

ELECTRIC POWER CORPORATION

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12th April 2018

To: BIDDERS

Subject: BIOMASS GASIFICATION PROJECT - SAM GEF 01/2018

Addendum No. 10

No	Question/ Query	Date Issued	EPC Responses	Addendum No
1	Analysis of different wood available in STEC farm as feed stock for planned Biomass Gasification Plant	12 th Mar 2018	Attached is Report by SROS of analysis of 9 species of trees abundant at the STEC plantation in Mulifanua to be used as feed stock for biomass gasification power plant.	1
2	EPC Generation Mix	12 th March 2018	Attached is power generation mix for Upolu and Savaii as of March 2018. Include in the generation mix for Upolu is planned Biomass Gasification Plant, which is this project. Annual production of 2 million kWh units is a forecast but bidder will determine this as part of their bid proposal.	1
3	Section 2 of Bid document	12 th March 2018	Here is SECTION 2 of bid that was not sent with rest of bid documents earlier	2
4	Single Line Diagram	12 th March 2018	Attached is Grid SLD showing where new Biomass plant will be connected. Biomass plant will be connected to LEFAGA 22KV FEEDER; this feeder originates from FIAGA DIESEL POWER STATION. EPC will build 22kv tee off from Lefaga Feeder to tie the biomass plant to Grid.	2
5	Details of EPC bank account to pay cost of bid	17 TH Mar. 2018	Attached is details of EPC bank account to wire payment of	3

	document to		cost of bid document.	
6	Clarification of bid requirements and additional information Also submitting revised Bid Form in Section 4 of bid	18 th Mar. 2018	Refer to Section 3 of bid document with clarification of functional guarantees of biomass gasification plant. Refer to Section 4 with revised Bid Form to be used	4
7	Topographic map of location of plant site`	18 th Mar 2018	Attached topo map of plant site showing coordinates	4
8	Standby generator and automatic transfer switch	18 th Mar 2018	Include installation of a new to generator complete automatic transfer switch to supply power to essential services of the plant if EPC feeder trips. Estimate size of standby generator is 150kw.	4
9	List of information and items to be provided in bid submission	18 th Mar 2018	Attached list of information to be included in bid submission	4
10	Change in scope of work in bid	20 th Mar 2018	Employer approved the following changes in scope of works in Biomass Project Bid <ul style="list-style-type: none"> a) All rebuilding of access roads to project site is removed from biomass bid. Employer will handle road separately and not made part of this Bid. b) Employer will issue a separate local tender for the survey, clearing, leveling, compaction and grading of plant site and building security fence of site separately. Size of the land to locate the plant is 3 acres or 12,140 square meters. c) Water supply to the plant site will be connected to Samoa Water Authority water well closeby. Employer will issue a separate bid to extend the water line to project site. Contractor for biomass plant shall still supply and install a 0.5 million liters water storage tank in the plant. All roof rainwater will be collected into the tank. Contractor for biomass plant will also connect water line from SWA system to the water tank. Rest of water reticulation inside the plant will also be the responsibility of the Biomass contractor. <p>Bid Section 6 and Section 4 with Price Schedule are</p>	5

			amended accordingly. Changes are tracked and highlighted for easy reference by bidders.	
11	Refer to attached list of questions	26 th Mar. 18	Refer to answers to all questions in same report. Also submitted again is report on analysis of wood for feedstock	6
12	Integration of plant to SCADA	27 th Mar. 18	Attached in Attachment 1 is discussion and requirements for integration of plant to the SCADA.	7
13	Request lower limit of liability in Section 8 of bid.	4 th April 18	Request is declined. This is Government's standard requirement and cannot be changed.	8
14	Request that payment be made by letter of credit?	4 th April 18	All payments will be made by wire transfer direct to contractor's overseas bank account at the nominated currencies. Use of letter of credit is not necessary.	8
15	Pre bid meeting minutes	11 th April 18	Attached is record of minutes of pre-bid meeting held on Monday 9 th April 2018 at EPC. Also included is signed up sheet of bidders who attended.	9
16	Revisions and clarifications of plant requirements and specification related to – (i) generator capacity, (ii) generator control and SCADA, (iii) number of generators, (iv) type of generators, (v) dual or single fuel, (vi) exhaust stack height, (vii) generator building	12 th April 18	<p>Here are revisions of requirements, specification and clarifications:</p> <ul style="list-style-type: none"> (i) generator capacity – the 750KW capacity specified in bid is the MINIMUM NET generator(s) capacity taking into consideration parasitic load of the plant. Eg. If parasitic load of the plant is 15% of generator capacity, then the size of generator(s) shall be 750KW (mini) plus 15% or 862.5KW at 0.8 power factor or 1,078KVA (mini). Capacity of generator SHALL be read out on a digital gauge on the generator control panel. (ii) Generator control shall be of PLC for integration with EPC SCADA system so that generators can be remotely controlled and monitored from EPC National Control Center in the Fuluasou Substation located 15km away close to Apia City. It is responsibility of successful bidder to integrate generators to SCADA system. EPC uses Schneider Electric CLEARSCADA program. 	10

			<p>(iii) Number of generators to be installed is 2 of identical sizes. E.g. if total minimum net output offered is 1078KVA, then 2 x 539KVA generators to be installed.</p> <p>(iv) Generators to be stand alone type, skid-mounted on spring blocks to minimize transfer of vibration on concrete floor. Generator foundation to be bund with a sump to contain any oil drips from the engine.</p> <p>(v) Generators shall only run on biogas NOT DUAL fuel with diesel as originally specified.</p> <p>(vi) Engines exhaust stacks – a combined single 30 meter high exhaust stack as originally specified in Section 6 of bid document is changed to individual 10 meters high exhaust 10meters high stacks. Stacks to be fitted with caps to shut when engine is not running.</p> <p>(vii) Generator building – generators, electrical switchgear and all associated equipment to be installed inside a soundproof building design and built to all local standards as specified in bid. Noise at plant boundary fence to be less than 65dB.</p> <p>Switchgear and control room to be installed air conditioned and sound proof room with soundproof glass window so that generators can be seen from inside control room. All padmount transformers to be installed in containment bund and cables undergrounded. For plant lighting, use LED lights of low energy consumption. Include toilets and wash facilities inside the power plant, separate from another toilet and wash facilities outside for workers working outside at the gasifier. Include spare parts room and a separate room for EPC staff to conduct maintenance of engine</p>	
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			components. Plant to include a 3 ton manually operated overhead crane.	
17	Revisions in Section 6 of Bid	12 th April 18	Attached Section 6 of Bid with revisions (tracked and highlighted in yellow) in these subsections and paragraphs – Subsection 1.1.1.1 Paragraphs 4, 5, and 6 Subsection 1.2.2.4 Subsection 1.2.2.5 Subsection 2.1.1.1	10

Please sign and return acknowledgement form.

Sincerely



Fonoti Perelini S. Perelini
Project Manager
Project Management Unit

Attachment: Section 6 of Bid with revisions.

Copy to:

- GM EPC
- Soteria, Secretary, Government Tender Board
- File

ACKNOWLEDGEMENT FORM

Bid: SAM GEF 01/2018 – Design, Manufacture, Construction, Installation, Testing and Commissioning of a 750KW Biomass Gasification Power Station

Bidder Name: _____

We confirm receiving this Addendum 10

Signed by: _____

Name of Authorized Person