumer}$$

iii) Third, compare Billable Energy Output from LEGA against Maximum Consumption of Local Green Consumer. Billable Energy Output from LEGA shall not be higher than the Maximum Consumption of Local Green Consumers

iv) No payment for excess Energy Output from LEGA

5) When the Billable Energy Output is greater than Total Consumption of Local Green Consumers:

i) First, determine Billable Energy Output from LEGA:

$$\frac{\text{Billable Energy Output}}{\text{Total Billable Energy Output}} \times \text{Total Consumption Local Green Consumer} \times \text{Allocated Percentage Local Green Consumer}$$

ii) Second, determine Maximum Consumption of Local Green Consumer

$$\frac{\text{Allocated Percentage Local Green Consumer}}{\text{Total Allocated Percentage Local Green Consumer by LEGAs}} \times \text{Consumption Local Green Consumer}$$

iii) Third, compare Billable Energy Output from LEGA against Maximum Consumption of Local Green Consumer. Billable Energy Output from LEGA shall not be higher than the Maximum Consumption of Local Green Consumers

iv) No payment for excess Energy Output from LEGA

Scenario 1 : 1 LEGA to 1 Local Green Consumer (LGC)

Declaration	LEGA 1
Declared Maximum Monthly Energy Output	1000
Allocated Percentage Green Consumer 1	100%

Sub - Scenario 1	LEGA 1		Total Billable Energy Output
	Actual Energy Output	Billable Energy Output	
Actual Energy Output = Declared	1000	1000	1000
Actual Energy Output < Declared	800	800	800
Actual Energy Output > Declared	1200	1000	1000
Actual Energy Output = Declared	1000	1000	1000
Actual Energy Output = Declared	1000	1000	1000

Sub - Scenario 2	Total Actual Energy Output	Total Billable Energy Output	Total Actual Consumption LGC	Total Billable Consumption from all LEGA for all LGC (cap at maximum consumption LGC)	Total Excess Energy from Actual Energy Output
Billable Energy Output = Actual Total Consumption LGC	1000	1000	1000	1000	0
Billable Energy Output < Actual Total Consumption LGC	800	800	1000	800	0
Billable Energy Output = Actual Total Consumption LGC	1200	1000	1000	1000	200
Billable Energy Output > Actual Total Consumption LGC	1000	1000	800	800	200
Billable Energy Output < Actual Total Consumption LGC	1000	1000	1200	1000	0

Actual Consumption - $M_{LGC1}$	Total Billable Consumption from LEGA (cap at maximum consumption LGC)	Balance Consumption from TNB	Local Green Consumer 1		
			Consumption from LEGA 1		
			Billable Consumption	Maximum Consumption	Billable Consumption (cap at maximum consumption LGC)
1000	1000	0	1000	1000	1000
1000	800	200	800	1000	800
1000	1000	0	1000	1000	1000
800	800	0	800	800	800
1200	1000	200	1000	1200	1000

Scenario 2 : 1 LEGA to Multiple Local Green Consumer (LGC)

Declaration	LEGA 1
Declared Maximum Monthly Energy Output	1000
Allocated Percentage Local Green Consumer 1	90%
Allocated Percentage Local Green Consumer 2	10%

Sub - Scenario 1	LEGA 1		Total Billable Energy Output
	Actual Energy Output	Billable Energy Output	
Actual Energy Output = Declared	1000	1000	1000
Actual Energy Output < Declared	800	800	800
Actual Energy Output > Declared	1200	1000	1000
Actual Energy Output = Declared	1000	1000	1000
Actual Energy Output = Declared	1000	1000	1000

Sub - Scenario 2	Total Actual Energy Output	Total Billable Energy Output	Total Actual Consumption LGC	Total Billable Consumption from all LEGA for all LGC (cap at maximum consumption LGC)	Total Excess Energy from Actual Energy Output
Billable Energy Output = Actual Total Consumption LGC	1000	1000	1000	700	300
Billable Energy Output < Actual Total Consumption LGC	800	800	1000	680	120
Billable Energy Output = Actual Total Consumption LGC	1200	1000	1000	700	500
Billable Energy Output > Actual Total Consumption LGC	1000	1000	600	460	540
Billable Energy Output < Actual Total Consumption LGC	1000	1000	1400	900	100

Actual Consumption - M <sub>LGC1</sub>	Total Billable Consumption from LEGA (cap at maximum consumption LGC)	Balance Consumption from TNB	Local Green Consumer 1		
			Consumption from LEGA 1		
			Billable Consumption	Maximum Consumption	Billable Consumption (cap at maximum consumption LGC)
600	600	0	900	600	600
600	600	0	720	600	600
600	600	0	900	600	600
400	400	0	540	400	400
800	800	0	900	800	800

Actual Consumption - M <sub>LGC2</sub>	Total Billable Consumption from LEGA (cap at maximum consumption LGC)	Balance Consumption from TNB	Local Green Consumer 2		
			Consumption from LEGA 1		
			Billable Consumption	Maximum Consumption	Billable Consumption (cap at maximum consumption LGC)
400	100	300	100	400	100
400	80	320	80	400	80
400	100	300	100	400	100
200	60	140	60	200	60
600	100	500	100	600	100

Scenario 3 : Multiple LEGA to 1 Local Green Consumer (LGC)

Declaration	LEGA 1	LEGA 2
Declared Maximum Monthly Energy Output	600	400
Allocated Percentage Local Green Consumer 1	100%	100%

Sub - Scenario 1	LEGA 1		LEGA 2		Total Billable Energy Output
	Actual Energy Output	Billable Energy Output	Actual Energy Output	Billable Energy Output	
Actual Energy Output = Declared	600	600	400	400	1000
Actual Energy Output < Declared	480	480	320	320	800
Actual Energy Output > Declared	720	600	480	400	1000
Actual Energy Output = Declared	600	600	400	400	1000
Actual Energy Output = Declared	600	600	400	400	1000

Sub - Scenario 2	Total Actual Energy Output	Total Billable Energy Output	Total Actual Consumption LGC	Total Billable Consumption from all LEGA for all LGC (cap at maximum consumption LGC)	Total Excess Energy from Actual Energy Output
Billable Energy Output < Actual Total Consumption LGC	800	800	1000	800	0
Billable Energy Output = Actual Total Consumption LGC	1200	1000	1000	900	300
Billable Energy Output > Actual Total Consumption LGC	1000	1000	800	720	280
Billable Energy Output < Actual Total Consumption LGC	1000	1000	1200	1000	0

Actual Consumption - $M_{LGC1}$	Total Billable Consumption from LEGA (cap at maximum consumption LGC)	Balance Consumption from TNB	Local Green Consumer 1					
			Consumption from LEGA 1			Consumption from LEGA 2		
			Billable Consumption	Maximum Consumption	Billable Consumption (cap at maximum consumption LGC)	Billable Consumption	Maximum Consumption	Billable Consumption (cap at maximum consumption LGC)
1000	900	100	600	500	500	400	500	400
1000	800	200	480	500	480	320	500	320
1000	900	100	600	500	500	400	500	400
800	720	80	480	400	400	320	400	320
1200	1000	200	600	600	600	400	600	400

Scenario 4 : Multiple LEGA to Multiple Local Green Consumer (LGC)

Declaration	LEGA 1	LEGA 2
Declared Maximum Monthly Energy Output	600	400
Allocated Percentage Local Green Consumer 1	60%	60%
Allocated Percentage Local Green Consumer 2	40%	40%

Sub - Scenario 1	LEGA 1		LEGA 2		Total Billable Energy Output
	Actual Energy Output	Billable Energy Output	Actual Energy Output	Billable Energy Output	
Actual Energy Output = Declared	600	600	400	400	1000
Actual Energy Output < Declared	480	480	320	320	800
Actual Energy Output > Declared	720	600	480	400	1000
Actual Energy Output = Declared	600	600	400	400	1000
Actual Energy Output = Declared	600	600	400	400	1000

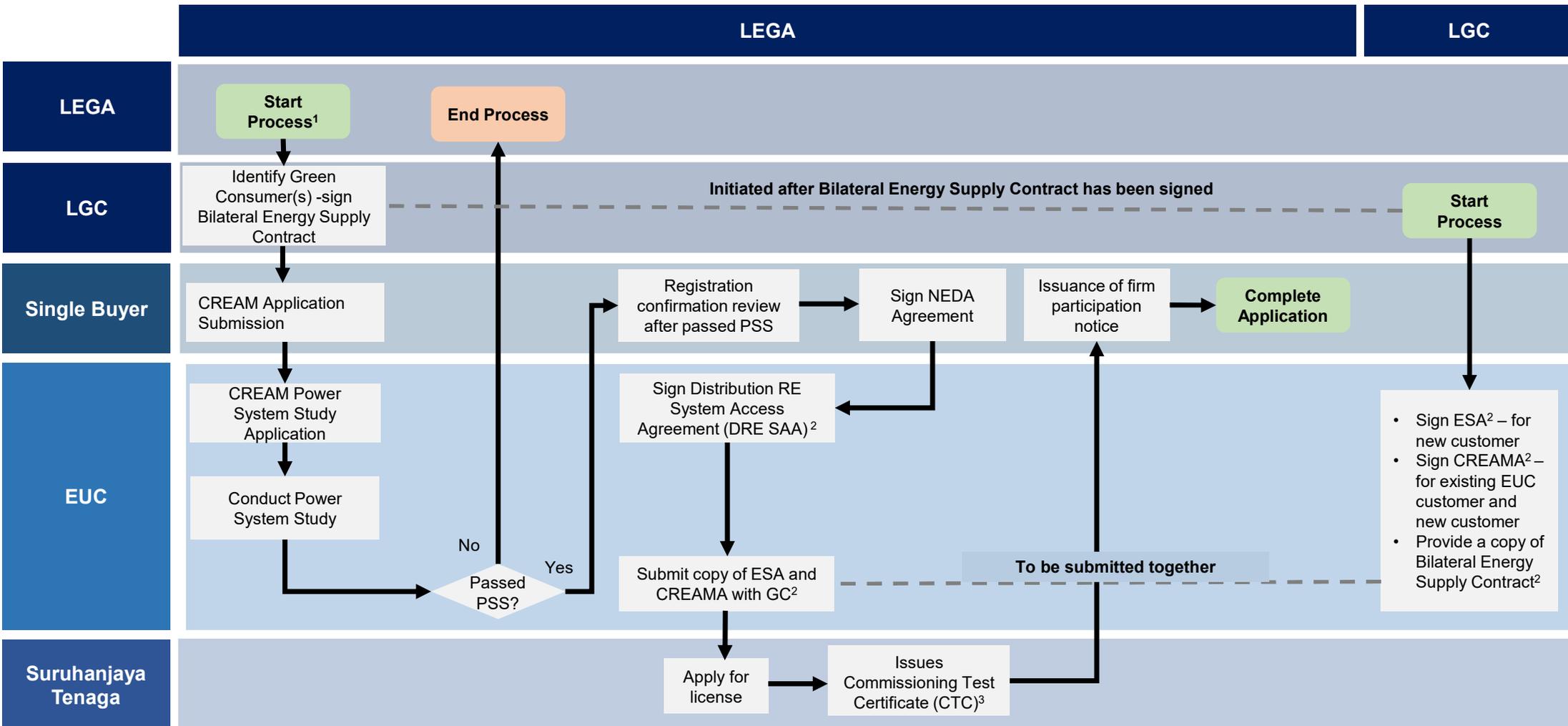
Sub - Scenario 2	Total Actual Energy Output	Total Billable Energy Output	Total Actual Consumption LGC	Total Billable Consumption from all LEGA for all LGC (cap at maximum consumption LGC)	Total Excess Energy from Actual Energy Output
Billable Energy Output < Actual Total Consumption LGC	800	800	1000	800	0
Billable Energy Output = Actual Total Consumption LGC	1200	1000	1000	900	300
Billable Energy Output > Actual Total Consumption LGC	1000	1000	600	540	460
Billable Energy Output < Actual Total Consumption LGC	1000	1000	1400	1000	0

Actual Consumption - M <sub>LGC 1</sub>	Total Billable Consumption from LEGA (cap at maximum consumption LGC)	Balance Consumption from TNB	Local Green Consumer 1					
			Consumption from LEGA 1			Consumption from LEGA 2		
			Billable Consumption	Maximum Consumption	Billable Consumption (cap at maximum consumption LGC)	Billable Consumption	Maximum Consumption	Billable Consumption (cap at maximum consumption LGC)
600	540	60	360	300	300	240	300	240
600	480	120	288	300	288	192	300	192
600	540	60	360	300	300	240	300	240
400	344	56	216	200	200	144	200	144
800	600	200	360	400	360	240	400	240

Actual Consumption - M <sub>LGC 2</sub>	Total Billable Consumption from LEGA (cap at maximum consumption LGC)	Balance Consumption from TNB	Local Green Consumer 2					
			Consumption from LEGA 1			Consumption from LEGA 2		
			Billable Consumption	Maximum Consumption	Billable Consumption (cap at maximum consumption LGC)	Billable Consumption	Maximum Consumption	Billable Consumption (cap at maximum consumption LGC)
400	360	40	240	200	200	160	200	160
400	320	80	192	200	192	128	200	128
400	360	40	240	200	200	160	200	160
200	196	4	144	100	100	96	100	96
600	400	200	240	300	240	160	300	160

# Appendix 2

## Indicative process application flow for CREAM



1. Assuming LEGA has finalized their bilateral contract with the producer (rooftop owners)  
 2. To provide the copy of DRE SAA, CREAMA and final Bilateral Energy Supply Contract to SB  
 3. All testing requirement with EUC has been fulfilled for ST to issue the CTC



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