| Þ  | Eskom   |   | Strategy                   | Engineering              |
|--|---|---|----------------------------|--------------------------|
| Title:                                   | Tender Tecl<br>Strategy – Re<br>Bypass and Re | hnical Evaluation<br>furbishment of HP<br>eheat Safety Valves | Unique Identifier:         | 555-EBP2036              |
| Power Pack Hydraulic U<br>Power Station. | rdraulic Unit at Kriel                        | Alternative Reference Number                                  | ": <b>N/A</b>              |                          |
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Compiled by

MJ Dlamini Boiler System Engineer

Date: 15/11/2022

Functional Responsibility . . . . .

Harry Mokabane Kriel Boiler Plant Engineering Manager

Date: 2022/11/22

.....

Authorised by

Rofhiwa Nelwamondo Kriel Engineering Manager

Date: 2022/11/24

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#### CONTROLLED DISCLOSURE

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# **1. INTRODUCTION**

Refurbishment and Commissioning scope of work for the HP Bypass and Reheat Safety Valves Power Pack Hydraulic Unit is to be issued out on an open tender. The technical evaluation is in accordance with 32-1033: Eskom Procurement and Supply Chain Management Policy, 32-1034 Eskom Procurement and Supply Chain Management Procedure during the tender process, 240-168966153 Generation Tender Technical Evaluation Procedure, 555-EBP2020 refurbishment and commissioning of HP Bypass and Reheat Safety Valves Power Pack Unit at Kriel Power Station scope of work.

The evaluation of the tender is based on the tenderer's ability to meet both mandatory (gatekeepers) and qualitative (weighted) evaluation criteria requirements.

# 2. SUPPORTING CLAUSES

#### 2.1 SCOPE

The scope of this document defines the technical criteria to be used to evaluate tender documents supplied by contractors to execute work defined on the scope of work 555-EBP2020 refurbishment and commissioning of HP Bypass and Reheat Safety Valves Power Pack Unit at Kriel Power Station scope of work. The acceptable and unacceptable technical risks are identified and where exceptions will be allowed it is stated.

#### 2.1.1 Purpose

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

#### 2.1.2 Applicability

This document is applicable to 555-EBP2020 refurbishment and commissioning of HP Bypass and Reheat Safety Valves Power Pack Unit scope of work at Kriel 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.

| Tender Technical Evaluation Strategy - Refurbishment of HP | Unique Identifier | : <b>555-EBP2036</b> |
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## 2.2.1 Normative

- [1] 240-168966153: Generation Tender Technical Evaluation Procedure
- [2] 32-1033: Eskom Procurement and Supply Chain Management Policy
- [3] 32-1034: Eskom Procurement and Supply Management Procedure during the tender process

## 2.2.2 Informative

- [4] ISO 9001: Quality Management Systems
- [5] 240:105658000: Supplier Quality Management Specification

#### **2.3 DEFINITIONS**

#### 2.3.1 Classification

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

#### 2.4 ABBREVIATIONS

| Abbreviation | Description  |
|--------------|--|
| TET          | Technical Evaluation Team                              |
| CQP          | Contract Quality Plan                                  |
| EN           | Europäische Norm ("European Norm"), European Standards |
| HP           | High Pressure  |
| QCP          | Quality Control Plan                                   |
| UCLF         | Unplanned Capability Loss Factor                       |
| OEM          | Original Equipment Manufacturer                        |
| SOW          | Scope of work  |

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#### 2.5 ROLES AND RESPONSIBILITIES

As per 240-168966153: Generation Tender Technical Evaluation Procedure

## 2.6 PROCESS FOR MONITORING

As per 240-168966153: Generation Tender Technical Evaluation Procedure

## 2.7 RELATED/SUPPORTING DOCUMENTS

240-105658000 Supplier Quality Management Specification

555-EBP2020 refurbishment and commissioning of HP Bypass and Reheat Safety Valves Power Pack Unit at Kriel Power Station scope of work.

240-168966153 Generation Tender Technical Evaluation Procedure

| Tender Technical Evaluation Strategy - Refurbishment of HP<br>Bypass and Reheat Safety Valves Power Pack Hydraulic Unit at | Unique Identifier: 555-EBP2036 |         |
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# 3. TENDER TECHNCIAL EVALAUTION STRATEGY

### 3.1 TECHNICAL EVALUATION THRESHOLD

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

## 3.2 TET MEMBERS

## Table 1: TET Members

| TET number | TET Member Name  | Designation     |
|------------|------------------|-----------------|
| TET 1      | Mthobisi Dlamini | System Engineer |
| TET 2      | Feyane Tivane    | System Engineer |
| TET 3      | Sindiso Kamnqa   | System Engineer |

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# 3.3 CRITERIA

3.3.1 Mandatory Technical Evaluation Criteria

 Table 2: Mandatory Technical Evaluation Criteria

|    | Mandatory Technical Criteria Description   | Reference to Technical Specification /<br>Tender Returnable   | Motivation for use of Criteria  |
|----|--|---|---|
| 1. | One signed off copy of the Service Provider's Quality<br>Management System/Policy (QMS). | Technical Returnable Criteria 5   | To ensure quality work is always done   |
| 2. | A signed off Environmental Management Policy of the Service provider                     | Environmental Compliance to storage,<br>handling and disposal of chemical waste<br>as found in the plant. | To always ensure proper and approved methodologies of handling by the service provider. |

Note: All TET members shall independently evaluate and score each mandatory evaluation criteria for each tenderer in accordance with table 2.

| Tender Technical Evaluation Strategy - Refurbishment of HP   | Uni |
|--|-----|
| Bypass and Reheat Safety Valves Power Pack Hydraulic Unit at |     |
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#### 3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

#### Table 3: Qualitative Evaluation Criteria Scoring Table

| Score  | (%)   | Definition   |  |
|--|---|--|--|
|  |   | COMPLIANT  |  |
| Б  | 100   | <ul> <li>Meet technical requirement(s) AND.</li> </ul>                               |  |
| 5  | 100   | <ul> <li>No foreseen technical risk(s) in meeting technical requirements.</li> </ul> |  |
|  |   | COMPLIANT WITH ASSOCIATED QUALIFICATIONS   |  |
|  |   | Meet technical requirement(s) with.  |  |
|  |   | <ul> <li>Acceptable technical risk(s) AND/OR.</li> </ul>                             |  |
| 4  | 80  | Acceptable exceptions AND/OR.  |  |
|  |   | Acceptable conditions.   |  |
|  |   | NON-COMPLIANT  |  |
|  |   | <ul> <li>Does not meet technical requirement(s) AND/OR.</li> </ul>                   |  |
|  |   | <ul> <li>Unacceptable technical risk(s) AND/OR.</li> </ul>                           |  |
| 2  | 40  | Unacceptable exceptions AND/OR.  |  |
|  |   | Unacceptable conditions.   |  |
| 0  | 0   | TOTALLY DEFICIENT OR NON-RESPONSIVE  |  |
| Note 1: The scoring table does not allow for scoring of 1 and 3. |   |  |  |
| Note 2: For defined in   | <b>Note 2:</b> Foreseen acceptable and unacceptable risk(s), exceptions and conditions shall be unambiguously defined in the relevant Tender Technical Evaluation Strategy. |  |  |

20ff the TET members as defined in the Tender Technical Evaluation Strategy shall independently evaluate and score each Qualitative Evaluation Criteria for each tenderer.

Each TET members shall provide a scoring form detailing all allocated scores for each evaluated criteria for each tenderer.

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#### Table 4: Qualitative Technical Evaluation Criteria

| Criteria  | Weight<br>(%) | 0  | 2   | 4  | 5  |
|---|---------------|--|---|--|--|
| Provide ten or more completed projects with verifiable contacts   | 10            | 2 or less<br>completed<br>Projects   | 5 completed Projects  | 10 completed Projects  | More than 10 Projects  |
| Proof of experience of the Project Manager or Site<br>Supervisor in the maintenance or refurbished of a hydraulic<br>oil system or plant or similar environment.  | 10            | One year Proof<br>attached with<br>no references   | Two to three years<br>Proof attached with<br>references   | Four to Five years Proof<br>attached with<br>references                              | More than five years Proof attached with references  |
| Method Statement [1] - The criterion covers the basic steps<br>required for the refurbishment and commission of the High-<br>Pressure oil Power pack system.  | 15            | not<br>clear/generic,<br>Non-specific<br>methodology<br>steps  | Non-specific<br>methodology steps   | Acceptable Specific<br>methodology steps   | Clear Hydraulic oil HP Power pack Plant specific and concise   |
| Method Statement [2] - Clearly define basic method statement or process on how the HP Bypass power pack pump arrangement (Main and Booster) will be refurbished.  | 15            | not<br>clear/generic   | Non-specific<br>methodology steps   | Acceptable Specific<br>methodology steps   | Clear, HP Bypass power pack pump<br>arrangement refurbishment method<br>statement and concise  |
| Method Statement [3] - Clearly define basic method statement or process on how to refurbish, pressure test and leak test the Oil Accumulators and the Heat Exchanger respectively.                              | 20            | not<br>clear/generic   | Non-specific<br>methodology steps   | Acceptable Specific methodology steps  | clear, Oil Accumulators and Heat<br>Exchanger Plant specific and concise   |
| Clearly step-by-step works stipulated in the Quality Control<br>Plan, preferably three historically fully signed-off plans to be<br>submitted/Comprehensive new templates with all<br>stakeholders to sign-off. | 10            | Inadequate<br>QCP  | Including signature<br>matrix make provision<br>for the following<br>personnel in your<br>matrix, outage<br>coordinator, Eskom QC,<br>Contractor's supervisor<br>only | Only showing critical<br>steps to be done prior to<br>work, from method<br>statement | QCP for the repair's execution specific<br>and short as possible with holding points<br>where required, signature matrix of all<br>stakeholders      |
| Proof of experience (No CV's) for the personnel on this project (5):  | 20            | Mechanical<br>Works<br>Supervisor,<br>one or more<br>years – signed<br>proof of<br>employment/<br>service record<br>only | Only provide the Project<br>manager with 1year as<br>minimum year of<br>experience – signed<br>proof of employment<br>(contracts of<br>employment)                    | N/A  | Proof of relevant work experienced<br>mechanical artisans and fitters, at least<br>5 personnel and the two (Supervisor and<br>Manager) requirements. |

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| FUNCTIONALITY ( Minimum threshold of 80% to be achieved  | Maximum points<br>available points – 100%  |       |
|--|--|-------|
| HISTORICALLY COMPLETED PROJECTS<br>Completed Projects or maintenance works or refurbishment on   | The contractor must have previous experience in this type and nature of work with contactable references.  |       |
| a HP Bypass Hydraulic oil Power pack Unit – Returnable –<br>Completion certificates or Mechanical work order   | Proof required is projects, client, and contact persons  |       |
|  | Scoring: -   |       |
|  | > 2 completed Projects (0)   | - 10% |
|  | > 5 completed Projects (2)   |       |
|  | > 10 completed Projects (4)  |       |
|  | More than 10 Projects (5)  |       |
| <b>EXPERIENCE PROJECT MANAGER / SITE SUPERVISOR</b><br>Proof of experience of the Project Manager or Site Supervisor<br>in the maintenance or refurbished of a hydraulic oil plant or<br>similar environment. – returnable – trade tests certificates,<br>proofof relevant qualifications from testing institutions and<br>actively working on a hydraulic oil system or plant or similar<br>environment. Or on the job training | The criterion covers proof of general experience of the proposed Project Manager or         Site Supervisor       from trade test or on-job-training working on chemical plant         Proof of experience attached with references that can be contacted. | -     |
|  | Scoring: -   | 10%   |
|  | One year Proof attached with no references (0)   |       |
|  | Two to three years Proof attached with references (2)  | -     |
|  | Four to Five years Proof attached with references (4)  |       |
|  | More than five years Proof attached with references (5)  |       |

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| METHOD STATEMENT [1]:                       | The criterion covers the basic steps required for the refurbishment and commission of |      |
|---|---|------|
|   | the High-Pressure oil Power pack system. They are used for the driving of the Servo   |      |
| HIGH-PRESSURE OIL POWER PACK UNIT           | or hydraulic oil driven actuators   |      |
|   |   | 15 % |
|   | Scoring: Method statement will score a maximum 15%, following the criteria below      |      |
|   |   |      |
|   | 1. Method statement clear, specific, and concise (5)                                  |      |
|   | 2. Acceptable, specific steps (4)   |      |
|   | 3. Method statement not clear and found generic (2)                                   |      |
|   | 4. Non-specific methodology steps (0)   |      |
| METHOD STATEMENT [2]                        | Clearly define basic method statement or process on how HP Bypass power pack          |      |
|   | numn arrangement (Main and Booster) will be refurbished                               |      |
| HP BYPASS POWER PACK PUMP ARRANGEMENT (MAIN |   |      |
| AND BOOSTER)                                |   |      |
|   |   |      |
|   | Scoring: - Method statement will score a maximum 15%, following the criteria below    | 15%  |
|   |   |      |
|   | 1 Method statement clear and concise (5)  |      |
|   |   |      |
|   | 2. Acceptable, specific steps (4)   |      |
|   | 3. Method statement not clear/generic (2)   |      |
|   | 4. Non-specific methodology steps (0)   |      |
| METHOD STATEMENT [3]:                       | Clearly define basic method statement or process on how to refurbish, pressure test   |      |
|   | and leak test the Oil Accumulators and the Heat Exchanger respectively.               |      |
| OIL ACCUMULATORS AND THEAT EXCHANGER        |   |      |
|   | Scoring: Mothod statement will score a maximum 20% following the criteria below       |      |
|   | Sconing Method Statement will score a maximum 20 %, following the chiena below        | 20%  |
|   |   |      |
|   | 1. Method statement clear and concise (5)   |      |
|   | 2. Risk assessment stipulated (4)   |      |
|   | 3. Method statement not clear/generic (2)   |      |
|   | 4. Non-specific methodology steps (0)   |      |
| Quality Control Plan (4):                   | Clearly step-by-step works stipulated in the Quality Control Plan, preferably three   |      |
|   | historically fully signed-off plans to be submitted/Comprehensive new templates with  |      |
|   | all stakeholders to sign-off.   | 10%  |
|   |   |      |
|   | QCP for the repair's execution specific and short as possible with holding            |      |
|   | points where required, signature matrix of all stakeholders (5)                       |      |

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|   | <ul> <li>Only showing critical steps to be done prior to work, from method statement (4)</li> <li>Including signature matrix make provision for the following personnel in your matrix, outage coordinator, Eskom QC, Contractor's supervisor only (2)</li> <li>Inadequate QCP (0)</li> </ul>  |     |
|---|--|-----|
| Proof of experience (No CV's) for the personnel<br>on this project (5): |  |     |
|   | <ul> <li>Mechanical Works Technician, one or more years – signed proof of<br/>employment/ service record only (0/5)</li> <li>Only provide the Project manager with 1year as minimum year of experience<br/>– signed proof of employment (contracts of employment) (2/5)</li> <li>Proof of relevant work experienced mechanical artisans and fitters, at least 8<br/>personnel and all two requirements above (5): to submit<br/>qualification/appointment/trade certificates.         <ul> <li>No submission (0/5)</li> <li>Two or less than two technicians/artisans (2/5)</li> <li>Three to four technicians/artisans (4/5)</li> <li>Five to Eight mechanical technicians (5/5)</li> </ul> </li> </ul> | 20% |

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#### 3.5 TET MEMBER RESPONSIBILITIES

#### Table 3: TET Member Responsibilities

| Mandatory Criteria Number                 | TET 1 | TET 2 | TET 3 |
|---|-------|-------|-------|
| 3.3.1.1 QMS/Policy                        | Х     | Х     | Х     |
| 3.3.1.2 Environment Policy                | Х     | Х     | Х     |
| Qualitative Criteria Number               | TET 1 | TET 2 | TET 3 |
| 3.3.2.1 Completed Company                 | Х     | X     |       |
| Projects/works                            |       |       |       |
| 3.3.2.2 Experience of the Project Manager | Х     | X     |       |
| 3.3.2.3 Method statement 1                | Х     | Х     |       |
| 3.3.2.4 Method statement 2                | Х     | Х     |       |
| 3.3.2.5 Method statement 3                | Х     | Х     |       |
| 3.3.2.6 QCP                               | Х     | Х     |       |
| 3.3.2.7 Personnel, experience &           | Х     | Х     |       |
| Qualification                             |       |       |       |

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## 3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

Risks

#### Table 4: Acceptable Technical Risks

| Risk | Description |
|------|-------------|
| 1.   | None        |

## Table 5: Unacceptable Technical Risks

| Risk | Description                                |
|------|--|
| 1.   | Unavailable proof of Artisan qualification |

#### **3.7 EXCEPTIONS / CONDITIONS**

## Table 6: Acceptable Technical Exceptions / Conditions

| Risk | Description |
|------|-------------|
| 1.   | None        |

## Table 7: Unacceptable Technical Exceptions / Conditions

| Risk | Description                                 |
|------|---|
| 1.   | Service has no ISO 14001:2015 Certification |

#### 3.8 AUTHORISATION

This document has been seen and accepted by:

| Name           | Designation                         | Signature |
|----------------|-------------------------------------|-----------|
| Feyane Tivane  | System Engineer, Boiler Engineering |           |
| Sindiso Kamnqa | System Engineer, Boiler Engineering |           |

#### 4. REVISIONS

| Date          | Rev. | Compiler   | Remarks  |
|---------------|------|------------|--|
| October 2022  | 0.1  | MJ Dlamini | Draft document for tender<br>technical evaluation criteria and<br>document registered with<br>documentation centre |
| October 2022  | 0.2  | MJ Dlamini | Reviewed by TET members  |
| November 2022 | 1    | MJ Dlamini | Final Document   |

## **5. DEVELOPMENT TEAM**

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

Feyane Tivane

# 6. ACKNOWLEDGEMENTS

None

#### CONTROLLED DISCLOSURE