بسم الله الرحمن الرحيم

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އަމިނީ ފޮތް ، މާލެ، ދިވެހިރާއްޖެ

AMENDMENT 3

ޒަމީމާ 3

ނަންބަރ No:	TES/2017/G- 19	
ޕްރޮޖެކްޓ Project:	Design, Supply and Installation of a Waste Incineration plant with energy recovery in Addu city	
Issued Date	Monday 12th March 2018	
ސަފްޙާ ދަރަނޑ No. of Pages: -01	ބޮކް Boq: -00	ޑްރޮއިންގ Drawings: -00

Please include this amendment when submitting the bid ތިއާ ހަވާލުވާންވީ ލަފާދީފައިވާ ބިޑް ލިޔުންތަކުގައި ކަމަށް.

- Attached please find the Clarification and revised specification with this Amendment

Please be informed that the **bid opening** for the project will be held on **5th April 2018, 1100hrs** at Ministry of Finance and Treasury.

ނަން Name: **Aminath Naheen Ahmed**	ސޮއި Signature:

MINISTRY OF FINANCE AND TREASURY
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Clarification to the bidders: TES/2017/G-019- Design, Supply, and Installation of a Waste incineration plant with energy recovery

No	Topic	Tender Doc reference	Question	Clarifications to the questions
1	Specifications of the shredder	Section 6 - ERQ - 2 Shredder	Is it acceptable to change the number of rotor knives and stator knives and the max. outlet size, if the grate could accommodate larger particle sizes?	Specifications are only indicative, therefore it is not mandatory to meet the size of the shredded waste particles to be met as per the specification provided. However, larger fuel particles should not stuck or damage the grates of the furnace, supplier can decide what should be the size of waste particles after the shredder. But to meet higher furnace/combustion efficiency it is important to have fuel particles at intake of the furnace as smaller as possible.
2	Heat Values of waste stream	Section 6 - ERQ - 2 Combustion chamber and steam boiler	The mentioned Heat Values, 6,500 - 9,500 kJ/kg does not tally with the Heat Value range mentioned in Table 3, "Physical Parameters of Waste", Section 6 - ERQ - 1, which consolidates to 4,500 - 9,500 kJ/kg. Please clarify which values are to be considered for the design.	Please do the energy mass balance and final design as per the calorific values given in the Table 03 for each type of waste instead of considering average calorific value of 6500 - 9500Kj/kg. Therefore the final design should be based on the calorific values given for each type of waste in the Table 03
3	Moisture Content of waste stream	Section 6 - ERQ - 2 Combustion chamber and steam boiler	The mentioned Moisture Content, 10 - 30 % does not tally with the Moisture Content range mentioned in Table 3, "Physical Parameters of Waste", Section 6 - ERQ - 1, which consolidates	Moisture content of each type of waste should be as per the Table 03
4	Import Duty		Please clarify whether the project is excempt from all the custom and import duties.	Project will be exempt from all the custom and import duties
5	Business Registration		Please clarify if the successful bidder is a foreign company, does it has to be registered in the employer's country to execute the project?	if the successful bidder is a foreign company, it does not have to be registered in the employer's country to execute the project
6	Local Tax Liability		Please clarify if the sucessful bidder is a foreign company, does the bidder is liable for 6% GST ?, given that the bidder is not a registered entity in the employer's country	if the sucessful bidder is a foreign company, the bidder is not liable for 6% GST, given that the bidder is not a registered entity in the employer's country.
7	Number of generator controllers and other accessories	Annex 2A - Bill of quantities for electrical grid connection	Addu sync panel indicative diagram provided as Annex 2C, only contains three generators (2 diesel generators + 1 steam turbine driven generator). But BOQ for electrical grid connection (Annex 2A) required four sets of generator controllers and other accessories such as meters and indicators. Please clarify	In the electrical BOQ it is mentioned 3 incoming power sources (2 Diesel generators and 1 steam turbine coupled alternative generator). In addition to these 3200A (1500KW) outgoing feeder for step-up transformer is required.

HV/LV distribution transformers

ground mounted immersed transformers from 100 to 3150 kVA - insulation ≤ 24 kV / 400 V IEC standards

electrical characteristics

rated power (kVA) [1]		100	160	250	315*	400	500*	630	800	1000	1250	1600	2000	2500	3150
rated voltage	primary [1]	15 or 20 kV													
	secondary at no-load [1]	400 V between phases, 231 V phase to neutral													
rated insulation level [3]	primary	17.5 kV for 15 kV, 24 kV for 20 kV													
HV tapping range (off voltage)		± 2.5% or ± 5% or ± 2.5% ± 5% [1]													
vector group		Dyn 11 [1] (delta ; star neutral brought-out)													

description

- three-phase transformers, for indoor or outdoor use (installation to be specified);
- step-down type [1];
- rated frequency : 50 Hz [1];
- maximum ambient temperature : 40°C [1];
- mineral oil immersed [1];
- hermetically sealed with integral filling [4];
- cover bolted on tank;
- ONAN type natural cooling;
- standard anti-corrosion surface treatment and coating [1];
- final colour grey RAL 7033 [1].

basic fittings

- 1 off-circuit tappings switch with padlocking located on the cover; this switch operates on the highest rated voltage to bring the transformer to the supply voltage-actual value;
- 3 fixed plug-in connectors 250 A / 24 kV - HV side;
- 4 LV flat-bars, from 250 kVA only; for 100 and 160 kVA: 4 LV porcelain bushings;
- 2 earthing terminals on the cover;
- 4 bi-directional flat rollers from 160 kVA;
- 1 draining device;
- 2 lifting and untanking lugs;
- 1 rating plate to be fixed on 1 of the 4 sides;
- 1 filling plug;
- protection index IP 00.

Winding should be COPPER not ALUMINIUM

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