

REQUEST FOR QUOTATION (RFQ)

FOR SERVICES

Project Title:	Enhancing Water-Food Security and Climate Resilience in Volcanic Island Countries of the Pacific
Nature of the services	Design, Installation, and Commissioning of a Solar Hybrid Pump System, New Storage Tank and Pipe Laying Works for Nabutautau
Location:	Nabutautau village, Navatusila, Navosa, Fiji
Date of issue:	10/02/2025
Closing Date:	24/02/2025
SPC Reference:	RFQ25-7607

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Part 1: INTRODUCTION

1.1 About the Pacific Community (SPC)

The Pacific Community (SPC) is the principal scientific and technical organisation of the Pacific region, established by treaty in 1947 with the signing of the *Agreement Establishing the South Pacific Commission* (the Canberra Agreement).

Our unique organisation covers more than 20 sectors and is renowned for knowledge and innovation in such areas as fisheries science, public health surveillance, geoscience and conservation of plant genetic resources for food security.

For more information about SPC and the work that we do, please visit our website: <https://www.spc.int/>.

1.2 SPC's procurement activities

SPC's procurement activities are guided by the principles of high ethical standards, value for money, open competition and social and environmental responsibility and are carried out under our Procurement Policy.

For further information or enquiries about SPC's procurement activities, please visit the procurement pages on our website: <https://www.spc.int/procurement> or email: procurement@spc.int

1.3 SPC's Request for Quotation (RFQ) Process

At SPC, procurement valued at more than EUR 2,000 and less than or equal to EUR 45,000 requires an evaluation of at least three quotations to determine the offer that provides the best value for money through a Request for Quotation (RFQ) process.

This RFQ sets out SPC's requirements for a project and it asks you, as a bidder, to respond in writing in a prescribed format with pricing and other required information.

Your participation confirms your acceptance of SPC's conditions of participation in the RFQ process.

Part 2: INSTRUCTIONS TO BIDDERS

2.1 Background

SPC invites you to submit a quotation to deliver the services as specified in [Part 3](#).

SPC has compiled these instructions to guide prospective bidders and to ensure that all bidders are given equal and fair consideration. Please read the instructions carefully before submitting your bid. For your quotation to be considered, it is important that you provide all the prescribed information by the closing date and in the format specified.

2.2 Submission Instructions

You must **submit your quotation and all supporting documents** in English and as an attachment to an email sent to andrea@spc.int and with the subject line of your email as follows: **Submission** RFQ25-7607. The email should also be copied to rfq@spc.int.

The supporting documents expected in this RFQ are:

- [The Conflict-of-Interest Declaration form](#) completed
- Evidence of past experience with similar projects and referee contacts
- Proposed workplan and design of the system

Your submission must be clear, concise and complete and should only include a quotation and information that is necessary to respond effectively to this RFQ. Please note that you may be marked down or excluded from the procurement exercise if your submission contains any ambiguities or lacks clarity.

Bids will be evaluated on the basis of information received by **5.00pm GMT+12 on 24/02/2025**.

2.3 Evaluation & Contract Award

Each quotation validly received will be assessed against the evaluation criteria matrix set out in [Part 4](#). Any changes in the evaluation criteria will result in the RFQ process being re-issued.

SPC may award the contract once it has determined that a bidder has met the prescribed requirements and the bidder's proposal has been determined to be substantially responsive to the RFQ documents, provide the best value for money (highest cumulative score) and best serve the interests of SPC.

In the event of a bid being accepted, procurement will take place under SPC's [General Terms and Conditions of Contract](#) and depending on the value or nature of the procurement, the award will be made by issuing a purchase order or a signed and dated contract, or both.

2.4 Key Contacts

Please contact SPC should you have any doubt as to what is required or if we can help answer any questions that you may have.

Andreas Antoniou will be your primary point of contact for this RFQ and can be contacted at andreaa@spc.int. You should copy any communications into rfq@spc.int.

Details will be kept of any communications between SPC and bidders. This assists SPC to ensure transparency of the procurement process. While SPC prefers written communication in the RFQ process, at any point where there is phone call or other conversation, SPC expects to keep a file note of the exchange, with all forms of communication with prospective bidders to be retained as source documents for the procurement of the services.

2.5 Key Dates

Please see the proposed procurement timetable in the table below. This timetable is intended as a guide only and while SPC does not intend to depart from the timetable, it reserves the right to do so at any stage.

STAGE	DATE
RFQ sent to potential vendors	10/02/2025
RFQ Closing Date	24/02/2025
Award of Contract	28/02/2025
Commencement of Contract	4/04/2025
Conclusion of Contract	18/10/2025

2.6 Legal and compliance

Confidentiality: Unless otherwise agreed by SPC in advance or where the contents of the RFQ are already in the public domain when shared with the bidder, bidders shall at all times treat the contents of the RFQ and any related documents as confidential. SPC will also treat the information it receives from the bidders as confidential.

Conflict of interest: Bidders must take all necessary measures to prevent any situation of conflict of interest. You must notify SPC in writing as soon as possible of any situation that could constitute a conflict of interest during the RFQ process. If you have any familial connection with SPC staff, this must be declared, and approval will then be sought for you to engage in the RFQ process. **In support of your response to this RFQ, you must submit to SPC [the Conflict-of-Interest Declaration form](#) available on our procurement page website: <https://spc.int/procurement>.**

Breach of this requirement can result in SPC terminating any contract with a successful bidder.

Currency, validity, duties, taxes: Unless specifically otherwise requested, all proposals should be in Fijian Dollar (FJD) and must be net of any direct or indirect taxes and duties, and shall remain valid for 120 days from the closing date. The successful bidder is bound by their proposal for a further 60 days following notification they are the preferred bidder so that the contract may be awarded. No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted at any time during this period.

No offer of contract or invitation to contract: This RFQ is not an offer to contract or an invitation by SPC to enter into a contract with you.

Privacy: The bidder is to comply with the requirements of applicable legislation and regulatory requirements in force for the use of personal data that is disclosed for the purposes of this RFQ. SPC will handle any personal information it receives under the RFQ in line with its [Privacy Policy](#), and the [Guidelines for handling personal information of bidders and grantees](#).

Warranty, representation, assurance, undertaking: The bidder acknowledges and agrees that no person has any authority to give any warranty, representation, assurance or undertaking on behalf of SPC in connection with any contract which may (or may not) follow on from this RFQ process.

2.7 Complaints process

Bidders that consider they were not treated fairly during any SPC procurement process may lodge a protest. The protest should be addressed to complaints@spc.int. The bidder must provide the following information: (1) full contact details; (2) details of the relevant procurement; (3) reasons for the protest, including how the alleged behaviour negatively impacted the bidder; (4) copies of any documents supporting grounds for protest; (5) the relief that is sought.

Part 3: TERMS OF REFERENCE

A. Background/context

The “Enhancing water-food security and climate resilience in volcanic island countries of the Pacific” project is executed by the Pacific Community (SPC) in partnership with Food and Agriculture Organization of the United Nations (FAO). This project is funded by the Global Environment Fund (GEF) and is implemented in Fiji, the Solomon Islands and Vanuatu. The project goal is to enhance water and food security and climate resilience, sustain ecosystem services, and relieve pressure on over-exploited coastal aquifers by expanding and assessing the role of volcanic aquifers and by introducing sound groundwater governance frameworks in selected volcanic island states of the Pacific. The project goal will be achieved through the following logical pathways towards enhanced water and food security:

1. Expanding and Assessing the Role of Groundwater Resources
2. Introducing Sound Groundwater Governance Frameworks³
3. Tackling Hot Spots
4. Reinforcing Institutional Capacity

This RFQ is related to the installation of a pump and solar hybrid system for a recently developed borehole to address the water supply needs and increase water security of the Nabutautau, Navatusila, Navosa, Fiji.

Nabutautau is a remote village in the Navosa highlands in the centre of Viti Levu Island. The village is located approximately 60 km northeast of Sigatoka town and accommodates around 30 households, 200 people. Nabutautau village is located in the leeward side of Viti Levu and as such, the village is frequently and adversely impacted by severe droughts.



A water supply borehole has been recently drilled and developed in November 2024 near Nabutautau village.

1. Location

The coordinates for borehole location are 17° 46' 23.0736" S and 177° 54' 17.0784" E.

2. Borehole Description

PVC casing diameter: 4 inch

Borehole (casing) depth: 44 meters

Casing height above ground: 0.71 m

Standing water level: 28 meters

Maximum drawdown at approx. 1.2 Litres/sec pumping for 6 hours: 41 meters

Required borehole yield: 1 Litres/sec

Pumping duration: 6 hours/day

Site description: No shading obstacles, exposed to sunlight throughout the day

Borehole elevation: 539 meters

Proposed tank elevation: 541 meters

Distance from borehole to proposed tank location: 20 meters

Distance from proposed tank location to connection point: 200 meters

Proposed connection point elevation: 522 meters

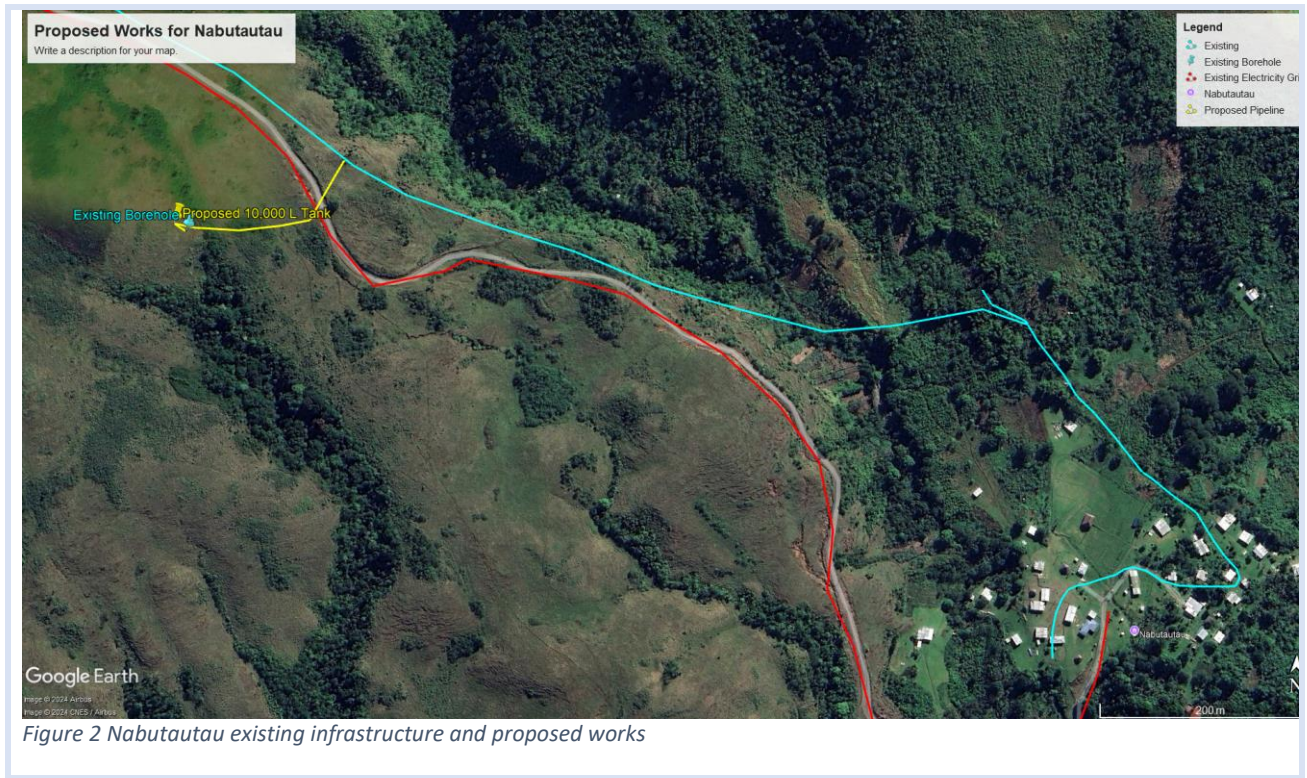
3. Water Demand

20,000 litres/day

4. Existing Infrastructure

Pipeline: DN50 uPVC

Existing storage: 2 x 5,000 litres plastic tanks



B. Purpose, objectives, scope of services

5. Project Overview

This project involves the installation of a solar hybrid pump system to pump water from an existing borehole to an existing tank. The system will be designed to optimize solar energy use while ensuring reliability through hybrid backup power (grid connection). It also includes the installation of a 10,000-litre tank and concrete base, including a structure to prevent the tank from being displaced or damaged during natural disasters, and laying of DN32 HDPE pipes including excavation, backfilling, and connection to tank inlet, outlet and DN50 uPVC existing pipeline. This scope of works ensures that the project is carried out systematically, with attention to detail on all aspects of design, installation, and commissioning to provide a fully functional, reliable solar hybrid pump system, securely mounted tank, and piping infrastructure.

2. Site Survey and Preparation

- a) **Site Survey:** Conduct a detailed survey of the borehole, proposed tank installation site, and existing infrastructure (e.g., the DN50 uPVC pipeline). Identify the optimal locations for the solar hybrid pump, tank, and piping routes.
- b) **Site Preparation:** Clear the area for tank installation, pump system setup, and pipe laying. Ensure proper grading to prevent water pooling.

3. Design and Planning

- a) **Hydraulic System Design:** Define the required flow rate, head, and pressure for the pump, considering the existing tank and borehole parameters. Select an appropriate pump size, power output, and type (submersible or surface-mounted).
- b) **Solar Power System Design:** Calculate the solar power requirements based on the pump's energy consumption and local solar radiation data. Specify the number of solar panels required and any necessary battery storage if applicable.
- c) **Hybrid Power Integration:** Determine the specifications for the hybrid system, including grid integration for backup power.
- d) **Electrical System Design:** Include all necessary wiring, inverters, and controllers for the solar hybrid system. Specify necessary protections, monitoring, and control systems.
- e) **Tank and Foundation Design:** Design the concrete foundation and structural reinforcement to securely support the 10,000-liter plastic tank and ensure stability during extreme weather events.
- f) **Pipework Design:** Design the routing for DN32 HDPE pipes, considering the connection to the tank inlet, outlet, and the existing DN50 uPVC pipeline.

6. Procurement of Materials and Equipment

- a) **Pump System:** Select and procure the solar-powered pump, associated controllers, and electrical components (e.g., pump controller, inverters, charge controllers, borehole sensor, float switch).
- b) **Solar Panels:** Procure high-efficiency solar panels based on energy requirements.
- c) **Hybrid Power Backup:** Procure the backup power system (grid connection), including necessary control equipment.
- d) **Cables and Mounting Equipment:** Procure cables, connectors, mounting structures for solar panels, and related accessories.
- e) **Plastic Tank:** Supply a 10,000-liter plastic tank, suitable for water storage and UV resistant.
- f) **Concrete Materials:** Procure cement, aggregates, reinforcement bars, and formwork for the concrete base and structural support.

- g) **Pipes and Fittings:** Procure DN32 HDPE pipes for the distribution system, including the necessary fittings, elbows, tees, and valve assemblies. Also, procure DN50 uPVC fittings to integrate with the existing pipeline.
- h) **Mounting Structure for Tank:** Procure steel or reinforced materials for the structure that will prevent tank displacement during natural disasters.
- i) **Tools and Consumables:** Ensure the availability of necessary tools, safety equipment, and consumables (e.g., cables, connectors, sealing materials, etc.).

5. Installation

a) Borehole Pump Installation:

- I. Install the submersible or surface pump in the borehole, ensuring it is properly secured and aligned.
- II. Connect the pump to the electrical supply system, including the hybrid controller or inverter.
- III. Install a borehole sensor and set to the indicated maximum drawdown depth

b) Solar Panel Installation:

- I. Install the solar panels on appropriate structures (ground-mounted) ensuring optimal solar exposure.
- II. Secure all panels, wiring, and connections in compliance with local regulations and safety standards.

c) Hybrid Power System Setup:

- I. Install and connect the grid supply system to the hybrid controller, ensuring seamless operation between solar power and backup power.
- II. Connect the system to the electrical panel, including a protection system (e.g., fuses, circuit breakers).

d) Tank Installation:

- I. **Excavation for Concrete Base:** Excavate the area where the concrete foundation for the tank will be installed. Ensure proper depth and width as per design.
- II. **Concrete Base Construction:**
 - Prepare and pour the concrete base for the 10,000-liter plastic tank, including reinforcement (steel bars) to support the weight of the tank and prevent displacement.
 - Allow adequate curing time for the concrete.
- III. **Tank Placement:** Position and secure the plastic tank on the concrete base, ensuring it is level and stable.
- IV. **Tank Support Structure:** Install the structural support system (e.g., steel braces or anchors) around the tank to prevent movement during natural disasters (e.g., earthquakes, floods, or strong winds). Ensure it is securely anchored to the base.

e) Piping Installation

- I. **Excavation for Pipe Trenching:**
 - Excavate trenches for the DN32 HDPE pipes to the required depth and width according to the design specifications. Ensure the trench is clear of debris and suitable for pipe installation.
- II. **Pipe Laying:**

- Lay DN32 HDPE pipes from the borehole pump to the tank inlet, ensuring proper alignment and slope for efficient water flow.
 - Lay pipes from the tank outlet to the connection point of the existing DN50 uPVC pipeline.
 - Install pipe fittings as required to connect the system components.
 - III. **Pipe Protection:**
 - Ensure that the pipes are properly supported and free from damage. Use proper backfill material to avoid settling.
 - Place sand or soft material around the pipes to cushion and prevent damage from heavy backfill material.
 - IV. **Backfilling:**
 - Backfill the trenches with suitable material after the pipes are laid, ensuring proper compaction to prevent future subsidence.
 - Ensure the top layer is slightly mounded to prevent water pooling above the pipes.
- f) **Connections**
- I. **Tank Inlet/Outlet Connections:**
 - Connect the DN32 HDPE pipes to the tank's inlet and outlet using appropriate fittings. Ensure that connections are watertight and securely fastened.
 - Install a float switch to turn off the pump at full capacity.
 - II. **Integration with Existing DN 50 uPVC Pipeline:**
 - Connect the tank outlet to the existing DN50 uPVC pipeline using suitable reducers and fittings.
 - Ensure the connection is secure and the transition between DN32 HDPE and DN50 uPVC is properly sealed.
 - III. **Valves and Flow Controls:**
 - Install appropriate valves (e.g., ball valves) at the inlet, outlet, tank bypass and other key points to allow for system control and maintenance.
 - Install appropriate valves (e.g., ball valves) to isolate the existing upstream supply, allowing the proposed pipeline to supply the existing line.

6. Testing and Commissioning

- a) **System Test:** Conduct a comprehensive test of the solar hybrid pump system, checking:
 - I. Pump operation, flow rates and pressure of the water being pumped to the tank.
 - II. Solar power generation
 - III. Integration and seamless switching between solar power and backup power.
 - IV. Electrical connections, voltage levels, and safety protections.
 - V. Check the functionality of the tank, ensuring it is filling properly and the outlet connections are secure.
- b) **Leak Testing:** Inspect all pipe connections, fittings, and valves for leaks, and make necessary adjustments.
- c) **Tank Stability Check:** Ensure that the tank is stable, and the support structure is intact.

7. Operation and Maintenance

- a) **Operator Training:** Provide training to the client's operators on the operation and maintenance of the solar pump system, tank, and associated components, including:
 - I. Solar pump operation and troubleshooting
 - II. Maintenance of the tank and plumbing.

- III. Safety and emergency procedures.
- b) **Documentation:** Provide complete system documentation, including:
 - I. Operation and maintenance manuals.
 - II. As-built drawings (tank location, pipe routing, electrical connections).
 - III. Warranty information for all components.
- c) **Maintenance Plan:** Provide a maintenance plan for the solar pump system, tank, and pipeline to ensure longevity and optimal performance.
- d) **Support Services:** Offer ongoing support services for system troubleshooting, repairs, or upgrades if required.

C. Timelines

The proposed service is to be delivered within a period of 3 months with expected start date on 03 March 2025. The expected completion date for the proposed works is 18 October 2025, which should conclude a six-month defects liability period. If necessary, the contract period may shift to accommodate any unexpected delays preventing the commencement on the target date. The target deadline for the delivery of each expected output is presented in Section F below

D. Reporting and contracting arrangements

The contract will be managed by the Project Technical Advisor (SPC) or his designee, who will regularly monitor progress towards the delivery of the outputs as detailed in Section B. The Project Technical Advisor within SPC's Disaster and Community Resilience Programme (DCRP) under the Geoscience, Energy and Maritime (GEM) Division, will sign off on the works.

The Contractor is expected to interact and collaborate with SPC's project team, as well as the district representative, District Officer, and the Nabutautau community members.

E. Skills and qualifications

Tenderers that have the following skills or can demonstrate a high-level capacity and desire to apply their expert skills and knowledge are encouraged to apply.

- A minimum of 5 years' experience in water supply bore pump and solar installation.
- Demonstrated understanding and experience in Pacific development. Experience working in disaster risk reduction or climate change adaptation is an advantage.
- Experience working in Pacific Islands countries and/or territories, with a working knowledge of the Pacific region. Having a working knowledge of the iTaukei language is desirable.
- Demonstrated ability to be a team player with a 'can do' attitude, creativity and aptitude for problem solving to achieve planned objectives within tight deadlines.
- Excellent engagement and communication skills (oral and written) in English, including delivering of high-quality reporting.
- Current Senior First Aid Certificate.

F. Scope of Bid Price and Schedule of Payments

This is a milestone-based contract and will be paid in accordance with the payment schedule below. The terms of payment shall be in accordance with the provisions of Article 10 of the SPC General Conditions.

Milestone/deliverables	Deadline	% payment
Contract Signing with agreed workplan, design and methodology	24/02/2025	10
Supply & installation of pump and solar hybrid power system including connection to the local electrical grid	10/03/2025	35
Installation of a 10,000-litre tank and concrete base, including a structure to prevent the tank from being displaced or damaged during natural disasters.	21/03/2025	20
Laying of DN 32 HDPE pipes including excavation, backfilling, and connection to tank inlet, outlet and DN 50 uPVC existing pipeline.	18/04/2025	20
Delivery of operator training to support operation and maintenance to the community	18/04/2025	5
Successful completion of the defects liability period (6 months from completion)	18/10/2025	10
TOTAL		100

Part 4: PROPOSAL EVALUATION MATRIX

4.1 Competency Requirements & Score Weight

The evaluation matrix below reflects the obtainable score specified for each evaluation criterion (technical requirement) which indicates the relative significance or weight of the items in the overall evaluation process.

Evaluation criteria	Score Weight (%)	Points obtainable
Mandatory requirements		
1. Evidence of past experience with similar projects and referee contacts 2. Proposed workplan and design of the system	Mandatory requirements. Bidders will be disqualified if any of the requirements are not met	
Technical requirements		
Design and Approach Review of the proposed pump system design, solar array configuration, tank foundation design, and piping network. Quality and feasibility of the technical approach, including system design, choice of materials (e.g., solar panels, pump, tank), methodology for installation, and how they plan to ensure system stability during natural disasters.	35%	245
Experience and Reputation of the Supplier Review of the contractor's experience in successfully completing similar projects (solar hybrid pump installations, tank installations, and piping systems). Evidence of previous work, certifications, and relevant qualifications.	30%	210
Project Delivery Understanding of the project scope, challenges, and requirements. This includes the ability to identify key risks and provide clear mitigation strategies. Demonstrating familiarity with local regulations and best practices.	25%	175
Compliance with Environmental and Safety Standards Evaluation of the contractor's commitment to safety and environmental practices, including risk assessments, health and safety protocols, waste management, and adherence to environmental regulations during installation.	10%	70
Total Score	100%	700