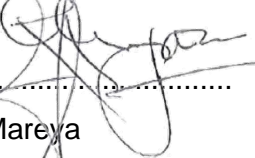

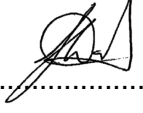
	<b>TERMS OF REFERENCE</b>	<b>Unique Identifier:</b> <b>285-169278</b>
	<b>KOMATI THERMAL POWER PLANT          DECOMMISSIONING CONTRACT          ENGINEERING CONSULTANCY SERVICES</b>  <b>South Africa - Eskom Just Energy Transition          Project (JETP, P177398)</b>	<b>Revision: 1</b>
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### ABSTRACT

This document forms part of the Request for Proposal and defines the Terms of Reference for the selection of consultants to serve as Owner's Engineer on-behalf of Eskom during the Decommissioning Activities at Komati Thermal Power Plant

### DOCUMENT RETENTION TIME

This document is a Quality Record and shall be retained in accordance with Eskom Quality standards.

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## 1. ABBREVIATIONS

This list contains the abbreviations used in this document.

Abbreviation or Acronym	Definition
CBA	Cost Benefit Analysis
DOR	Division of Responsibility
ECP	Engineering Change Proposal
EPC	Engineering Construction and Procurement
JETP	Just Energy Transition Project
MW	Megawatt
PPSD	Project Procurement Strategy for Development
SOV	Schedule of Values
SOC	State Owned Company
TOR	Terms of Reference
PEM	Project Engineering Manager
TPP	Thermal Power Plant
PSR	Project Scoping Report
RTS	Return to Service
PQMP	Project Quality Management System and Plan

## 2. DEFINITIONS

Phrase or Word	Definition
The Client	Eskom Holdings Soc Ltd of South Africa
Consultant	Owner's Engineer acting as an advocate for the Client and apply due diligence involved in all aspects of project
Decommissioning	The permanent shutdown, unbundling and decommissioning of the thermal power plant and the withdrawal from service of equipment, plant and machinery related to power generation and ancillary services, including terminating operating permits. Services still required for other functions are retained. Options and models include Demolition and Retire-in-place
Demolition	Dismantling, razing, destroying or wrecking of any building or structure or any part thereof. The dismantled assets and structures will be removed from the site.
Retire-in-place	Retaining the property and facilities under care and maintenance
Repurposing	Remediating and restoring the site for potential reuse or for re-powering

### **3. BACKGROUND OF THE PROJECT**

#### **3.1. Project Rationale**

Eskom Holdings SOC (Ltd) is a South African utility that generates, transmits, and distributes about 95% of the country's electricity. Komati Power Station is a Coal Fired Thermal Power Plant with an installed capacity of 1000MW but has only one remaining Operational Unit with a capacity of 120MW (Unit 9), which is scheduled for shutdown at the end of September 2022. In line with South Africa's Just Energy Transition (JET) and in support of the decarbonization of the minerals and energy sectors in a socially acceptable manner, Eskom embarked on the Just Energy Transition Project (JETP) which is to be financed by the World Bank to pilot Eskom's Just Energy Transition (JET) under Eskom's 2035 Strategy and Road Map by Decommissioning and Repurposing Komati Coal Fired Power Plant.

#### **3.2. Project History**

In line with Eskom's 2035 Strategy and Road Map, Eskom initiated studies to Repurpose and Repower Komati Power Station including socio-economic impact studies in May of 2021. The technical studies to decommission, rehabilitate and select technologies to repurpose and repower Komati Power Station were conducted by VPC GmbH, appointed by the World Bank on behalf of Eskom. The repurposing study investigated options such as Solar Photovoltaics, Wind, Battery Energy Storage System and Generators' conversions to Synchronous Condensers. The repowering study investigated options such as Gas and Biomass. Other studies investigated environmental, socio-economic, economic, and financial implications of retiring the power plant. The outcome of the VPC GmbH Studies is the Draft Report for Komati Thermal Power Plant Technical Analysis on Retiring and Repurposing for Coal Plants. Below is a list of relevant studies and basic data available of which access will be granted to the Consultant:

1. Technical Analysis on Retiring and Repurposing of Four Coal Plants in South Africa, Project P-2021-00547". - Komati Draft Report Revision 3 Issued On 25 February 2022.
2. Komati Thermal Power Plant, Decommissioning and Repurposing Project Scoping Report Dated 10 February 2022 Prepared by The World Bank Group and Eskom
3. Technical Analysis on Retiring and Repurposing of Four Coal Plants, South Africa. Questionnaire-Task 1 Power System Analysis – KOMATI. Final Version 29 September 2021.
4. Technical Analysis on Retiring and Repurposing of Four Coal Plants, South Africa. Questionnaire-Task 1 Power System Analysis- Electrical Part – KOMATI. Final Version 08 July 2021.
5. State of Plant Assessment Report for Komati Power Station: Unique Identifier: 285-169231 Rev 0, 24 May 2021.
6. Spread Sheet with List of Buildings and Plant That Are Temporary, Permanent or Plant.

### **3.3. Client, Partner Country, and Project Location**

The *Client*, *ESKOM HOLDINGS SOC LTD (hereafter Eskom)* of *SOUTH AFRICA (Partner Country)* requires the Consultancy Services at Komati Coal Fired Power Station situated in Mpumalanga Province of South Africa (*GPS Coordinates: 26.0896668 S, 29.4655907 E*).

## **4. OBJECTIVES OF THE ASSIGNMENT**

### **4.1. Overall Project Objective**

The *Client*, *ESKOM* requires Engineering Consultancy and Advisory Services in the planning, development, implementation, and closure of the Decommissioning Project at Komati Power Station. The required Engineering Consultancy and Advisory Services shall serve as an Advocate, Implementing Partner, and an Oversight Agent for the Client, applying due diligence, in all aspects of planning, development, implementation, and closure of the Project.

The Consultant shall act on behalf and for Eskom within the mandate provided to them by their appointment. Eskom shall delegate authority to the Consultant's to the extent required for execution of these scope of services. The Consultant is the appointed Design Authority on behalf of Eskom in terms of monitoring compliance of the Regulatory Requirements applicable to the Project and under the directive of Eskom as the Client. Eskom has the overall responsibility for the Project as the Client. The Consultant shall ensure that the performance of their Services under these Terms-of-Reference complies with Regulatory Requirements. The Client's overall objective for the Engineering Consultancy and Advisory Services broadly encompasses all front-end engineering design including but not limited to the development of functional specifications, bidding documents and bids evaluations for the selection and appointment of the EPC Contractor, construction supervision and quality assurance during execution of the EPC Contract, commissioning & testing supervision, and provision of training.

### **4.2. Purpose**

These Terms of Reference (TOR) describe the objectives and scope of, Consultant's services, requirements, schedule of work, proposed arrangements, reporting requirements, and support from the *Client* to the *Consultants* for the duration of the consultancy assignment.

## **5. SCOPE OF THE WORK**

### **5.1. Project Service Description**

The scope of services required from the *Consultant* relating to Komati Coal-Fired Power Plant Decommissioning spans all four key decommissioning steps/phases, namely:

1. Task 1: Pre-planning Phase Activities
2. Task 2: Project Development Phase Activities
3. Task 3: Project Implementation Phase Activities and
4. Task 4: Project Closure Phase Activities

As part of the Decommissioning Scope for Engineering Consultancy and Advisory Services, the Consultant shall be responsible for determining permitting and technical requirements, including but not limited to:

1. Assessing the As-is Site to determine Requirements - collection and analysis of data
2. Preparing detailed Inventory List to confirm facilities to be demolished and the ones to be retained
3. Developing Cost Estimates
4. Do a full benefit and liability analysis to retain the turbine hall to house the synchronous condenser installation vs the decommissioning and removal of the turbine hall and the construction of a simple new structure to house the synchronous condensers
5. Developing the Division of Responsibility (DOR) between the Stakeholders
6. Developing a Decommissioning and Demolition Project Plan (ref. item 4)
7. Developing Budget and Comprehensive Bidding Documents
8. Contractor Pre-Qualifications
9. Developing Bid Evaluations
10. Recommending key Contractor Personnel
11. On-site Field Representation - Supervision of works during execution of project
12. Provision of Training

Specific details and requirements relating to these phases of the project are outlined below:

## **5.2. Decommissioning Project Tasks**

### **5.2.1. Task 1: Pre-Planning Phase Activities**

1. **Activity 1:** The Consultant's service shall include determining and selecting the most appropriate Decommissioning Model based on a Total Benefit Analysis (TBA) for the scope of work as set out in the Project Scoping Report (See Clause 9.1.2) for the decommissioning, demolishing, and removal of the identified assets from the site and the rehabilitation of the site.
2. The Consultant shall consider the following, but not limited to:
  - a. Identifying interties with facilities identified to remain on site
  - b. Determining how utilities should be isolated that are not needed vs those that needs to remain such as fire protection, sanitary sewers/stormwater, communications, portable water.
  - c. Identifying new utilities needed to support ongoing site activities
  - d. Accounting for the relocation or rerouting of utilities going through buildings plant that needs to be decommissioned and rehabilitated.
  - e. Determining with the Environmental Consulting team if any plant still containing hazardous materials and how these will be removed and disposed of.

- f. Conducting site security assessment to determine ongoing security requirements for the site, such as secure doors, fencing, cameras, security force
  - g. Determine which facilities have no or limited future use, are not essential or feasible to be retained and should be demolished as part of this option to provide a feasible long-term solution.
  - h. Do a full benefit and liability analysis to retain the turbine hall to house the synchronous condenser installation vs the decommissioning and removal of the turbine hall and the construction of a simple new structure with services to house the synchronous condensers
  - i. Assess the end state for the Ash Dumps that have been progressively rehabilitated and investigate if opportunities exist to develop hazardous waste cells for material that cannot be removed from site as an alternative
3. The Consultant shall consider the following Decommissioning and Demolition key considerations, but not limited to:
- a. It is important during project development to consider property assets that may make the site more attractive to potential future owners. Such assets could include waterway access, water rights, rail access and transmission line access.
  - b. Conducting a regulated materials assessment to account for removal of regulated materials, such as fuels, mercury, chemicals, gases, PCBs, etc. Abatement or encapsulation of other hazardous items, such as devices containing mercury, asbestos in stack liners, lead-based paint, and devices with a nuclear source that includes coal flow meters, exit signs, etc
  - c. Determining the method for coal pile, pond, and landfill closures including:
    - i. Coal Pile: residual removal and capping
    - ii. Landfill: consolidation and capping
    - iii. Ash Pond: close in place and rehabilitate or remove
4. **Activity 2:** The Consultant shall perform on-site assessments and gather data (information retrieval) on the assets and materials on-site to inform and support project development and provide important site knowledge. Critical information for decommissioning planning and development shall include, but not limited to:
- a. Construction Drawings
  - b. Environmental Reports
  - c. Materials of Construction
  - d. Permits
5. **Activity 3:** The Consultant shall assemble a project team, that is responsible for providing the co-ordination of the work process and a skilled resource pool in a

number of core competencies that are required to successfully deliver the project.

This project team shall include:

- a. The Consultant's Team: responsible for determining permitting and technical requirements for the decommissioning, demolition, remediation and rehabilitation scope determined by the Client, including development of bid documents.
- b. The Client's Project Team: responsible for determining project scope and defining end state of the site following decommissioning and rehabilitation.
- c. Stakeholder Engagement Team: responsible for presenting conceptual approach to outside stakeholders, including municipal/provincial/state government and environmental agencies to obtain comments on plan prior to implementation

### **5.2.2. Task 2: Project Development Phase Activities**

1. **Activity 1:** Baseline design-base information on Komati Coal Fired Power Station was collated during prior investigations and studies referenced in section 1.2 of these terms of reference. The Consultant shall review the available information and assemble critical facility information required including but not limited to:
  - a. Reference drawings that show details in the structure, layout, and materials of construction
  - b. Contract drawings that identify items included in the scope of work and items to be protected
  - c. Relevant exhibits, such as site permits, sampling results for materials, equipment inventory and materials for scrap
  - d. Final site-grading plans based on site requirements
2. **Activity 2:** The Consultant in consultation with other stakeholders shall identify all information regarding local ordinances and permit requirements that could impact completion of work, such as:
  - a. Demolition requirements
  - b. Permits to work on or near bodies of water
  - c. Statutory permits needed to conduct work
  - d. Permits for stack lighting or temporary lighting during demolition
  - e. Utility abandonment requirements
3. **Activity 3:** Preparation of an inventory with accurate data of all equipment in the TPP that has re-use or monetary value that includes equipment description, age, condition, quantity, location, deinstallation and conservation requirements.
4. **Activity 4:** The Consultant shall develop rehabilitation, remediation & closure plan and communicate with stakeholders



5. **Activity 5:** The Consultant shall develop Comprehensive Bid Documents for an EPC contract to ease evaluation and comparison of bidders, reduce potential for change orders, and serve as a project plan for successful implementation. The bid documents shall include but not limited to:
  - a. All site information,
  - b. Critical facility information
  - c. A clearly defined scope of work that minimizes ambiguity
  - d. Optional scope items or unit pricing for activities that may arise during the project, such as:
    - i. Unit prices for asbestos abatement, such as boiler refractory, stack, and underground piping
    - ii. Unit prices for other items like soil removal
    - iii. Labour and equipment costs needed to evaluate change orders
    - iv. Other items that may be included later, such as additional buildings to be removed
6. **Activity 6:** The Consultant in consultation with the Client shall determine Division of Responsibility (DOR) between the stakeholders and develops a project timeline. The DOR shall clearly define the roles and responsibilities for the Client's Project Team, EPC Contractor, Consultant/Owner's Engineer Team, and other Stakeholders before the project execution phase. The DOR shall serve as a reference and checklist during the project and is intended to indicate which activities are the responsibility of the EPC Contractor.
7. **Activity 7:** The Consultant shall develop a Schedule of Values (SOV) to be used for detailed evaluation of bid costs and tracking project implementation progress. The SOV shall be used to identify unit price items where unknowns exist, identify large alternate cost items, establish unit prices for additional items or activities that may arise and shall include a base allowance for comparing bids.

### **5.2.3. Task 3: Project Implementation Phase Activities**

1. **Activity 1:** The Consultant shall form a part of the Client's Technical Evaluation Team and shall support the Client complete all Bid Evaluations, providing a consistent evaluation of all bidders. The Consultant shall support the development of the Technical Evaluation Strategy and Criteria which typically compares potential bidders on elements like, contractor developed execution plan and project understanding; safety statistics of the contractor and any subcontractors; relevant project experience among contractor and subcontractors; and experience of proposed project team.
2. The Consultant shall review Contractor developed execution plans that includes structures evaluation developed by a structural engineer prior to demolition;

detailed plans with methodology and types of equipment to be used; sequence of activities for demolition; and identification of exclusion zones for demolition activities. This will enable the evaluation team to determine if the bidder has developed a site-specific plan that aligns with the scope of work and cost estimate

3. The Client conducted a market analysis of potential bidders as part of PPSD development. However, if pre-qualifying of potential bidders is required, the Consultant shall form part of the Client's Team. The Consultant shall support the Client develop a qualifying criteria.
4. **Activity 2:** The Consultant shall establish On-Site Field Representation and provide independent verification and documentation of EPC Contractor activities confirming compliance with execution plan, specifications, and scope requirements. The On-Site Field Representative roles shall include among others monitoring and coordination of the following project implementation activities:
  - a. Asbestos Removal and other above-ground Environmental Remediation
  - b. Equipment Removal and Salvage
  - c. Demolition and Salvage
  - d. Below-ground Environmental Remediation
  - e. Waste Removal and Disposal

#### **5.2.4. Task 4: Project Closure Phase Activities**

1. **Activity 1:** The Consultant shall provide expertise to oversee, monitor and coordinate closure of ash dam and ash water return dam sites. Including the decommissioning and rehabilitation works.
2. The Consultant shall monitor and verify submission of all final documentation prepared by the EPC Contractor for regulatory authorities' approval

### **5.3. Project Management**

#### **5.3.1. Task 1: Program Development, and Management**

1. **Activity 1:** The Consultant shall develop a Work Breakdown Structure (WBS) and an Integrated Engineering Schedule covering all aspects of decommissioning and rehabilitation project, identifying all interfaces required for the successful delivery of the decommissioning and rehabilitation project.
2. The Consultant's schedule shall include an integrated resource plan and shall be developed to level 4 which will include as a minimum the following:
  - a. All milestones
  - b. All key activities
  - c. All Sub-activities
  - d. Works instruction level

- e. Risk catered for using float
3. The Consultant shall use a scheduling tool that is agreed upon with the Client for its scheduling and shall ensure all programmes and schedules developed for the Project are compatible with the Client's scheduling software. (Primavera Etc.)

#### **5.3.2. Task 2: Risk Identification, Mitigation, and Management**

1. The Consultant shall proactively manage risk and shall develop and manage an Integrated Engineering Risk Register and Management Plan as per Client's Requirements.
2. Risk status and mitigation reviews shall be held as part of scheduled workshops or progress review meetings.

#### **5.3.3. Task 3: Configuration Management**

1. The Consultant shall establish, operate, and maintain a Configuration Management System that complies with the Client's requirements and manages the configuration of relevant information exchanged between the Consultant and the Client.
2. The Client reserves the right to perform periodic audits of the Consultant's Configuration Management Systems, including independent physical and functional configuration audits.

#### **5.3.4. Task 4: Quality Management**

1. The Consultant and all sub-consultants shall comply with the requirements listed in the Client's 'Contract Quality Requirements', Document – QM 58, for all the Client's Quality requirements.
2. The Consultant shall develop and submit a Project Quality Management System and Plan (PQMP) for this contract. This PQMP shall describe the project quality requirement and shall also describe the requirement for continued compliance to the requirement of ISO 9001.

### **6. TRANSFER OF KNOWLEDGE**

1. The Consultant shall provide training and skills transfer for the services and works to various categories of the Client's staff. A skills transfer plan and execution document shall be developed by the Consultant and submitted to the Client for acceptance. The required Client personnel for skills transfer shall be specified by the Consultant.
2. Training provided by the Consultant shall be practical, hands-on, and directly applicable to the Services. General training based on similar Services is not acceptable.
3. The local facilities for training shall be provided by the Client which shall comprise a suitably sized airconditioned room (could also be done remotely using electronic

platforms) to accommodate trainees as well as trainee and trainer desks, an overhead projector and flipchart or white board.

4. The Client will bear the cost of salaries, accommodation, travelling expenses and other allowances of their personnel during the training. All other training costs shall be borne by the Consultant.
5. The Consultant shall provide all course material including manuals in English. The dates for training shall be included and shown in the Consultant's programme. The supply of drafts, pre-print proofs and printed copies of training documentation shall be planned by the Consultant. It is anticipated that five (5) man months will be adequate for the preparation of training materials and that training can be provided by the Consultant's Project personnel during the course of their normal duties.

## **7. REPORTS AND PROGRAMMES**

### **7.1. List of Reports**

1. In addition to the deliverables described in Section 5 of these terms of reference, the Consultant shall submit the following reports (in English):
2. **Inception Report** produced no later than 60 days from contract signing, giving a detailed work plan and work assignments for individual team members.
3. **Monthly Reports** submitted at the end of the first week of each month, giving a summary of activities implemented during the period and activities planned for the following period. Individual and cumulative manpower utilization and problems and challenges encountered during the reporting period and the resources to be used in the following period.
4. **Interim Reports** prepared every six months during the period of implementation of the tasks of the contract. The first interim report shall be submitted no later than 6 months after the commencement date. The interim reports shall present a short description of progress (technical and financial) including problems encountered, planned Assignment for the next 6 months
5. **Draft Final Report** submitted no later than one month before the end of the period of implementation of tasks, giving a short description of achievements including problems encountered and recommendations.
6. **Final Report** submitted no-later than 30 days after receipt of comments on the **Draft Final Report**, incorporating any comments received. The detailed analyses underpinning the recommendations will be presented in annexes to the main report.
7. The Consultant shall propose to the Client a schedule for the Progress Review Meetings. The Progress Review Meetings are held within one week after receipt of the Monthly Report. The Client keeps minutes of these meetings.

## 7.2. Schedule of Deliverables

1. The Consultant shall submit a Programme for all reports and deliverables listed in this document for acceptance by the Client within 4 weeks after contract award.

## 7.3. Period of Performance

1. The Client's target delivery dates for Deliverables and review meetings shall be discussed and agreed to with the Consultant prior to execution of any of the project activities.
2. The Consultant uses the agreed to-and-signed off target delivery dates, as an input to develop the programme and activity schedule.

## 8. COMPETENCY AND EXPERIENCE REQUIREMENTS OF THE CONSULTANT

### 8.1. Required Expertise and Qualification of Consultant

1. The key staff requirement provided below is the indicative minimum requirement. The actual number, expertise, and level of effort (expert-months) offered by the Consultant shall be based on the **methodology and approach** provided in the **technical proposal** of the consultant during preparation of the technical proposals offered.
2. The Consultant shall appoint key experts as part of his team including a Project Team Lead and Deputy Team Lead. The Consultant shall **submit CVs and Statements of Exclusivity and Availability** for the key experts. Key Experts' CVs should clearly indicate the start date and the end date (month and year) of each assignment. Each assignment in the CV should be numbered and the same number should be written on the respective signed supporting document. Any qualifications, skills and experience stated in the respective CV of an expert must be substantiated by **supporting documents** (with accurate translation into English if required) such as copies of degrees or diplomas, professional registration and employers' certificates and marked with appropriate reference number.
3. The Consultant's Project Team Leader (Key Expert 1) shall have overall responsibility for the implementation of the project and will be the main contact point for the Eskom Client's Team, and shall support the coordination between all beneficiaries and other relevant stakeholders in addition the Consultant's Project Team Lead shall be responsible for:
  - a. Coordinating the experts' team in all daily activities; Organising and overseeing administrative and logistic project support.
  - b. Supervising, assuring quality and timely delivery of reports and outcomes under these terms of reference
  - c. Overall quality of activities and outputs on the project

4. The Deputy Team Leader shall supervise all Assignment related to the assessment of conditions on site together with the Team leader / Key Expert 1.
5. It is anticipated that other experts will be required thus the Consultant shall define the proposed Professional Services according to the Project Scope, needs and requirement of successfully executing these terms of reference. Such Professional domains may include the following:
  - a. Project Manager
  - b. Civil Engineer / Structural Engineer,
  - c. Electrical Engineer,
  - d. Mechanical Engineer,
  - e. Environmental & Social Expert,
  - f. Lawyer (expert in environmental legislation),
  - g. Occupational safety and health Expert
  - h. Lands Remediation Expert
6. The Consultant shall submit CVs for experts other than the key experts in the tender and the tenderer will have to demonstrate in their offer that they have access to experts with the required profiles. All experts must be independent and free from conflicts of interest in the responsibilities they take. The Consultant shall allow for the number of expert months each expert is likely to be used in Table 1 below. The actual duration will be agreed between the Client and Consultant.
7. The Consultant shall provide backstopping and oversight services related to decommissioning and rehabilitation enabling the Consultant to meet all contract objectives, delivery of outputs and results. The costs for backstopping and support staff, as needed, are considered to be included in the tenderer's financial offer.
8. Expertise and resource requirements and qualifications are summarised in table 1 below:

Table 1 Resource Requirements

Item	Resources	Qualifications	Min Years' Experience	Number of Persons	Number of expert months
1	Project Team Leader (Key Expert 1))	BSc Eng./B. Tech Eng. Pr Eng or Pr Tech Eng or Equivalent	20 (at least 5yrs related to Decommissioning & Rehabilitation)	1	Full time
2	Deputy Team Lead (Key Expert 2)	BSc Eng./B. Tech Eng. Pr Eng or Pr Tech Eng or	15 (at least 5yrs related to Decommissioning & Rehabilitation)	1	Full time
3	Project Manager/ contract expert:	BSc Eng./B. Tech Eng. Pr Eng or Pr Tech Eng or equivalent	10 direct experience with successful completion of at least two similar assignments	1	Consultant to indicate

4	Civil Engineer/Structural Engineer	BSc Eng./B. Tech Eng. Pr Eng or Pr Tech Eng or equivalent	10 direct experience with successful completion of at least two similar assignments	1	Consultant to indicate
5	Electrical Engineer	BSc Eng./B. Tech Eng. Pr Eng or Pr Tech Eng or equivalent	10 direct experience with successful completion of at least two similar assignments	1	Consultant to indicate
6	Mechanical Engineer	BSc Eng./B. Tech Eng. Pr Eng or Pr Tech Eng or equivalent	10 direct experience with successful completion of at least two similar assignments	1	Consultant to indicate
7	Environmental Engineer	BSc Eng./B. Tech Eng. Pr Eng or Pr Tech Eng or equivalent	10 direct experience with successful completion of at least two similar assignments	1	Consultant to indicate
8	Lawyer (expert in demolition legislation)	Minimum of undergraduate degree in relevant fields of studies	10 direct experience with successful completion of at least two similar assignments	1	Consultant to indicate
9	Occupational safety and health Inspector	Minimum of undergraduate degree in relevant fields of studies	10 direct experience with successful completion of at least two similar assignments	1	Consultant to indicate
* Registered with a recognised professional body, ** Construction Experience					
<b>Note:</b> Note that lead experts proposed by bidders will be required to carry out the work. Substitutions will only be allowed under limited circumstances and only with express written consent of the Eskom.					

## 8.2. Short Listing Criteria

### 1. The Consultant shall:

- a. Demonstrate qualification in Project Management and Construction / Erection Supervision as well as in the monitoring of environmental, social, and health & safety aspects.
- b. List all Decommissioning and Rehabilitation Projects for which it carried out the services listed above completed in the last 10 years, indicating nature, scope, location, size/capacity, and cost of the assignment
- c. Have undertaken at least two (2) project references in Project Management, Construction, Supervision and Monitoring of Decommissioning and Rehabilitation Projects with a minimum project construction value equivalent to Three Hundred Million (R300,000,000) South African Rands, and with at least one such project financed, at least in part, by International Financing Institutions.

- d. Demonstrate the capability to mobilize in a short period competent staff in the fields detailed in table 1.
2. The Consultant shall be assessed against the evaluation criteria described in Technical Evaluation Criteria

### **8.3. Incidental Expenditure**

1. All costs relating to the provision of experts (including travel to/from the beneficiary country and subsistence once there) must be included in the global price for Phase 1.

## **9. PERSONNEL AND FACILITIES TO BE PROVIDED BY CLIENT**

### **9.1. Data**

1. All relevant supporting documentation that the Client has referenced in these terms of reference will be made available to the Consultant when the contract commences, or during contract negotiations as required by the Consultant.
2. Any additional cost resulting from Compliance with new procedures (not stated below) issued by the Client will be compensated.

#### **9.1.1. Client's Policies and Procedures**

1. The Consultant shall as a minimum comply with the procedures furnished below and new procedures issued by the Client throughout the execution of the Services:
  - a. Health and Safety Specifications - 32-757
  - b. The Eskom Code of Ethics - Standard 32-527
  - c. COVID-19 related Standard & Guidelines - 240-155326818
  - d. COVID Health and Safety - Government Regulation No 11128
  - e. Generation Project Life Cycle Model - 240-82737649
  - f. Project Engineering Change Management Procedure - 240-53114002
  - g. Design Review Procedure - 240-53113685
  - h. Contract Quality Requirements - QM 58
  - i. Operating Regulations – 240-7041386534

#### **9.1.2. Prior Studies, Investigations and Reports**

1. The Client shall make the following prior studies, investigations and reports available to the Consultant:
  - a. Technical Analysis on Retiring and Repurposing of Four Coal Plants in South Africa, Project P-2021-00547". - Komati Draft Report Revision 3 Issued On 25 February 2022.



- b. Komati Thermal Power Plant, Decommissioning and Repurposing Project Scoping Report (PSR) Dated 10 February 2022 Prepared by The World Bank Group and Eskom
- c. Technical Analysis on Retiring and Repurposing of Four Coal Plants, South Africa. Questionnaire-Task 1 Power System Analysis – KOMATI. Final Version 29 September 2021.
- d. Technical Analysis on Retiring and Repurposing of Four Coal Plants, South Africa. Questionnaire-Task 1 Power System Analysis- Electrical Part – KOMATI. Final Version 08 July 2021.
- e. State of Plant Assessment Report for Komati Power Station: Unique Identifier: 285-169231 Rev 0, 24 May 2021.
- f. Spread Sheet with List of Buildings and Plant That Are Temporary, Permanent or Plant.
- g. All environmental historical reports and relevant Komati RTS Documentation

## **9.2. Local Services and Facilities**

1. The Client shall provide Open plan Offices at the Site of Works, Komati Powers Station or Sunninghill in Johannesburg as deemed appropriate from time to time.
2. The Consultant shall be responsible to provide all the office furniture and any other equipment the staff needs to fulfil the function described in these terms of reference.
3. Given that the South African government has recommended that mobility be restricted to comply with the Coronavirus pandemic rules, it is therefore anticipated that remote working will continue for the foreseeable future and that online platforms such as MS TEAMS will be used for conducting meetings and training. The Consultant shall comply with all COVID-19 government regulations.

## **9.3. Personnel**

1. The Client's shall appoint a Project Team: responsible for determining project scope and defining end state of the site following decommissioning.

# **10.INSTITUTIONAL ARRANGEMENTS**

## **10.1. Management of Consultant by Client**

1. The Client shall appoint a Project Team Leader (Key Expert 1) to take full responsibility for managing the Consultant's work and for ensuring delivery on the project. The Consultant shall provide details on proposed organisation, methodology and approach as detailed in the Request for Proposal Documents (RfP).

2. The Client shall appoint a Project Engineering Manager (PEM) and establish a Project Team to engage regularly with the Consultant for efficiently completing the various delivery items.
3. The project team will meet at least monthly, and the Consultant will report progress at these meetings, as instructed by the Project Engineering Manager. The Project Engineering Manager will confirm that the Consultant has satisfactorily completed each deliverable before invoices can be submitted to Eskom for payment.
4. The activities will be carried out in South Africa. It is anticipated that the Project Team-Leader (Key Expert 1) and Deputy-Team Leader (Key Expert 2) of the Consultant's team will be located in Mpumalanga province for much of the duration of the contract. Other Key Experts will mainly be used on site in Mpumalanga province when required.

## **10.2. Access to Design Information**

1. The Consultant shall have access to the Client's design information relevant to the Services described in these terms of reference

## **10.3. Changes to Client Furnished Information**

1. The Consultant shall not alter the content of any Client furnished information or data without having an Engineering Change Proposal (ECP).
2. Modifications are proposed by means of Engineering Change Proposal (ECP) notifications (the review period is 21 days or as per conditions of the contract). The Client will provide the Consultant with the template for an ECP and the procedure for executing and managing ECPs.
3. If the Consultant:
  - a. cannot meet the Client's technical requirements, or comply with the contractual technical baseline as set out in the Terms of Reference; or
  - b. needs to revise a document that has been approved or that has been released as part of a technical baseline by the Consultant; or
  - c. wants to suggest a modification to the specification or design for which the Client is responsible.

[...] he notifies the Client, using the Engineering Change Proposal (ECP).
4. The notification includes a detailed motivation, a description of the proposed design or interface changes and the impact (cost, scope, and time in terms of project program), if any, on the Programme, prices, or any other contractual agreements.
5. In the event of this notification leading to a change in the documentation for which the Client is the document change authority, the Client is responsible for initiating design change proposals, and if approved, updating the design documents. When approved, the Consultant is informed in terms of the contract, and the updated design documents are issued.