



Invitation for Bids

Date:	14 September 2018
Grant No. and Title:	49450-012-TON: Tonga Renewable Energy Project
Contract No. and Title:	TREP-01: Popua Power Station Battery Energy Storage System
Deadline for Submission of Bids:	Extended to 27 November 2018, 14:00 hours (Tonga Time)

1. The Government of Tonga has received financing from the Asian Development Bank (ADB) towards the cost of **Tonga Renewable Energy Project** and it intends to apply part of the proceeds of this financing to payments under the contract named above. This contract will be jointly financed by the Green Climate Fund (GCF). The eligibility rules and procedures of ADB will govern the bidding process. Bidding is open to all Bidders without nationality restrictions.
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), in 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 procedure and is open to all eligible Bidders without nationality restrictions.
 4. Only eligible Bidders with the following key qualifications should participate in this bidding:
 - Minimum average annual turnover of: US\$10.2M.
 - Minimum financial resources of: US\$1.9M.
 - Participation in at least one (1) contract that has been successfully or substantially completed within the last five (5) years and that are similar to the proposed contract, where the value of the Bidder's participation exceeds: US\$4.05M.

Detailed qualification requirements are found in Section 3 of the Bidding Document.

5. To obtain further information and inspect the Bidding Documents, Bidders should contact:

Attention: 'Elisiva Ahotaeiloa, Tonga Power Limited, Procurement Unit
Street Address: 1st floor, Corner of Taufa'ahau Rd
City: Nuku'alofa
ZIP Code: 0000
Country: Tonga
Telephone: +676 786 3229
Electronic mail address: eahotaeiloa@tongapower.to

6. To purchase the Bidding Documents in English, eligible Bidders should:

- Write to the address above requesting for 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: ANZBT0NN

7. A pre-bid meeting will be held at the TPL head office, on Tuesday, 9 October 2018, at 11:00 hours. 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 paragraph 5
 - **on or before 27 November 2018 at 14:00 hours (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 at 14:05 hours on 27 November 2018 at the 1st floor of Tonga Power Limited, Main Office, Corner of Taufa'ahau Rd, Nuku'alofa City, Tonga in the presence of the Bidders' representatives who choose to attend. Late bids will be rejected.