

SCOPE OF WORK

Tender No.: FOSCO-RFP-41-2024

Description: Supply and Delivery of 11 X 360KW, 6.6 KV, 4 Pole Motors

1 INVITATION TO TENDER

This document prescribes the requirements for the supply and delivery of 11 X 360kW motors at Foskor Phalaborwa

1.1 SCOPE BACKGROUND





The 360kW motors are used in the Tailings section and Extension 8. They are used at TTPS on line 1 to line 4 and Tailings extension 8 stream A & B. Most of the motors that we still using we installed in 1980's, Due to aging of these motors we are experiencing breakdowns on motor failures. The motors be need to replace after the motor's repair cost has been deemed uneconomical by service provider.

1.2 COMPANY BACKGROUND

Foskor is one of the world's largest producers of phosphate rock (concentrate) and phosphoric acid. It is one of the world's few vertically integrated producers of phosphoric acid and is the second-largest supplier to India, the world's largest consumer of phosphoric acid.

The Company owns and mines phosphate resources and beneficiates the mined material to produce a phosphate concentrate at Phalaborwa, in the Limpopo Province of South Africa. The phosphate concentrate is sold locally and also transported to the Richards Bay plant on the coast of Kwa-Zulu Natal to produce phosphoric acid, sulphuric acid and granular fertilisers MAP and DAP from phosphoric acid and is the leading supplier of fertilisers to South Africa. In all about 95% of the phosphoric acid is exported and the granular sales are divided between exports and local markets. Since 1951 Foskor has supplied more than 95% of South Africa's fertiliser requirements.

2 **SCOPE OF WORK**

2.1 BACKGROUND DOCUMENTATION

Specification document to be supplied with this Scope of Work as an extra reference.

2.2 SCOPE - EXTENT OF WORK OR SERVICE REQUIRED

2.2.1 **General requirements for commissioning**

Commissioning or handover will be executed as per Foskor Procedures or as directed by the Engineer. Normally the Foskor Punch list and Hand over certificate will be used.

2.2.2 Scope Specific statutory and legislative requirements Legislative requirements

The successful service provider shall ensure that all work is carried out under the following specifications and requirements.

The successful or appointed service provider shall comply with:

2.2.2.1 International Standards

IEC 43 - 1:	Rotating Electrical machinery, Part 1 - Rating and Performance.
ISO 9001:	2000 Quality Requirements
ISO 8501 -1	Pictorial surface preparation standards for painting steel surfaces
ISO 2757	Method for determining the thermal classification of electrical insulation.
IEEE IEEE 43-1974	Recommended practice for testing insulation resistance of Rotating Machinery.
VDE 0530:	Standard specification for rotating electrical machines.
ISO/R 15/1 1968	Dimensional Standards for Deep Groove Band Roller Bearings.
BS 848 Part 1	Fans for General Purposes – Methods of Testing Performances.
BS4999	General requirements for rotating electrical machines.

2.2.2.2 South African Standards

SANS 1804-3: Three Phase Induction Motors.

2.3 SCOPE

2.3.1 Basic Requirement

Supply and delivery of 11 motors as per specifications given below and in the attached document 'Scope of Tender for Supply and Delivery 11 x 360kW motors.'

The bidder should include delivery schedules of the total order amount.

Electrical Motor Specifications

Item	Description	Specification
	Preferred Brand	WEG or Actom or SIEMENS
	Type of construction	IM B3
	Breakdown Torque	200%
	Current	39A
	Power Factor	0.72
	Type	Induction
	Power (kW)	360
	Number of Poles	4

	Speed (1/min)	1480
	Frequency (Hz)	50
	Voltage (V)	6600
	Starting Method	Direct online
	Frame size	ILA1400
	Shaft size	110mm
	Load	Centrifugal tailings slurry pump
	Protection	IP65
	Mounting	Foot
	Motor Duty	S1
	Insulation Class	F
	Thermal Class	B
	RTD's	Stator, drive end & non drive end bearings
	Ambient temperature (max)	40°C
	Destination	Foskor Phalaborwa

3 PROJECT URGENCY

Project urgency is defined below:

1. This is a Project that impacts environmental compliance on the Selati Tailings Dam and will need to be conducted as a breakdown to mitigate or reduce the environmental impact.
2. Proper communication to be managed by contractor and delays or risk of delays to be communicated to Foskor as a matter of urgency.

4 DELIVERY OF MATERIALS AND EQUIPMENT

The Contractor shall ensure that new motor shall be packaged for transportation and storage as follows:

1. Since motor is greater than 30 kW, motor to be provided with rotor locks to prevent rotor or bearing damage.
2. If not totally enclosed, the terminal box must be wrapped sealed to prevent moisture and dust ingress.
3. To be provided with a shaft protector that will protect the machined surfaces of the projecting shafts.
4. The vehicle must have a mat on the load body.
5. The motor must be tightly secured while in transit.
6. All the documentation of new motor must accompany the motor on delivery as mentioned in item 4. above.

7. Any additional Foskor packaging requirements will accompany the order.

TAKE NOTE - Foskor pays for material delivered to Foskor site only!

NB: The contractor/ consultant must clearly state in his tender submission if there is an exclusion on the Foskor scope (As per the site meeting procurement scope and site meeting minutes) Failure to state the exclusion will mean that the full Foskor scope is still applicable.

Lay down areas are as indicated on the drawings.

4.1 TABLE OF INCLUSIONS AND EXCLUSIONS

List the boundaries in terms of equipment (Foskor plant specific). Up to where is it Foskor's responsibility and where/what is the contractor's responsibility.

WHO WILL SUPPLY THE FOLLOWING?																				
FF = FOSKOR, FREE OF CHARGE			FC = FOSKOR, AT COST TO CONTRACTOR			C = CONTRACTOR			N/A = NOT APPLICABLE											
1. Sanitary		2. Transport		3. Quality		4. Security		5. Lifting and Rigging		6. Medicals		7. Communication devices								
1.1	Water on site and toilet facilities / janitorial services	C	2.1	Labour	C	3.1	Plan, Management, QA, QC	C	4.1	Site Security	C	5.1	All rigging equipment (Slings, Chain blocks, etc.)	C	8.1	Entry and Exit	C	7.1	All communication devices like laptops, computers, networks, radios, cellphones, etc.	C
1.2	Potable connection point	C	2.2	Materials	C	3.2	All quality test Civil, Paint, Mechanical, etc	C	4.2	Foskor ID Card	C	5.2	Rigger	C	8.2	First aid box at place of work	C			
1.3	Connection to construction water supply	C	2.3	Equipment	C	3.3	Sampling and laboratory testing	C				5.3	Mobile cranes	C						
1.4	Change rooms	C	2.4	All TMMS	C															
8. PPE		9. Surveying		10. Safety File		11. Training & Authorizations		12. Site Establishment		13. Waste management		14. Painting								
8.1	Supply, Issue, inspect and manage	C	9.1	Site Surveys	C	10.1	Foskor will issue template	FF	11.1	All Required Training	C	13.1	Site office/s with suitable facilities for daily "Green Area" meetings, and lunch area	C	13.1	Transport all on site to waste to Foskor designated waste sites	C	14.1	All Equipment and tools paint, labour, etc	C
						10.2	Ensure file conform/ populate to Foskor standards	C	11.2	Authorisation - As per Foskor COP	FF	13.2	Site establishment space	FF						
15. Fuel		16. Mechanical		17. Labour		18. Compressed air		19. Scaffolding		20. Tools & Equipment		21. Training								
15.1	Fuel Supply	C	16.1	Conveyor Belt	FF	17.1	All labour as per Scope of Work to execute task including management	C	18.1	Sandblasting or flash blast		19.1	Scaffolding Supply & Erect	FF	20.1	All Portable Electrical Equipment	C	21.1	All required training and training manuals as required to ensure that Foskor can train its workforce and operate the plant / equipment safely	C
15.2	Fuel storage	C	16.2	Conveyor 59 Drive Gearbox	FF				18.2	Compressor	C	19.2	Scaffolds be managed by the Contractor	C	20.2	Hot Work Equip as per Foskor COP - Welding Machines, Gas Cutting, Grinding, Gauging, etc	C			
15.3	Fuel fire protection	C	16.3	Idlers, Rollers and Frames	FF				18.3	Air for power tools - If available	FF	19.3	Cherry Picker's – only when available by pre-booking	F	20.3	Tools as required to execute task	C	21.2	All manuals and related documents to be supplied to project Eng. and Foskor Drawing office for safe keeping	C
15.4	Refuelling	C										19.4	Cherry Picker's Driver– Trained and authorized driver	C						
22. Certificates		23. Consumables		24. Storage and inventory control		25. Electrical														
22.1	Supply All certificates as required	C	23.1	Welding rods	C	24.1	Protective coverings/tarpaulins	C	25.1	Generators	C	25.4	Temporary lighting	C	25.7	Electric panel + distributing wiring	C			

WHO WILL SUPPLY THE FOLLOWING?											
FF = FOSKOR, FREE OF CHARGE			FC = FOSKOR, AT COST TO CONTRACTOR			C = CONTRACTOR			N/A = NOT APPLICABLE		
		23.2 Bolts & Nuts, etc.	C	24.2 Storage area and inventory control	C	25.2 Electrical Extensions	C	25.5 Power for tools on site from existing Foskor electrical supply point (Welding plugs and 220 v plugs)	C	25.5 Electrical connection point	FF
						25.3 COC Site Establishment	C	25.6 Connection to Electrical supply	C	25.9 Electrical and Instrumentation Installation	C

4.2 ADDITIONAL BOUNDARIES

Not applicable

5 **DRAWINGS**

Motor outline drawings as well as the motor performances curves must be provided to Foskor on delivery of the motor QUALITY.

- i. The service provider must provide the necessary quality management systems and plans to ensure that the quality of his work complies with the requirements of this scope of work.
- ii. The service provider shall during all phases of construction comply with the Foskor approved Quality Assurance Plan
- iii. The service provider shall be responsible for all the resources required for executing the Quality Management System including but not limited to, developing the Quality Assurance Plan & performing the Quality Control measures to ensure that the deliverables comply with the specifications & standards mentioned in the scope of work.
- iv. Any change requests / additional work resulting due to inadequate quality management system will be to the account of the service provider.
- v. Foskor might appoint a third party for Quality Control Inspections
- vi. The Service provider will have to provide an approved quality system for all work executed.
- vii. This will include the following but is not limited to:
 - a. Quality plan
 - b. Quality compliance – Performance and reports
 - c. Quantity surveying
 - d. Quality Assurance
 - e. Quality Authorization matrix – part of the Quality plan
 - f. Quality control
 - g. Quality administration. – All documents, checks, measurements, reports, variances, analysis, Corrective actions, etc. needs to be properly filed and available on request at any time. The file will require an index
 - h. Includes all test work, laboratories, Filing, etc.
 - i. Survey and survey verifications
 - j. Construction versus design - Any Deviations from the approved "Construction Drawings"
 - k. Quality communication – What needs to be reported to whom and at what frequency.
- viii. Foskor envisage a complete quality System driven by the Service provider and this system/plan will be approved by Foskor and the appointed designer (if applicable) before construction/fabrication will be started.
- ix. Compliance to this plan will be measured and failure to adhere to the quality plan will result in the stopping of construction activities until concerns have been addressed. The cost for this delay will be for the service provider's account.

- x. Foskor may appoint a third party to measure and control Foskor's interest in the terms of quality in this contract and the service provider is expected to work in conjunction with this company.
- xi. Hold points will be discussed and finalized with the successful service provider based on the approved Quality plan

The Quality plan will only be compiled and signed off after the Method Statement and WBS* have been compiled.

Quality on Shutdown type tasks will be included in the Scope of Works, but the service provider will have to submit proof of an experienced quality assurer or relevant qualifications. IF the service provider does not have this it will be required that this service be hired in by the service provider at his cost.

- i. State any specific hold points that are not negotiable here.
- ii. State any other applicable quality that is not in the "Parameters" section.

Method statement – the service provider must list all steps and actions required to complete the work as per the scope of work – typically includes the items listed below:

- i. Key step and stages of the work required.
- ii. Tools, Equipment, TMMS, etc
- iii. Labour requirements, etc
- iv. Spares, resources,
- v. Safety requirements

***WBS** is a hierarchical and incremental decomposition of the project into phases, deliverables, and work packages. It is a tree structure, which shows a subdivision of effort required to achieve an objective, for example, a program, project, and contract.

This includes arrangements, tools, equipment labour, Tasks, Purchase, Quality, Communication, etc

5.1 QUALITY FILE INDEX

The quality file index listed below will be the minimum requirement.

This file must be kept up to date for the duration of the project and will be handed to the Foskor project Engineer on completion of the project

5.1.1 QUALITY FILE INDEX

	QUALITY FILE INDEX <small>FOSKOR: TSS - PROJECTS</small>	Doc. No.: FSK-P-GEN-IX-001
		Rev. No.: 00
		Date: 12 - July - 2019

Contents

Issued for Construction (IFC) drawings – Approved.....	1
Quality Control Plan (QCP) Approved.....	2
Competency of People – Welder Qualifications, Trade, Authorization, Certifications, etc....	3
Designer/Engineers Instructions, Specifications, Approvals, Concessions applied for & approved. Site instructions, Variations and ECO's	4
Method Statement of contractor– Approved	5
Material orders & Delivery notes.....	6
Certificates – Material, Data Sheets, Compliance, Certification, etc	7
Test Results – Each Discipline – Test cubes, NDT, etc.....	8
Request for inspection (RFI).....	9
As Built Drawings.....	10
Reports - Survey, etc.....	11
Punchlist/Snag list	12
Handover/ Occupations/ Taking over Certificates/Commissioning.....	13

6 PROJECT DELIVERABLES

6.1 THE DELIVERABLES FOR THIS PROJECT INCLUDE:

To supply two complete motors as per the scope of works delivered to stores at Foskor mine

6.2 DATA BOOKS

During the official handover of the Motor, the service provider shall submit a DATA BOOK that shall contain the following documents and information:

- a) Performances curves and data sheet of the motor
- b) Drawings of the motor
- c) All certificates, documents and records to be cross-referenced for purposes of traceability.
- d) Grease type

NB! ALL CERTIFICATES AND DOCUMENTS MUST BE CROSS-REFERENCED

6.3 MANUALS AND DOCUMENTATION

The following must be supplied:

- Any relevant manual i.e. Installation, operation and maintenance manuals.

6.4 FORMAT OF DOCUMENTS AND MANUALS

Note! - All Manuals must be in English

6.5 TRANSMITTAL OF DOCUMENTS AND MANUALS

Documents and Manuals to be submitted in the flowing formats:

Type of Document	Hard Copy	Electronic Format
Manuals	X	X
Drawings	X	X
Reports	X	X
Data Books	X	X

Hard Copy: Book or binding arch file format and must be durable and of high quality.

Soft Copy: Manuals, Reports and Data Books – Word, Excel, PDF, etc.

Storage – Compact Disk or Data traveller

Language: English

6.6 PROJECT COMPLETION

After delivery of the motor the delivery note will be signed off and the invoice will be signed off and captured.

7 DOCUMENTS / DRAWINGS ISSUED BY FOSKOR

Drawing or Document No	Title	Revision
	No drawings available	
Note	Please read your Scope of Work	

8 LEGISLATIVE REQUIREMENTS – SUMMARY

8.1 MINIMUM LEGISLATIVE REQUIREMENTS:

The successful or appointed service provider shall comply with:

- i. The Mines Health and Safety Act with Regulations (Latest revision)
- ii. The National Road Traffic Act with Regulations (Latest revision)
- iii. All applicable national and international legislative requirements and regulations.
- iv. Foskor (Pty) Ltd. COP (Code of Practise) No. 25 for Service Provider Control (Available on request)
- v. Foskor (Pty) Ltd. COP (Code of Practise) No. 59 for Trackless Mobile Machinery (Available on request)
- vi. All Foskor (Pty) Ltd. safety, health, quality, and environmental procedures applicable to the successful application of the contract. (Available on request)
- vii. All Foskor procedures and policies apply to the successful application of the contract. (Available on request)

8.2 SUMMARISED REQUIREMENTS/EXTRACTS FROM FOSKOR COP'S

8.2.1 Before entering and operating a service vehicle (Own vehicle) on the Foskor site, the appointed service provider shall:

- i. Ensure that his driver/s have a valid national driver's licence for the specific class of vehicle, has been tested by the Foskor mobile equipment training centre and authorised by a Foskor MHSA (Mines Health and Safety Act) regulation 2.13.1 appointee for the class of vehicle to be used on site.

(Contact the Foskor mobile equipment training centre on 015 789 2840 to make an appointment for competence testing and authorisations)

- ii. The appointed service provider shall, before entering and operating a vehicle or trailer on the Foskor premises:
 - a. Obtain permission from the Foskor Safety & Security manager to operate his nominated service vehicle/s or trailers on the Foskor site. (Forms will be provided)
 - b. Obtain a certificate of fitness from the Foskor Light Vehicle maintenance workshop supervisor or appointed a Foskor inspector for his nominated service vehicle/s. Inspections conducted daily between 08:00 and 08:30 and between 13:30 and 14:00 (Excl. Fridays) at the Light Vehicle Maintenance workshop.
 - c. Submit the above permission and COF at the main security office for the issue of a vehicle access disk.
 - iii. Ensure that his service vehicles/trailers have been inspected (Daily) by the Foskor standard (COP 59) to ensure that they are safe and fit for use. (Forms will be provided)
- See Foskor COP 59, Trackless Mobile Machinery for details.

8.2.2 Before entering and working on the Foskor site the appointed service provider shall ensure that his workmen are:

- i. Briefed on the required task and have been informed of any abnormal conditions/situations.
- ii. Physically, emotionally, and mentally fit to perform their duty.
- iii. Issued with the necessary PPE (Personal Protective Equipment) to safely operate his service vehicles and perform the duty of maintaining, servicing, inspecting, and testing earthmoving- and mobile equipment.
- iv. Before commencement of work:
 - a. All tools and equipment shall have been inspected and tested to be in good and safe working order.
 - b. All workmen have participated in the completion of a standard Foskor site risk assessment (Commonly known as a HIRA or Hazard Identification and Risk Assessment) and taken appropriate actions to mitigate any identified hazards.

8.2.3 Before entering and working on the Foskor site the appointed service provider shall:

- i. Ensure that his portable electrical equipment has been tested and declared safe to use by the Foskor electrical services workshop.

8.3 COP 25 – CONTRACTORS LEGAL OBLIGATION AND MINIMUM REQUIREMENTS

Contractor must comply to the requirements below within 4 weeks from awarding the contract unless otherwise agreed with 3.1 and SHE Manager within 10 days from the awarding of such contract.

	Visitors	Short Term Contractors (1-5 days)	Medium Term Contractors (1 days -1 month) – low risk	Long Term Contractors (>1 month) – low risk work	Medium or Term Contractors (1 days up to 12 month) – Risk work
Definition	Consultations, Salespersons, Foskor arranged and organised visitor groups, Family of injured employees	Deliveries, Consultation, Specialist, Auditors for less than 5 days and do not exceed 4 visits per year	Contractors working on the Mine premises for period more than 6 day but less than 1 month.	Duration of work is longer than 1 month	Duration of work is irrelevant. (only focus on Risk exposure)
Special conditions	May perform no work on site	May perform no physical work on site that will involve tools, equipment, or machinery.	No work that relates to life saving rules e.g. Construction, Conveyors, Lifting, Electrical, Lock-out, Working at Heights, Hot work. Specialist and consultants (experts) working in teams smaller than 5 for less than 1 month on site.	No construction work or work that relates to life saving rules e.g. Conveyors, Lifting or Rigging, Electrical maintenance, Lock-out, Hot work, confined spaces, use of TMM's, Working at heights	This includes all work relating to <u>life saving rules</u> (risk work) and therefore must comply to relevant training and Authorisations as required in the Foskor COPs before work can start and permits signed.
Supervision	The organiser is responsible for the group. The visitors <u>must</u> be accompanied by a Foskor Regulation 2.9.2, Regulation 2.6.1, or legally appointed person.	Direct supervision of Foskor appointed Regulation 2.9.2. and Regulation 2.6.1	Direct supervision of Foskor appointed Regulation 2.9.2. and Regulation 2.6.1 appointed manager may be provided if contractor is unable to supply.	Must provide dedicated Regulation 2.9.2. with proof of competency and direct supervisor. Regulation 2.6.1 appointed manager may be provided if contractor is unable to supply.	Must provide <u>dedicated</u> Regulation 2.6.1. and Regulation 2.9.2. appointees with proof of competency. The Regulation 2.9.2 appointee must have technical competency and experience in line with scope and trained in the in all aspects as defined in Baseline risk.
Medical Surveillance	Only completed a declaration of fitness and health matters relevant to visit	Shortened medical surveillance Must declare Pregnancy and all chronic medical conditions at Mine Clinic	Full Medical Surveillance as per COP Must declare Pregnancy and all chronic medical conditions at Mine Clinic	Full Medical Surveillance as per COP Must declare Pregnancy and all chronic medical conditions at Mine Clinic	Full Medical Surveillance as per COP Must declare Pregnancy and all chronic medical conditions at Mine Clinic
Permit required	Day Permit is obtained at Security (Valid for 1 day)	Short term ID card at Security Return permit to Security when completed. (Permit each day)	Short term ID card at Security Permit to work at Foskor is required unless Specialists or Product experts. Return Permit to Security when work is complete	Permit to work at Foskor. Permanent ID at security Return Permit to Security when work is complete	Permit to work at Foskor. Permanent ID at security Return Permit to Security when work is complete
Induction	SHERQ Induction pamphlet only	Attend full Foskor Induction Site Specific Induction SHE Induction Pamphlet	Attend full Foskor Induction Site Specific Induction SHE Induction Pamphlet	Attend full Foskor Induction Site Specific Induction SHE Induction Pamphlet	Attend full Foskor Induction Site Specific Induction SHE Induction Pamphlet
Minimum training	None	None	First Aid Training HIRA Understanding Basic Health and Safety Principles	First Aid Training HIRA Understanding Basic Health and Safety Principles <u>PLUS</u> , all training as defined in Baseline risk assessment and Scope (COP 1)	First Aid Training HIRA Understanding Basic Health & Safety <u>PLUS</u> , all training as defined in Baseline risk assessment and Scope (COP 1). When

	Visitors	Short Term Contractors (1-5 days)	Medium Term Contractors (1 days -1 month) – low risk	Long Term Contractors (>1 month) – low risk work	Medium or Term Contractors (1 days up to 12 month) – Risk work
					construction or maintenance work is done – minimum 1 artisan per team.
Letter of Good standing	Not required	Not required	<u>May</u> be required (dependant on scope) and correct nature of business must reflect on the Letter of Good standing	Required and correct nature of business must reflect on the Letter of Good standing	Required and correct nature of business must reflect on the Letter of Good standing

8.4 **REMINDER OF RISK IDENTIFICATION – LIFE SAVING RULES**

- *Risk Assessments and clearance certificates*
- *Lifting operations*
- *Working at heights*
- *Confined space entry*
- *Positive energy Isolation and lockout*
- *Moving Machinery*
- *Personal protective equipment*

Risk assessment is applicable to all jobs and training apply to all that will do physical work!

9 **PARAMETERS**

9.1 **DESIGN PARAMETERS**

All plant and equipment will be designed to:

- Operate satisfactorily under atmospheric, ambient, and other conditions present at the site location.
- Ensure interchangeability of units and/or sub-parts throughout the plant to reduce spares holding requirements – take old plant equipment into account.
- Ensure reliability and maintainability. Minimum availability of 98% is required.
- Operate without undue vibration, stresses (temperature and built-in) and excessive noise.
- Comply with legal requirements in terms of the water license and DWA.

9.2 **SPECIFICATIONS, CODES, STANDARDS AND REGULATIONS**

The Latest edition of the South African National Standards in effects at the date of projects design shall establish the minimum requirements for design, materials, and construction. This should be referenced with the Foskor General Engineering specifications and requirements of the Foskor SHERQ system (COP's)

No work shall be contemplated which is in breach of any legislation in South Africa – Typically:

- Water license (04/B72K/ACGIJ/962)
- Occupational Health and Safety Act
- South African Mine Health and Safety Acts and regulations (Act 29 of 1996)
- Explosive Acts and Regulations - South Africa
- DWA and the National Water Act.
- Foskor COP's
- Foskor Engineering Specifications
- The latest revisions of the SANS standardized specifications and Foskor Specifications as applicable at the time of quotation shall apply to this contract.

Note! The equipment to be capable of continuous operation 24 hrs/day, 365 days/year with operating availability equal to 100%.

9.3 SITE GEOGRAPHY

The plant is located at Phalaborwa, Limpopo, South Africa

9.4 AMBIENT CONDITIONS

- Ambient temperature

Summer	35 °C Avg.	50 °C Max
Winter	17 °C Avg.	2 °C Min

- Site Altitude: 380 m
- Prevailing wind direction: Generally South Easterly - Maximum design velocity 40 m/s (144 km/h)
- Very dusty conditions
- Average annual rainfall = 540 mm

9.5 FOSKOR GENERAL ENGINEERING SPECIFICATIONS (SHOULD BE CONSULTED BEFORE FINALIZATION OF ANY DESIGN OR SPECIFICATION)

 Name	Modified	Modified By
 Engineering Specification Index	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS001 - General Design Information - Rev 1	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS002 - Engineering Drawings - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS003 - Quality Control Procedures - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS005 - Concrete and Formwork - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS007 - Plate work - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS008 - Welding procedures - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS009 - Structural fabrication and erection - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS011- Piping - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS012 - Pressure vessels - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS013M - Painting and Protective Coatings	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS014 - Rubberlining - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS015 - Fencing - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS016 - Roofing and side cladding - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS017 - Fuel - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS018 - Lubrication - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS019 - Liquid containemt bund walls - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS020 - General purpose valves - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS021 - Gearboxes - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GS022 - Chainblocks and lever hoists - Rev 0	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu
 GSI-004 - Field Instrumentation Standards	... 15 April, 2016	<input type="checkbox"/> Khayelihle Pepu

Service provider /Contractor /Supplier - Please ensure that you have the latest copy of the specifications before any activity is committed.

9.6 SPECIFICATION

ELECTRICAL SPECIFICATIONS		
NUMBER	REVISION	TITLE
EE-1	Latest Revision	Motor Control Centre & Switchgear
EE-2	Latest Revision	Squirrel Cage Induction & Wound Rotor Motors
EE-11	Latest Revision	Power Factor Correction Equipment
GE-1	Latest Revision	Design Criteria for Electrical Installations
GA-1	Latest Revision	Procedures for Enquiries & Tenders
GD-1	Latest Revision	General Requirements for Design, Project Management & Tenders
GD-2	Latest Revision	Engineering Change Order (E.C.O) Procedure
GM-1	Latest Revision	Mechanical Equipment
GM-5	Latest Revision	Pipe Standards
GM-6	Latest Revision	Engineering Drawing & Document Requirements
GM-8	Latest Revision	Surface Protection
GM-3	Latest Revision	Painting & Surface Protection of Steel
GS-1	Latest Revision	Structural Steel work & Plate work Fabrication & Erection
GQ-1	Latest Revision	Quality Control
GI-1	Latest Revision	General specifications & Procedures
GI-2	Latest Revision	Installation & Commissioning
GI-3	Latest Revision	General Equipment Specification
GI-4	Latest Revision	Field Instrumentation Specification

9.7 ADDITIONAL SPECIFICATIONS IF REQUIRED

- None

10 LIAISON AND CO-OPERATION WITH OTHERS

The CONTRACTOR/ SERVICE PROVIDER shall be required to co-operate and liaise with Foskor appointed project manager.

10.1 ADDITIONAL REQUIREMENTS

None

10.2 PROJECT PLANNING/SCHEDULING

The lead times will be supplied and must strictly be adhered to. Any risks or change to the delivery date supplied must be communicated to Foskor immediately.

10.3 AFTER SALES SERVICE OR REQUIREMENTS

10.3.1 After sales service requirements are listed below:

A warranty of 12 months to be provided with the motor.

10.4 INVOICE DUE DATES

The due dates for claim certificate are the 15th of every month. Invoices are due the latest the 23rd of every month.

11 TENDER EVALUATION CRITERIA

- As part of the process to assist with the evaluation of the bidder’s proposal/quotation and to make an informed decision in the awarding of this tender, the following information is required.
- The following tender evaluation criteria will be used for adjudicating the Contractor submitted tender.
- Please provide the required documentation as requested in the “Proof/documents to be submitted” column. Please be specific when submitting documents by ensuring that they answer the item specified.
- Please use the annexure number as indicated to identify the proof submitted.
- Failure to submit the relevant documentation as requested in the Evaluation criteria document may lead to a disregard of the submitted tender.

11.1 MANDATORY REQUIREMENTS

Bid submission not meeting the mandatory requirement will result in the bid being disqualified.

No	Mandatory Requirements	Comments
1	Compliance to all specifications of the motor	Submit documented proof
2	Specification of the grease to be used and hourly greasing schedule	Submit documented proof
3	Drawings and motor data	Submit as proof

12 PRICING SCHEDULE

Tender No.: FOSCO-RFP-41-2024

Description: FOSCO-RFP-41-2024 Supply and delivery of 11x 360kW, 4 pole motor

12.1 MEASUREMENT AND PAYMENT CLAUSES:

Measurement and payment clauses of the COLTO (1998) Standardised Specifications, as well as the Particular Specifications, shall be deemed to form part of and included in the pricing instructions.

12.2 BILL OF QUANTITY

11 x Motors as per scope of work including delivery.

12.3 SCHEDULE OF QUANTITIES

NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
1	Motor as per scope of work	Each	11		