

Annexure 'B'
Price Schedule_Supply, Installation and Integration of Class A Power Quality Meters

Sr No	Material Code	Decription of Items	QTY	UOM	HSN Code	Unit Price	Total Price
A	SUPPLY						
1	2100234069	Supply and Integration of Power Quality meters and its accessories. Moreover, interfacing software with perpetual license.	150	NOS			
2		Supply of 4G Ethernet MODEM for Power Quality Meters Approved make : 1.Nomus 2.Dynalog (Moxa)	50	NOS			
Total Basic Price							
P&F Charges							Included
Freight Charges							Included
Transit Insurance Charges							Included
GST						18%	
Total Contract Price (A)							

Sr No	Service No	Decription of Items	QTY	UOM	SAC Code	Unit Price	Total Price
B	SERVICE						
1		Installation, Testing and Commissioning of Power Quality Meter in existing Switchgear panel	150	Nos			
2		Installation, Testing and Commissioning of 4G Ethernet MODEM for Power Quality Meters	50	Nos			
Total Basic Price							
GST							
Total Contract Price (B)							
Grand Total (Supply + Service) in Rs.							

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Specifications of 4G Ethernet MODEM for Power Quality Meters at customer

- 1 Module: 4G with backward compatible 3G /GSM GPRS
 - a) FDD LTE: B1 (1920-1980/2110-2170) / B3 (1710-1785/1805-1880) / B8 (880-915/925-960) / B20 (800) /B5 (850) MHz
 - b) TDD LTE: B38 (2570-2620) / B39 (1880-1920) / B40 (2300-2400) / B41 (2496-2690)
 - c) HSPA / UMTS: B1 (2100) / B8 (900) /800/850/1900 MHz
 - d) GSM: 900/1800/ MHz Class 10
- 2 WAN Protocol: PPP/IPCP over Asynchronous HDLC with PAP/CHAP Authentication.
- 3 Modem shall be compatible with IPv4 & IPv6 schema.
- 4 Console Interface: Full UART RS232 on RJ45/COM port connector.
- 5 LAN Interface: 10/100 Base-T complying to IEEE 802.3 / ANSI 8802-3 on RJ45 connector.
- 6 Support for SCADA Protocols in transparent pass-through mode.
- 7 Network Protocols: PPP, IPCP, PAP, CHAP, ARP, IP, ICMP, TCP, UDP, IPSEC, SNTP, TFTP.
- 8 Support for NAT and Port forwarding.
- 9 Management: Serial, HTTP, Telnet & via SMS, Port Mapping, Event Log & Upload. Firmware Upgrade
- 10 Modem shall have self-healing or watch dog timer capability to recover from dead lock situation.
- 11 Status Monitoring: ICMP to 4 destinations for Keep Alive & Self Heal. Signal Strength & LEDs.
- 12 SIM Interface: Single /Dual SIM (External with locking provision).
- 13 Auto dial features to network for data connectivity.
- 14 Communication Interface: Remote management features like telnet & remote download facility
- 15 LED Indications: Power ON, Network–Signal strength, SIM availability, Ethernet link

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16 Connectors: RJ45 Ethernet Port, SIM Card Holder, DC power connector, SMA Antenna connector

17 Power Supply: 24V DC (with reverse current protection) with 2 numbers Terminal Block with or without adapter.

18 Industrial grade power adapters in case of 24 VDC not available: 85 ~ 264VAC

18 Enclosure: Metallic Extrusion

19 Mounting: DIN Rail Mounting /Panel mount

20 Temperature: Operating (-10 to 60 Degree Centigrade), 95% Humidity

21 Antenna: Dual Antenna with SMA connector. (7dB with 5M Cable)

22 Accessories:

- a) cable for connecting to external DC power source (24 V)
- b) 1 Meter Standard Ethernet (Straight) data cable to meter
- c) Standard Console cable for diagnostic port of Modem
- d) Power supply adapter (230V AC)

23 Certification:

A Conducted Immunity : IEC61000-4-6

Measure emission of the device (referenced to earth) on power mains and to compare them with specified limits to ascertain that the device will not disturb other equipment's.

Frequency : 0.15MHz to 80MHz

Modulation : 80% AM at 1 KHz

Test Voltage : 3V

B Electrostatic Discharge (ESD):IEC61000-4-2

Check immunity against discharge of static electricity that may occur when a charged operator touches the device

Contact Discharge : 4KV

Air Discharge : 8KV

No of Discharge : 10 at pre-selected spots

Positive & Negative Polarity

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C EN55022 CLASS B

Immunity characteristics of the device when subjected to continuous conducted noise

Conducted Emission: Frequency - 150 KHz - 30 MHz

Radiation Emission : Frequency – 30 MHz - 1000 MHz

24. Warranty period: 5 years

25 Installation & commissioning of Modem at site:

- a) Installation of Modem hardware with SIM card at Power quality metering points location.
- b) Electrical connection to modem hardware.
- c) Antenna , adapter power supply and data cable connection & placement for Wireless Data Communication to central server application shall be insured.

Note:-

Antenna: High Gain Antenna with SMA connector. (12dB with 15M Cable) is applicable only for PSS.