



Tonga Power Limited

Invitation for Bids

Date: 14th of September 2018

Grant no. & Title: 49450-012 Tonga Renewable Energy Project.

Contract no. and Title: TREP-01 Popua Power Station Battery Energy Storage System under Tonga Renewable Energy Project

Deadline for Submission of Bids: 6 November 2018, 2:00 pm (Tonga Time)

1. The Tonga Power Limited has applied for financing from the Asian Development Bank (ADB), and Green Climate Fund (GCF) toward the cost of the Tonga Renewable Energy Project. Part of this financing will be used for payments under the contract named above. Procurement rules and procedures of ADB will govern the bidding process. Bidding is open to all Bidders without nationality restriction.

2. The Tonga Power Limited (“the Employer”) invites sealed bids from eligible Bidders for the design, construction, installation, integration in the existing power system infrastructure and commission of a battery energy storage system (BESS) (“the Facilities”) as shown below:

Grid stability support battery and control system integration for Popua Power Station – supply, install and commission

- A BESS to be installed at the Popua Power Station of the electricity utility Tonga Power Limited (TPL), on the island of Tongatapu, and connected to the power station main switchgear and SCADA. The BESS is intended to provide reserve capacity, reactive power, voltage and frequency control to the Tongatapu grid to enable increasing renewable generation in the grid.
- The BESS shall provide and include
 - A fully integrated, modular system, suitable for extended service in local conditions
 - Continuous charge and discharge at 5.1 MW (with overload capacity to 10 MW)
 - Usable storage capacity of at least 2.5 MWh (end of life)
 - Advanced control and grid stability functionality including automated reserve capacity, reactive power, voltage, and frequency support, and smoothing functionality.
 - Ability to operate in ‘grid forming’ mode.
 - High voltage (11 kV) electrical connection to the Popua Power Station switchboard (including supply and installation of switchgear)
- Control integration requirements include:
 - Provision of dedicated PLC for interfacing
 - Physical interface to the TPL SCADA
 - Programming of the TPL SCADA to manage all required data and alarms
 - Programming of the TPL SCADA to manage automatic diesel generator scheduling and RE plant curtailment in conjunction with BESS operation.

3. International Competitive Bidding will be conducted in accordance with ADB's Single-[Stage: One-Envelope](#) bidding procedure and is open to the Bidders using universal procurement, as described in the bidding documents.

4. Only bidders with the following key qualifications, as stated in Section 3 of the bidding documents, should participate in this bidding: (i) Minimum average annual turnover of US\$10.2M.
(ii) Minimum financial resources of: US\$1.9M
(iii) Participation in at least one contract that has been successfully or substantially completed within the last 5 years and that are similar to the proposed contract, where the value of the Bidder's participation exceeds: US\$4.05M

5. To obtain further information and inspect the bidding documents, bidders should contact:

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|--------------------------|--|
| Attention: | 'Elisiva Ahotaeiloa, Tonga Power Limited, Procurement Unit |
| Street Address: | 1 st floor, Corner of Taufa'ahau Rd |
| City: | Nuku'alofa |
| ZIP Code: | 0000 |
| Country: | Tonga |
| Telephone: | +676 786 3224 |
| Electronic mail address: | eahotaeiloa@tongapower.to |

6. To purchase the bidding documents in English eligible bidders should:

- Write to the address above requesting the bidding documents for Contract No. TREP-01 Popua Power Station Battery Energy Storage System under Tonga Renewable Energy Sector Project
- Pay a non-refundable fee of USD100 by cash or transfer through a bank account.

The Bank account of the Employer:

Bank: ANZ
Bank Account Name: Tonga Power Limited
Bank Account: 1681919
Swift Code: ANZBTONN

7. A pre-bid meeting will be held at the TPL head office, on Tuesday, 9 October, 2018, at 11:00 am. This will be followed directly by a site visit. Non Attendance will not be cause for disqualification.

8. Deliver your bid:

- to the address above in section 5
- on or before 6 November 2018, 2:00 Noon (Tonga Time)
- together with a Bid Security as described in the Bidding Document
- Electronic submission of bid is not permitted.

Bids will be opened immediately after the deadline for bid submission in the presence of the Bidders' representatives who choose to attend. Late bids will be rejected.