SOLOMON POWER

Honiara Power System – Emergency Generators Project

Terms of Reference

Design, Supply & Installation of Emergency Generators for Honiara Power System

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1. Background

The Solomon Islands Electricity Authority, trading as Solomon Power (SP) is a State-Owned Enterprise (SOE) responsible for the supply, distribution, and retail of electricity in Solomon Islands.

The largest electricity network in the Solomon Islands (both in terms of the geographical coverage and electricity sales) is in Honiara, the Capital City of Solomon Islands. It current has a maximum demand of approximately 16 MW with projections that this would grow to 22 MW within the next ten years.

The main generation plant for Honiara is located at Lungga, about 10 km from Honiara City. The Honiara power system consists of:

- Honiara Power stations with a total installed capacity of 32.1 MW
- Six 33kV feeders interconnecting the power stations and substations
- 33/11kV substations are at Lungga, Honiara, Ranadi, East Kola, Honiara East and White River.
- Eighteen 11kV distribution feeders

As part of SP's business continuity plans, the need for up to 6MW of diesel generator back up has been determined as required amount to ensure essential services are provided with power during the event of an unexpected disaster or significant shortfall of generation capacity. This is also considering existing network constraints.

Solomon Power therefore invites interested firms to submit proposals for the design, delivery and commissioning of up to 6MW of containerized diesel generators (preferable 2MW each) at nominated 33kV/11kV substations in the Honiara network.

2. Purpose of this Assignment

The scope of the assignment therefore includes:

1. Detailed Review of points of interconnections at Substations

The Contractor is responsible to provide detailed on site assessments on the proposed supply points in the Honiara network at the following 33/11 kV substations as depicted in Attachment 1:

- East Honiara
- Honiara
- White River

This is to ensure the Contractor fully understand site requirements, complete risk assessment, and for the emergency generator project.

2. Supply of Emergency Generators

The Contractor will then issue a recommendation to SP on generators to be procured. Upon approval from SP, the Contractor will progress procurement. A guideline on proposed Emergency Generator specification is attached to this TOR.

3. Installation up to Commissioning of the Emergency Generators

The Contractor is responsible for the complete installations up to commissioning of these emergency generators or as agreed upon contract formation. Inspection Test Plans, Commissioning Sheets, and completed commissioning documents will be required from the Contractor for approval by SP prior to full testing & commissioning.

3. Input Information

The following information will be made available to the Contractor:

- Site technical drawings, specifications, and data sheets for the existing station facilities
- Complete single line Diagram of the Honiara Network
- Relevant photos as required
- Relevant technical reports where available

4. Deliverables and tasks

The Contactor will be responsible to:

I. Visit the proposed project site to Review technical site drawings, project site and documentations
II. Ensure there is no missing scope with the complete electrical/mechanical/civil/controls integration of additional emergency generators
III. Provide support for any material required to complete the works. Provide technical guidance on site or to SP remotely where necessary
IV. Provide project handover & close out, training and operational manuals

The table below sets out an indicative timeframe for the main deliverables.

Table 1: Major Deliverables

Major Deliverable	Target Dates
Kickoff meeting	July 2023
Inspections on site	July 2023
Procurement of Generators	August 2023
Installations to Commissioning	September – October 2023
Delivery of all datasheets, manuals, setting files	November 2023

5. Supplier Offer Options

The suppliers shall provide the one or both of the following options:

1. Offer the emergency gensets as a lease for minimum of 1 years' term and extendable
2. Solomon Power to outright purchase the gensets

6. Duration of engagement

The estimated level of effort is for 5 months' period, commencing July up to November 2023. During this period the team of will spend 80% of their time in the SP office in Honiara. The Contractor is to provide the scope of services as detailed in this TOR. There is a possibility of additional and follow-on work if required by SP.

7. Competence and Qualification

SP invites an eligible Contractors to indicate its interest in providing the required services.

- The Contractor must be familiar with international best practices in 33/11 kV Substations interconnections, Diesel Generator, 11kV/33kV cabling experience.
- More than 10 years' experience in supplying and installing containerized emergency generators preferably in the Pacific region.

7. Payment Schedule

The payment schedule shall be based on the following milestones:

Table 2: Payment Schedule

Major Deliverable	Percentage (%)
Kickoff meeting	10%
Inspections on site	10%
Acceptance by SP on complete Technical Design, Specifications, and Costing	20%
Procurement of Generators	25%
Installations to Commissioning	25%
Delivery of all datasheets, manuals, setting files	10%

8. Additional Information to be provided with the Bid

The Contractor shall provide details for a minimum of three reference projects of similar nature, scope, and size. The information for the reference projects shall be provided as per the table below.

Table 3: Reference Projects

PROJECT No.	
Customer	
Location	
Scope of Work	
Contract Value (USD)	
Date of Completion	
Referee Contact details	
Additional Information	

The Contractor shall provide names and detailed CVs and the roles of all staff that will form the project team and specifies the project manager as the main contact point.

The Contractor shall list and provide any deviations from the scope (TOR) in their offer.

9. Attachments

Find attached:

1. Single Line Diagram Showing Proposed Emergency Generator Injection Points (battery limits)
2. Proposed Generator Specifications