ELECTRIC POWER CORPORATION

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21th April 2018

To: BIDDERS

Subject: BIOMASS GASIFICATION PROJECT - SAM GEF 01/2018

Addendum No. 11

No	Question/ Query	Date Issued	EPC Responses	Addendum
				No
1	Analysis of different wood available in STEC farm	12 th Mar 2018	Attached is Report by SROS of analysis of 9 species of trees	1
	as feed stock for planned Biomass Gasification		abundant at the STEC plantation in Mulifanua to be used as	
	Plant		feed stock for biomass gasification power plant.	
2	EPC Generation Mix	12 th March 2018	Attached is power generation mix for Upolu and Savaii as of	1
			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.	
3	Section 2 of Bid document	12 th March 2018	Here is SECTION 2 of bid that was not sent with rest of bid	2
			documents earlier	
4	Single Line Diagram	12 th March 2018	Attached is Grid SLD showing where new Biomass plant will	2
			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.	
5	Details of EPC bank account to pay cost of bid	17 [™] 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	18 th Mar. 2018	Refer to Section 3 of bid document with clarification of functional guarantees of biomass gasification plant.	4	
	Also submitting revised Bid Form in Section 4 of bid		Refer to Section 4 with revised Bid Form to be used		
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 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. Bid Section 6 and Section 4 with Price Schedule are	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	Here are revisions of requirements, specification and clarifications: (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

	(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.
	(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.
	(v)	Generators shall only run on biogas NOT DUAL
	` '	fuel with diesel as originally specified.
	(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.
	(vii)	Generator building – generators, electrical
	(VII)	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.
		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

			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
18	Bidders again requested changes on two requirements of Bid. Item 1 - is lowering Limitation of Liability in Section 8 Clause 30 of Bid from 3 to 1. Item 2 - for payments to be made by a letter of credit.	19 th April 18	Employer already responded to the two items in Addendum 8 Items No 13 and 14. However we have reviewed and decided on the following: Item I - we agree to lower limitation of liability in Section 8 Clause 30 from 3 to 2. Item 2 – we agree to include use of Letter of Credit as an option for method of payment but successful bidder is responsible to pay to set it up. Original option payment by wire transfer to contractor's bank account still remains.	11
19	Further clarification of taxes, duties as applied to bid	19 th April 2018	Bidders are informed that: 1/VAGST and Import Duty on equipment and materials purchased from abroad are exempted. Employer is responsible for this cost. Bidders must quote for these items without VAGST and Duty. This applies to Schedule 1 of Bid Price Schedule (Plant and Materials Supplied from Abroad). Other costs such as wharfage, bond, and transportation of equipment from what is responsibility of contractor. 2/ For income tax and VAGST for construction for this project, it is responsibility of the contractor to pay these directly to Ministry of Revenue. So Bidders must allow this in their Bid Price. This applies to Schedule 4 (Construction,	11

			Installation and Other Services) of Bid Price Schedule.	
20	Can requirement for two generators be changed to allow bidders flexibility to number of generators to be 2 or 3.	19 th April 2018	Employer accepts that bidders can offer 2 or 3 generators with total gross rating that will allow for parasitic load and still having total net output of about 750kw or higher.	11

Please sign and return acknowledgement form.

Sincerely

Fonoti Perelini S. Perelini

Project Manager

Project Management Unit

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 11	
Signed by:	

Name of Authorized Person