



Strategy

Engineering

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Dam Safety Evaluation Tender
Technical Evaluation Strategy**

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1. INTRODUCTION

Lethabo power station is a coal-fired power station situated in the northern Free State province. The station has an output capacity of 3708 MW, which is produced by six 618 MW units. The first production units went into commercial operation in December 1985 and the last unit was commissioned in December 1990. The station has several dams which perform various functions such as the collection and storage of clean and dirty storm water, the collection and storage of dirty process water and the storage of raw water for production purposes.

As per the National Water Act (NWA) and the Dam Safety Regulations Government Notice R139, a dam safety evaluation of a Category II or III dam must be carried out by an approved professional person (APP) to identify any actual or potential shortcomings in the condition of the dam or in the quality and adequacy of the procedures followed for the maintenance, operation and monitoring of behaviour that might endanger human lives, cause damage to property, or have an adverse impact on resource quality.

A dam safety evaluation must be conducted by an approved professional person on the following dams at Lethabo Power Station:

- North and South raw water reservoirs (Capacity 885,000 m³)
- Main storm water dam (Approximate capacity 131,000 m³)
- Clean station drains dam (Approximate capacity 100,750 m³)
- Dirty station drains dam (Approximate capacity 83,125 m³)
- Emergency dam (Approximate capacity 43,750 m³)
- Oil Ponds (Approximate capacity 29,000 m³)
- Clean ash dam (Approximate capacity 42 225 m³)
- Dirty ash dam (Approximate capacity 40 400 m³)
- Winston Philip Dam (Approximate capacity 15 000 m³)
- North east corner dam (Approximate capacity 9 000 m³)

During the dam safety evaluation, it must be considered whether the safety norms pertaining to design, construction, monitoring, operation, performance and maintenance of the dam satisfy acceptable dam engineering practices.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document provides the tender technical evaluation strategy relating to the dam safety evaluation scope of work at Lethabo Power Station. The technical evaluation requirements consist of mandatory and qualitative evaluation criteria.

Once the Technical Evaluation Strategy is authorised, no changes will be made to the evaluation criteria without appropriate authorisation.

2.1.1 Purpose

The purpose of this tender technical evaluation strategy is to define the Mandatory Evaluation Criteria, Qualitative Evaluation Criteria and TET member responsibilities for tender technical evaluation. The technical evaluation strategy serves as a basis for the tender technical evaluation process.

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2.1.2 Applicability

This document applies to Lethabo Power Station only.

2.2 NORMATIVE/INFORMATIVE REFERENCES

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.2.1 Normative

- [1] 240-168966153: Generation Tender Technical Evaluation Procedure
- [2] ISO 9001: Quality Management Systems
- [3] 32-1034: Eskom Procurement Policy
- [4] 375-172725: Lethabo Power Station 5-yearly Dam Safety Evaluation Scope of Work

2.2.2 Informative

- [5] 240-53113685: Design Review Procedure
- [6] 240-53114026: Project Engineering Change Management Procedure
- [7] 240-53114002: Engineering Change Management Procedure

2.3 DEFINITIONS

Definition	Description
Contractor/Tenderer	Refers to the company/supplier appointed to perform the works
Employer	Refers to Eskom Holdings State Owned Company
Eskom Engineering	Refers to the Eskom Engineering team who will perform the reviews and provide technical assistance for the work performed by the appointed Contractor.
Specification	The document/s forming part of the contract in which the methods of executing the various items of work to be done is described, as well as the nature and quality of the materials to be supplied and it includes technical schedules and drawings attached thereto as well as all samples and patterns
The Client	The end user will be Eskom who will be represented by Lethabo Power Station throughout the duration of the Project.

2.3.1 Classification

Controlled Disclosure: Controlled Disclosure to external parties (either enforced by law, or discretionary).

2.4 ABBREVIATIONS

Abbreviation	Description
D&S	Design and Specification
ECSA	Engineering Council of South Africa
NEC	New Engineering Contract

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Abbreviation	Description
OPE	Outside Plant Engineer
O&M	Operations and Maintenance
TET	Technical Evaluation Team

2.5 ROLES AND RESPONSIBILITIES

As per Generation Tender Technical Evaluation Procedure [1].

2.6 PROCESS FOR MONITORING

N/A

2.7 RELATED/SUPPORTING DOCUMENTS

N/A

3. TENDER TECHNICAL EVALUATION STRATEGY

3.1 TECHNICAL EVALUATION METHOD

The basic steps for a technical evaluation must be followed as per the Generation Tender Technical Evaluation Procedure [1].

A two stage Technical Evaluation Strategy is set out.

Stage 1: Mandatory Technical Evaluation Criteria (gatekeepers) are 'must meet' criteria. These criteria shall not be weighted or point scored but shall be assessed on a Yes/No basis as to whether or not the criteria are met. An assessment of 'No' against any criterion shall technically disqualify the tenderer and the tenderer shall not be further evaluated against Qualitative Criteria.

Stage 2: Qualitative Technical Evaluation Criteria are weighted evaluation criteria used to identify the highest technically ranked tenderer after determining that all the Mandatory Evaluation Criteria have been met. The Qualitative Evaluation Criteria are weighted to reflect the relevant importance of each criterion.

The evaluation of the tender submission will be based on the tenderer's ability to meet the technical requirements for the project. A weighted scorecard approach is used to evaluate the technical compliance of the tenders against the specifications.

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The scoring method will be as follows:

SCORE	PERCENTAGE	DESCRIPTION
5	100	COMPLIANT <ul style="list-style-type: none"> Meet technical requirement(s) AND; No foreseen technical risk(s) in meeting technical requirements.
4	80	COMPLIANT WITH ASSOCIATED QUALIFICATIONS <ul style="list-style-type: none"> Meet technical requirement(s) with; Acceptable technical risk(s) AND/OR; Acceptable exceptions AND/OR; Acceptable conditions.
2	40	NON-COMPLIANT <ul style="list-style-type: none"> Does not meet technical requirement(s) AND/OR; Unacceptable technical risk(s) AND/OR; Unacceptable exceptions AND/OR; Unacceptable conditions.
0	0	TOTALLY DEFICIENT OR NON-RESPONSIVE

The evaluation scores will be weighted as follows:

Engineering (100%)	
Civil & Structural Engineering	100%
TOTAL (100%)	
Overall minimum threshold for qualification (70%)	

3.2 TECHNICAL EVALUATION THRESHOLD

The minimum weighted final score (threshold) required for a tender to be considered from a technical perspective is 70%.

3.3 TET MEMBERS

Table 1: TET Members

TET number	TET Member Name	Designation
TET 1	Nicolan Govender	Civil Engineer: Lethabo Power Station
TET 2	Suven Govender	Civil Engineer: Lethabo Power Station
TET 3	Keshia Brijlal	Engineering Geologist: Lethabo Power Station

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3.4 MANDATORY TECHNICAL EVALUATION CRITERIA

Table 2: Mandatory Technical Evaluation Criteria

	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
1.	<p>The key resource of the project team must be a registered Approved Professional Person (APP) as per the Dam Safety Regulations Government Notice R. 139.</p> <p>A valid proof of registration as an APP must be provided.</p> <p>If the key resource is not directly employed by the main contractor, a letter of intent which is signed by both the main contractor and the key resource must be provided to confirm that the key resource will be a part of the project team for the duration of the project. An employment contract/agreement between the main contractor and the key resource will also be acceptable.</p>	Tender Returnable – Valid proof of registration as an Approved Professional Person	This criteria provides assurance that the work is performed by a competent and authorised individual and that the key resource will be a part of the project team for the duration of the project.

3.5 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 3: Qualitative Technical Evaluation Criteria

	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)	Evaluation Scoring Breakdown			
					0	2	4	5
1.	Civil and Structural		100					
1.1	Tenderer's company profile showing relevant experience on previous projects of similar scope (i.e., experience in conducting dam safety evaluations for dams with a safety risk)	<p>List of verifiable references (minimum of 3) must be provided. The Tenderer must submit evidence of completed projects with the following information:</p> <ul style="list-style-type: none"> Project Name Description of work performed (description must be detailed enough to demonstrate that work performed on the project is similar in nature to the works required on this project) Project start and end dates 		20	<p>No work done on previous projects of similar scope (i.e., experience in conducting dam safety evaluations for dams with a safety risk).,</p> <p>Or</p> <p>No submission made</p>	Work conducted on 1 – 2 projects of similar scope (i.e., experience in conducting dam safety evaluations for dams with a safety risk).	Work conducted on 3 projects of similar scope (i.e., experience in conducting dam safety evaluations for dams with a safety risk).	Work conducted on more than 3 projects of similar scope (i.e., experience in conducting dam safety evaluations for dams with a safety risk).

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		<ul style="list-style-type: none"> Name, designation, and contact number of the reference person <p>The tenderer can submit the above information in the form of a completion certificate or letter of completion from a Client or by completing the table found in Appendix A.</p>						
1.2	Key Resource Requirements: Approved Professional Person	<p>An up-to-date CV of the Approved Professional Person having a minimum of five (5) years' relevant experience conducting dam safety evaluations on dams with a safety risk.</p> <p>If the key resource is not directly employed by the main contractor, a letter of intent which is signed by both the main contractor and the key resource must be provided to confirm that the key resource will be a part of the project team for the duration of the project. An employment contract/agreement</p>		40	<p>Less than 3 years' relevant experience for resource</p> <p>OR</p> <p>No submissions made.</p> <p>OR</p> <p>No signed letter of intent or employment contract/agreement submitted if the key resource is not directly employed by the main contractor</p>	Between 3-4 years' relevant experience for resource	At least 5 years' relevant experience for resource	More than 5 years' relevant experience for resource

		between the main contractor and the key resource will also be acceptable. If the above is not provided the CV will not be considered and the tenderer will be scored a 0 for non-compliance.						
1.3	Technical proposal detailing the work methodology, which complies to the full scope and describes how the scope will be executed	<p>High level methodology for the dam safety evaluation demonstrating understanding of the scope and includes the following:</p> <ul style="list-style-type: none"> • Methodology for the proposed works • Health and safety requirements • Quality management requirements 		30	No submission made	Technical proposal does not contain methodology of approach but contains high level descriptions of how the works will be executed or technical proposal reiterates the Employer's scope of works	Technical proposal describes how the scope will be met and includes sufficient details on the methodology of approach for the execution of the works	Technical proposal details fully how the scope will be met and includes comprehensive details on the methodology of approach for the execution of the works
1.4	The tenderer to submit a Project Schedule (Level 3)	<p>The project schedule must indicate the following as a minimum:</p> <ul style="list-style-type: none"> ▪ Full scope of work in accordance with the scope of work document 		10	No submission made	Project Schedule (Level 3) submitted illustrating less than three of the minimum requirements	Project Schedule (Level 3) submitted illustrating three or more but not all the minimum requirements	Project Schedule (Level 3) submitted illustrating all the minimum requirements

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		<ul style="list-style-type: none">▪ Breakdown and linking of all activities.▪ Timelines for execution of activities.▪ Critical path▪ Employer's review						
			TOTAL: 100					

3.6 TET MEMBER RESPONSIBILITIES

Table 4: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3
1	X	X	X
Qualitative Criteria Number	TET 1	TET 2	TET 3
1.1	X	X	X
1.2	X	X	X
1.3	X	X	X
1.4	X	X	X

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3.7 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.7.1 Risks

Table 5: Acceptable Technical Risks

Risk	Description
1.	None

Table 6: Unacceptable Technical Risks

Risk	Description
1.	Non-compliance or deviation with sections of the scope of work and standards without adequate explanation or alternatives
2.	Exclusions of scope specified in the Scope of Works
3.	The Tenderer does not show a full understanding of the scope of work
4.	The inadequate experience level and/or inactive professional registration of the key resources to perform such works
5.	Change of Sub-Contractors after Tender award without approval from the Employer
6.	Change of Key Resources after Tender award without approval from the Employer
7.	Working outside of allocated footprint without obtaining prior approval from the <i>Employer</i>
8.	The Tenderer is at risk of not providing the full Scope of Work.

3.7.2 Exceptions / Conditions

Table 7: Acceptable Technical Exceptions / Conditions




Risk	Description
1.	None

Table 8: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	Deviations to any part of the scope of work without providing alternate solutions or implementing changes to the scope of work without prior approval from the Employer.
2.	The technical proposal/method statement is generic, incomplete, and not tailored to address the specific project objectives, scope and constraints. It does not deal with the critical constraints and hazards of the project.
3.	Non-compliance with Legislative and <i>Employer</i> standards.

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation	Signature
Nicolan Govender	Lethabo Power Station: Civil Engineer	
Suven Govender	Lethabo Power Station: Civil Engineer	
Keshia Brijlal	Lethabo Power Station: Engineering Geologist	

5. REVISIONS

Date	Rev.	Compiler	Remarks
June 2023	0	N. Govender	First Draft for comments
August 2023	1	N. Govender	Final document for signatures
October 2023	2	N. Govender	Updated to revise evaluation criteria and TET members

6. DEVELOPMENT TEAM

The following people were involved in the development of this document:

- Nicolan Govender

7. ACKNOWLEDGMENTS

- TET Members

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APPENDIX A: CONTRACTOR’S RELEVANT EXPERIENCE

List of Completed Projects			
Project name	Description of work performed	Project start and end date	Name, designation and contact number of reference person

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