

3.3 MANDATORY TECHNICAL EVALUATION CRITERIA

Table 3: Mandatory Technical Evaluation Criteria

The technical evaluation will be done based on the tender technical evaluation procedure 240-48929482.

Mandatory criteria are 'must meet' criteria. These criteria shall not be weighted or point scored and shall be assessed on a yes/no basis as to whether the criteria are met. An assessment of 'No' against any criterion shall technically disqualify the tenderer and shall not be further evaluated against qualitative criteria.

	Mandatory Technical Criteria Description	Scope details as per Works Info	Criteria for scoring (Y/N)
1	The project lead discipline engineer with the bulk of the scope (Pr. Eng/Pr. Tech) and the Civil/Structural Engineer (Pr. Eng/Pr. Tech) is required to be professionally registered with ECSA or an ECSA recognised professional body and have at least 5 years of related experience. • Provide valid copies of ECSA certification for both lead discipline engineer and Civil/Structural Engineer. • Tenderer are to provide CV's for both lead discipline engineers and Civil/Structural Engineer. NB. Letter of intent signed by both parties where subcontractors to be used for designer else CV will not considered	NEC document Part 3: Scope of Work, Section 3.1	Y
2	The equipment/analysers provided must be tested and approved by RT&D. For new analysers or those analysers not tested, supplier to request testing and approval from RT&D. • RT&D Approved/compliant Analyser Report submitted – Y • Contractor to submit a confirmation letter stating that report will be submitted with approval from RT&D – Y	NEC document Part 3: Scope of Work, Section 3.1	Y

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 4 indicates the qualitative technical evaluation criteria that shall be used by the technical tender evaluation team. For requirements with more than one returnable item, see Table 5 for details on how scoring will take place.

Table 4: Qualitative Technical Evaluation Criteria

Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable (Works Information)	Criteria Weighting (%)	Criteria Sub Weighting (%)
1.	Process Requirements			
	1.1	2 xEquipment References must be provided for the same equipment that is supplied in this tender i.e. the pH and DO online analyser system on prior installations, completed and functional.	NEC document Part 3: Scope of Work, Section 3.1.	10
	1.2	The tenderer submits a philosophy that is a process description in accordance to the block flow diagram on how the requirements will be met as desired in the Works with regards to the following: 1. Continuous monitoring of the pH and DO on the stator coolant water systems units 1-6 2. Remote monitoring of the pH and DO Block flow diagrams for the proposed system, set out for one unit. Diagrams to include the following as a minimum (for each sample stream) Diagrams to include limit of scope of supply.	NEC document Part 3: Scope of Work, Section 1.1, 1.2	15
	1.3	1. Sample tap-off points 2. Coolers if applicable 3. Analysers 4. Typical temperatures 5. Typical pressures	NEC document Part 3: Scope of Work, Section 1.1, 1.2 and 3	10

**Tender Technical Evaluation Strategy for
Lethabo Power Station SCWS pH and DO
Online analysers**

Unique Identifier: 375-LET-AAAC-D00132-42

Revision: 1

		6. Typical velocities and flow			
1.4		Lifecycle information of products offered, including but not limited to: 1. Life cycle cost analysis for products including running/operational costs 2. Where in the production life cycle is the product (For how long will it still be on the market, and for how long will spares be readily available)? 3. Availability of support from the supplier of the analyser after installation, 4. What types of guarantees are provided on the installation, if any. 5. Costs of consumables associated with equipment (Maintenance Costs)	NEC document Part 3: Scope of Work, 1.1 & Section 3.2.2.6	10	
1.5		Programme of works for manufacturing as well as installation of products 1. How long will manufacturing take 2. Lead time (from order placed until equipment arrives on site) 3. Installation time of equipment Note: To be provided for per unit	NEC document Part 3: Programming Constraints Section 2.6, Scope of Work, Section 3	10	
1.6		Method Statement for the following activities 1. Analysers and analyser panel installation 2. Valve installation 3. Documentation and administration (Process flow diagrams, P&ID's and sign-off processes) 4. - Testing and commissioning	NEC document Part 3: Scope of Work, Section 1.1, and 3.2	10	
1.7		Installation can be completed in 35 days or less	NEC document Part 3: Scope of Work, Section 2.6	10	
1.8		The tenderer shows how they will ensure that the installed equipment will achieve sufficient capacity and redundancy to ensure a minimum of	NEC document Part 3: Scope of Work,	10	

**Tender Technical Evaluation Strategy for
Lethabo Power Station SCWS pH and DO
Online analysers**

Unique Identifier: 375-LET-AAAC-D00132-
42

Revision: 1

		90% availability	Section 3.1.1		
1.9		The contractor must be able to provide training by an experienced trainer to Eskom personnel. The training should cover the operation, maintenance and functionality of the complete system and an outline of training should be provided. The following is given: 1. A breakdown of typical training on the installed equipment 2. Proof that the company has competent training personnel that can provide training to the relevant Eskom personnel	NEC document Part 3: Scope of Work, Section 3	5	
1.10		List of deviations from process requirements submitted	NEC document Part 3: Scope of Work, Section 3.1.1, 3.1.3	10	
2.		Mechanical and Equipment Requirements	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
		High level design and construction method statement, the method statement clearly demonstrates the Tenderer's compliance with the full mechanical scope of work as detailed in the works. The following items need to be addressed in the method statement: 1. Schedule including mobilisation to site (10) 2. Model Process Flow Diagrams, Piping and Instrumentation (10) 3. Mechanical Equipment (10) 4. FATS/SATS (10) 5. Sample QCP's for mechanical scope of work (10)	NEC document Part 3: Scope of Work, Section 3.13.2 as well as the VDSS found in the appendices	50	
		List of deviations from the mechanical scope of work submitted	NEC document Part 3: Scope of Work, Section 3.2	25	
		Valid ISO 3834-2 certification including sub-contractors.	NEC document Part 3: Scope of Work, Section 3.1	25	
3.		Civil & Structural Requirements	Reference to Technical Specification /	Criteria Weighting (%)	Criteria Sub Weighting (%)

**Tender Technical Evaluation Strategy for
Lethabo Power Station SCWS pH and DO
Online analysers**

Unique Identifier: 375-LET-AAAC-D00132-42

Revision: 1

			Tender Returnable		
			The Tenderer must submit a method statement indicating how the structural integrity assessment will be carried out for the existing structures (i.e. floor slabs and plinths) to determine their adequacy to support new loading due to upgrading equipment. The method statement should also include the following as a minimum: ▪ General layout of the steel frame to support the proposed equipment. ▪ Type of equipment that will be used to scan the floor slab to identify the reinforcement location. ▪ Constraints identified and considered ▪ Proposed plant, equipment and tools ▪ Manufacturer's literature/Technical Data sheets for all materials/products used for the anchor system	10	100
4.	Electrical Requirements		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
	4.1	The Tenderer must submit High level conceptual design method statement stipulating the electrical scope of work for providing power supply to the new analysers. The following items shall be covered as a minimum on the method statement: 1. Retrofit scope of work if any on the feeder panel supplying the junction box. 2. Cabling and racking scope of work, accompanied by typical cable type and cable data for the proposed cables. 3. Scope of work on junction box and analyzer panels. 4. Earthing scope of work.	NEC document Part 3: Scope of Work, Section 3.2.3	10	60
	4.2	The Tenderer must submit the Conceptual cable block diagram indicating the proposed electrical source of supply to power the new analysers. Design for Control Panel	NEC document Part 3: Scope of Work, Section 3.2.3		40

**Tender Technical Evaluation Strategy for
Lethabo Power Station SCWS pH and DO
Online analysers**

Unique Identifier: 375-LET-AAAC-D00132-
42

Revision: 1

5.	Control & Instrumentation Requirements	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
5.1	C&I Work Method Statement - A statement from the Contractor detailing how they plan to execute the work. What equipment and resources will be used and how they will be utilised by the Contractor to complete the work successfully.	NEC Document Part 3: Scope of Work, Section 3.2.2.1 point (3) Appendix B – VDSS	25	20
5.2	List of deviations from the C&I scope submitted	NEC Document Part 3: Scope of Work, Section 3.2.2.1 point (3) Appendix B – VDSS		20
5.3	Sample C&I Panel GA and cable block diagram drawings submitted.	NEC Document Part 3: Scope of Work, Section 3.2.2.1 point (3) Appendix B – VDSS		20
5.4	List 3 successful C&I projects (each greater than 50 I/O and control system design experience) that the Tenderer has completed. Provide contactable references for each project.	NEC Document Part 3: Scope of Work, Section 3.2.2.1 point (3) Appendix B – VDSS		30
5.5	Sample QCP for C&I scope of work submitted	NEC Document Part 3: Scope of Work, Section 3.2.2.1 point (3) Appendix B – VDSS		10
			TOTAL: 100	

Table 5: Qualitative Technical Evaluation Criteria score sheet

		Level of compliance					
	Criteria	Category Weight %	Criteria Weight %	0	2	4	5
PROCESS REQUIREMENTS							
1.1	2 xEquipment References must be provided for the same equipment that is supplied in this tender i.e. the pH and DO online analyser system on prior installations, completed and functional.	40	10	No references	1 reference		2 references
1.2	The tenderer submits a philosophy that is a process description in accordance to the block flow diagram on how the requirements will be met as desired in the Works with regards to the following: 1. Continuous monitoring of the pH and DO on the stator coolant water systems units 1-6 2. Remote monitoring of the pH and DO		15	None submitted	Only one of 2 submitted		All 2 submitted
1.3	Block flow diagrams for the proposed system, set out for one unit. Diagrams to include the following as a minimum (for each sample stream): 1. Sample tap-off points 2. Coolers if applicable 3. Analysers 4. Typical temperatures 5. Typical pressures 6. Typical velocities and flow		10	Non-responsive	Doesn't contain all the systems and/or no typical conditions provided at all	Submitted but incomplete. Contains all the systems but not all the typical conditions are provided	Complete block flow diagram submitted
1.4	Lifecycle information of products offered, including but not limited to: 1. Life cycle cost analysis for products including running/operational costs 2. Where in the production life cycle is the product (For how long will it still be on the market, and for how long will spares be readily available)? 3. Availability of support from the supplier of		10	Non-responsive	2 or 3 points submitted	4 points submitted	All points submitted

**Tender Technical Evaluation Strategy for
Lethabo Power Station SCWS pH and DO
Online analysers**

Unique Identifier: 375-LET-AAAC-D00132-42

Revision: 1

	the analyser after installation, 4. What types of guarantees are provided on the installation, if any. 5. Costs of consumables associated with equipment (Maintenance Costs)					
1.5	Programme of works for manufacturing as well as installation of products 1. How long will manufacturing take 2. Lead time (from order placed until equipment arrives on site) 3. Installation time broken down per unit	10	Non-responsive	Less than three points provided	All three points provided but installation time is not broken down into subsystems	All three points provided and it installation time is sufficiently broken down per unit
1.6	Method Statement for the following activities 1. Analysers and analyser panel installation 2. Valve installation 3. - Documentation and administration (Process flow diagrams, P&ID's and sign-off processes) 4. Testing and commissioning	10	None given	2 or less items given	3 items given	All 4 items given
1.7	Installation can be completed in 35 calendar days or less per unit	10	Non-responsive or more than 45 calendar days	Installation takes 40 calendar days	Installation can be completed in less than 40 calendar days or less	Installation can be completed in 35 calendar days or less
1.8	The tenderer shows how they will ensure that the installed equipment will achieve sufficient capacity and redundancy to ensure a minimum of 90% availability	10	Non-responsive	Confirmation given without justification		Tenderer indicated how works will have sufficient capacity and redundancy to ensure a minimum of 90%

**Tender Technical Evaluation Strategy for
Lethabo Power Station SCWS pH and DO
Online analysers**

Unique Identifier: 375-LET-AAAC-D00132-42

Revision: 1

									availability
1.9	The contractor must be able provide training by an experienced trainer to Eskom personnel. The training should cover the operation, maintenance and functionality of the complete system and an outline of training should be provided. The following is given: 1. A breakdown of typical training on the installed equipment 2. Proof that the company has competent training personnel that can provide training to the relevant Eskom personnel	5	Cannot provide training on the operation, maintenance and functionality of their system	Did not show training content or did not provide proof of competency of trainer	Provides training covering most aspects of the system and proved the competency of the trainer	Provides training covering all aspects of the system and proved the competency of the trainer			
1.10	List of deviations from process requirements submitted	10	Non-responsive	Major deviations from scope	Minor deviations from scope	No deviations			
MECHANICAL REQUIREMENTS									
2.1	High level construction method statement, the method statement clearly demonstrates the Tenderer's compliance with the full mechanical scope of work as detailed in the works. The following is addressed: 1. Schedule including mobilisation to site (10) 2. Sample Process Flow Diagrams, Piping and Instrumentation (10) 3. Mechanical Equipment (10) 4. FATS/SATS (5) 5. Sample QCP's for mechanical scope of work (10)	15	Non-responsive	3 or less points provided	4 points provided	5 points provided			
2.2	List of deviations from the mechanical scope of work submitted	35	Non-responsive	Major deviations from scope	Minor deviations from scope	No deviations			
2.3	Valid ISO 3834-2 certification including sub-	25	Non-compliant or			Compliant			

	contractors (where applicable)			non-responsive			
CIVIL & STRUCTURAL REQUIREMENTS							
3.1	The Tenderer must submit a method statement indicating how the structural integrity assessment will be carried out for the existing structures (i.e. floor slabs and plinths) to determine their adequacy to support new loading due to upgrading equipment. The method statement must also indicating how additional structural supports for upgrading equipment will be designed and integrated into existing floor slabs and walls.	10	100	Not submitted	Method Statement does not contain methodology of approach but contains high level descriptions of how the civil works will be conducted OR Method Statement reiterates the Employer's scope of works	Method Statement describes how the civil scope will be met and includes minor details on methodology of approach.	Method Statement details fully how the civil scope will be met and provides comprehensive methodology of approach.
ELECTRICAL REQUIREMENTS							
4.1	The Tenderer must submit High level conceptual design method statement stipulating the electrical scope of work for providing power supply to the new analysers. The following items shall be covered as a minimum on the method statement: 1. Retrofit scope of work if any on the feeder panel supplying the junction box. 2. Cabling and racking scope of work, accompanied by typical cable type and cable data for the proposed cables. 3. Scope of work on junction box and analyzer panels. 4. Earthing scope of work.	10	60	No submission provided	Not providing two or more requirements	Not providing one of requirements	All requirements given

**Tender Technical Evaluation Strategy for
Lethabo Power Station SCWS pH and DO
Online analysers**

Unique Identifier: 375-LET-AAAC-D00132-42

Revision: 1

4.2	The Tenderer must submit the Conceptual cable block diagram indicating the proposed electrical source of supply to power the new analysers. - Design for Control Panel	40	No submission provided	Block diagram with no proposed electrical source of supply	All requirements given
CONTROL & INSTRUMENTATION REQUIREMENTS					
5.1	C&I Work Method Statement - A statement from the Contractor detailing how they plan to execute the work. What equipment and resources will be used and how they will be utilised by the Contractor to complete the work successfully.	25	20	Work Method Statement submitted missing no more than three of the following: execution plan, list of resources, list of equipment and/or a narrative explaining how resources and equipment will be used to perform the work.	Work Method Statement submitted with an execution plan, list of resources and equipment to be used and a narrative explaining how resources and equipment will be used to perform the work.
5.2	List of deviations from the C&I scope submitted	20	Non-responsive	Major deviations (Deviations which hinder the scope from being implemented)	Minor deviations (Deviations which do not hinder implementation of the scope as per

**Tender Technical Evaluation Strategy for
Lethabo Power Station SCWS pH and DO
Online analysers**

Unique Identifier: 375-LET-AAAC-D00132-42

Revision: 1

				as per the Technical Specification and/or unacceptable deviations to Eskom Standards)	the technical specification, this could be slight differences in technologies used by the contractor or different methods of implementation and/or acceptable deviations to Eskom standards)	
5.3	Sample C&I Panel GA and cable block diagram drawings submitted.	20	Non-responsive	Generic C&I Panel GA and Cable Block Diagram (e.g. Images from a product brochure)	Provided but missing minor elements.	Complete and specific to the project.
5.4	List 3 successful C&I projects (each greater than 50 I/O and control system design experience) that the Tenderer has completed. Provide contactable references for each project.	30	Non-responsive	Only 1 reference provided	Only 2 references provided	3 or more references provided with verifiable contacts
5.5	Sample QCP for C&I scope of work submitted	10	Non-responsive	Generic QCP provided which is not applicable to this scope.	QCP provided which is missing detail or not completely applicable.	QCP provided which is specific to the project.

Qualitative evaluation criteria are weighted evaluation criteria used to identify the highest technically ranked tenderer after all mandatory