

## REQUEST FOR PROPOSAL

RFP No: 21-155

DATE: 10<sup>th</sup> September 2021

**SUBJECT :**     **Supply, install and local training for the Solar PV Hybrid System of Pitcairn Islands**

You are requested to submit a comprehensive proposal for the above consultancy as per the Terms of Reference set out in Annex II.

To enable you to submit a Proposal, please find enclosed:

- Annex I:**       Instructions to bidders
- Annex II:**     Terms of Reference
- Annex III:**    Proposal submission form
- Annex IV:**     Technical submission form
- Annex V:**      Financial Proposal submission form
- Annex VI:**     Due diligence questionnaire
- Annex VII:**    Declaration of interest
- Annex VIII:**   SPC General Contract for supply Conditions

This letter is not to be construed in any way as an offer to contract with your firm/institution.

Yours Sincerely

Akhilesh Prasad  
**Manager, Procurement & Grants.**

**INSTRUCTIONS TO BIDDER**  
**Supply, install and local training for the Solar PV Hybrid System of Pitcairn Islands**  
**(RFP21-155)**

## **1. Submission of Proposals**

### **1.1. Your proposal shall comprise the following documents:**

- a. Annex III: Proposal submission form
- b. Annex IV: Technical Proposal submission form
- c. Annex V: Financial Proposal submission form
- d. Annex VI: Due diligence questionnaire
- e. Annex VII: Declaration of interest

### **1.2. Proposals must be received by the Pacific Community (SPC) at the address mentioned below on or before **Friday, October 22<sup>nd</sup> 2021 – 05:00 PM – Noumea Time**. Any proposal received after this date may be rejected. SPC may, at its discretion, extend the deadline for the submission of proposals, by notifying all prospective bidders in writing. The extension of the deadline may accompany a modification of the solicitation documents prepared by SPC at its own initiative or in response to a clarification requested by a prospective bidder.**

### **1.3. All proposals submitted together with all correspondence and related documents shall be in English. If any of the supporting documentation or printed literature is in any other language, a written translation of the document in English should also be provided. In such case the interpreted document will be used for processing an evaluation purposes.**

### **1.4. All prices in the proposals must be presented in Euro and inclusive of all taxes.**

### **1.5. The proposal has to be in two separate emails as follows:**

- i* Send in a first e-mail the technical proposal, a schedule of works and related document(s), clearly indicating the RFP number in the email subject;
- ii* Send in a second e-mail the financial proposal and related document(s). The opening of this second email shall be protected by a password to be provided to SPC Procurement upon request at the time of the financial evaluation.

### **1.6. Proposals **must be** emailed to [procurement@spc.int](mailto:procurement@spc.int) with the heading “RFP21-155 - Supply, install and local training for the Solar PV Hybrid System of Pitcairn Islands (Refer 1.5(c)).**

### **1.7. For all proposals received before the deadline, SPC will send a formal acknowledgement of receipt to the Bidder.**

## **2. Request for Proposals Timelines and Due Dates**

**2.1.** The timeline and due dates for the RFP is provided in Table 1 below.

<b>Table 1: RFP timelines and due dates</b>		
	<b>Date</b>	<b>Time</b>
Deadline for seeking clarification from SPC	11 <sup>th</sup> October 2021	05:00 PM (Noumea time)
Deadline for the submission of RFPs	22 <sup>nd</sup> October 2021	05:00 PM (Noumea time)

## **3. Bidders' responsibilities**

- 3.1.** The bidder is expected to examine all instructions, forms, terms and specifications in this bidding document. Failure to furnish all information required by the bidding documents or to submit a proposal substantially responsive to the bidding documents in every aspect will be at the bidder's risk and may result in the rejection of the proposal.
- 3.2.** The bidder shall bear all costs associated with preparing and submitting a proposal, including cost relating to contract award; SPC will, in no case, be responsible or liable for those costs, regardless of the conduct or outcome of the RFP process.
- 3.3.** Bidders must familiarise themselves with local conditions and take these into account in preparing their proposal to obtain information on the assignment, technical requirements, and on local conditions.
- 3.4.** By submitting a proposal, the bidder accepts in full and without restriction the special and general conditions governing this proposal as the sole basis of this bidding procedures whatever his own conditions of sale may be, which he hereby waives.
- 3.5.** Participation in bidding is open and on equal terms to natural persons, companies, firms, public and/or semi-public agencies, cooperative societies, joint ventures, groupings of companies and/or firms and other legal persons governed by public and private law of any country. Bidders must provide evidence of their organisational status.
- 3.6.** The bidder might be requested to provide additional information relating to their submitted proposal, if the Procurement Committee requests further information.
- 3.7.** The submitted proposal must be for the entirety of the Terms of Reference and not divided into portions which a potential bidder can provide services for.
- 3.7.1.** Bidders may submit questions and or seek clarifications on any issue relating to this RFP in writing to the following email address [procurement@spc.int](mailto:procurement@spc.int) only. Any attempt of communication with SPC, other than through this email address, may result in the

disqualification of the bidder concerned. The deadline for submission of clarifications is **Monday, 11<sup>th</sup> October 2021 – 05:00 PM Noumea Time.**

**3.7.2.** Any prospective bidders seeking to arrange individual meetings with SPC during the RFP period may be excluded from the bidding procedure.

**3.7.3.** No clarification meeting / site visit planned.

#### **4. One Proposal per Bidder**

**4.1.** Each bidder shall submit only one proposal, either individually or as a partner in a joint venture. A bidder who submits or participates in more than one bid shall cause all bids with the bidder's participation to be disqualified.

#### **5. Withdrawals of Proposals**

**5.1.** The bidder may withdraw its Proposal after the Proposal's submission, provided that written notice of the withdrawal is received by the Pacific Community prior to the deadline prescribed for submission of Proposals. The bidder's withdrawal notice shall be sent to the email address [procurement@spc.int](mailto:procurement@spc.int).

**5.2.** No Proposal may be modified subsequent to the deadline for submission of proposals.

**5.3.** No Proposal may be withdrawn after the deadline for submission of proposals.

#### **6. Validity of Proposals**

**6.1.** Bidders shall be bound by their proposal for a period of 120 days from the deadline for submission of proposals.

**6.2.** The successful bidder will be bound by his RFP for a further period of 60 days following receipt of the notification that he has been selected to enable SPC to complete the procurement process and obtain all the necessary approvals so that the contract can be awarded within that period.

#### **7. Modifications to Proposals**

**7.1.** Any additional information, clarification, correction of errors or modifications of bidding documents will be published on SPC website prior to the deadline for receipt to enable other potential bidders to take appropriate actions.

**7.2.** Bidders will also be informed of the right to modify and make corrections to proposals, provided that any such modifications or corrections are received by SPC in writing prior to the time specified for submission of proposals. The original proposal thus modified or corrected would then be considered as the official bid.

## 8. Opening and Evaluation of Proposals

- 8.1.** The Proposals will be opened in the presence of the Bids Opening Committee after the closing of the RFP.
- 8.2.** To assist in the examination, evaluation and comparison of Proposals, SPC may at its discretion, ask the bidder for clarification of its Proposal. The request for clarification and the response shall be in writing and no change in price or substance of the Proposal shall be sought, offered or permitted.
- 8.3.** The Bids Opening Committee will carry out a preliminary examination of the Proposals to determine whether they are complete, whether any computational errors have been made, whether the documents have been properly signed, and whether the Proposals are generally in order.
- 8.4.** A two-stage procedure will be utilised to evaluate the proposals, with evaluation of the technical proposal being completed prior to any financial proposal being opened and compared. The competencies which will be evaluated are detailed in the Terms of Reference (Annex II). The table also reflects the obtainable score specified for each evaluation criterion which indicates the relative significance or weight of the items in the overall evaluation process.
- 8.5.** The technical component, which has a total possible value of 700 points, will be evaluated using the following criteria:

Evaluation Criteria, Competency Requirements		Score Weight (%)	Points Obtainable
<b>(1) Adherence and compliance with the components specifications, standards and warranty requirements</b>	a) Monocrystalline Solar Module, Rated power 450Wp or higher and module efficiency 20 % or higher	10	70
	b) Valve Regulated Lead Acid Battery	10	70
	c) Energy Management System and Balance of System	10	70
	d) Distribution line upgrade	10	70
<b>(2) Design Adequacy and Project Experiences as the main contractor in RE hybrid systems for minigrid applications – solar and energy storage - of comparable scale to the proposed contract</b>	a) Adequacy of proposed system design and configuration	10	70
	b) Proven experience as the main contractor in the deployment of grid-connected solar PV systems and RE hybrid systems for minigrid applications – solar and energy storage of comparable scale to the proposed contract	10	70

<b>(3) Adequacy of proposed implementation plan, timeline and training plan</b>	a) Relevant training program of local stakeholders to ensure overall system sustainability	10	70
	b) Adequacy of proposed implementation plan and timeline	5	35
<b>(4) Ability to provide Service Center to cater to repair and troubleshooting services after handover</b>	a) Guarantee period for System performance, Components and equipment	10	70
	b) Adequacy of proposed maintenance and support services agreement	5	35
<b>(5) Personnel qualifications- Compliance with the required expertise and skill sets according to TOR of key personnel dedicated for the project</b>			70
<b>Total score</b>		<b>100%</b>	<b>700</b>
<b>Qualification score</b>		<b>70%</b>	<b>490</b>

**8.6.** The financial proposal will be opened only for bidders that passed the minimum technical score of 490 points (70%).

**8.7.** Financial proposals of technically responsive proposals will be reviewed. Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price, the lower price shall prevail and the higher price shall be corrected. If the Bidder does not accept the correction of errors, its Proposal will be rejected. If there is a discrepancy between words and figures the amount in words will prevail.

**8.8.** The financial component of the proposal will be scored on the basis of overall costs for the delivery of the services and financial incentives and benefits provided to SPC. The lowest financial proposal will be awarded maximum 30 points and other financial offers and incentives will be awarded points as per the formula below. The formula used for scoring points for financial values proposed will be:

<b>Financial Proposal score</b>	<b>= (Lowest Price / Price under consideration) x 300</b>
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**8.9** No payment will be made for items, which have not been priced; such items are deemed to be covered by other items on the financial offer

**8.10** Bidders will be deemed to have satisfied themselves, before submitting their proposal and to its correctness and completeness, taking into account of all that is required for the full and proper performance of the contract and to have included all costs in their rates and prices.

**8.11** Bidders must quote by estimated number of working days against fee per day and overall prices for their RFPs on all of the following bases. The fees should be inclusive of all costs related to carrying out the Consultancy, including any travel and other related costs.

**8.12** The price for the contract is inclusive of all taxes and is fixed and not subject to revision.

## **9. Award of Contract**

- 9.1.** The award of the contract will be made to the proposal which is considered to be most responsive to SPC's technical specifications as detailed in the Terms of reference with due consideration to SPC Procurement Policy which includes the general principal of best value for money, economy and efficiency. SPC is not in any way obliged to select the firm/institution offering the lowest price.
- 9.2.** SPC reserves the right to accept or reject any Proposal, and to annul the solicitation process and reject all Proposals at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or any obligation to inform the affected Bidder or Bidders of the grounds for SPC's action.
- 9.3.** SPC reserves the right to enter into negotiation with respect to one or more proposals prior to the award of a contract, split an award/awards and to consider localized award/awards between any proposers in any combination, as it may deem appropriate without prior written acceptance of the proposers.
- 9.4.** Within 15 days of receipt of the contract the successful bidder shall sign and date the contract and return it to SPC.

## **10. Bidder Protest**

10.1 If a bidder involved in an SPC procurement process considers he is not treated fairly, or that SPC failed to properly follow the requirements of the Procurement Policy, then that bidder may lodge a protest.

10.2 To lodge a protest, you can email [complaints@spc.int](mailto:complaints@spc.int) with your allegations. Your protest will need to include:

- your full contact details;
- the details of the relevant procurement;
- the reasons for your protest, including how the alleged behavior negatively impacted on your bid;
- copies of any documents supporting your grounds for protest;
- the relief that is sought.

10.3 Your protest will be recorded and will be acknowledged promptly. You may be contacted to provide more information. An officer uninvolved in the original procurement process and with no conflict of interest will be nominated to investigate your protest.

10.4 Your protest will be received in good faith and will not impact your involvement in future bids.

## **11. Privacy notice**

- 11.1.** The bidder understands that their proposal and their personal information will be stored and used by SPC in accordance with SPC's *Privacy Policy* and *Guidelines for handling personal information of bidders and grant applicants*. Please inform SPC if you would like copies of the policy or guidelines.
- 11.2.** If successful, the bidder understands that SPC will publish the name of the bidder.

## **TERMS OF REFERENCE**

### **Supply, install and local training for the Solar PV Hybrid System of Pitcairn Islands (RFP21-155)**

#### **1. Background**

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##### **1.1. PROTEGE Project**

PROTEGE (“Pacific Territories Regional Project for Sustainable Ecosystem Management”) is an initiative designed to promote sustainable and climate-change-resilient economic development in the European Pacific overseas countries and territories (OCT) by emphasising biodiversity and renewable resources. PROTEGE is a regional cooperation project that supports the public policies of the four Pacific OCTs, i.e. New Caledonia, French Polynesia, Wallis & Futuna and Pitcairn.

The first specific objective aims to strengthen sustainability, adapting to climate change and autonomy of the main streams of the primary sector. Two results are expected:

- Expected Result 1: The agro-ecological transition is operated for organic (as much as possible) agriculture adapted to climate change and respectful of biodiversity; forestry resources are managed in an integrated, sustainable way.
- Expected Result 2: The lagoon and reef resources as well as aquaculture are managed in an integrated, sustainable way and in a manner that’s adapted to the islands economy and to climate change.

The second specific objective is to strengthen the ecosystem based services security by preserving the water resource and the biodiversity. Two results are expected:

- Expected Result 3: Water is managed in an integrated way and in a manner adapted to climate change.
- Expected Result 4: Invasive Exotic Species are managed to strengthen the protection, resilience and the ecosystem based systems restoring as well as terrestrial biodiversity (managed by the Regional Oceanian Program for the Environment).

The management of the project has been entrusted to the Pacific Community (SPC) for themes 1, 2 and 3 and for the supply, install and local training for the Solar PV Hybrid System of Pitcairn Islands. The Pacific Regional Environment Programme (SPREP) implements theme 4.

The implementation of the project is planned over 4 years, through a delegation agreement signed on 26 October 2018 between the European Union, SPC and SPREP.

##### **1.2. Pitcairn Islands and Adamstown overview**

The Solar Hybrid Systems project in Adamstown, PITCAIRN ISLANDS, is working to supply and install a solar PV hybrid energy system for the benefit of Adamstown community and the government of Pitcairn to achieve their renewable energy objective. The system will enable the community to access a reliable, affordable and clean supply of energy and reduce the Pitcairn Islands dependency on the generator and the use of fossil fuel.

The aim would be to replace 95% of the current diesel use in Pitcairn Island (75,000 litres per year) by a combination of energy conservation and solar electricity.

The European Union (EU) funds this project under the Pacific Territories Regional Project for Sustainable Ecosystem Management (PROTEGE) program (EDF11).

The PROTEGE program is implemented by the Pacific Community (SPC). SPC works closely with the Government of Pitcairn Islands to implement the project.

➤ **Location**

Pitcairn Islands is one of the most isolated and most remote inhabited (groups of) islands in the world. The four islands comprising the group (Pitcairn, Henderson, Oeno and Ducie) are situated approx. 500 km from the easternmost airport of French Polynesia on Mangareva in the Gambier group.

Only Pitcairn itself is inhabited, with a total population of about 60 people.

As a British Overseas Territory (OCT), Pitcairn is associated with the European Union through a regime based on the provisions of Part IV of the Treaty on the Function of the European Union.



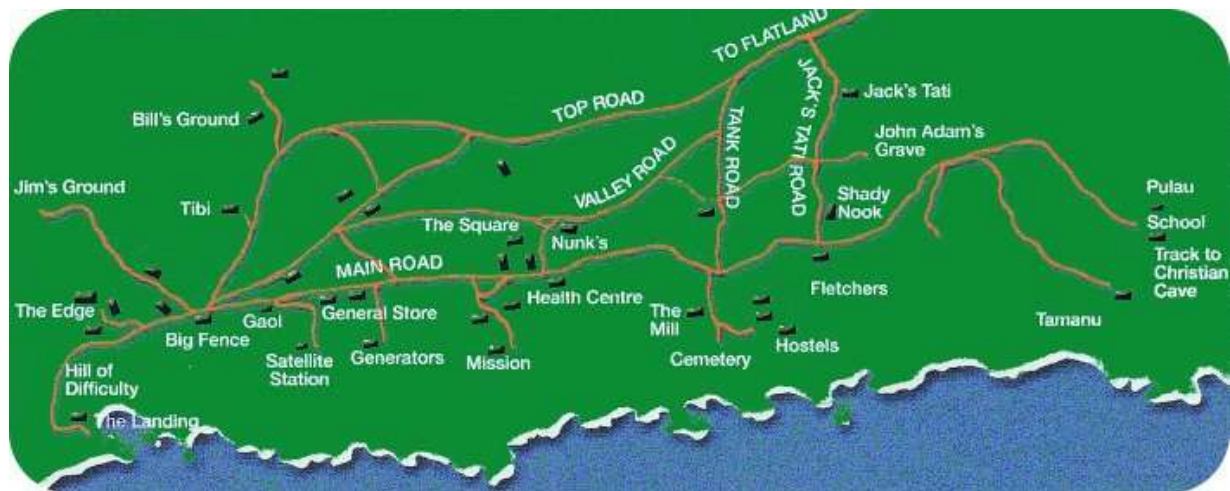


Figure 1 - Adamstown Map

### 1.3. Community Environment

#### *Geology*

The Pitcairn island has a total surface area of 5 km<sup>2</sup>, rising to a level of 337 meters above the sea. It has steep cliffs that plunge deep into the ocean with no beaches and poorly developed coral reefs.

The Pitcairn Island Group formed as a volcanic hotspot, which now lies east of the Easter Island plate. The age of the individual island varies from 16 million years (Oeno) to 13 (Henderson) and 8 million (Ducie). The cessation of volcanic activity was followed by submersion and the formation of a carbonate cap. With one million years, Pitcairn itself is the youngest and highest island and was formed by another move of the ocean floor, which pushed up part of the submerged, carbonate cap of Henderson. Pitcairn mainly consists of two volcanic rock types: red or black basaltic lavas and yellow or grey pyroclastics. At Tedside, the lavas are mostly feldspar rich basalts while the Adamstown area is dominated by lava flows. In the warm and moist climate of Pitcairn, the rocks erode rapidly and form rich volcanic soils, which are suitable for agriculture in the flatter and higher parts of the island.

#### *Climate*

Pitcairn is located just south of the Tropic of Capricorn and enjoys year-round warm weather, with wet summers and drier winters. The rainy season is from November through to March; winter is from April to October, when temperatures average from 17 to 25 °C. During summer from November to March temperatures range from 25 to 35 °C and humidity averages can exceed 95%.

The climate in Pitcairn Island is typically subtropical oceanic modified by southeast trade winds; rainy season (November to March). For Adamstown in January the daily average maximum temperatures is 28°C with the average minimum 23°C, while in June the average maximum is 24°C with a minimum of 20°C. The wettest month for Adamstown is November with an average of 187.8mm of precipitation falling while the driest month is September with 105.8mm falling.

#### *Infrastructure*

There is one 6.4 km paved road leading from the boat landing in Bounty Bay through Adamstown. The public facilities on Pitcairn Island include a school, community hall, community store, police station, prison, and a well-equipped rural clinic staffed by a doctor specializing in remote area and emergency medicine. There is also a radio station.

The island is connected via satellite link for telephone and Internet services.

A dedicated passenger and cargo supply ship chartered by the Government of Pitcairn (GoP), the MV Claymore II, was (until 2018) the principal transport from Mangareva in the Gambier Islands of French Polynesia. The supply ship was replaced in 2019 by the MV Silver Supporter.

Mangareva is an important travel link to Pitcairn Island; the only route for arrival is to fly to Tahiti, then to Mangareva, and from there, a 32-hour boat ride will take travellers to the island. Some reach their destination by commercial shipping traffic, but that is less and less common as shipping lanes do not typically pass close to Pitcairn Island.

- Freight

Despite significant improvement in infrastructure, landing of passengers and supplies still poses a major challenge in rough seas. At the core of the islands link to the world lies the “longboat” a sturdy aluminium vessel, whose launch and operation requires at least six able bodied persons with a good understanding of the procedure. A 25-ton mobile crane is available on the island, which facilitates offloading of heavier equipment. Heavy machinery such as bulldozers and diggers that cannot be loaded onto the regular supply ship (**Silver Supporter**) need to be shipped in by barge and then off-loaded by this crane. It is also assumed that no construction equipment and machinery will be needed in addition to what is available on the island.

*The supplies are to be made in one lot. The Bidder is to ensure that the Solar PV system components and other accessories are packaged and successfully transported to Pitcairn Island, Adamstown, in the standard containers used on Pitcairn. These containers have a volume of 5.4 m3 and a maximum gross weight of 5,000 kg.*

*As per current travel restriction in place to access Pitcairn Island, it is expected that the bidder team will travel with the shipped equipment and will ensure that equipment's remain in suitable delivery conditions.*

*Unloading from the Silver Supporter ship would be done via longboat under Pitcairn Government supervision. Storage facilities will be provided. It will be up to the preferred supplier to ensure the kit is inspected prior to departure. Inspection of the supplied kit upon arrival can be arranged via Pitcairn Island Auditor if the bidder team is not traveling with the shipped equipment.*

*There is no tax on Pitcairn and exports from NZ are GST exempt. The Government of Pitcairn Island shall provide specific delivery instructions to Shuttle Express in Auckland.*

*Also Pitcairn has strict biosecurity requirements and all equipment should be appropriately fumigated prior to shipment.*



Figure 2 - Standard Shipping container for Pitcairn

#### **1.4. Electricity Supply**

*Energy supply*

Pitcairn Island is supplied with both diesel and petrol. About 75,000 litre of diesel is supplied per year, and gasoline is supplied in standard 200 litre drums. The main use of diesel is for power generation and operation of heavy equipment, and gasoline is used as fuel for quad bikes, a means of transportation on the island. LPG gas has been available on the island since 1999 and is supplied in 45 kg and 90 kg containers.

#### *Electricity supply*

All Pitcairn Island customers are connected to a low-voltage system powered by four diesel generators. Three of the four diesel generators in the table below supply power from 6:00 a.m. until 10:00 p.m, and another is an emergency generator that supplies power to a hospital and the satellite station for 24 hours.

Currently, the diesel generator John Deere (130 kW) has exceeded 50% of its life expectancy, and the two Cummins (108 kW each) are expected to operate for 8-10 years if properly maintained. These three diesel generators are used for a certain amount of time, taking turns every day.

#### *Diesel generators of Pitcairn*

No	Generator	Nameplate output kW	Hours of operation
1	John Deere	130	15,800
2	Cummins 1	108	2,500
3	Cummins 2	108	3,300
4	Lister	12	N/A

In addition to the above generators, there are other small-capacity generators on the island, but they are used by individual households depending on the situation. And there are also two generators belonging to the GoP.

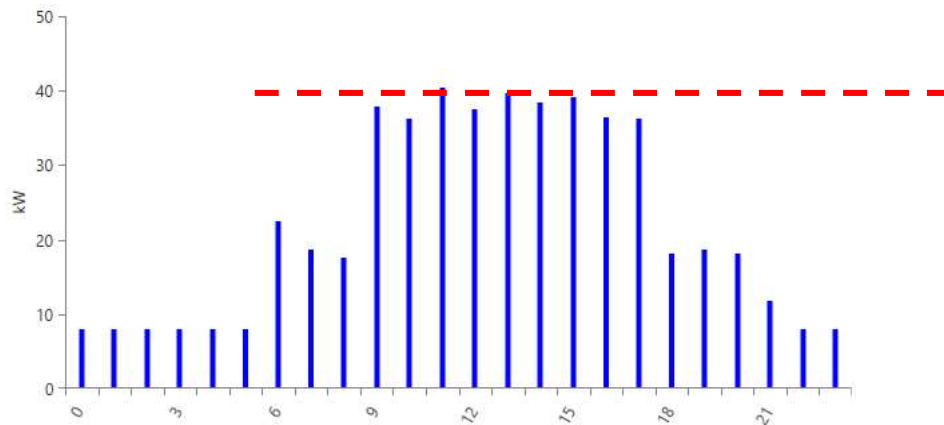
#### *Estimate of Electricity Demand for 24 Hours per Day*

The total electricity demand of Pitcairn Island was reported to be 150,000[kWh/year], of which 61% was consumed for residential purposes, and the remaining 39% was consumed by the Government of Pitcairn, government offices, public health centre, and other institutions. In the past years, the demand for electricity has been somewhat stable without a significant increase or decrease, and the demand for electricity is not expected to increase in the future.

Once the solar PV hybrid system is constructed, it is expected the power supply will expand to 24 hours a day. The potential demand of electricity from 24 hours per day supply is estimated as follows:

- $150,000\text{kWh/yr (existing demand)} + 15\text{kWh} \times 8\text{hr} \times 365\text{day(24-hour service)} = 193,800\text{kWh/yr}$  ( → Total load demand assumed for 24 hours service)
- Assumption: no load demand increase in the future and no impact of energy saving by energy efficient devices including LED bulbs

The daily load profile is modified as shown in the Figure below.



*Scaled daily load profile of Pitcairn island*

The Pitcairn Island load curve and approximate annual electricity demand were used to predict yearly electricity demand. The electricity demand and consumption pattern were examined and extrapolated to calculate 24 hours per day power supply requirements.

Simulations utilizing the commercial tool Homer Pro supported the design effort to optimize solar power generation and battery energy storage capacity to achieve the required 95% reduction in fossil fuel. Simulation parameters included Pitcairn's geographical location and weather profile. Seasonal load fluctuations, solar insolation, and ambient temperature influenced the solar power generation capacity and system design. As a result, power demand is predicted to be 193,800 kWh/year, an increase from the current power demand of 150,000 kWh/year, and indicates a solar power generation capacity of 134 kWp. These factors, along with the requirement to survive three consecutive days without sunlight, indicate a need for 1,594 kWh of battery energy storage. Thus, the power supplied by the proposed hybrid power generation system would reach 96.2%, reduce the dependency on diesel power generation to 3.8%, and achieve the project's objective.

### 1.5. Conditions related to the COVID19 crisis

Pitcairn is currently Covid-19 free and has strict quarantine requirements prior to embarkation. Currently quarantine is 10 days in Tauranga before departure with testing on day 2 and day 8. The journey by sea would take between 12 and 14 days.

Requirement will be for the traveling bidder staff to be fully vaccinated and to provide proof of vaccination.

## 2. Scope of Work

The selected bidder company will be responsible for the full supply, installation and training component of the Solar PV Hybrid system of Adamstown, Pitcairn Islands.

✓	<b>Project management plan</b>
✓	<b>Supply of all the material</b>
✓	<b>Installation</b>
✓	<b>Testing and Commissioning</b>
✓	<b>Training</b>
✓	<b>Spares parts</b>
✓	<b>Warranty and After-Sales Services</b>
✓	<b>Documentation (wiring, schematic, operational procedure)</b>

## 3. Summary of Technical Specifications

### 3.1 Site location

The geographical coordinates of the site are (in Decimal degrees as per below)

- Lat: -25.068135°
- Long: -130.102131°

This land is own by the government of Pitcairn and is secured for the Solar PV Project.

The images of the site for solar PV system are in the pictures below. The area of the proposed site is 1,500 square meters, approximately 30 x 50 meters in dimension, facing north with an average slope of 23 degrees. Although the hilly condition with forest of the land will require some civil work, the location, direction and slope of the proposed land is considered to be an ideal place to have a solar PV system in the island.

Under the successful bidder recommendation and guidance, Pitcairn community will do the land leveling preparation and civil engineering preparation such as PV solar structure cement block if require.

For that matter, the bidder will be responsible to provide Pitcairn community with a state of work document with the sufficient technical specification require to proceed with the land preparation.

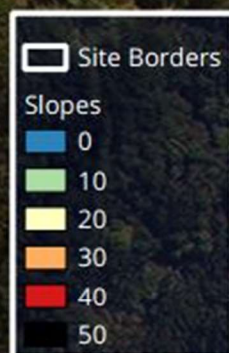
	
Photo of Site 1: Looking South West	Photo of Site 1: Looking North

In consideration of the site conditions and the size of the unit array, 22 arrays are arranged as shown in Figure x. The azimuth angle was set toward the north side to obtain the maximum annual energy production (AEP).Based on the above information, bidders are required to provide detailed structural design of the solar PV arrays the maximum AEP (Annual Energy Production) considering the average slope. The maximum wind-load to be applied to mounting structure is 40 meters per



second in accordance with Pitcairn weather condition exposure. Mounting structure needs to have anti-erosion protection from the salty sea air of the island.

## Terrain analysis - Option 2 Site



**Site Name Mean Slope**

Option 2 Site 23

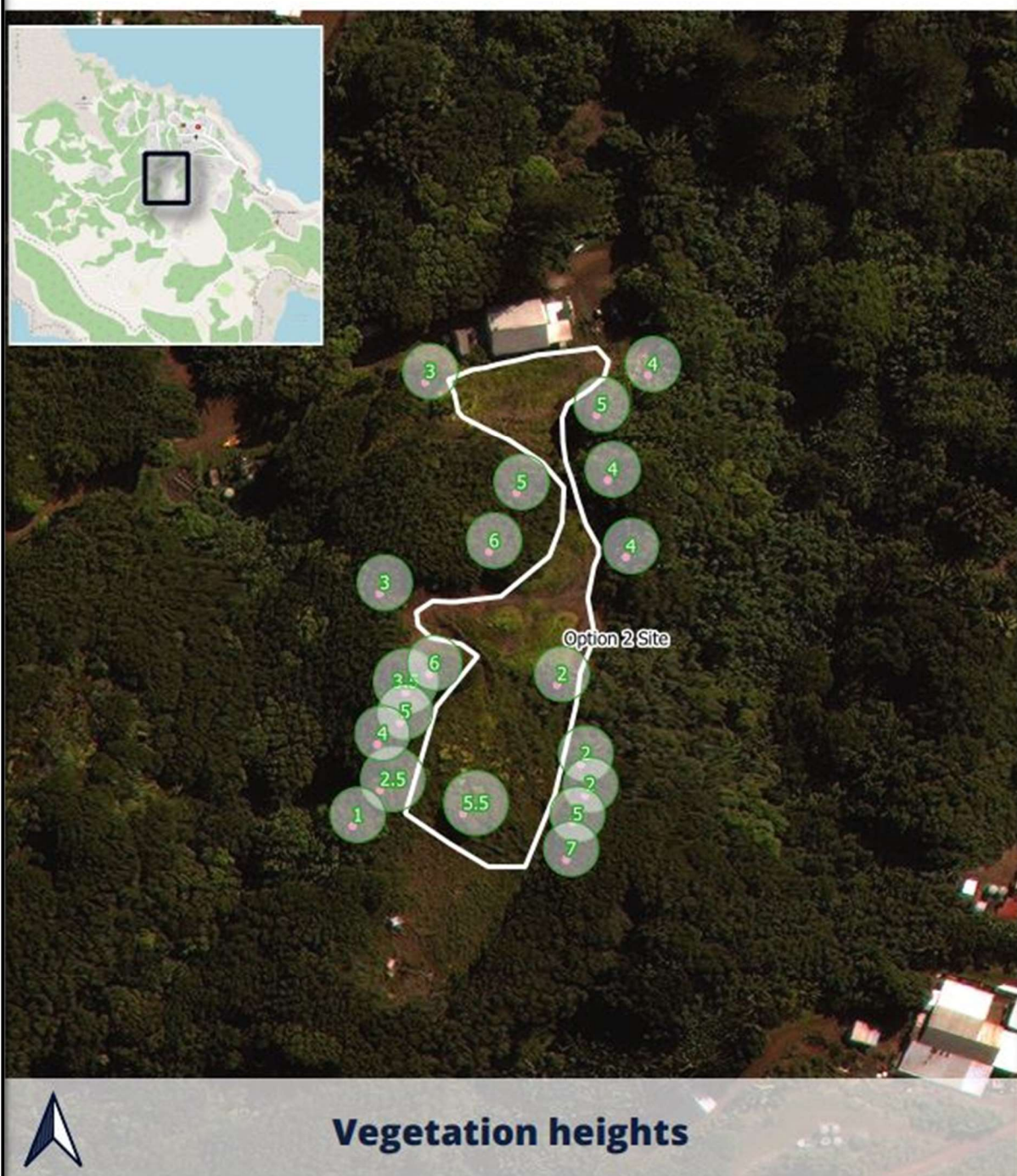


**Slopes**

0 50 100 m



## Terrain analysis - Option 2 Site



**Vegetation heights**

0 50 100 m



### 3.2 Solar PV module

The solar PV module should meet the following specification and requirement.

- The total capacity of solar PV array: minimum 134kWp
- Minimum Performance at Standard Test Condition(STC) of PV module : 1000W/m<sup>2</sup>, 25±2°C, AM 1.5G according to IEC 60904-3
- Nominal power of solar PV module at MPP(Maximum Power Point) : minimum 450W
- Efficiency of solar PV module: minimum 20%
- Annual performance degradation: 0.6% each year.
- Module performance warranty: minimum 92.6% of the nominal power upto 10 years and minimum 83.6% upto 25 years

#### Expected results of solar power generation

Quantity	Value	Unit
Rated Capacity	134	kW
Minimum Output	0	kW
Maximum Output	129	kW
Mean Output	26.3	kW
Daily Mean Output	631	kWh/day
Capacity Factor	19.5	%
<b>Total Production</b>	<b>230,233</b>	<b>kWh/year</b>

### 3.3 Batteries storage

The battery storage should meet the following specification and requirement.

- Nominal capacity of battery storage: minimum 1,594kWh
- Nominal battery voltage: 300V
- Type of battery storage: VRLA(Valve Regulated Lead Acid), maintenance-free type
- Cycling performance: 2,400 cycles or higher at 60% depth of discharge at 20 degree Celsius
- Battery shall be packed in metal rack

### 3.4 Mounting structure

The mounting structure should meet the following specification and requirement.

- Material of mounting structure: Hot deep galvanized steel
- Wind load requirement: 40 meter per second

### 3.5 DC/DC Converter for PV

The usage of the DC/DC converter is to charge battery storage from electricity output from solar PV arrays. The DC/DC Converter should meet the following requirement and specification.

- Functional requirements
  - 1) MPPT control of PV array
  - 2) Floating charging
  - 3) Output power limiting at the full state of charge (SOC)

- Technical specification

Item	Specification
Electrical Characteristics	<ul style="list-style-type: none"> <li>- Cooling : Forced air cooling</li> <li>- Max. Continuous Rating : 100%</li> <li>- Control device/Topology : IGBT/Buck converter</li> <li>- Max. Efficiency : &gt;93 % @ rated input/output condition</li> <li>- Acoustic Noise : &lt; 65 dBA</li> </ul>
Electrical Input	<ul style="list-style-type: none"> <li>- Rated Input Voltage : 360Vdc</li> <li>- Input Range : 300~450Vdc</li> </ul>
Electrical Output	<ul style="list-style-type: none"> <li>- Rated Output Power : 40 kW</li> <li>- Rated Output Voltage : 300Vdc</li> <li>- Output Voltage Accuracy : <math>\pm 2\%</math></li> <li>- Voltage Adjustable Range : 270 ~350VDC</li> <li>- Transient Response : &lt;100mS</li> <li>- Output Voltage Ripple : &lt;3V</li> </ul>
Measurement	<ul style="list-style-type: none"> <li>- DC Input : Voltage, Current</li> <li>- DC Output : Voltage, Current</li> <li>- Battery : Voltage, Current</li> </ul>
Charging Mode	<ul style="list-style-type: none"> <li>- Constant Voltage(CV) mode</li> <li>- Constant Current(CC) mode</li> </ul>
Alarm	<ul style="list-style-type: none"> <li>- Input : Under/Over Voltage</li> <li>- Output : Low Voltage</li> <li>- Earth Detection : (+), (-)</li> </ul>
Trip	<ul style="list-style-type: none"> <li>- Converter Fault</li> <li>- Static SW(STS) Fault</li> <li>- Output : OV, OL(Over Load)</li> <li>- Fuse Melt-down</li> <li>- Over Temperature(OT)</li> </ul>

### 3.6 CVCF Inverter (UPS)

The usage of CVCF Inverter is to supply electric power to community with constant voltage and constant frequency. The CVCF inverter should meet the following requirement and specification.

- Technical requirements

1) A two(2) sets of CVCF inverters with the same rating & functionalities shall be installed for redundant operation

2) Inside inverters, STS(Static Transfer Switch) shall be equipped for fast transfer of electric power during inverter failure.

- Technical specification

Item	Specification	Remarks
Electrical Characteristics	<ul style="list-style-type: none"> <li>- Cooling : Forced air cooling</li> <li>- Max. Continuous Rating : 100%</li> <li>- Control device/Topology : IGBT/Full-bridge, PWM</li> <li>- Max. Efficiency : &gt;90 %</li> <li>- Stand-by loss : &lt; 3%</li> <li>- Acoustic Noise : &lt; 65 dBA</li> </ul>	With Isolation transformer
Electrical Input	<ul style="list-style-type: none"> <li>- Rated Input Voltage : 300Vdc</li> <li>- Input Range : 250~450Vdc</li> </ul>	
Electrical Output	<ul style="list-style-type: none"> <li>- Phases : 3-phase, 4-wire</li> <li>- Rated Output Power : 150 kVA</li> <li>- Rated Output Voltage : 400/230Vac</li> <li>- Rated Frequency : 50Hz <math>\pm</math>0.1Hz</li> <li>- Output Voltage Accuracy : <math>\pm</math>1%</li> <li>- Voltage Adjustable Range : <math>\pm</math>5%</li> <li>- Transient Response : &lt;100mS</li> <li>- Transient Voltage Fluctuation : <math>\pm</math>5%</li> <li>- Overload : 125%/10min, 150%/30sec</li> <li>- Output Voltage Distortion Factor : &lt; 3%</li> <li>- Load Power Factor : 0.8-1.0(Lag)</li> </ul>	- 50-100% step load change
Measurement/Display	<ul style="list-style-type: none"> <li>- DC Input : Voltage, Current</li> <li>- AC Output : Voltage, Current, Frequency, Power</li> <li>- Converter Temperature, % Load</li> <li>- Operation/alarm Logging</li> </ul>	- LED/LCD Display
Alarm	<ul style="list-style-type: none"> <li>- Input : Under/Over Voltage</li> <li>- Output : Under/Over Voltage, Under Frequency</li> <li>- Over Temperature</li> </ul>	
Trip	<ul style="list-style-type: none"> <li>- DC Low Voltage</li> <li>- OL : 125/150%</li> <li>- Over Temperature(OT)</li> <li>- AC OV</li> <li>- INVERTER Fault</li> </ul>	

### 3.7 Battery Charger

The usage of battery charger is to charge battery storage by operating diesel generator when the state of charge of battery storage is insufficient due to insufficient solar radiation. Also, battery charger should reduce emissions and increase the fuel consumption efficiency of diesel generator by minimizing the operating hours of diesel generator. The battery charger should meet the following technical specification.

Item	Specification	Remarks
Electrical Characteristics	<ul style="list-style-type: none"> <li>- Cooling : Forced air cooling</li> <li>- Control : Thyristor 12-Pulse Full bridge</li> <li>- Max. Efficiency : &gt; 90 %</li> <li>- Stand-by loss : &lt; 3%</li> <li>- Acoustic Noise : &lt; 65 dBA</li> </ul>	
Electrical Input	<ul style="list-style-type: none"> <li>- Phase : 3-phase, 3-wire</li> <li>- Input Voltage : 400V±10%</li> <li>- Input Frequency : 50/60Hz</li> </ul>	
Electrical Output	<ul style="list-style-type: none"> <li>- Rated Output : 100 kW</li> <li>- Rated Output Voltage : 300Vdc</li> <li>- Voltage Adjustable Range : 250-350Vdc</li> <li>- Output Voltage Accuracy : &lt; ±2%</li> <li>- Output Voltage Ripple : &lt; RMS 2%</li> <li>- Overload : 125%/10min</li> </ul>	- 50-100% step load change
Measurement/ Display	<ul style="list-style-type: none"> <li>- AC Input : Voltage, Current, Power</li> <li>- DC Output : Voltage, Current</li> <li>- Battery : Voltage, Current</li> <li>- Operation/Alarm Logging</li> </ul>	- LED or LCD Display
Charging Function	<ul style="list-style-type: none"> <li>- Charging : CC, CV mode</li> <li>- Operation mode : Floating, Equalizing Charging</li> </ul>	
Alarm	<ul style="list-style-type: none"> <li>- AC Input : OV, UV</li> <li>- Battery : OV, UV, OT</li> <li>- DC Output : OV, UV</li> <li>- Fan Fault</li> </ul>	
Trip	<ul style="list-style-type: none"> <li>- AC Input : Reverse Phase</li> <li>- DC Output : OC, OV</li> <li>- Battery : OV</li> <li>- Over Temperature (OT)</li> </ul>	

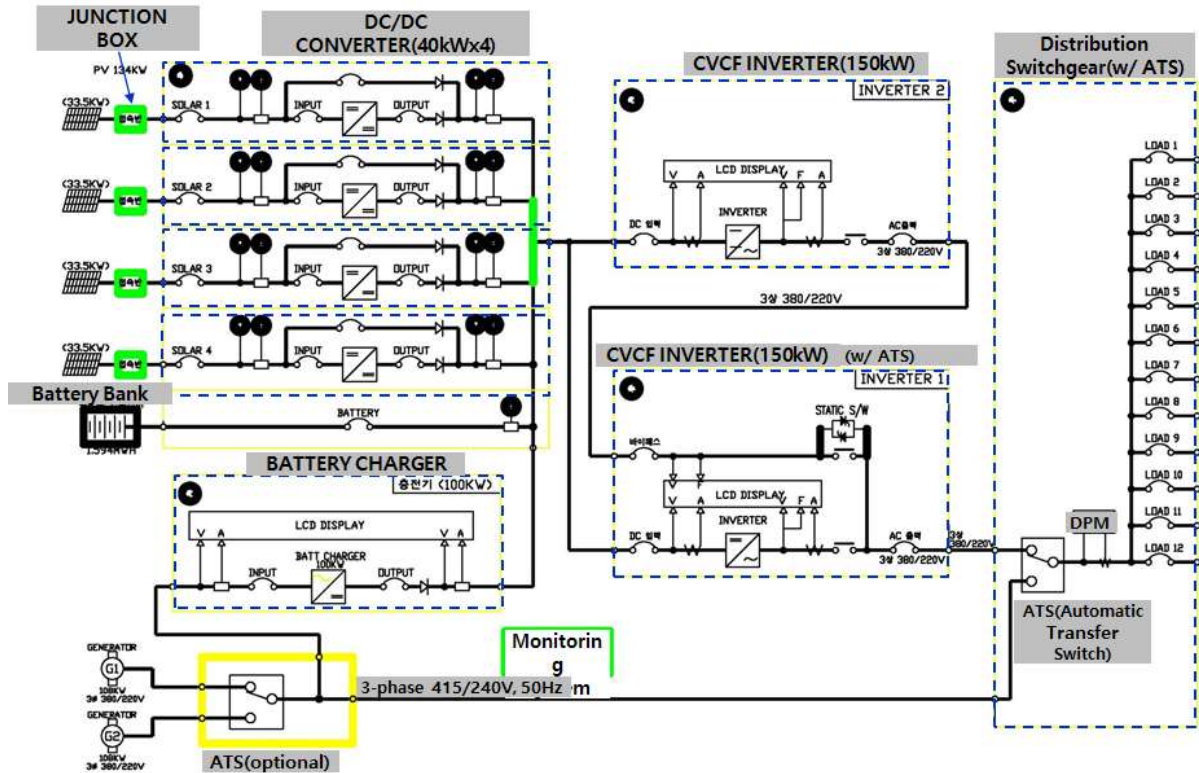
### 3.8 Distribution Panel

The usage of distribution panel is safely distribute electric power from a new power plant to community. The distribution panel should meet the following requirement.

- Functions of distribution panel
  - 1) In case that all the CVCF inverters fail, Automatic Transfer Switch(ATS) should automatically directs a changeover to backup diesel generator so that blackout can be avoided.
  - 2) Inside the panel, protective devices such as circuit breaker and protective relays should protect the power system from accidents for example, ground fault and short-circuit.
  - 3) For distributing power to main feeders, connection terminals should be provided.
  - 4) A digital measuring device shall be installed in order to monitor the power plant's operating status, including voltage, current, active/reactive power, kWh meter, and power facto. The accuracy of the measuring device should be 1% class.

### 3.9 Interface for control and monitoring of the system

The following single line diagram shows the configuration of the overall power plant. Interface and HMI (Human Machine Interface) for operation and monitoring of the power system must satisfy the following conditions.



#### 3.9.1 Communication interface

- Communication cables should be installed for remote operation and monitoring of the system.
- Necessary equipment, for example, gateway and RS232/485-to-Ethernet converter should be built in order to secure stable communication.

#### 3.9.2 Interface device to the existing diesel generators

The usage of the interface device is to operate diesel generator automatically when needed. The interface device should meet the following requirement.

- Interface device : digital generator control module for example, Deepsea, Woodward, Deif
- Functions : automatic start/stop (Remote/local), power measurement, parallel operation between generators, and protection of engine and generator.

### 3.9.3 Junction Box(Combiner Box)

The main functional feature of junction box should meet the following requirement.

- Blocking diode for preventing reverse power flow
- Surge protector
- PV String Monitoring : voltage and current
- Disconnect DC at the sources
- Fuses for overload protection on each string
- Easy termination and wiring of DC source and converters
- On-line monitoring

### 3.9.4 Computer Interface

In order to establish reliable communication environment among devices, sophisticated communication means, such as Ethernet instead of RS 485 serial communication, is required. Functions and examples of the communication interface devices should meet the following requirement.

- Multiple points of control and monitoring power plant
  - Local/Remote computer
  - Application service via Mobile phone or Satellite
- Remote connection application S/W for example, TEAMViewer

### 3.9.5 HMI (Human -Machine Interface)

The HMI should meet the following requirement.

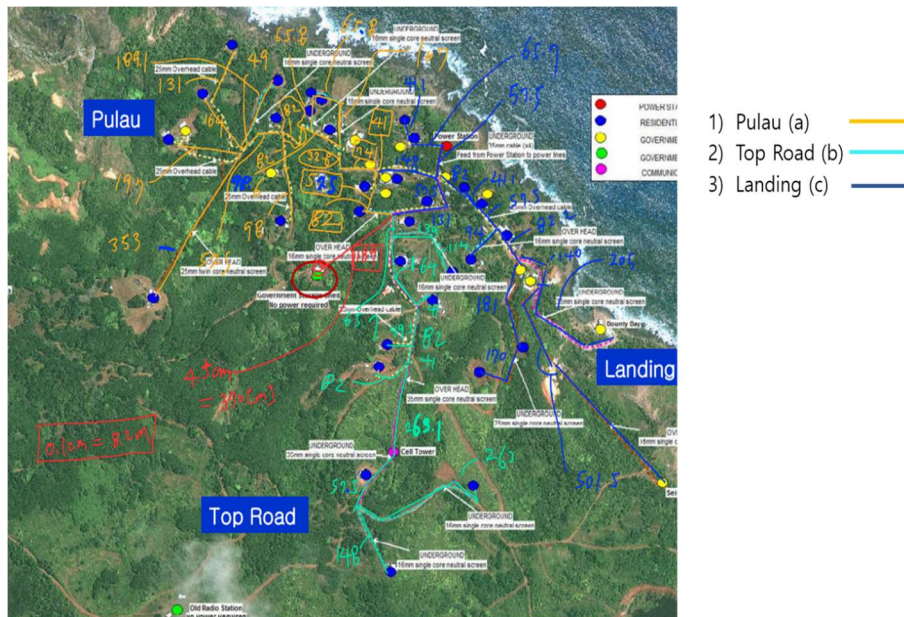
- Operation : automatic / manual operation (selectable by operator)
- Monitoring :
  - Display of 1-line diagram(state of switch, run/stop state etc)
  - Text/Graphic display : Power, Voltage, Current, Frequency, SOC etc
  - Real-time trend
  - Historical trend
- Reporting:
  - Daily/Weekly/Monthly report
  - PV, ESS, DEG, Load demand

The hybrid system should be able to operate without interruption in various operational conditions. The requirements of operation modes of the hybrid system in different operational conditions are provided in the following table. The choice of the operating modes should be determined by various operating conditions, which includes the status of the solar power system, the state of the storage battery charge, and the operation of the diesel generator.

Mode	Description
1	<p>During sunny days, the power generated by the PV array is transferred to the DC link through a DC/DC converter. As much power as required by the load goes out through the DC/AC inverter, and the surplus power is charged to the battery.</p> <p>In this mode, the battery charger and diesel generator are not operated</p>
1A	<p>At night or when there is no sunlight, the power stored in the battery is supplied to the load through a DC/AC inverter. In this mode, the DC/DC converter automatically switches to standby mode if the input voltage from the solar cell becomes low. In addition, the diesel generator and charger are also stopped once the storage battery is sufficiently charged.</p>
2	<p>In the event that the DC/DC converter fails or the PV system does not generate power due to no sunlight, the battery's state of charge decreases. The battery must be charged by starting the diesel generator automatically or manually.</p> <p>During this mode of operation, the DC/AC inverter still supplies power to the load</p>
2A	<p>The same operation as Mode 1A, but the difference is that the power of the storage battery is charged by the diesel generator, not by PV.</p>
3	<p>If the PV system fails and the battery's SOC is low, the diesel generator directly powers the load and charges the battery at the same time.</p>
4	<p>In the event that the hybrid system fails, the system can not supply power to the load.</p> <p>In this case, the diesel generator directly supplies power to the load.</p>

### 3.10 Power Grid Upgrade

The figure below shows the pre-work process for measuring the length of the distribution lines. The distribution lines of the island are composed of three feeders, namely Pulau, Top road, and Landing, and customers are connected to the power grid through incoming lines which are extended from each feeder to customers.



*Cable route of Pitcairn power grid*

The current distribution network is branched into three feeders at branch points near the power plant. Three-phase distribution lines are installed in each feeder, but only one-phase is currently being used. The cables are too old, and although they are not accurately measured, serious voltage drops were observed at the end point of each feeder. Therefore, in order to supply reliable and stable power, it is necessary to upgrade distribution lines. The new distribution lines should meet the following requirement :

- A new cable line should link the new power plant to the existing branch point
- The feeder cables should be designed in order to maintain voltage drops (at heavy load condition) at the end of each feeder within +/-10%.
- Cables supplied will be underground or overhead cable
- Bidders are expected to supply cables and associated accessories (Pitcairn community will dig the trenches according to the bidder recommendations ; therefore there is no need to provide a quotation for trenching)

Based on the information of the existing distribution network, the upgrade requirements, and the reference modelling, bidders are allowed to propose an upgrade of the power grid of the island.

Bidders can proposed their own modelling and upgrade recommendation.

Recommended cable U1000R2V or equivalent grade section are indicated as per below:

- 35mm<sup>2</sup> underground cable for a distance of 2,200m
- 16mm<sup>2</sup> underground cable for a distance of 4,000m
- 35mm<sup>2</sup> overhead cable for a distance of 5,000m

Bidders are requested to provide a quote for supply and install. Bidders should provide technical specifications of the proposed cable which should meet international standards requirement.

Please refer to the Annex 1 - "Pitcairn Island Overhead and Underground Transmission Lines" for more details.

### **3.11 Training**

User/Operator training for operation and maintenance should be conducted within one week after installation and commissioning is completed. Training duration will need to be specified and detailed program should be provided on the tender document. The training should meet the following requirement at minimum

- The training program should cover both operation and maintenance of the power system. Bidders are required to propose their own training program designs that include training period, and program content and materials.
- Operation training should train local operators to start the power system by themselves in a normal condition, and to recover and operate the power system manually in the event of failure of system automation.
- Maintenance training should train local operators to be equipped with capability to take emergency actions in case of the power system failure. The training should provide routine and regular inspection lists and practices, and emergency measures in case of abnormalities of the power system.
- Educational materials should be provided in English

### **3.12 Documentation**

The following documents must be submitted. All drawings and documents must be written in English.

- Drawings: Electrical drawing (Schematic Diagram, Wiring Diagram), Layout Drawing, Structural Drawing
- Test Report (by Certificated Test Body), FAT (Factory Acceptance Test) test report
- Operation Manual
- Maintenance Manual
- Spare Parts list with specifications
- Specification sheets of major component

### **3.13 Disposal of waste originated from the activity**

It is expected that the successful bidder adopts a waste management plan along the project installation as well as sustainable procedures and measures to:

- Collect and dispose (shipped out of Pitcairn Islands) all waste generated by the project installation in alignment with applicable waste management framework.
- Properly manage battery leakage risks by setting up a leakproof retention system within the battery storage site design
- Provide guidelines for the appropriate disposal of all batteries beyond their lifespan.

### **3.14 Warranty and after sales services**

Given the difficult access and restricted travel/delivery to Pitcairn Island, an equipment warranty as well as an after sales services would be essential.

Detailed of after-sales services should be presented by bidders on their proposal.

**4. In addition to the previously mentioned specific equipment warranty, the bidder should provide a detailed warranty covering installation and related component.Expected output**

List written/tangible outputs in accordance with the sequence of the work and target delivery date for each.

• Shipment of items related to Solar PV project and grid upgrade to Pitcairn Islands	• 4 months after signing the contract
• Beginning of installation project in Pitcairn islands	• 3 months after items has been shipped to Pitcairn (or to be reviewed depending on COVID travel restriction at that time)
• End of Installation, training, testing and commissioning of the Project in Pitcairn Islands	• 3 months after project installation has started
• Deliverable of Documentation as listed on point 3.13	• 2 months after signing the Project commissioning, which represent 12 months after signing the contract

**5. Institutional Arrangement**

The contract is signed between SPC and the service provider. The PROTEGE project manager in New Caledonia supervise the mission on behalf of the SPC, in collaboration with the representants of the Pitcairn Island Government.

The steering committee of this mission is in charge of its good organisation and its administrative and technical follow-up. This steering committee may be consulted at key stages of this service. It is composed of :

- The service provider
- A representative the Government of Pitcairn Island (GPI)
- for SPC : PROTEGE project manager and a technical adviser from energy division of SPC

Before the start of the service, a meeting will be scheduled between the service provider and the steering committee to review the objectives and challenges of the service. Each component of the service is validated by the steering committee before the project continues.

The contractor shall carry out the following tasks

- Work in consultation with the relevant stakeholders in the monitoring committee
- Mobilise human resources with the appropriate skills and experience to ensure the delivery of the service
- Provide the deliverables specified below of good quality and in a timely manner, for final validation by SPC

SPC in consultation with the authorities of Pitcairn, will ensure to :

- Review the deliverables provided within 20 working days
- Provide the service provider with any useful information concerning the regional dimension of the action

During the installation process, the Contractor will directly report to the SPC and Pitcairn representatives. Prior to the installation phase, fortnightly updates are expected by the Contractor while during the installation phase, weekly update will be required.

## **6. Duration of the Work**

The systems are expected to be commissioned and operational by December 2022, subject to Covid-19 pandemic travel restriction.

Contractor is expected to provide a detailed project workplan and should allocate a minimum of 3 months in country (Pitcairn Islands) for the completion of the Installation, Training and Commissioning phase of the project.

## **7. Duty Station**

During the installation phase, the Contractor should establish a team based in Pitcairn Islands. While in Pitcairn Island, it is expected for the Contractor team representative to meet regularly to discuss the day's work plan and requirements from Island personnel.

Within Pitcairn Island, quad bikes can be provided at a hire cost of US\$ 100.00 per week which we could factor into home stay arrangements.

*All bidder staff involved shall be housed in Pitcairn Island Tourism allocated homestay accommodation facilities (indicative cost of 100USD/night/person)*

*All equipment identified for the project is available on-island, manpower will be provided by Government of Pitcairn Island to assist the bidder team.*

*The successful bidder would need to insure the equipment under their policy and cover the insurance requirements of their staff members.*

*The Pitcairn team would be covered by the Government of Pitcairn Island medical policy.*

## **8. Qualifications of the Successful Contractor**

It is essential that the consultant has the following:

- a) Relevant Electricians or Electrical Engineer qualification
- b) Proven experience in design and install of grid-connected photovoltaic systems
- c) Experience of Solar PV installation design for Pacific islands.
- d) Ability to conduct training at the preferred time.

## **9. Proof of qualification should be provided part of the tender documents. Scope of Bid Price and Schedule of Payments**

- The contract cost will be paid based on achieving each set out milestone as shown in the table in this section.
- The remuneration rate should cover all associated expenses, as no additional payments will be made beyond the agreed contract.
- In full consideration of the complete and satisfactory completion of the activities specified in section C, the contractor shall be paid in accordance with the following milestones.

Milestones / Output	Deadline/Dates	% Payment
Initial contact signature	1 month after tender closure	20%
Equipment shipment	With proven ETA to Pitcairn	30%
Beginning of installation	3 months after shipment	20%
Commissioning, training	2 months after beginning of installation	20%
Final project reporting	1 month after commissioning	10%

## 10. Annexes to the TOR

Annex 1 - *“Pitcairn Island Overhead and Underground Transmission Lines”* for more details.

**PROPOSAL SUBMISSION FORM**  
*Request for Proposal (RFP) no:21-155*

Procurement Unit

Email: [procurement@spc.int](mailto:procurement@spc.int)

Dear Procurement,

Having examined the Solicitation Documents, the receipt of which is hereby duly acknowledged, we the undersigned, offer to supply the required services as per requirements and all other items described or mentioned or reasonably to be inferred from the Terms of Reference provided for the sum as ascertained in accordance with the Price Component attached herewith and made part of this proposal.

We acknowledge that:

- SPC may exercise any of its rights set out in the Request for Proposal documents, at any time;
- The statements, opinions, projections, forecasts or other information contained in the Request for Proposal documents may change;
- The Request for Proposal documents are a summary only of SPC's requirements and is not intended to be a comprehensive description of them;
- Neither the lodgment of the Request for Proposal documents nor the acceptance of any RFP nor any agreement made subsequent to the Request for Proposal documents will imply any representation from or on behalf of SPC that there has been no material change since the date of the Request for Proposal documents, or since the date as at which any information contained in the Request for Proposal documents is stated to be applicable;
- Excepted as required by law and only to the extent so required, neither SPC, nor its respective officers, employees, advisers or agents will in any way be liable to any person or body for any loss, damage, cost or expense of any nature arising in any way out of or in connection with any representations, opinions, projections, forecasts or other statements, actual or implied, contained in or omitted from the Request for Proposal documents.
- **The SPC general conditions of contract are not negotiable.**

We undertake, if our proposal is accepted, to commence and complete delivery of all items in the contract within the time frame stipulated.

We understand that you are not bound to accept any proposal you may receive and that a binding contract would result only after final negotiations are concluded on the basis of the Technical and Price Components proposed.

Date this \_\_\_\_\_ day of \_\_\_\_\_, 2021.

**Firm /Institution:**

\_\_\_\_\_

**Signature of Representative:**\_\_\_\_\_

**Representative:**

\_\_\_\_\_

**Position of Representative:** \_\_\_\_\_

**TECHNICAL PROPOSAL SUBMISSION FORM***Request for Proposal (RFP) no:21-155***PART A – Firm /Institution Background****PART A1**

<b>Registered Name:</b>	
<b>Business registration number:</b>	
<b>Year Established:</b>	
<b>Physical Address:</b>	
<b>Postal Address:</b>	
<b>Telephone Contact:</b>	
<b>Fax Number:</b>	
<b>Email:</b>	
<b>Contact Person:</b>	
<b>Position of Contact Person:</b>	
<b>Number of Employees:</b>	
Two contacts of referees /references of past similar projects conducted. Attach additional details as applicable.	1.
	2.
Legal registration of firm (attach documentation)	

**PART A2 – Experience of firm /institution and ability related to the required services**

<b>Evaluation Criteria</b>		<b>Responses by Bidder Confirming Expertise, Experience, Ability, Technical Skills And Resources To Provide Professional Services To SPC (please provide documentation to support your proposal)</b>
<b>(1) Adherence and compliance with the components specifications, standards and warranty requirements</b>	a) Monocrystalline Solar Module,  Rated power 450Wp or higher and module efficiency 20 % or higher	
	b) Valve Regulated Lead Acid Battery	
	c) Energy Management System and Balance of System	
	d) Distribution line upgrade	
<b>(2) Design Adequacy and Project Experiences as the main contractor in RE hybrid systems for minigrid applications – solar and energy storage - of comparable scale to the proposed contract</b>	a) Adequacy of proposed system design and configuration	
	b) Proven experience as the main contractor in the deployment of grid-connected solar PV systems and RE hybrid systems for minigrid applications – solar and energy storage of comparable scale to the proposed contract	
<b>(3) Adequacy of proposed implementation plan, timeline and training plan</b>	a) Relevant training program of local stakeholders to ensure overall system sustainability	
	b) Adequacy of proposed implementation plan and timeline	
<b>(4) Ability to provide Service Center to cater to repair and troubleshooting services after handover</b>	a) Guarantee period for System performance, Components and equipment	
	b) Adequacy of proposed maintenance and support services agreement	
<b>(5) Personnel qualifications- Compliance with the required expertise and skill sets according to TOR of key personnel dedicated for the project</b>		

**FINANCIAL PROPOSAL SUBMISSION FORM***Request for Proposal (RFP) no:21-155*

1. All costs indicated on the financial proposal should be in Euros and inclusive of all applicable taxes.

**DUE DILIGENCE QUESTIONNAIRE**  
*Request for Proposal (RFP) no:21-155*

Please complete the following questionnaire and provide supporting documents where applicable.

**For individuals operating a business in their personal capacity**

1. Please provide any two of the following documents to verify identity and proof of address:
  - a. Passport
  - b. Driver's license
  - c. Voter card or other government-issued identity card
  - d. Bank statement with the individual's name displayed
2. Have you been convicted for criminal offences relating to anti-money laundering or terrorism financing? ☐Yes ☐No

If you answered 'yes', please provide further details.

3. Have you ever been the subject of any investigation, indictment, conviction or civil enforcement action related to financing terrorists? ☐Yes ☐No

If you answered 'yes', please provide further details.

**For companies and other legal entities**

1. Please provide the following documents to verify identity and proof of address:
  - a. Evidence of Power of Attorney/Board Resolution granted to the officers to transact business on its behalf; and
  - b. Any of the following documents:
    - Certificate of Incorporation
    - Memorandum and Articles of Association
    - Telephone bill in the name of the company
    - Bank statement with the entity's name displayed

2. Does your entity have foreign branches and/or subsidiaries? ☐Yes ☐No

3. If you answered 'yes' to the previous question, please confirm the areas of your entity covered by responses to this questionnaire

Head Office & domestic branches ☐Yes ☐No ☐N/A

Domestic subsidiaries ☐Yes ☐No ☐N/A

Overseas branches ☐Yes ☐No ☐N/A

Overseas subsidiaries ☐Yes ☐No ☐N/A

4. Is your entity regulated by a national authority? ☐Yes ☐No

If you answered 'yes' please specify the name.

5. Does your entity have a written policy, controls and procedures reasonably designed to prevent and detect money laundering or terrorist financing activities? ☐Yes ☐No

If you answered 'yes', please send SPC your policy in English

6. Does your entity have an officer responsible for an anti-money laundering and counter-terrorism financing policy? ☐Yes ☐No

If yes, please state that officer's contact details:.....

7. Does your entity provide financial services to customers determined to be high risk including but not limited to:

- |                                  |                                                          |
|----------------------------------|----------------------------------------------------------|
| - Foreign Financial Institutions | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| - Casinos                        | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| - Cash Intensive Businesses      | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| - Foreign Government Entities    | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| - Non-Resident Individuals       | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| - Money Service Businesses       | <input type="checkbox"/> Yes <input type="checkbox"/> No |

8. If you answered 'yes' to any of the boxes in question 7, does your entity's policies and procedures specifically outline how to mitigate the potential risks associated with these higher risk customer types? If yes, how?

9. Has your entity ever been the subject of any investigations or had any regulatory or criminal enforcement actions resulting from violations of laws and regulations relating to either money laundering or terrorism financing? ☐Yes ☐No

If you answered 'yes' please provide details

10. Has the director or CEO of your entity ever been the subject of any investigations or had any regulatory or criminal enforcement actions resulting from violations of laws and regulations relating to either money laundering or terrorism financing? ☐Yes ☐No

If you answered 'yes' please provide details

I declare that none of the funds received or to be received by me or my organisation are used or will be used for money laundering or terrorism financing.

I declare that the particulars given herein above are true, correct and complete to the best of my knowledge, and the documents submitted in support of this form are genuine and obtained legally from the respective issuing authority.

Dated this.....day of..... [month and year] at.....

Signature .....

Name.....

**DECLARATION OF CONFLICT OF INTEREST***\_Request for Proposal (RFP) no:21-155*

1. I confirm that I, my family members, and the organisation or company that I am involved with are independent from SPC. To the best of my knowledge, there are no facts or circumstances, past or present, or that could arise in the foreseeable future, which might call into question my independence.
2. If it becomes apparent during the procurement process that I may be perceived to have a conflict of interest, I will immediately declare that conflict and will cease to participate in the procurement process, unless or until it is determined that I may continue.

OR

1. I declare that there is a potential conflict of interest in the submission of my bid [please provide an explanation with your bid]

\_\_\_\_\_  
Name, Signature\_\_\_\_\_  
Date

Title\_\_\_\_\_