



**KENYA ELECTRICITY GENERATING COMPANY LIMITED**

**DATE: 8/05/2018.**

**KGN-GDD-051-2018: TENDER FOR SUPPLY OF ASSORTED INDUCTION MOTORS AND ACCESSORIES FOR OLKARIA POWER STATIONS**

**ADDENDUM NO.2**

In accordance with the tender for the: “Supply of Assorted Induction Motors and Accessories for Olkaria Power Stations. KenGen hereby issues **Addendum No.2**

**SCHEDULE B: INDUCTION MOTORS FOR WELLHEAD POWER PLANTS**

**5.2.4 EXISTING MOTOR DETAILS**

	Olkaria Wellheads main cooling water pump motor	Olkaria Wellheads Hotwell pump/CAN motor	Olkaria Wellheads cooling tower fan motor	Olkaria Wellheads auxiliary cooling water pump motor
<b>OPERATING CONDITIONS</b>				
Plant classification	<b>Geothermal Power Plant</b>			
Max. Ambient Temp	+40°C	50°C	40°C	40°C
Area classification	Zone 2/22	Zone 2/22	Zone 2/22	Zone 2/22
Service/duty	Continuous (SI)	Continuous (SI)	Continuous (S9)	Continuous
Temperature rise	80°C	80°C	40°C	60°C
Relative humidity	21.1	21.1	21.1	21.1
Protective Enclosure Type	IP55	IP55	IP65	IP55
<b>CONSTRUCTION CHARACTERISTICS</b>				
Frame size	315 SM6	ND315LX	225S	MG 160L
Insulation class	F	F	F	F
Temperature rise	80°C	80°C	40°C	60°C
Enclosure Type	TEFC	TEFC	TEFC	TEFC
Duty	Continuous (SI)	Continuous (SI)	Continuous (S9)	Continuous
Rotation	CCW		CW	CW
Bearing Type	DE-6319C3 NDE-6316-C3	DE-6319C3 NDE-6316-C3	DE-6319C3 NDE-6316-C3	DE-6309ZC4 NDE-6309ZC4
Grease type	Polyrex EM-ESSO	UNIREX-N3		UNIREX-N3
Weight	883KG	1160KG	285KG	126KG
<b>TECHNICAL DATA</b>				
Rated Power	75kW	110kW	57kW	15kW
Voltage	415V	415V	415V	415V

Poles	6	8	4	4
Rated Speed	990RPM	740RPM	1480RPM	1470RPM
Rated Current	137A	241A	65A	28.4A
Motor Mounting type	Vertical mounting IMVI (Left hand side mounted terminal box)	Vertical mounting IMVI (Left hand side mounted terminal box)	Vertical mounting IMVI (Left hand side mounted terminal box)	Foot mounting with top mounted terminal box
COUPLING (MOTOR SUPPLIED TO FIT END BORE SIZE PROVIDED)	Shaft length (mm/INCHES) 170/6.6929	B3L(Left hand side mounted)	Shaft length (mm/INCHES) 140/5.511	Shaft length (mm/INCHES) 110/4.330
	Reducer End bore (mm/INCHES) 170/6.6929	Reducer End bore mounted)	Reducer End bore (mm/INCHES) 140/5.511	Reducer End bore (mm/INCHES) 110/4.330
	Key (mm/INCHES) S.A. 22x14 0.866X0.551		Key (mm/INCHES) S.A 18x11 0.708X0.433	Key (mm/INCHES) 12X8 (0.472X0.3149)
	Motor End Bore (mm/INCHES) 80(960)		Motor End Bore (mm/INCHES) 60(720)	Motor End Bore (mm/INCHES) 42(1.6330)
<b>ACCESSORIES</b>				
Embedded Winding Temperature Detector RTD	Thermistor (ptc) Max=30V 155°C			PTC160
Bearing Temperature Detectors (2) (1DE and 1NDE)	RTDS 100 OHM Platinum			NONE
Anti-condensation Space Heater	200-240V, 115-166W			
<b>DOCUMENTATION (to be provided by the supplier before the TENDER AWARD)</b>				
Motor overall dimensions drawing				
Test sheet				
<b>CE Conformity declaration</b>				
Assembly and maintenance instructions				
Motor curves				
Resisting torque diagram				
Lubrication instruction				
Electrical hookup				

**SCHEDULE A: TECHNICAL SCHEDULE OF REQUIREMENTS FOR INDUCTION MOTORS FOR  
OLKARIA IV POWER STATION**

**1.5 kW waste water submersible pump**

		KenGen requirements	Tenderer's offer
1.	Type	Centrifugal	
2.	Discharge diameter	50mm	
3.	Head	15M	
4.	Capacity	8M <sup>3</sup> /hr	
5.	Protection	IP68	
6.	Output	1.5kW	
7.	Voltage	3phase 415V	
8.	Amp.	3.3A	
9.	Insulation class	F	
10.	RPM	2850	
11.	Frequency	50Hz	
12.	Start	DOL	
13.	Body material	Stainless steel SS316	
14.	Documentation/Brochure		
15.	Warranty		
16.	4 core 2.5mm <sup>2</sup> flexible cable	7 meter long cable	
17.	Discharge line mounting hook clamp	Discharge line mounting hook clamp	

Tenderer's Name-----

Tenderer's Signature-----Date-----

Company Rubber Stamp \_\_\_\_\_

**SECTION VII: PRICE SCHEDULE FOR GOODS**  
**SCHEDULE A: PRICE SCHEDULE FOR INDUCTION MOTORS FOR OLKARIA IV & 1AU POWER PLANTS**

Item	Description	Type/Model	Unit	QTY	Unit Price	Total Price
1	cooling tower motor(90Kw)		Piece	1		
2	Vacuum pump Motor (285KW)		Piece	1		
3	service water pump motor (15KW)		Piece	1		
4	Condensate re-injection pump motor (15KW)		Piece	1		
5	ACWP Motor (132KW)		Piece	1		
6	wash pump motor (45kW)		Piece	1		
7	Submersible pump (1.5KW)					
8	5KV Insulation resistance tester (maintenance tool)		Piece	2		
9(a)	32A/240V AC Contactor		Piece	4		
9(b)	32A/110V DC Contactor		Piece	4		
9(c)	50A/240V AC Contactor		Piece	4		
9(d)	50A/110V DC Contactor		Piece	3		
9(e)	100A/110V DC Contactor		Piece	4		
9(f)	225A/110V DC Contactor		Piece	2		
9(g)	330A/240V AC Contactor		Piece	3		
9(h)	85A/240V AC Contactor		Piece	2		
9(i)	12A/240V AC Contactor		Piece	2		
	<b>SUBTOTAL</b>					
	Discount ( %)					
	Other Charges (e.g transport/handling)					
	Add 16% VAT					
	<b>Total Cost Delivery and Duty Paid (DDP) to Olkaria</b>					
	<b>Country of Origin</b>					
	<b>Currency of Tender</b>					
	<b>Delivery Period</b>					
	<b>Warranty Period</b>					

**NOTES**

- The bids must be as per the Technical Specifications in the Tender Document.
- Bids that do not conform to the Technical Specifications shall be disqualified.
- In case of discrepancy between unit price and total, the unit price shall prevail.
- **No Correction of Errors:** The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in any way by any person or entity.

Tenderer's Name-----

Tenderer's Signature-----Date-----

Company Rubber Stamp \_\_\_\_\_

**SCHEDULE B: PRICE SCHEDULE FOR INDUCTION MOTORS FOR WELLHEAD POWER PLANTS**

Item	Description	Type/Model	Unit	QTY	Unit Price	Total Price
1	Main cooling water pump motor (75kw)		Piece	1		
2	Hotwell pump/CAN motor (110kw)		Piece	1		
3	Cooling tower fan motor (37kw)		Piece	1		
4	Auxiliary cooling water pump motor (15kw)		Piece	1		
5	Solid State Soft starter		Piece	1		
	<b>SUBTOTAL</b>					
	Discount ( %)					
	Other Charges (e.g transport/handling)					
	Add 16% VAT					
	<b>Total Cost Delivery and Duty Paid (DDP) to Olkaria</b>					
	<b>Country of Origin</b>					
	<b>Currency of Tender</b>					
	<b>Delivery Period</b>					
	<b>Warranty Period</b>					

**NOTES**

- The bids must be as per the Technical Specifications in the Tender Document.
- Bids that do not conform to the Technical Specifications shall be disqualified.
- In case of discrepancy between unit price and total, the unit price shall prevail.
- **No Correction of Errors:** The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in any way by any person or entity.

Tenderer's Name-----

Tenderer's Signature-----Date-----

Company Rubber Stamp \_\_\_\_\_

**ACKNOWLEDGEMENT OF ADDENDUM NO.2**

We, the undersigned hereby certify that the Addendum is an integral part of the document and the alterations set out in the Addendum have been incorporated in the tender proposal.

Signed.....

Tenderer.....

Date.....