SUPPLY, DELIVERY AND INSTALLATION SUPPORT OF SCADA SOFTWARE AND LICENSE UPGRADE REQUIRED AND THE HARDWARE FOR THE OPERATIONS AND MAINTENANCE OF THE PV PLANT AT ROSHERVILLE (ERIC) - <u>E2031CXRTD</u>

Scope of work/supply

- Supply, delivery, installation and commissioning of the equipment (software and hardware) required for the operations and maintenance of the PV plant at Rosherville (ERIC).
- The following hardware must be installed and commissioned:
 - o Rackmount server with new licensed SCADA version
 - o For commissioning, the supplier will be working in the existing control room of the plant, and it has all the field signal cables terminating in the network cabinet.

Delivery to take place at:
Eskom Research Testing and Development (RT&D)
Lower Germiston Road
Rosherville,
Johannesburg

Table 1: List of required equipment.

No		Description	Specifications	Qty
1		Proficy iFix 2024 version SCADA software and license Upgrade	GE IFIX / Historian Upgrade to iFIX/Historian Version 2024 – Non expiring license	1
2		Installation and commissioning including migration of existing backup configuration to new version	Installation and configuration support of the Proficy iFix 2024 version and backup restoration	
3		Hardware		
	3.1	1x Rack Mount Server	1 TB, 2U form factor, DL380 Gen10 Server, 16GB RAM, USB, KVM ports	1
	3.2	1x rack mount managed switch	24 ports 1U FF switch (IKS6726/6728), 2/4Gb	1
	3.3	2x serial to Ethernet	TCP gateway (MB3170), connect to 32 Modbus TCP servers	2
	3.4	1x IO Logix converter	Universal I/O, 12 channels (E1210/1212), 200mA per channel	1
	3.5	1x KVM extender	USB VGA KVM Console extender	1
	3.6	2x displays	Analogue/HDMI 24 inch	2
	3.7	1x Wifi Router	4G/LTE, 2.4G and 5G, Antenna external, B535,	1
	3.8	Cable labels	Cable tie markers, transparent, UV resistant	50x1
	3.9	2x RS485 Signal repeater	EIA/TIA RS485 compatible	2
	3.10	Temperature sensor	Applied in network cabinet, PT100/1000	1
	3.11	humidity sensor	Applied in network cabinet, PT100/1000	1
	3.12	DIN UPS	24Vdc DIN rail mount	1
	3.13	1x GPS time synchronisation clock	Rackmount (MCR5000)	1
	3.14	10x shielded ethernet cables	5x1.4m and 5x2.2m	10

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The entire plant layout and Control room are shown in Figures 1 and 2.



Figure 1: Eskom RT&D PV plant layout and control room.





Figure 2: Control room interior where work will be done.