

Scope of Work

1. Description of the work

1.1 *Employer's objectives and purpose of the works*

As a result of the measuring demand for electricity in South Africa, the Employer has decided to upgrade maintain and increase its electricity generation capacity. ERI therefore are raising an enabling contract that will ensure ERI can react in a timeous and expeditious manner which will ensure acceptable levels of power production through ESKOM's power stations.

The enabling contract will further ensure that ERI can react on short notice to any breakdowns and failures which will ultimately ensure lower levels of power loss is experienced by ESKOM

1.2 *Scope of work*

The scope of work is the provision of sub-contracting services, including but not limited to the provision of labour, supervision and management of staff, for a **duration of 40 months, on an "as and when required basis"**, at various Power Stations as listed in 11.2(15)

The scope of work includes the installation of all electrical equipment and materials as required by the Contractor.

The work under these specifications shall include but not limited to the following:

- Install all medium voltage cables, low voltage cables, and control cables including terminations, cable joining kits (splices), circuit and conductor labelling as specified.
- Supply of some medium voltage cables, low voltage cables, and control cables including terminations, cable joining kits (splices), circuit and conductor labelling under specific Project Manager Instruction only.
- Install all materials and equipment necessary to provide a complete lighting and small power system for the Turbine, Boiler and balance of plant areas including lighting distribution boards, transformers, cabling, racking, conduits, fixtures, sockets, and supports as specified.
- Supply of some materials and equipment necessary to provide a complete lighting and small power system for the Turbine, Boiler and balance of plant areas including lighting

distribution boards, transformers, cabling, racking, conduits, fixtures, sockets, and supports under specific Project Manager Instruction only.

- Install all materials and equipment for operating the fans within the lift shafts with interface points to CBMS.
- Supply of some materials and equipment for operating the fans within the lift shafts with interface points to CBMS under specific Project Manager Instruction only.
- Install all lighting equipment and material required for completion of roadway and parking lot as per specification.
- Supply of some lighting equipment and material required for completion of roadway and parking lot as specified under specific Project Manager Instruction only.
- Install all materials necessary to bond all equipment including connections and/or extension of existing earth stingers to all equipment and structural steel as specified.
- Supply of some materials necessary to bond all equipment including connections and/or extension of existing earth stingers to all equipment and structural steel as specified under specific Project Manager Instruction only.
- Install all cable racking, hangers and supports for both power and C&I cables including labelling, cable rack earthing conductors and earthing clamps as specified.
- Supply of some cable racking, hangers and supports for both power and C&I cables including labelling, cable rack earthing conductors and earthing clamps as specified under specific Project Manager Instruction only.
- Install lightning protection system equipment (if required) for miscellaneous areas and buildings as specified.
- Supply of some lightning protection system equipment (if required) for miscellaneous areas and buildings as specified under specific Project Manager Instruction only.
- Install 15kV:415V Miniature Substations as specified.

- Supply of some 15kV:415V Miniature Substations as specified under specific Project Manager Instruction only.
- Moving and reinstallation of existing dual primary voltage 22/15kV:415V Miniature Substations as identified by the Engineer.
- Install materials and equipment necessary to complete the security non-lethal electric fence including modification to security lighting power supply system as specified.
- Supply of some materials and equipment necessary to complete the security non-lethal electric fence including modification to security lighting power supply system as specified under specific Project Manager Instruction only.
- Install miscellaneous electrical equipment such as power panels, welding sockets and local disconnect switches.
- Supply of some miscellaneous electrical equipment such as power panels, welding sockets and local disconnect switches Project Manager Instruction only.
- The above explanations and listings are intended to give a general definition of the scope of Works and shall not be construed to be an itemized listing of each element of work required. The Subcontractor shall be responsible for construction of complete facilities, conforming in all respects to the details and requirements of the specification, drawings, and other contract documents.

Miscellaneous Materials and Services

Miscellaneous materials and services not otherwise specifically called for shall be furnished by the Subcontractor in accordance with the following:

- Removal and replacement of concrete lids for cable trench access
- All nuts, bolts, gaskets, special fasteners, etc., between components and equipment furnished, erected or as specified under these specifications.
- All nuts, bolts, gaskets, special fasteners, etc., between Employer furnished and Subcontractor furnished components and equipment.

- Removal of any temporary shipping braces after installation.
- Touch up paint of surfaces damaged during installation.
- Tests and inspections as required by applicable South African National Standards (SANS), International Standards, Eskom and Local Standards.
- Necessary coordination with other contractors to ensure work is performed in proper sequence and that all work proceeds in a harmonious fashion.
- Connection of temporary power supply to all anti-condensation heaters furnished with Employer-furnished equipment until permanent power supply is installed. This shall include all MV and LV boards, transformers, DC and UPS equipment.
- Provide temporary power and/or lighting to various area as directed by the *Contractor*.


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