

## 1. Annexure A: Tools and Software Requirements

### **Personal Protective Equipment (PPE)**

The *Service Provider* shall ensure the provision of PPE compliant with the relevant standards and the OHS Act. Standard issue of PPE includes a hardhat, goggles, earplugs, reflector vest and safety boots. The *Service Provider* shall bear the cost of the PPE.

### **Vehicle and Medical Requirements**

Resources provided by the *Service Provider* must comply with the *Employer's* vehicle policy. Resources must possess a valid medical certificate declaring them fit to work. Entry and exit medical assessments will be conducted at the expense of the *Service Provider*.

### **Communication Equipment**

Each resource must be equipped with suitable communication equipment, including a laptop with data connection and a cell phone with airtime. Laptops must have core software installed.

### **Dedicated Employer Laptop**

The *Service Provider* will provide each resource with a laptop meeting the minimum specifications of the *Employer* as shown in Table 1, solely for *Employer* use. No external documents are permitted on this machine. The *Employer* reserves the right to specify the make and model of the laptop, aligning with current *Employer* products.

**Table 1: Minimum Laptop Specification from the *Employer***

<b>Processor (CPU)</b>	Intel i7-12650 HX or higher (4.70GHZ or higher)
<b>Graphic subsystem</b>	Discrete Graphics adapter 4Gb Nvidia or higher
<b>Internal drives</b>	1TB (M.2 2280 SSD using PCIE NVMe 4.0 x4 )
<b>Standard memory</b>	32GB DDR4-3200 SODIMM or higher
<b>Maximum memory Supported by System</b>	Upgradeable to 128GB
<b>Communication</b>	WiFi 6E AX210 Compliancy to Wi-Fi (Intel), Wireless Lan 802.11a/b/g/n/x, Bluetooth 5.0 or higher, 2.5Gbe Ethernet
<b>Serial port communication</b>	USB to serial that can support FTDI
<b>Lock</b>	Lock to fit model supplied
<b>Battery Life</b>	6 Cell Li-Polymer Battery 94Wh
<b>Warranty</b>	4 years on the entire system including battery and charger and accessories and Bag supplied to be included in price

### **Software Provision and Licensing**

- Equipment, tools, and software provided by the *Service Provider* are included in the rate.
- Standard licensing fees apply for additional users of the *Service Provider's* software, except for design package task orders where software use is included in the service.
- The resources will be fully competent to operate software without further training being provided.
- The *Service Provider* shall provide the minimum software (core software) as required for tasks, namely Windows 11, Office 365, Nitro Pdf Pro, Google Earth Pro and Anti-Virus Software.

- The *Employer* will free issue requisite software, for temporary use only, under the auspices of NTCSA licensing agreements.
- The Employer may instruct the Service Provider to purchase specialised software. Any additional cost/compensation will be paid on a defined cost plus fee basis. All such software will remain the Employer's property. Examples include: ATP Draw, AutoCAD, Autodesk Vault, Bentley InRoads, Bentley MicroStation, Bentley ProjectWise, Bentley Substation, Bentley Suite, CDEGS, DigSilent, PLS-CADD, PSS®E, and SolidWorks.

## 2. ANNEXURE B: TRAVEL AND SUBSISTENCE EXPENSES, RATES, TOOLS AND SOFTWARE

### 2.1 Travel and Subsistence Expenses:

- All travel and subsistence expenses should be managed according to the National Treasury guidelines for compliance with cost containment measures to all travellers travelling on official business trips.
- All claims must be accompanied by detailed supporting documents and must be claimed within one calendar months of incurrence.
- All travel not stated on the Task Order will need to be pre-approved by the Requesting Manager. Revised rates will be sent to the *Service Providers* as and when revised.
- **Mileage:** Only business-related KM's will be reimbursed at the KM rate stated approved by Eskom. Home-work-home is not reimbursable. The traveller must attach the kilometre calculation to the expenditure claim to verify that the kilometres claimed are reasonable. The traveller should attach proof of a reputable map (e.g., Google Maps) confirming the distances between the two locations. Parking and tollgate costs incurred while on official business trip are reimbursable. The traveller must supply the proof of expenses on original receipts when submitting a claim. All supporting documents such as claim receipts and invoices should be in the language of the contract.
- **The following shall comply with the provisions in the National Travel Framework provisions.**
  - Business Travel
  - Accommodation for Business Travel
  - Car Rentals
  - Domestic and International Flights
  - Cost of Meals
  - Travel Bookings
  - International Travel and Subsistence
  - Fixed Daily Allowance
  - General Principles
  - Engagement of Travel Management Companies (TMC)
  - Reimbursable Expenses
  - Non-Reimbursable Expenses

### 3. ANNEXURE C: ENGINEERING JOB PROFILES

ROLE	QUALIFICATIONS	HIGH LEVEL FUNCTIONAL OUTPUTS
<b>Chief Engineer</b>	Bachelor's degree in Engineering (all disciplines). Registration as a Professional Engineer with ECSA. Minimum of 10 years of experience in field of their discipline; <b>post professional registration</b>	<ol style="list-style-type: none"> <li>1. Develops discipline-specific technology vision, strategy, and direction.</li> <li>2. Establishes and approves technical standards, procedures, and specifications.</li> <li>3. Leads the development and integration of complex engineering solutions/designs for asset creation.</li> <li>4. Plans and oversees research on new technologies within the discipline.</li> <li>5. Represents NTCSA in technical forums at national and international levels.</li> <li>6. Manages and conducts evaluations of products, equipment, materials, services, and changes.</li> <li>7. Offers complex technical consulting and investigative services to customers.</li> <li>8. Provides professional technical leadership to senior engineers and technologists in various disciplines.</li> </ol>
<b>Senior Engineer</b>	Bachelor's degree in Engineering (all disciplines). Registration as a Professional Engineer with ECSA. Minimum of 6 years of experience in field of their discipline; <b>post professional registration</b>	<ol style="list-style-type: none"> <li>1. Provides technical consulting and investigation services to customers.</li> <li>2. Develops and integrates engineering solutions/designs for asset creation throughout the project lifecycle.</li> <li>3. Establishes and approves discipline-specific philosophies, technical standards, procedures, practices, and specifications.</li> <li>4. Manages and conducts evaluations of products, equipment, materials, services, and changes.</li> <li>5. Contributes to the development of discipline-specific technology vision, strategy, and direction.</li> <li>6. Conducts research into new technologies specific to the discipline.</li> <li>7. Engages in national and international technical forums.</li> <li>8. Provides professional technical leadership to technologists across different disciplines.</li> </ol>
<b>Candidate Engineer</b>	Bachelor's degree in Engineering (all disciplines). Registration as a Candidate Engineer with ECSA. Minimum of 2 years of experience in field of their discipline.	<ol style="list-style-type: none"> <li>1. Executes design work.</li> <li>2. Contributes to the integrity of the asset base.</li> <li>3. Delivers standardization outputs.</li> <li>4. Performs technical studies.</li> </ol>

<b>Chief Technologist</b>	B-Tech/ National Higher Diploma/ Advanced Diploma in Engineering (all disciplines). Registration as a Professional Technologist with ECSA. Minimum of 10 years of experience in field of their discipline; <b>post professional registration</b>	<ol style="list-style-type: none"> <li>1. Develops discipline-specific technology vision, strategy, and direction.</li> <li>2. Establishes and approves discipline-specific philosophies, technical standards, procedures, work practices, and specifications.</li> <li>3. Oversees, produces, and integrates complex engineering solutions/designs for asset creation throughout the project lifecycle.</li> <li>4. Plans and oversees discipline-specific research on new technologies.</li> <li>5. Represents the organization in national and international technical forums.</li> <li>6. Manages and conducts evaluations of complex products, equipment, materials, services, and changes.</li> <li>7. Provides complex technical consulting and investigative services to customers.</li> <li>8. Provides professional technical leadership to senior technologists/engineers and technologists/engineers across different disciplines.</li> </ol>
<b>Senior Technologist</b>	B-Tech/ National Higher Diploma/ Advanced Diploma in Engineering (all disciplines). Registration as a Professional Technologist with ECSA. Minimum of 6 years of experience in field of their discipline; <b>post professional registration</b>	<ol style="list-style-type: none"> <li>1. Provides technical consulting and investigation services to customers.</li> <li>2. Produces and integrates engineering solutions/designs for asset creation throughout the project lifecycle.</li> <li>3. Develops and approves discipline-specific philosophies, technical standards, procedures, practices, and specifications.</li> <li>4. Manages and conducts evaluations of products, equipment, materials, services, and changes.</li> <li>5. Contributes input to discipline-specific technology vision, strategy, and direction setting.</li> <li>6. Conducts research into new technologies specific to the discipline.</li> <li>7. Participates in national and international technical forums.</li> <li>8. Provides professional technical leadership to technologists across different disciplines.</li> </ol>
<b>Candidate Technologist</b>	National Diploma/National N Diploma in Engineering (all disciplines). Registration as a Candidate Technologist with ECSA. Minimum of 2 years of experience in field of their discipline	<ol style="list-style-type: none"> <li>1. Performing and contributing to design work.</li> <li>2. Contributing to the integrity of the asset base.</li> <li>3. Providing technical services.</li> <li>4. Delivering standardized outputs.</li> <li>5. Consulting on discipline-related issues.</li> </ol>

<b>Candidate Technician</b>	National Diploma/National N Diploma in Engineering (all disciplines). Registration as a Candidate Technician with ECSA. Minimum of 2 years of experience in field of their discipline	<ol style="list-style-type: none"> <li>1. Performing and contributing to design work.</li> <li>2. Contributing to the integrity of the asset base.</li> <li>3. Providing technical services.</li> <li>4. Delivering standardized outputs.</li> <li>5. Consulting on discipline-related issues.</li> </ol>
<b>Chief Draughtsperson</b>	National Diploma/National N Diploma in Engineering or N4. Minimum of 8 years of related experience draughting, and designing	<ol style="list-style-type: none"> <li>1. Supervising the drawings office.</li> <li>2. Supervising section and planning resources.</li> <li>3. Developing and implementing drawing standards.</li> <li>4. Work planning and scheduling.</li> </ol>
<b>Senior Draughtsperson</b>	N3. Minimum of 4 years of related experience in draughting and designing.	<ol style="list-style-type: none"> <li>1. Producing technical drawings and other graphic information.</li> <li>2. Planning work tasks.</li> <li>3. Coaching newly appointed employees and trainees.</li> <li>4. Performing administrative duties.</li> </ol>
<b>Chief Land Surveyor</b>	B degree/ BTech./ National Higher Diploma in Land Surveying/ Geomatics Professional Registration with the South African Geomatics Council (SAGC) as Professional Land surveyor or Technologist. minimum of 7 years' experience <b>post registration</b>	<ol style="list-style-type: none"> <li>1. Manage key outputs of the Land survey function</li> <li>2. Ensures that a quality product and service is offered by the section</li> <li>3. Performs project and contract management</li> <li>4. Provides a professional consultancy service to the business</li> <li>5. Provides a technology management function for the discipline</li> <li>6. Extensive experience in surveying transmission lines and tower setting out up to 765kV, with a</li> <li>7. Knowledge of survey standards and practices.</li> <li>8. Technical report writing skills.</li> <li>9. Presentation skills.</li> <li>10. Ability to work effectively in a team environment.</li> </ol>
<b>Snr Land Surveyor</b>	B degree/ BTech./ National Higher Diploma in Land Surveying/ Geomatics Professional Registration with the South African Geomatics Council (SAGC). Minimum of 4 years' experience <b>post registration</b>	<ol style="list-style-type: none"> <li>1. Knowledge of survey standards and practices.</li> <li>2. Undertake and co-ordinate Land Survey Process for detailed profile Surveys, Substation Design Surveys, Setting out and As Built Surveys.</li> <li>3. Provide Professional Survey and Mapping Services and support where required.</li> <li>4. Undertake and assist in Route and Site selection of New Power lines and Substations.</li> <li>5. Advise Management of new Technology Developments within Land Survey</li> <li>6. Training and Mentoring</li> <li>7. Technical report writing skills.</li> <li>8. Presentation skills.</li> </ol>

		<p>9. Ability to work effectively in a team environment.</p>
<b>Candidate Land Surveyor</b>	<p>Minimum: Diploma in Surveying. Minimum of 2 years' experience</p>	<ol style="list-style-type: none"> <li>1. Knowledge of survey standards and practices.</li> <li>2. Provide Professional Survey and Mapping Support Services to Eskom Business units.</li> <li>3. Assist in Route and Site Selection of New Power Lines and Substations</li> <li>4. Co-ordinate Land Survey Process for Detailed Profile Surveys, Substation Designs, Setting out and As Built Surveys and Cadastral Surveys</li> <li>5. Experience in surveying transmission lines and tower setting out up to 765kV</li> <li>6. Technical report writing skills.</li> <li>7. Presentation skills.</li> <li>8. Ability to work effectively in a team environment.</li> </ol>
<b>Chief Technologist GIS</b>	<p>B degree/ BTech./ National Higher in one of the Built Environment Qualifications: Cartography/ Survey/ GIS/ Town Planning/ Geo Informatics, Computer Science, and Geography. Professional Registration with the South African Geomatics Council (SAGC) as a Technologist. Minimum of 7 years' experience <b>post registration</b></p>	<ol style="list-style-type: none"> <li>1.To provide a GIS and Drawing/ Draughting management and support service to Tx.</li> <li>2. To provide survey and related spatial maps for Land and Rights and assist with templating (Tower positioning)</li> <li>3. Provides discipline-specific geospatial data and applications vision, strategy and direction setting</li> <li>4. Develops, approves and provides complex geoscience solutions for asset creation and national projects (design)</li> <li>5. Manage and conducts complex product, equipment, material, service and change impact evaluations and risk procedures</li> <li>6. Establish and work within Geoscience , Geography and Geotechnical governance requirements for Engineering Survey</li> <li>7. Represents Eskom on statutory bodies that develop national strategies, policies and collaboration agreements for the geospatial business</li> <li>8. Facilitates the establishment of professional and technical geoscience resources</li> <li>9. Technical report writing skills.</li> <li>10. Presentation skills.</li> <li>11. Ability to work effectively in a team environment.</li> </ol>

<b>Senior Technologist GIS</b>	<p>B degree/ BTech./ National Higher in one of the Built Environment Qualifications: Cartography/ Survey/ GIS/ Town Planning/ Geo Informatics, Computer Science, and Geography. Professional Registration with the South African Geomatics Council (SAGC). Minimum of 4 years' experience <b>post registration</b></p>	<ol style="list-style-type: none"> <li>1. To lead the team, control and support resources within the section, systems and procedures of the section</li> <li>2. To provide a GIS and Drawing/ Draughting management and support service to Tx.</li> <li>3. To provide survey and related spatial maps for Land and Rights and assist with templating (Tower positioning)</li> <li>4. Provide Geographic Information System (GIS) service to Tx</li> <li>5. To provide a drawing service to land &amp; Rights with the main emphasis on Capital line Project &amp; related work</li> <li>6. Experience in transmission servitudes and statutory requirements</li> <li>7. Technical report writing skills.</li> <li>8. Presentation skills.</li> <li>9. Ability to work effectively in a team environment.</li> </ol>
<b>Candidate Spatial Information Officer GIS</b>	<p>National Diploma in one of the Built Environment Qualifications: Cartography/ Survey/ GIS/ Town Planning/ Architecture/ CAD/ Geo Informatics, Computer Science, Environmental management, Environmental Science and Geography. Minimum of 2 years' experience</p>	<ol style="list-style-type: none"> <li>1. Determine spatial information required in relation to mapping activities and participate in the determination of routes for Capital Project Transmission line determination</li> <li>2. Create and supply customers with the required information and maps to proceed with the engineering project flow.</li> <li>3. Captures, validates and maintains spatial data using a geographic information system (GIS) for new Capital Transmission Projects</li> <li>4. Document management.</li> <li>5. Experience in transmission servitudes and statutory requirements</li> <li>6. Technical report writing skills.</li> <li>7. Presentation skills.</li> <li>8. Ability to work effectively in a team environment.</li> </ol>