1. Background Information

Eskom Research Testing and Development (Smart Grids) is tasked with providing solutions, knowledge based on the latest technology that the power industry has to its avail. Its staff requires bleeding edge technology in order to provide expert consultancy to the business at large.

The Smart Grids centre of excellence has a significant amount of data analytics that are performed using its current equipment. The processing of this data (i.e. the concept behind Big data) is gathering huge amounts of data that require storage, processing and ultimately research on how to do so effectively and model intelligence in such a way that they start realising their true potential for the South African Energy market.

It is of the upmost importance that the server is upgraded in order to ensure that the work delivered within the CoE maintains quality and is future proof within the utility landscape.

2. Description of Service/ product that needs to be provided (Use high level and short text format), and if necessary, add a spreadsheet.

The following goods/equipment needs to be supplied:

1 x HPE ProLiant DL380 Gen10 Server with Machine Learning Card (Ampere A100)

3. Benefits to Eskom

Several on-going and future Smart Grids research projects require intensive processing equipment with the proper speed and power in order to deliver on its outputs on time and with proper rigour.

The processing equipment of the Smart Grids CoE enables the CoE to create new paradigms around the processing of data, its visualisation, its integration and modelling.

Advanced analytics in line with Eskom's current business needs are being developed in the Smart Grids CoE. This goal will be met by increasing the processing capability of its equipment dramatically.

4. Scope of work/supply

The supply, assembly, and demonstration of working assembled system of Goods/Equipment for the Smart Grids laboratories as specified in section 2 and 5 respectively.

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5. Specification of Product or Goods

Item	Quantity	Specification
Server	1	HPE ProLiant DL380 Gen10 performance server with one Intels Xeon Silver 4114 processor, 32 GB memory, P408i-a storage controller, eight small form factor drive bays and one 800W power supply
GPU	1	NVIDIA A100 40GB Ampere PCIe GPU
Riser Kit	1	HPE DL Gen10 x16/x16 GPU Riser Kit
Cable	1	HPE GPU 2x 8-Pin cable kit
Hard Drive	4	HPE 1TB SAS 12G MDL 7.2K SFF (2.5 in)
Warranty		2 Years

6. Materials **and/or facilities**

Eskom the Employer, will provide.
- *Access to facil"ities as and when required.*

7. Insurance (Forward Cover) / Foreign exchange

Local agents are required to quote in Rand

8. **Transfer of rights**

As per the NEC Professional Services Contract. Eskom owns the right over material for this contract.

9. **Transfer of skills**

Not applicable

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