	<p style="text-align: center;">Strategy</p>	<p style="text-align: center;">Engineering</p>
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<p>Date: <i>13/02/2024</i></p>	<p>Date: <i>2024/02/14</i></p>	<p>Date: 14/02/2024</p>

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1. INTRODUCTION

On the 27th of March 2009 Camden Power Station was given NKP (National Key Point) accreditation. The accreditation meant that the owner of the NKP concerned site shall take steps to the satisfaction of the Minister of police in respect of the security of the said Key Point. These steps are to make sure that the NKP is protected from loss, damage or disruption [3].

In 2008 access control system was installed at the Service entrance gate, Employee parking, main security building and main gate. This includes CCTV cameras, card readers, magnetic locks, spike traffic barriers, metal detectors and x-ray machines. In 2012 another set of CCTV cameras were installed on all the critical areas at Camden Power station. The critical areas include administration building, the procurement offices, stores, unit 1-8 turbine-generator set on hoist beam, ash hoppers, control room, bunker conveyors, unit 1-8 unit boards, ash dam, 6.6kV stations, unit 1-8 FD and ID fans and unit 1-8 mill base. The GeViSoft Video management system from GEUTEBRÜCK was also installed in 2012 for comprehensive control of the CCTV surveillance systems.

This project aims to upgrade the existing IAC system by adding cameras on the perimeter of the 5,7 km fence. These cameras should be placed 25m from each other as stipulated on the 2017 National Key Point Security Evaluation Standard of Camden Power Station. CCTV cameras will also be installed at the coal stock yard. These cameras were requested as a corrective action after the Camden Power Station Coal Management audit. IAC systems will also be installed at critical areas around the station.

2. SUPPORTING CLAUSES

2.1 SCOPE

The scope overview is as follows:

The scope is to design, supply, install and commission of the IAC and CCTV upgrade project, which includes installation of the coal gate structural steel canopy, and a ramp for the disabled people at the main security gate. Furthermore, the refurbishment of the 5.7 km fence, the Camera's that will be installed on the fence Perimeter, new ash dam, Water treatment plant, East and West CW pump house, Coal truck gate, 12 metre level Turbine floor, zero metre level (Next to Roshcon Operator House) HVAC, New Ash dam offices, Coal plant including weighbridge, new AWR pumphouse, Reclamation dam, Coal stockyard dam and new AWR C&I Equipment Room and at the coal stockyard.

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 basis for the tender technical evaluation process.

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2.1.2 Applicability

This document shall apply to Camden Power station.

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] 240-53114002 Engineering Change Management Procedure
- [2] 383-CMDN-BEEC-D00035-15 Required Operational Capability Report for Camden IAC and CCTV upgrade project
- [3] 240-86738968 - Specification for Integrated Security Alarm System for Protection of Eskom Installations and its Subsidiaries
- [4] 240-56356396 Earthing and Lightning Protection Standard
- [5] 240-56227443 Requirements for Control and Power Cables for Power Stations Standard.

2.2.2 Informative

- [6] [1383-CMDN-BBBH-D00154-22 Engineering Change Assessment for Camden IAC and CCTV upgrade project.
- [7] 240-78980848 - Specification for Non-Lethal Energized Perimeter Detection System (NLEPDS) for protection of Eskom Installations and its subsidiaries.
- [8] 240-91190304 - Specification for CCTV Surveillance with Intruder Detection.
- [9] SANS 60287-3-2 2010 Electric Cables – Calculation of current ratings.
- [10] SANS 60287-3-2 2010 Electric Cables – Calculation of current ratings.
- [11] SANS 2220-2-5 - Access control systems Part 2-5: Biometric readers.
- [12] SANS 2220-2-6 - Access control systems Part 2-6: Access cards
- [13] SANS 2220-1-7 - Electrical security systems Part 1.7: Intruder alarm systems: Power units.

Definitions

Definition	Description
CCTV	A system consisting of camera equipment, storage, monitoring and associated equipment for transmission and controlling purposes
Integrated building management system	A highly configurable integrated building management system providing an efficient and reliable way of ensuring the security, safety and comfort of people and the effective operation of buildings and facilities.
National Key Points Act	An act (102 of 1980) of the Parliament of South Africa that provides for the declaration and protection of sites of national strategic importance against sabotage as determined by the Minister of Police and the Minister of Defence.

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2.2.3 Classification

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

2.3 ABBREVIATIONS

Abbreviation & Acronym	Description
BOQ	Bill of Quantities
C&I	Control and Instrumentation
CCTV	Closed Circuit Television
CIO	Chief Information Officer
ECM	Engineering Change Management
IAC	Integrated Access Control
ID	Identity
IP	Internet Protocol
LDE	Lead Discipline Engineer
NKP	National Key Point
NVR	Network Video Recorder
PS	Power Station
ROC	Required Operational Capability
SANS	South African National Standards
SAPS	South African Police Service
SCCC	Site Change Control Committee
SRD	Stakeholders Requirements Definition
SRP	Security Recovery Programme
UPS	Uninterruptable Power Supply
VMS	Video Management System

2.4 ROLES AND RESPONSIBILITIES

N/A as per 240-48929482: Tender Technical Evaluation Procedure

2.5 PROCESS FOR MONITORING

Document management

2.6 RELATED/SUPPORTING DOCUMENTS

- 383-CMDN-BEEC-D00035-15 Required Operational Capability Report for Camden IAC and CCTV upgrade project

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- 383-CMDN-AABB-D00139-79 Camden PS IAC and CCTV Upgrade project Stakeholder Requirements Definition

3. TENDER TECHNICAL EVALUATION STRATEGY

3.1 TECHNICAL EVALUATION THRESHOLD

Mandatory Technical Evaluation Criteria (gatekeepers) are a ‘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 shall Not be further evaluated against Qualitative Criteria.

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 minimum weighted final score (threshold) required for a tender to be considered from a technical

Table 1: Technical Scoring Methodology

SCORE	PERCENTAGE (%)	DESCRIPTION
5	100	COMPLIANT <ul style="list-style-type: none"> • Meet the 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 the technical requirement(s) with, • Acceptable technical risks AND/OR; • Acceptable exceptions AND/OR; • Acceptable conditions
2	40	NON-COMPLIANT <ul style="list-style-type: none"> • Does not meet the technical requirement(s) AND/OR Unacceptable technical risk(s) AND/OR; • Unacceptable exceptions AND/OR; • Unacceptable conditions
0	0	TOTALLY DEFICIENT/NON-RESPONSIVE

3.2 TET MEMBERS

Table 1: TET Members

TET number	TET Member Name	Designation
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TET 1	Grace Mandlazi	Snr Advisor Technical support
TET 2	Mlungisi Nkosi	C&I system Engineer
TET 3	Douglas Mugweni	C&I System Engineer
TET 4	Nkanyiso Shozi	Civil System Engineer
TET 5	Rhulani Mlambo	Electrical system Engineer
TET 6	Doctor Nkosi	Civil System Engineer

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3.3 MANADATORY TECHNICAL EVALUATION CRITERIA

Table 2: Mandatory Technical Evaluation Criteria

NB: The suppliers need to submit proof of all the above requirements, if not they will be disqualified.

	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
1.	CIDB Grading of 4 CE or Higher Bidders must submit a valid CIDB certificate	Bidders must submit a valid CIDB certificate. Failure to submit will lead to disqualification	There is 10 percent civil scope that must be executed which requires a possession of CIDB certificate

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 3: Qualitative Technical Evaluation Criteria

The weight for the technical review will be 100% with a minimum threshold of 70% and will be based on the following:

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
1.	C&I works design and construction			20	100
	1.1	Professional Registered Electrical (light current) Technologist/ Engineer with a track record of 5 completed projects and 5 years professional working experience as a minimum; for design, construction, and commissioning of integrated access control and Closed-circuit television (CCTV)	<ul style="list-style-type: none"> Tender returnable – Certified copy of qualifications (Certificates) and Certified copy ECSA Certificate (Pr Eng/ Pr Technologist Eng) <p>Tender returnable - CV with reference to 5 completed projects and 5 years professional working experience for design, construction, and commissioning integrated access control and Closed-circuit television</p> <p>. References must include Order Numbers/ Project Number and also contact person with contact details.</p>		

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2		Electrical Works Design and Construction Supervision		20	
	2.1	Professional Registered Electrical Technologist/ Engineer with a track record of 5 completed projects and 5 years professional working experience as a minimum; for design, construction, and commissioning of Electrical Systems (i.e. UPS and Electrical Cabling)	<ul style="list-style-type: none"> • Tender returnable – Certified copy of qualifications (Certificates) and Certified copy ECSA Certificate (Pr Eng/ Pr Technologist Eng) • Tender returnable - CV with reference to 5 completed projects and 5 years professional working experience for design, construction, and commissioning integrated access control and CCTV. References must include Order Numbers/ Project Number and contact person with contact details 		75
	2.2	Registered Electrician with Department of Labour (DoL) as Master Installation Electrician or Installation Electrician in terms of Electrical Installation Regulations in order to certify the electrical installation by issuing the Certificate of Compliance (CoC) on the modified installations.	<ul style="list-style-type: none"> • Tender returnable – Proof of Registration certificate (Certified copy) for Master installation electrician or installation electrician to be submitted • Tender returnable - CV with reference to 5 completed projects for design, construction, and commissioning of Electrical systems. References must include Order Numbers/ 		15

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			Project Number and also contact person with contact details		
3		Civil Works Design and Construction Supervision		20	
	3.1	Professional Registered Civil Technologist/ Engineer with a track record of 5 completed projects and 5 years professional working experience as a minimum; for design, construction of Civil Systems (i.e., structural design, tachometric survey, topographical survey and geotechnical investigations)	<ul style="list-style-type: none"> Tender returnable – Certified copy of qualifications (Certificates) and Certified copy ECSA Certificate (Pr Eng/ Pr Technologist Civil) <p>Tender returnable - CV with reference to 5 completed projects and 5 years professional working experience for design, construction, and commissioning. References must include Order Numbers/ Project Number and also contact person with contact details</p>		100
4		Project Management		20	
	4.1	Project 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.	Tender returnable – Work Method Statement Narrative.		50
	4.2	<u>Proposed work plan</u> <ul style="list-style-type: none"> Indicating intent to undertake full scope of work Activities divided up realistically in schedule. Timelines realistic for execution of activity.	Tender returnable – (Preliminary Project schedule showing key deliverable dates and Proposed Work plan indicating intent to undertake full scope of work)		50
5		Company experience		20	

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	5.1	Company experience related to the works with contactable references. List a minimum of 5 projects of similar scope and size with contactable references.	Tender returnable – List of projects and contacts. References must include Order Numbers/ Project Number and contact person with contact details		100
				TOTAL: 100	

The scoring criteria are as follows:

Qualitative Technical Evaluation Criteria		Score [0,2,4,5]	Scoring Criteria
1.	Professional Registered Electrical (light current) Technologist/ Engineer with a track record of 5 completed projects and 5 years professional working experience as a minimum; for design, construction, and commissioning of integrated access control and Closed-circuit television (CCTV)		<p>The design (where required) in terms of this Contract is to be executed by a qualified professional Technologist/Engineer who is a member of Engineering Council of South Africa (ECSA) or equivalent international acknowledgement.</p> <p>5 = Formal BSc/Btech qualification or equivalent international acknowledgement and has 5 or more years professional working experience.</p> <p>4 = Formal BSc/Btech qualification or equivalent international acknowledgement but has 3 to 4 years professional working experience.</p> <p>2 = Formal BSc/Btech qualification or equivalent international acknowledgement, but less than 3 years professional working experience.</p> <p>0 = No formal BSc/Btech qualification or equivalent international acknowledgement.</p>
2.	Professional Registered Electrical Technologist/ Engineer with a track record of 5 completed projects and 5 years professional working experience as a minimum; for design,		<p>The design (where required) in terms of this Contract is to be executed by a qualified professional Technologist/Engineer who is a member of Engineering Council of South Africa (ECSA) or equivalent international acknowledgement.</p> <p>5 = Formal BSc/Btech qualification or equivalent international acknowledgement and has 5 or more years professional working experience.</p>

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Qualitative Technical Evaluation Criteria	Score [0,2,4,5]	Scoring Criteria
	construction, and commissioning of Electrical Systems (i.e. UPS and Electrical Cabling)	<p>4 = Formal BSc/Btech qualification or equivalent international acknowledgement but has 3 to 4 years professional working experience.</p> <p>2 = Formal BSc/Btech qualification or equivalent international acknowledgement, but less than 3 years professional working experience.</p> <p>0 = No formal BSc/Btech qualification or equivalent international acknowledgement.</p>
3.	Registered Electrician with Department of Labour (DoL) as Master Installation Electrician or Installation Electrician in terms of Electrical Installation Regulations	<p>The electrical installation in terms of this Contract is to be executed by a qualified Master Installation Electrician or Installation Electrician who is registered with the Department of Labour (DoL) or equivalent international acknowledgement.</p> <p>5 = Qualified Master Installation Electrician or Installation Electrician who is registered with the Department of Labour (DoL) or equivalent international acknowledgement and has 6 or more years working experience.</p> <p>4 = Qualified Master Installation Electrician or Installation Electrician who is registered with the Department of Labour (DoL) or equivalent international acknowledgement but has 4 to 5 years working experience.</p> <p>2 = Qualified Master Installation Electrician or Installation Electrician who is registered with the Department of Labour (DoL) or equivalent international acknowledgement, but less than 3 years working experience.</p> <p>0 = No formal qualification or equivalent international acknowledgement.</p>
4.	Professional Registered Civil Technologist/ Engineer with a track record of 5 completed projects and 5 years professional working experience as a minimum; for design, construction, and commissioning of Civil Systems (i.e., structural design, tachometric survey, topographical survey and geotechnical investigations)	<p>The design (where required) in terms of this Contract is to be executed by a qualified professional Technologist/Engineer who is a member of Engineering Council of South Africa (ECSA) or equivalent international acknowledgement.</p> <p>5 = Formal BSc/Btech qualification or equivalent international acknowledgement, and has 5 or more years professional working experience.</p> <p>4 = Formal BSc/Btech qualification or equivalent international acknowledgement, but has 3 to 4 years professional working experience.</p> <p>2 = Formal BSc/Btech qualification or equivalent international acknowledgement, but less than 3 years professional working experience.</p>

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Qualitative Technical Evaluation Criteria	Score [0,2,4,5]	Scoring Criteria
		0 = No formal BSc/Btech qualification or equivalent international acknowledgement.
5.	Project 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.	<p>5 = 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.</p> <p>4 = Work Method Statement submitted missing one of the following: execution plan, list of resources, and list of equipment or a narrative explaining how resources and equipment will be used to perform the work.</p> <p>2 = Work Method Statement submitted missing no more than three of the following: execution plan, list of resources, and list of equipment and/or a narrative explaining how resources and equipment will be used to perform the work.</p> <p>0 = Work Method Statement is not part of the submission.</p>
6.	<p><u>Proposed work plan</u></p> <ul style="list-style-type: none"> • Indicating intent to undertake full scope of work. • Activities divided up realistically in schedule. <p>Timelines realistic for execution of activity.</p>	<p>5 = All three conditions of proposed work plan have been met.</p> <p>4 = Only two conditions of proposed work plan have been met.</p> <p>2 = Only one condition of proposed work plan have been met.</p> <p>0 = None of conditions of proposed work plan have been met.</p>
7.	Relevant project experience with contactable references. List a minimum of 5 projects of similar scope and size with contactable references.	<p>5 = Five or more references provided with contact details.</p> <p>4 = Four or Three references provided with contact details.</p> <p>2 = One or Two references provided with contact details.</p> <p>0 = No references part of submissions or if references provided without contact details</p>

3.5 TET MEMBER RESPONSIBILITIES

Table 4: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3	TET 4	TET 5	
1	X	X	X			
Qualitative Criteria Number	TET 1	TET 2	TET 3	TET 4	TET 5	TET 6
Control and Instrumentation Works Design and Construction Supervision						
1.1	X	X	X			
Electrical Works Design and Construction Supervision						
2.1		X			X	
2.2						
Civil works design and construction supervision				X		
3.1				X		X
Project Management						
4.1	X	X	X			
4.2	X	X	X			
Company experience						
5.1	X	X	X			

3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.6.1 Risks

Table 5: Acceptable Technical Risks

Risk	Description
1.	Alternative solutions with the same or better performance

Table 6: Unacceptable Technical Risks

Risk	Description
1.	Exclusions of scope specified in the employers' requirements
2.	Unclear staff organogram. i.e. the staffing plan is weak not showing clarity in allocation of tasks and responsibilities
3.	Exclusion of a project specific schedule

3.6.2 Exceptions / Conditions

Table 7: Acceptable Technical Exceptions / Conditions

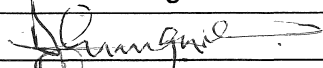


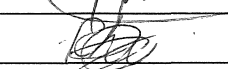

Risk	Description
1	Accept deviation with technical qualification

Table 8: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	Deviation without technical qualification not accepted

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation	Signature
Douglas Mugweni	C&I System Engineer	
Nkanyiso Shozi	Civil System Engineer	
Doctor Nkosi	Civil System Engineer	
Mlungisi Nkosi	C&I system Engineer	
Rhulani Mlambo	Electrical System engineer	

5. REVISIONS

Date	Rev.	Compiler	Remarks
February 2024	0.2	G Mandlazi	Revised TET members on page 7, and rectified the sub weights on page 9 to 12, revised TET Table on page 15 and Authorisation signatories.
May 2023	0.1	G Mandlazi	First Draft

6. DEVELOPMENT TEAM

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

Not applicable.

7. ACKNOWLEDGEMENTS

- None

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