ENERGY COMMISSION OF SABAH

GP(E)/ECoS/009/2024 (Pin.2026)

Guidelines

on Solar Photovoltaic Installations for Self-Consumption in Sabah (SELCO-PV SABAH 2.0)

[Electricity Supply Enactment 2024]

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ELECTRICITY SUPPLY ENACTMENT 2024

GUIDELINES ON SOLAR PHOTOVOLTAIC INSTALLATIONS FOR SELF-CONSUMPTION IN SABAH (SELCO-PV SABAH 2.0)

GP(E)/ECoS/009/2024 (Pin.2026)

In exercise of the power conferred by Section 101 of the Electricity Supply Enactment 2024, the Commission issues the following guidelines:

Citation and Commencement

1. These Guidelines may be cited as the Guidelines for Solar Photovoltaic Installation for Self-Consumption in Sabah (SELCO-PV SABAH 2.0).

2. These Guidelines shall come into operation on the date of its registration.

Purpose

3. The purposes of these Guidelines are as follows:

   (a) to provide for the types of solar PV installations for self-consumption;

   (b) to prescribe the conditions for the installation of Solar PV System for self-consumption; and

   (c) to set out the requirements and obligations on the Licensee and any person who installs, owns, uses, works or operates the solar PV installation.

Notice by the Commission

4. The Commission may issue written notices from time to time in relation to these Guidelines.

Amendment and Variation

5. The Commission may at any time amend, modify, vary or revoke these Guidelines.

Revocation

6. The Guidelines on Solar Photovoltaic System for Self-Consumption in Sabah (SELCO – PV SABAH) with the registration number GP(E)/ECoS/009/2024 are revoked.

Dated: 1st March 2026

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DATUK IR. ABDUL NASSER BIN ABDUL WAHID
Chief Executive Officer
Energy Commission of Sabah

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1.0 Application

1.1 These Guidelines shall apply to:

(a) any person who owns, uses, works or operates or permit to be used, worked or operated any solar PV installation for self-consumption;

(b) the Licensee whose Electricity Supply System is connected or to be connected to a consumer with a solar PV installation for self-consumption; and

(c) any person who carries out the design, installation, testing, commissioning and maintenance works of the solar PV installation

1.2 These Guidelines are not applicable to any person whose premises is installed with or have applied to install with solar PV installation under the previous solar PV programme.

1.3 No separate solar PV installation shall be installed at such premises for self-consumption.

2.0 Definition and Interpretation

In these Guidelines, unless the context otherwise requires, the definitions of the terms are as follows:

Term	Definition
Commission	means the Energy Commission of Sabah established under the Energy Commission of Sabah Enactment 2023 and Energy Commission of Sabah Enactment (Amendment) 2024;
Competent Person	means a person who holds a certificate of competency issued by the Commission to perform work in accordance with the restrictions, if any, stated in the certificate;
Connection point	means the interface point on a consumer's installation with the licensee's electricity supply network;
Consumer	means an owner or occupier of a premise who is supplied or requires to be supplied with electricity by the Licensee;
ECoS Energy Information System (EEISy)	means the digital platform established by the Commission for the submission and management of applications for energy management programmes.
Electrical Contractor with Class PV (ECCPV)	means a person who holds a Certificate of Registration as an Electrical Contractor with Class PV issued under Regulation 78 of the Electricity Regulations 2024, and can be classified as Grid Connected or Off-Grid
Electrical Contractor with Class PV (Grid Connected) (ECCPV(GC))	means a person who holds a Certificate of Registration as an Electrical Contractor class A, B or C with Class PV (Grid Connected) issued under Regulation 78 of the Electricity Regulations 2024;

Term	Definition
Electrical Contractor with Class PV (Off-Grid) (ECCPV(OG))	means a person who holds a Certificate of Registration as an Electrical Contractor class A, B, C or D with Class PV (Off-Grid) issued under Regulation 78 of the Electricity Regulations 2024;
Electrical Work	means any work performed or carried out on an electrical installation and includes the installing, constructing, erecting or repairing, the altering of the structure, the replacing of any of its parts, the adding of any part to it or the carrying out of any work for the purposes of its maintenance, but does not include work in relation to: (a) the manufacturing of an electrical installation or the assembling in the course of, or in connection with, its manufacture for the purpose of producing a new article; or (b) the oiling, greasing, cleaning or painting of an electrical installation;
Electricity Distribution Network	means a system or part of a system at nominal voltage of 33 kilovolts or below of electric lines or cables, substations and associated equipment and buildings for distributing electricity regardless of whether a generating plant is connected to such system as in Section 2 of the Enactment;
Electricity Transmission Network	means a system or part of a system at nominal voltage of 34 kilovolts and above of main supply lines or cables, substations and associated equipment and building used for conveying electricity: (a) from a generating station to a substation; (b) from one generating station to another;

Term	Definition
	(c) from one substation to another; (d) to or from any interconnection point; or (e) to the final consumer; as in Section 2 of the Enactment;
Enactment	means the Electricity Supply Enactment 2024;
Grid Connected Solar PV (GCSPV)	means a photovoltaic system that is connected to the utility grid directly or indirectly;
Grid Connected PV System Designer	means a person who holds a Certificate of Competency as a Grid-Connected Photovoltaic System Designer issued under Regulation 50;
Indirect Connection	means the connection of an installation to a supply line indirectly through the internal distribution board of the consumer where the installation is connected to an electrical point within the premises of the consumer instead of the licensee's connection point;
Installation	means the whole of any plant or equipment under one ownership or, where a management is prescribed, the person in charge of the management, designed for the supply or use, or both, as the case may be, of electricity; including generating unit, if any, with all necessary plant, buildings and land in connection therewith, pipeline, supply line, electricity supply infrastructure, domestic and non-domestic electrical installation and consuming apparatus, if any;
kWac	means kilowatt in ac rating;

Term	Definition
kWp	means kilowatt peak. Rated kWp in relation to a PV Installation means the maximum direct current power such Installation can produce under standard test conditions of 1000 watts per square meter of solar irradiation and 25 degrees Celsius ambient temperature;
Licensee	means the electricity utility with public license issued by the Commission under Section 8 of the Enactment to supply electricity to consumers;
Off-Grid Connected Solar PV (OGSPV)	means a photovoltaic system that is not connected to the utility grid directly or indirectly;
Off-Grid PV System Designer	means a person who holds a Certificate of Competency as an Off-Grid Photovoltaic System Designer issued under Regulation 50;
SELCO-PV SABAH 2.0 Approval To Install (SATI)	means an authorisation issued by the Commission under these Guidelines allowing an ECCPV to install a SELCO-PV system, subject to compliance with all prescribed technical, safety, and regulatory requirements.
SELCO-PV SABAH 2.0 Approval To Operate (SATO)	means an authorisation issued by the Commission under these Guidelines allowing an ECCPV to operate a SELCO-PV system, subject to compliance with all prescribed technical, safety, and regulatory requirements.
Power Systems Study (PSS)	Study to determine the technical impact of the solar PV Installation to the Licensee's Distribution or Transmission System and establish the technical and safety requirements that may be necessary for the Installation;

Term	Definition
Premise	means a building together with its land outbuilding and any structures within the same compound occupied or used by the consumer;
Private Installation	means an installation operated by a licensee[1] or owner solely for the supply of electricity to, and use thereof on the licensee's or owner's own property or premises, or, in the case of a consumer, taking electricity from a public installation for use only on the licensee's[1] or owner's property or premises; *[1](for the purpose of clarity, licensee here means the owner of the solar PV system granted the licence under Section 8.0 of the Enactment)*
Public Installation	means an installation operated by a licensee for the supply of electricity to any person other than the licensee;
Regulation	means the Electricity Supply Regulation 2024;
Sabah Distribution Code	means the Distribution Code Sabah and Federal Territory of Labuan with the registration number of KOD(E)/ECoS/002/2024;
Solar PV system	means sunlight converted directly to electricity through a system which includes solar PV cells, modules, inverter, the associated protection and control devices, alternating current and direct current cable and other related devices up to the incoming terminal of the PV meter;
Solar PV generation for self- consumption	means electricity generated from solar PV system that is grid connected and it is entirely for own use and in the event of excess of generation, the energy is not allowed to be exported to the grid;

Term	Definition
Supply Line	means a conductor or conductors or other means of conveying, transmitting or distributing electricity, together with any casing, coating, covering, tube, pipe, insulator or post enclosing, surrounding or supporting the same or any part thereof, or any building or equipment connected there with for the purpose of transforming, conveying, transmitting or distributing electricity;

Words and expressions used in these Guidelines and not defined herein shall, unless the context otherwise requires, have the meaning assigned under the Electricity Supply Enactment 2024 and Regulations.

Any installation or extension to an existing installation likely to cause undue interference shall comply with Regulation 31 of the Electricity Regulations 2024 which stipulates that:

Regulation 31: "Power of Commission to make adjustment or alteration to installation". When an installation is found likely to cause undue interference with the supply of electricity to other consumers or other installations, the Commission may require the consumer, occupier or management of the installation to make adjustments or alterations to the installation or the operation of the electrical system to such an extent, as he considers necessary, to rectify the situation."

Any person who installs electrical equipment or apparatus shall comply with the Section 54 of the Enactment which stipulates that:

Section 54 (1): "A competent person or a person under the control of a competent person who undertakes to carry out electrical work shall ensure that such electrical work complies with any regulations made under this Enactment, the electrical infrastructure safety code or non-domestic electrical installation safety code, as the case maybe, or in the absence of such regulations or

codes, with standards and prudent industry practices as may be determined by the Commission.

(2): The person undertaking electrical work under subsection (1) shall ensure that such work shall not cause electricity related injury to any person or damage to any property."

3.0 Introduction

3.1. SELCO-PV SABAH 2.0 is a Solar PV programme to encourage consumers to generate renewable energy through solar PV panels, and consume the renewable energy locally to power their homes, businesses or facilities. In SELCO-PV SABAH 2.0 systems, the generated electricity is consumed on-site without exporting any excess energy to the grid.

3.2. The implementation of SELCO-PV SABAH 2.0 systems can contribute to sustainability efforts, reduce dependence on traditional energy sources, and empower individuals or communities to actively participate in the generation and management of their electricity needs.

3.3. The consumer or ECCPV involved in the installation and commissioning of the solar PV system for self-consumption can make use of these guidelines for:

a) understanding the solar PV system requirements;

b) reference to installed capacity, type of installation, plan, design and commissioning of the installation; and

c) reference to application procedures with the Commission

4.0 Obligations of the Consumer

4.1 A consumer, whether domestic or non-domestic, who decides to install a solar PV system for self-consumption shall conduct due diligence based on the following:

a) understand the electricity consumption of your premises or businesses and choose the right size system for your needs. The six-monthly consumption profile will determine the viability of solar PV system and will help you decide on the appropriate size of the system;

b) understand the electricity tariffs since the decision for investing in a solar PV system will depend on what electricity tariffs been imposed by the Licensee and how these may change once the solar PV system is installed;

c) to engage an ECCPV registered with the Commission and ensure the contractor has the relevant experience in designing, installing and commissioning the system;

d) to do survey and make comparison on the products to be purchased and workmanship guarantees since there is a diverse range of products on the market; and

In the event that the building or premise is not owned by the consumer of the solar PV system installation, the consumer must establish an agreement with the landlord, building owner, or joint management body (JMB) as part of the lease or rental term. This agreement shall determine the responsibilities of both the consumer and the landlord, building owner, or JMB in installing and maintaining the solar PV system.

5.0 Finding a solar PV Registered Electrical Contractor Class PV

5.1 Finding the right person or company to manage the design and installation of the solar PV system is important. Although there is no physical difference between PV panels installed on residential and commercial properties, installation and inverter requirements can be quite different. As such, it is important to ensure that your contractor has the relevant experience for the system size.

5.2 Solar PV systems come with some responsibilities for the consumer including learning the basic safety operation and maintenance of the system by checking the overall cabling and cleaning of PV modules on yearly basis. A comprehensive, on site solar and load analysis and two-way interview can help ensure a thoughtfully designed and well-planned installation.

5.3 The registered ECCPV will design the PV system, taking into account the electricity consumption to be offset and the specific characteristics of the premises by:

a) Conducting load analysis to establish the electrical loads during an average day;

b) determining the type of panels;

c) determining the size of solar PV system;

d) deciding the type of inverter;

e) establishing the location of solar panels considering angles and orientation for maximum sunlight exposure; and

f) advising on the local planning authority and building permits requirements.

6.0 Application to participate in SELCO-PV SABAH 2.0 Programme

6.1 The consumer who intends to install a solar PV system under the SELCO-PV SABAH 2.0 Programme shall appoint an ECCPV (GC) for grid-connected systems or an ECCPV (OG) for off-grid systems to manage and submit the application to the Commission:

a) Grid-connected systems: Applications are required for all capacities.

b) Off-grid systems: Applications are required only for systems exceeding 5 kWp.

6.2 The following documents shall be submitted together with the application:

a) SELCO-PV SABAH 2.0 Application Form (Attachment 1).

b) a clear copy of the consumer's identification or registration document, namely:

i) MYKAD (for individuals), or

ii) Latest Certificate of Registration from the Companies Commission of Malaysia (for companies).

c) Detailed engineering design of the solar PV installation, including all relevant technical calculations to justify the proposed installed capacity and system efficiency, endorsed by the Grid-Connected PV System Designer or Off-Grid PV System Designer.

d) Drawings, plans, and specifications, including any approved amendments or modifications, certified by the suitably qualified competent person.

e) Single Line Diagram (SLD) endorsed by:

i) A Wireman with Three-Phase Restriction (for systems below 72 kWac), or

ii) A Professional Engineer (Electrical) registered with the Board of Engineers Malaysia (for systems 72 kWac and above).

f) Certificate of ECCPV (GC) or ECCPV (OG) appointed to undertake the installation and manage the application.

g) Certificate of registration of each Qualified Person with the Board of Engineers Malaysia as a Professional Engineer (Electrical), where applicable (for systems 72 kWac and above).

h) Load profile data for a minimum of four (4) days (format as per Attachment 2). *Note: Additional information may be requested by the Commission and shall be provided upon request.*

i) If applicable, PSS report endorsed by Licensee as described under clause 7.7, still within the validity period on the date of application (required for systems above 24 kWac).

j) Documents proving ownership or legal rights to the premises, such as land title, tenancy agreement, lease agreement, or option-to-rent/lease.

k) latest six (6) months of electricity bills for the premises.

6.3 All forms and documents shall be submitted and approved by the Commission before carrying out any installation at the premise. Applications can be submitted via web application EEISy – http://eeisy.ecos.services.

6.4 The Commission will review the completed application, and if the application is in order, issue SELCO-PV SABAH 2.0 Approval To Install (SATI) within 14 working days. The installation must be completed within one year from the

date the SATI is issued. If the SATI lapses, a new application must be submitted, together with a new PSS (for systems above 24 kWac). Extensions may be granted at the discretion of the Commission.

6.5 A flow chart is included in Attachment 3 to provide a visual guide to the processes described in this guideline.

7.0 Technical Requirements for Solar PV System Installation

7.1 Off-Grid System

For an Off-Grid System, the solar PV installation may be designed, installed and operated:

i) to meet the energy requirements and shall be within the safe and permissible limits of the electrical system and equipment; and

ii) in accordance with the Enactment and the Regulations, any Malaysian Standards, or in the absence of which, the relevant international standards and prudent industry practices.

It is recommended that the solar PV installation is installed with battery energy storage system of appropriate capacity to mitigate the intermittency in electricity production by the Solar PV System, for standby supply and for better load management.

7.2 Grid-Connected System

For a Grid-Connected System, the electricity produced by the solar PV installation shall be strictly for use within the premises where the solar PV installation is installed. No power evacuation to the Electricity Supply System is allowed at any time of the day. The solar PV installation shall be designed and installed with appropriate device, if necessary to comply with such requirements.

For Non-Domestic Consumers, the maximum capacity limit for a Solar Photovoltaic (PV) system, measured at the output of the inverter, shall not exceed eighty-five percent (85%) of the Consumer's existing maximum demand, whereby solar PV systems without energy storage shall be assessed based on the Consumer's existing maximum demand recorded during the daytime operational window of 6:00 am to 6:00 pm, while Solar PV systems integrated with Battery Energy Storage Systems (BESS) shall be assessed based on the Consumer's 24-hour window existing maximum demand

For Domestic Consumer, the capacity of the solar PV installation shall not exceed:

a) 5kWac for single-phase 230V supply; or

b) 10 kWac for three-phase 400V supply.

The domestic consumer with a solar PV installation with the capacity greater than the capacity specified, which was installed or in the process of installing the solar PV installation before the effective date of these Guidelines, is allowed to continue with the installation, subject to the following conditions:

a) the consumer has been granted with generating licence from the Commission; or

b) the consumer has been given any documental approval proof from the Commission.

7.3 Battery Energy Storage System (BESS)

BESS may be installed together with SELCO-PV SABAH 2.0 systems, and stored energy shall not be exported to the distribution network. Installations shall comply with relevant standards, use approved inverters configured to prevent unintended export, and incorporate all required electrical safety, electrical protection, electrical isolation, and fire protection systems. A Battery

Management System (BMS) is recommended to enhance safety, monitoring, and operational reliability.

A BESS may be integrated with SELCO-PV SABAH 2.0 systems using either a DC-coupled or AC-coupled configuration. Both configurations are permissible provided they are designed to prevent export of stored energy and comply with all applicable safety and technical requirements. The competent person shall ensure that under all operating conditions including normal operation, charging, discharging and backup mode, no power from the BESS flows to the distribution network. A brief comparison of the two configurations is provided below, and a simplified graphic illustration is included in this subsection for reference.

The design, installation, testing, and commissioning of the BESS shall be carried out by an GCSPV or OGSPV system designer, and the appropriate electrical competent person which are the Registered Wireman with Three-Phase Restriction or Professional Engineer (Electrical) registered with BEM (for systems 72 kWac and above).

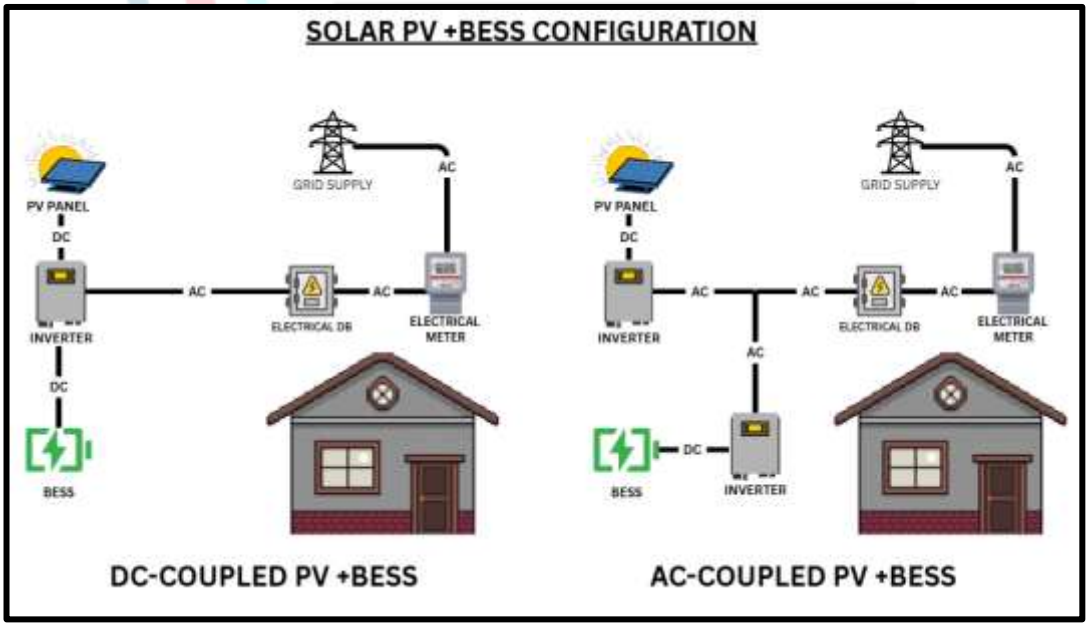

Figure 1: Comparative Configurations of DC-Coupled and AC-Coupled Solar PV + Battery Energy Storage Systems (BESS) Configuration

In a DC-coupled system, the battery is connected on the DC side and shares the same DC bus as the PV array. This arrangement allows direct solar charging with higher efficiency and is typically suited for new installations designed with integrated storage.

In an AC-coupled system, the battery is connected on the AC side through a dedicated battery inverter. This configuration is commonly used for retrofitting existing PV systems, as it does not require modification of the DC PV wiring. The PV inverter and battery inverter operate independently and synchronize on the AC bus.

7.4 Type of Installation

The solar PV installation shall be of PV panels mounted on the rooftop of the building within the same premise. However, solar PV other than mounted on rooftop within the same area owned or leased by the consumer may be considered depending on the merit of each case.

7.5 Point of Interconnection

The solar PV installation shall be connected to the consumer's installation before the meter of the Licensee, or commonly known as behind the meter connection or indirect connection.

Figure 2 shows an example of the connection of the consumer's solar PV Installation to the Electricity Supply System of the Licensee.

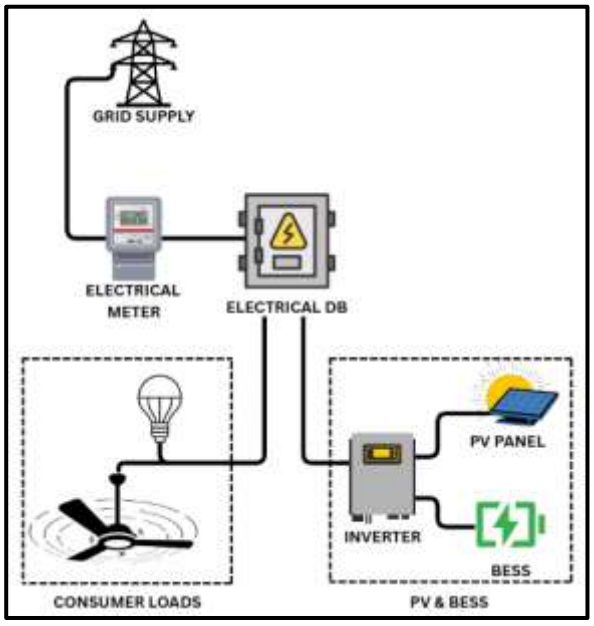

Figure 2: Interconnection for Grid Connected System

7.6 Plan and Design

As the connection is done internally, the Consumer shall appoint an ECCPV (GC) or ECCPV (OG) registered with the Commission to design the Solar PV System and its interconnection.

The design, technical calculations, site plans, equipment layout diagrams, system diagrams, electrical schematic diagrams, equipment installation diagrams, structural drawings, and any other drawings for the Solar PV Installation shall be prepared and certified by qualified and competent persons, as required under the Enactment, Regulations, relevant guidelines, codes, directives issued by the Commission, and the laws of the relevant local authorities.

The design, calculation, drawings, installation, testing, and commissioning of the Solar PV Installation and its interconnection to the Distribution System shall likewise be certified by qualified and competent persons, in accordance with:

a) the relevant provisions under the Enactment and its subsidiary legislations governing electrical works; and

b) the Registration of Engineers Act 1967 or Architects Act 1967, in respect of the structural design and mounting of the PV panels

7.7 Power System Study (PSS)

The study is a pre-requisite for approval of the SELCO-PV SABAH 2.0 Programme application for grid-connected systems. The study shall be performed, presented to and endorsed by the Licensee.

For all installations exceeding 24kWac, the Consumer shall engage the Licensee or a suitably qualified consultant to carry out PSS. If a consultant is engaged by the Consumer to conduct the PSS, a Non-Disclosure Agreement (NDA) may be required by the Licensee before the system data is provided to the Consultant. The PSS shall include assessments as required by the Licensee, the complexity of which will vary depending on the capacity applied. For capacity above 425kW, the typical assessments include but are not limited to:

a) System description of the electrical supply system and connection of the solar PV Installation,

b) System study (load flow, short-circuit, voltage analysis),

c) Analysis on scenarios (1) with solar PV system under maximum load and minimum load, (2) without solar PV system under maximum load and minimum load;

d) Protection coordination,

e) Compliance to the codes and standards,

f) Mitigation strategies if required,

g) Controlling and operating philosophy for electrical system

The PSS shall be valid for six (6) months commencing from the date of the Licensee's endorsement of the study.

The recommended fees for conducting PSS are as follows:

Installation Capacity(kWac)	Study Required	Completion Period (Days)	Cost (RM)
≤ 24	No	-	-
> 24 - 180	Yes	14	1,000
> 180 - 425	Yes	21	5,000
> 425	Yes	30	10,000

7.8 Connection Requirements

The costs of any works required for the connection of the solar PV Installation to the Licensee's network shall be borne by the Consumer.

Consumer and registered ECCPV shall comply to the following requirements:

a) prevention of export of energy from consumer's solar PV system to Licensee's network through appropriate functionality within the inverter, such as zero-rated energy export to grid, generation controller that does not exceed the load demand, and use of external device or energy storage to mitigate the export of excess energy from consumer's solar PV system to the Licensee's network;

b) ensure that the size and specifications of the wiring connecting the PV arrays to the Main Switch Board (MSB) or Distribution Board (DB) are appropriate to guarantee reliable flow of energy to the consumer's system;

c) ensure that the Licensee has access to both the consumption meter (Licensee's meter) and solar PV meter at any time required by the Licensee;

d) comply to Clause 6.8 of the Sabah Distribution Code, which states that installations with capacity of 1MWac and above shall be equipped with SCADA with RTU cubicle, associated cards and SCADA-ready switchgears.

e) if relevant, comply to the requirements stated in Sabah and Labuan Grid Code.

f) clearly display the following label at the Main-Switch Board (MSB) and/or Distribution Board (DB) cautioning the operator about potential energized parts originating from the solar PV system;

g) officially notify the Commission and Licensee in writing whenever the consumer intends to terminate his/her account or transfer ownership of the installation to another party.

h) certified copy of the drawings, plans and specifications including any subsequent approved amendments and modifications, shall be kept by the consumer for reference.

7.9 Testing and Commissioning (T&C)

Upon completion of the installation work, the installation shall be tested and commissioned by a suitably qualified competent person based on the procedure for the T&C of PV Systems as prescribed in **Guide for Testing and Commissioning form for SELCO-PV SABAH 2.0**

The consumer is required to provide advance notice and extend an invitation to the Licensee to attend and witness the T&C. The Licensee has the discretion to choose whether to exercise the right to witness the process or opt not to be present during T&C. The T&C works shall be performed by a suitably qualified competent person and shall comply with:

a) the requirements under Electricity Supply Enactment 2024 and the Electricity Supply Regulations 2024;

b) the plan and design as mentioned in paragraph 7.6 and including any subsequent approved amendments and modifications; and

c) such other requirements imposed by any other written law relating to the construction and installation of the generating facility.

Once testing and commissioning (T&C) works has been completed, the Competent Person shall issue the Completion Certificate (Form G) and Test Certificate (Form H) as prescribed in the First Schedule of the Electricity Supply Regulations 2024. These documents together with the T&C Report must be uploaded into the EEISy web application and a copy to be submitted to the Licensee.

The solar PV installation may only commence operation once the necessary licence (if applicable) has been granted and the SELCO-PV SABAH 2.0 Approval To Operate (SATO) has been issued by the Commission.

8.0 Compliance with government policies and laws of Sabah and Malaysia

All persons to whom these Guidelines apply shall comply with all applicable laws of Malaysian to the extent applicable in Sabah.

9.0 Licensing requirements

As stipulated under the **Guidelines on Licensing Under Section 8 of the Enactment**.

Licence applications can be made online through the online services at the Commission's website (*https://www.ecos.gov.my*).

10.0 Alteration and Disconnection of Solar PV Installation

The owner of existing SELCO-PV SABAH Installations shall inform the Commission in writing at least one month in advance prior to any alteration to the solar PV installation, and shall be required to reapply for a new SATI, provided that any such alteration shall be in accordance with the provisions of these Guidelines.

If the solar PV Installation is to be disconnected and discontinued in use or dismantled from the premises, the owner of the solar PV Installation shall inform the Commission by way of notice in writing at least one month in advance prior to such disconnection or dismantling. A sample of the notice is in Attachment 4.

11.0 Provision of Information to the Commission

Under Section 108 of the Enactment, the consumer of the solar PV system is obligated, upon request, to provide the Commission with the necessary documents, accounts, estimates, returns, reports and other information in the manner and at the times specified by the Commission.

For SELCO-PV system with capacity above 72 kWp, the owner shall submit the monthly PV system meter readings through the EEISy platform for monitoring and compliance purposes.

12.0 Environmental attributes

The right to any credit or financial benefit which is available or may become available for reductions of greenhouse gas emissions from the energy produced by solar PV Installation shall be with the consumer of the installation.

13.0 Suspension of Operation

Section 97 of the Enactment stipulates that where the Commission identifies any defect in an installation or part that poses a danger, the Commission can issue a written notice to the licensee or owner that requires the defect to be rectified or removed within a specified period. The installation or part must not be operated or used after this period unless the defect is addressed according to the standards or prudent utility practices determined by the Commission.

14.0 Suspension and Revocation of Licence

The Commission may suspend or revoke a licence upon service of written notice to the consumer as stipulated under Section 13 of the Enactment.

[END OF DOCUMENT]

Attachment 1 – SELCO-PV SABAH 2.0 Application Form

PART 1: INFORMATION

- Consumer shall submit this application form to the Commission before carrying out any solar PV system installation. (A copy of this application form shall be made available during Testing & Commissioning)
- Consumer shall comply with "Guidelines on Solar Photovoltaic System for Self-Consumption in Sabah (SELCO – PV SABAH 2.0)".
- Consumer is required to conduct PSS for solar PV system with capacity above 24kWp.
- Consumer is required to apply for a generating licence from Energy Commission of Sabah for a single-phase system with capacity > 24kWp or three-phase system with capacity > 72kWp.

For ECoS use only:

Reference No: _____

Serial No: _____

Date Received: _____

Time Received: _____

Receiving Officer: _____

PART 2: CONSUMER INFORMATION

Applicant Name: _____ IC/ROC Number: _____

Electricity Bill account number: _____ Tariff Category: _____

Licensee Company: _____(e.g. Sabah Electricity, KKIP Power, etc.)

Email address: _____ Phone Number: _____

Mailing Address: _____

_____

_____

PART 3: ALTERNATIVE CONTACT PERSON

Name: _____ IC Number: _____

Relationship: _____

Email address: _____ Phone Number: _____

Mailing Address: _____

_____

_____

PART 4: COMPETENT PERSON DETAILS

a) PV System Designer ☐Grid-Connected ☐Off-Grid

Name: _____

IC No: _____ Certification No.:_____

Phone Number: _____ E-mail address: _____

Mailing Address: _____

_____

_____

b) Wireman (with three phase restriction).

Name: _____

IC No: _____ Certification No.:_____

Phone Number: _____ E-mail address: _____

Mailing Address: _____

_____

_____

PART 5: ECCPV DETAILS

☐Grid-Connected ☐Off-Grid

Company Name: _____ Company ROC No:_____

Phone Number: _____ E-mail address: _____

Mailing Address: _____

_____

_____

PART 6: TECHNICAL INFORMATION

Installation Address: _____

_____

Installation Site Ownership: ☐ Fully Owned ☐ Owned (charged to bank) ☐ Leased

If not fully owned, please provide the owner's name:_____

Is the applicant an existing FIAH: ☐ Yes ☐ No

If Yes, please provide the existing capacity solar installed capacity (kWp/kWac) :_____

Voltage at common coupling @ Utility Meter: ☐ Low Voltage (230V/400V) ☐ Medium Voltage (11kV/33kV) ☐ High Voltage (66kV/132kV and above)

Reasons for installing solar PV system: ☐ Reduce electricity bill ☐ Peak Shaving ☐ Reduce Green House effect ☐ Other reasons:_____

Installation ☐ Roof (Domestic) ☐ Roof (Commercial) ☐ Carpark

Others: _____

a) Type of installation: ☐ Grid-Connected ☐ Off-Grid

b) Maximum demand of existing installation _____kWac

c) Proposed Installed Solar PV Capacity _____in kW_p _____in kW_{ac}

d) Expected generation per month _____kWh

e) Date of Commissioning of solar system: _____(dd/mm/yyyy)

f) Installation of Battery Energy Storage System: ☐ Yes ☐ No

If yes, Battery capacity: _____ kW/kWh

Battery Manufacturer: _____

g) Daytime Peak Demand (6am to 6pm)_____kWac (Friday to Monday)

h) Daytime Lowest Demand _____kWac

PART 7: PHOTOVOLTAIC (PV) INSTALLATION INFORMATION

a) PV Module : i) Type: Monocrystalline ☐ Polycrystalline ☐ Thin Film ☐
Others: _____

: ii) Manufacturer/Model _____

: iii) Module capacity _____

b) PV Inverter i) Number of inverters _____

ii) Inverter capacity _____

iii) Type: Single Phase ☐ Three Phase ☐

iv) Manufacturer/ Model _____

v) Power Factor: ☐ _____lagging ☐ _____leading ☐ unity

PART 9: DECLARATION

I hereby authorize the Competent Person as described in PART IV of the enactment to apply and register my Self Consumption (SELCO – PV SABAH) installation on my behalf:

Signature: _____

Name : _____

Date : _____

By signing this form, I declare that:

- I am representing the applicant of the premise and the information furnished above is true to my knowledge and belief.
- I hereby acknowledge that all information given are true and the relevant Authority shall have the right to take any action if the above information is false.
- I confirm that the solar PV system design comply to the standards (IEEE 1547, IEC 61727, MS 1837, Guidelines on the Solar Photovoltaic Installation for Self-Consumption in Sabah (SELCO-PV SABAH 2.0) and the inverter(s) used are as per approved lists.
- I verify that the site condition is fit for installation of the solar PV system as per applicable regulations.
- I agree to comply with the specifications, terms and conditions stipulated in the applicable guidelines and related regulations, as amended from time to time.

Competent Person stamp:

Signature :_____

Name : _____

Date : _____

List of Documents to be Submitted During Application

1. A clear copy of the consumer's MYKAD OR latest Certificate of Registration from the Companies Commission of Malaysia.

2. The detailed engineering design of the solar PV system installation, including all relevant calculations to justify the installed capacity and its efficiencies (must be endorsed by the Grid Connected or Off-Grid PV System Designer).

3. The Single Line Diagram (SLD) (endorsed by the Wireman with Three Phase Restriction for capacity below 72kWac, or Professional Engineer (Electrical) for capacity 72kWac and above).

4. A copy of certificate of Electrical Contractor with Class Photovoltaic Grid Connected or ECCPV (GC) or Electrical Contractor with Class Photovoltaic Off-Grid or ECCPV (OG).

5. A certificate of registration of each Qualified Person with the Board of Engineers Malaysia as a Professional Engineer (Electrical) (for capacity 72kWac and above).

6. load profile data for a minimum of four (4) days (format as per Attachment 2). Note: Additional information may be requested by the Commission and shall be provided upon request.

7. Power system study (PSS) report endorsed by licensee (e.g. Sabah Electricity, KKIP Power) for grid connected solar PV capacity above 24kWac.

8. Documents proving the Applicant's ownership of the premise, or other conditional or unconditional rights (e.g. Option-to-Rent/Lease or leasing agreement).

9. Latest 6 months of electricity bills

Attachment 2 – Sample Load Profile Form

INSTALATION LOAD PROFILE

Licensees : ……..

Meter Account Number : ……..

Consumer Name : ……..

Installation Address : ……..

Time	Friday (Date: DD/MM/YYYY)			Saturday (Date: DD/MM/YYYY)			Sunday (Date: DD/MM/YYYY)			Monday (Date: DD/MM/YYYY)		
	Voltage (V)	Current (A)	Demand (kWac)	Voltage (V)	Current (A)	Demand (kWac)	Voltage (V)	Current (A)	Demand (kWac)	Voltage (V)	Current (A)	Demand (kWac)
00:00												
01:00												
02:00												
03:00												
04:00												
05:00												
06:00												
07:00												
08:00												
09:00												
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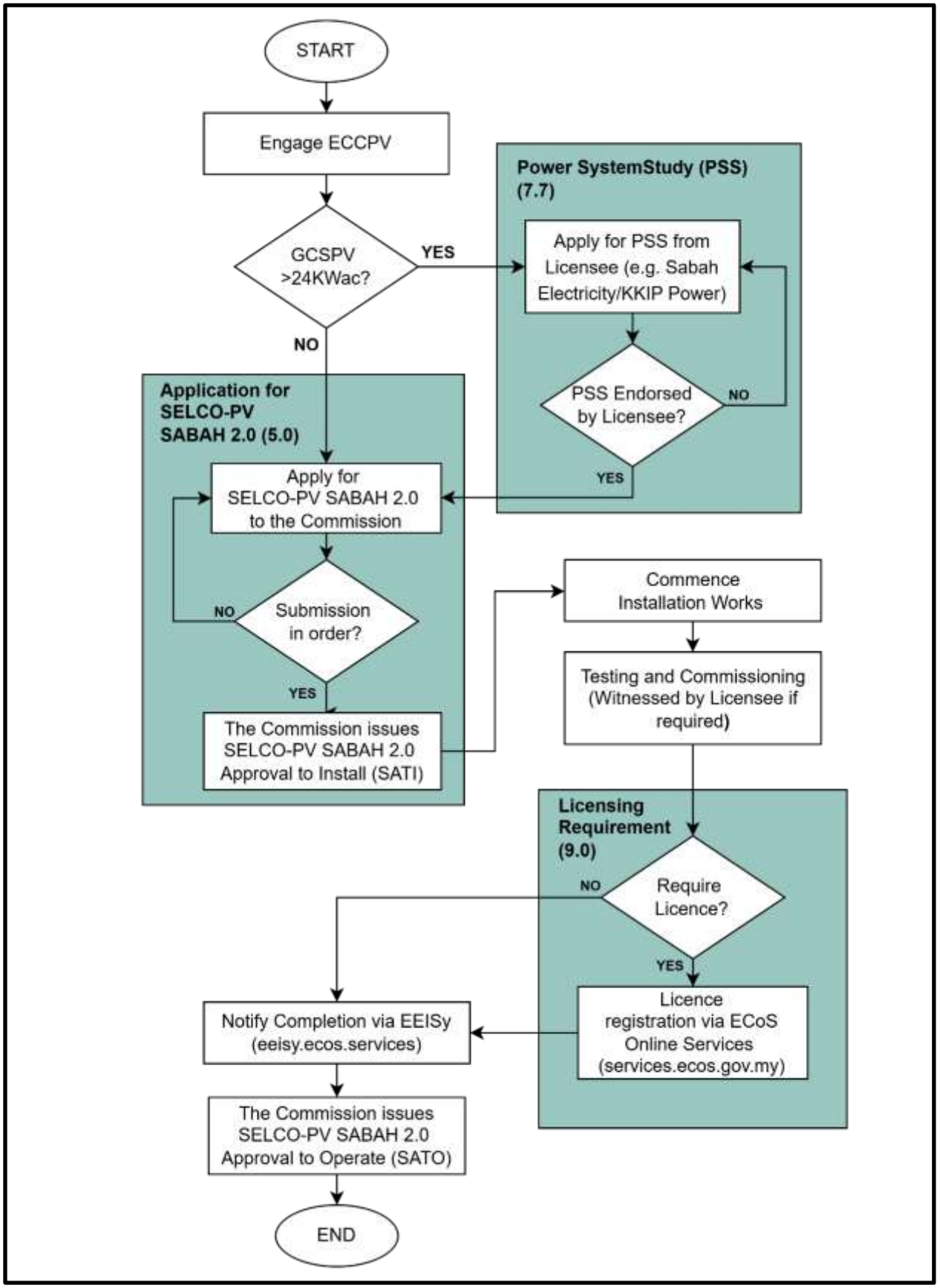
14:00												
15:00												
16:00												
17:00												
18:00												
19:00												
20:00												
21:00												
22:00												
23:00												

Data Taken by : …….. Competent Stamp:

Signature : ……..

Name : ……..

Attachment 3 - Self-Consumption Solar PV System for Sabah (SELCO-PV SABAH 2.0) Flow Chart



Attachment 4 – Sample of Notice

Our. Ref. No:
Date:

Chief Executive Officer
Energy Commission of Sabah
10th Floor, Plaza Shell,
29, Jln Tunku Abdul Rahman,
88000 Kota Kinabalu,
Sabah

Dear Sir,

SELCO-PV SABAH 2.0 REGISTRATION: DISCONNECTION OF SOLAR PV INSTALLATION FOR ELECTRICITY BILL ACCOUNT NO: .....

With reference to the above, I hereby inform that I, ... (Name of Consumer) ..... (Electricity Bill Account No: .....) will disconnect and discontinue in use or dismantle from the solar PV installation on …..... (Date - one month before disconnection) ..... at ..... (Address of Premise) .....

2. Please find the attached ECoS generation licence (*if applicable).

Thank you.

Yours sincerely,

.....
(Signature of Consumer)

Name of Consumer : ….....
IC/ROC No. : ….....
Phone No. : ….....

ENERGY COMMISSION OF SABAH

10th Floor, Plaza Shell,
29, Jln Tunku Abdul Rahman,
88000 Kota Kinabalu,
Sabah

E-mail: info@ecos.gov.my (General)

Tel: 088 – 205 574