



Inverter Energy System Network Agreement Form

Deliver to Solomon Power at its Head Office Ranadi when signed by all account holders

CUSTOMER DETAILS

Name: *(Electricity account holder – individual or company)* *(“you” or “your”)*

Postal address:

Address of proposed generation system: *(Write 'As above' if relevant)*

Type: Solar

Contact person: *(If different to name above)*

Email address:

Phone No:

Fax No:

Mobile:

Registered Plan No: *(Found on rates notice)*

Lot No: *(Found on rates notice)*

SOLOMON POWER DETAILS

Name: *(“we”, “our” or “us”)*

Postal address:

Contact person:

Email address:

Phone No:

Fax No. :

Mobile:

GENERAL DETAILS

Start date – The date the IES is installed at your Premises and capable of exporting energy to the Network.

Expiry date – When this Agreement is terminated under clause 4.

IES Exported Energy – You must ensure that the IES meets the following requirements:

- Inverter rated output _____ kW
- The maximum voltage variation measured at the point of connection to the Network will be: 240V+/- 6%

ACCEPTANCE BY THE CUSTOMER

Executed by the Customer (or an authorised representative if the Customer is a company).

PRINT NAME

POSITION *(COMPANIES ONLY)*

SIGNATURE

DATE

ACCEPTANCE BY SOLOMON POWER

Executed for and on behalf of Solomon Power by its authorised representative.

SIGNATURE

DATE

PRINT NAME

POSITION

1 PARTIES

This contract is between:

- (a) Solomon Power (in this contract referred to as “we”, “our” or “us”); and
- (b) you, the customer to whom this contract is expressed to apply (in this contract referred to as “you” or “your”).

2 DEFINITIONS AND INTERPRETATION

The definitions of capitalised terms are given in Schedule 1 of this Agreement

3 DO THESE TERMS AND CONDITIONS APPLY TO YOU?

This agreement applies to you if an IES is installed at your Premises that can, at times, result in electrical energy being exported to our Supply Network.

This Agreement applies in addition to the Connection Contract between you and us. Nothing in this Agreement affects your or our rights and obligations under the Connection Contract between you and us.

4 WHAT IS THE TERM OF THIS CONTRACT?

This Agreement takes effect from:

- (a) if you install the IES, the date the IES is installed at your Premises and becomes capable of exporting energy to our Supply Network; or
- (b) if you move into Premises where an IES is installed and is capable of exporting energy to our Supply Network, the date you move into the Premises.

This Agreement may be terminated:

- (a) at any time at your request, by notifying us that the IES is no longer connected at the Premises;
- (b) at the time that the Connection Contract between you and us, or your contract with your Electricity Retailer is terminated; or
- (c) by us at any time if you fail to comply with the terms and condition of this Agreement or if you fail to remedy any situation where the IES represents a hazard or risk to our Supply Network, our officers and agents or the general public.

Where a breach of this Agreement is considered by us to be capable of being remedied, we may allow a reasonable amount of time for you to take measures necessary to eliminate, to our satisfaction, the matters identified.

If this Agreement is terminated, you must ensure that the IES is no longer capable of exporting energy to our Supply Network.

5 CONDITIONS FOR IES EXPORTING ENERGY TO OUR SUPPLY NETWORK

5.1 Consent for exportation of energy to our Supply Network

We consent to allow the connection of an IES at your Premises that is capable of exporting energy at times to our Supply Network on and subject to the terms of this Agreement.

5.2 Conditions of Consent

Our consent under this Agreement is at all times conditional upon:

- (a) the IES complying with the “Technical Conditions for the Connection of Small Scale Photovoltaic Inverter Energy Systems” (Schedule 2);
- (b) the IES complying with all relevant Australian Standards and Regulations; and
- (c) you complying with the terms and conditions of this Agreement.

5.3 Discretion to specify additional conditions

We retain a right in our discretion to specify additional requirements for an IES system. In exercising our discretion we will consider the conditions of the specific network that the IES is connected to.

5.4 Design, Installation and Testing

You must:

- (a) engage an Accredited Installer (full or provisional) for design and installation of the IES as specified on the Clean Energy Council website: www.cleanenergycouncil.org.au under 'Accreditation'; and
- (b) consent to us, our officers and agents entering the Premises at any reasonable time and date to test the IES for the purpose of establishing that the IES and the installation complies with this Agreement.

You acknowledge that we are not responsible for ensuring that you comply with the relevant standards.

5.5 Operating Procedure

You must comply with any request from us for the IES to be taken off-line and disconnected for operational reasons or for planned maintenance.

In the event that our Supply Network is unable to accept energy generated by you for any reason, no compensation will be payable by us.

5.6 Request to cease energy export

We may request that you cease to export energy to our Supply Network if:

- (a) exportation would result in a breach of technical or safety requirements under the Act, the Electrical Safety Act or this Agreement;
- (b) exportation would unreasonably interfere with the connection or Supply of electricity to other users of the network;
- (c) it is required to do so under any applicable law.

Such a request to cease exporting energy will be in writing to the customer. Other than for safety requirements, you are required to comply with this request within three business days. Where a safety risk is determined, you must comply with the request immediately. If you do not action such a request within the appropriate timeframe, we may disconnect you pursuant to our rights under the Connection Contract between you and us.

This clause does not alter any rights or obligations for disconnection of the premises under the Electricity Act. For the avoidance of doubt, we have rights and/or obligations for disconnection under the Electricity Act regulations.

6 METERING

You acknowledge that electricity metering relevant to the IES at the Premises is owned by us, will be installed in compliance with the "DNSP Metering Manual", and will be operated by us. We will have the discretion to determine the meter type.

You must supply us with safe access to allow us to install, test, maintain or remove the meter installation of the IES.

You consent to us, our officers and agents entering the Premises for the purposes of installing, testing, reading, maintaining or removing the meter installation.

7 SAFETY

You must:

- (a) install and maintain the IES and associated equipment in safe working order at all times and in accordance with the requirements of this Agreement;
- (b) have an IES isolation procedure displayed prominently and effectively secured at the main switchboard and keep a copy of the IES operations manual in or near the main switchboard at all times;
- (c) comply with our reasonable directions in order to secure the safety and stable parallel operation of our Supply Network and the IES; and
- (a) comply with the requirements of the Electricity Act, the Safety at Work Act, and Electricity Regulations for the installation, inspection, operation and maintenance of the IES.

8 MAINTENANCE

You must:

- (b) ensure the IES is inspected and maintained in accordance with the manufacturer's recommendations by an appropriately qualified person;
- (c) where there are no manufacturer's recommendations, ensure inspection and condition based maintenance is performed by an appropriately qualified person;
- (d) provide, at our request, the results of any inspections carried out in accordance with the requirements of this Agreement; and
- (a) ensure that any component of the IES replaced during maintenance is compliant with the requirements of this Agreement.

9 YOUR OBLIGATIONS

In return for our consent to export energy to our Supply Network, you agree to:

- (b) pay all of our costs associated with any system reinforcement, system modification, additional protection and control equipment required to accommodate the IES;
- (c) not mislead or deceive us in relation to any information provided;
- (d) undertake, if necessary, any changes to the wiring at the Premises necessary for the installation of our metering equipment;
- (e) advise us of any proposed material operational changes of the IES, including the installation of any additional IES;
- (f) obtain our prior consent in writing to any material increase in capacity of the IES prior to any such increase;
- (e) maintain the IES in accordance with Section 8 of this Agreement;
- (g) advise any subsequent occupant of the Premises of the existence of this Agreement and the requirement for the new occupant to enter into a new Agreement with us; and
- (h) consent to us, our officers and agents entering the Premises at any reasonable time and date to test or inspect the IES for the purpose of establishing that the IES and the installation complies with this Agreement; and

10 ASSIGNMENT

You may not assign your rights or novate your obligations under this Agreement without the prior written consent of us, which will not be unreasonably withheld.

SCHEDULE 1 GENERAL TERMS AND CONDITIONS

1 DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Agreement:

"Accredited Installer" means a person who has demonstrated their competence to design and install renewable energy systems and holds appropriate accreditation as acknowledgement of their competence.

"Act" means the Electricity Act.

"Agreement" means this Inverter Energy System Network Agreement.

"Connection Contract" has the meaning given in the Act.

"Customer" refers to the person (or persons) residing at the Premises where IES is installed.

"Electrical Safety Act" means the Electricity Act.

"Electricity Industry Code" means any Electricity Industry Codes made under the Act.

"Electricity Regulations" means the Electricity Regulations.

"Export" or **"Exported energy"** means the quantity of energy generated by the IES equipment and delivered to our Supply Network.

"Inverter" means a device that uses semiconductor devices to transfer power between a DC source or load and an AC source or load.

"IES" means an Inverter Energy System and represents a system comprising one or more inverters together with one or more energy sources (which may include batteries for energy storage), controls and one or more grid protection devices. In the context of this document, the energy source shall be a Photovoltaic Array.

"Negotiated Connection Contract" has the meaning given to that term in Electricity Act.

"Photovoltaic Array" or **"PV"** means an electrically integrated assembly of PV modules, and other necessary components, to form a DC power supply unit. A PV array may consist of a single PV module, a single PV string, or several parallel-connected strings, or several parallel-connected PV sub-arrays and their associated electrical components.

"Premises" means the premises (as that term is defined in the Act), at which you propose to install the IES.

"Standard Connection Contract" has the meaning given to that term in the Electricity Act.

"Supply" means the supply of electricity from our Supply Network to the Premises.

"Supply Network" has the meaning given to that term in the Electricity Act.

"WHS Act" means the Safety At Work Act.

1.2 Interpretation

In this Agreement, unless the contrary intention appears:

- (a) headings are for ease of reference only and do not affect the meaning of this Agreement;
- (b) the singular includes the plural and vice versa, words importing a gender include other genders and words and expressions importing natural persons include partnerships, bodies corporate, associations, governments and governmental and local authorities and agencies;
- (c) other grammatical forms of defined words or expressions have corresponding meanings;
- (d) a reference to a clause, paragraph, schedule or annexure is a reference to a clause or paragraph of or schedule or annexure to this Agreement and a reference to this Agreement includes its recitals and any schedules and annexures;
- (e) a reference to a document or agreement, including this Agreement includes a reference to that document or agreement as novated, altered or replaced from time to time; and

- (f) a reference to a party includes its executors, administrators, successors and permitted assigns.

2 GENERAL PROVISIONS

2.1 Inconsistency between clauses and schedules

If there is any inconsistency between a clause of this Agreement and the Schedules to this Agreement, then the clause of the Agreement will prevail.

2.2 Relationship with Connection Contract

This Agreement does not change the conditions of the Standard Connection Contract or Negotiated Connection Contract (whichever is applicable).

2.3 Effect of this Agreement

This Agreement covers the exporting of energy to our Supply Network only and does not relieve you of any obligations at law or the requirements of another authority in relation to the installation, operation or maintenance of the IES.

2.4 Joint and Several Liabilities

If you are more than one person:

- (a) an obligation of those persons is joint and several; and
- (b) a right of those persons is held by each of them severally.

2.5 Liability for Damage

You acknowledge that we will not be liable for any loss, damage or injury suffered or claimed by you or any other person that may occur or be attributable to the installation and operation of the IES at the Premises.

The parties acknowledge that you are responsible for any insurance costs associated with your obligations or possible liability under this Agreement.

SCHEDULE 2

TECHNICAL CONDITIONS FOR THE CONNECTION OF SMALL SCALE PHOTOVOLTAIC INVERTER ENERGY SYSTEMS

1 INTRODUCTION

The technical conditions hereafter refer to the mandatory requirements for the IES.

2 SCOPE

This Agreement covers installations up to a maximum of 30 kVA (3-phase) or 10 kVA (single phase) that may export electrical energy to our Supply Network regardless of the length of time that parallel operation would normally occur.

3 DESIGN AND INSTALLATION

The design and installation of the IES must comply with:

- (a) AS 4777 – Grid Connection of Energy Systems via Inverters, Parts 1, 2 and 3;
- (b) AS/NZS 3000 – SAA Wiring Rules;
- (c) AS/NZS 3008 – Electrical installations—Selection of cables;
- (d) AS/NZS 5033 - Installation of Photovoltaic (PV) Arrays;
- (e) all other applicable Australian Standards/Codes of Practice, current as at the date of installation;
- (f) the Technical Conditions as set out in this document;
- (g) the SIEA Metering and Connection Manual.

4 METERING

The metering of the IES must:

- (a) comply with the requirements of the Electricity Connection and Metering Manual; and
- (b) be located adjacent to the existing revenue metering for the Premises.

5 GRID PROTECTION REQUIREMENTS

The IES output voltage, frequency and waveform must match that of our Supply Network such that any distortion of these parameters shall be within acceptable limits. There shall be no significant reduction in quality of Supply to other network users or risk of damage to apparatus belonging to other network users or us.

The Inverter protection elements must comply with AS 4777.3 “Grid Connection of Energy Systems via Inverters Part 3: Grid Protection Requirements” to ensure the following requirements are met:

- (a) disconnection of the Inverter from our Supply Network in the event of a loss of Supply;
- (b) to ensure the Inverter is operating within acceptable operating parameters;
- (c) to prevent the Inverter from energising a de-energised circuit.

Passive protection arrangements shall comply with AS 4777.3 “Grid Connection of Energy Systems via Inverters Part 3: Grid Protection Requirements”.

In addition, the following specific voltage and frequency settings shall be programmed into the Inverter:

- (a) Voltage: Maximum voltage trip point (V_{max}) shall be 255V for a single phase system or 440V for a three phase system.
- (b) Frequency:
 - i. Minimum frequency trip point (F_{min}) shall be 48Hz
 - ii. Maximum frequency trip point (F_{max}) shall be 52Hz

If voltage and/or frequency fall outside the set limits, the IES must be automatically disconnected from the Network. Reconnection procedure shall comply with AS 4777.3 "Grid Connection of Energy Systems via Inverters Part 3: Grid Protection Requirements.

Without limiting our discretion in Clause 5.3 of this Agreement, the IES must have any additional functionality specified by us regarding variable voltage and Volt-Amperes Reactive controls in accordance with the particular network conditions relevant to the IES.

6 IES TESTING

Upon completion of the installation of the IES, we may conduct a test of the IES equipment at a mutually agreed time and date for the purpose of establishing that the IES complies with this Agreement.

The test will consist of:

- (a) disconnection of the Premises from the Supply Network;
- (b) reconnection of the Premises to the Supply Network; and
- (c) inspection and such testing of the IES as we consider necessary for compliance with this Agreement.

7 TYPE/CAPACITY CONSTRAINTS

At some locations, technical requirements may limit the type or capacity of IES that may be installed. Where required by us, you shall pay for any technical studies required to ensure the suitability of the IES interaction under normal and fault conditions. These studies shall be undertaken to our satisfaction regarding technical content. Should the studies require the Supply Network to be reinforced or modified you will be required to bear the costs associated with this work.