GLOBAL POWER PRODUCTS
NE Meter Specifications

SPECIFICATIONS:

1. Digital Meter

1.1 Accuracy

		Unity Power Factor	50% Power Factor
1.1.1.	Test Amps/30	0.2%	0.5%
1.1.2.	Test Amps	0.1%	0.4%

1.2 Services

One Meter with an Autoranging Power Supply that is capable of monitoring the following Services:

3 Phase 4 Wire Wye	Any Voltage
3 Phase 3 Wire Delta	Any Voltage
3 Phase 4 Wire Delta	
Network, 1 Phase 2 or 3 Wire	

1.3 Operating Range

Voltage:	504 Volts (absolute)
Current:	100- 5,000 Current Transformers
Frequency:	47Hz to 63 Hz
Temperature:	-40° C to +85° C
Humidity:	0 to 95% non-condensing

1.4 Burdens

Current Circuit:	Phase A, B, C	1VA maximum
Voltage Circuit:	Phase A	8.6 VA maximum power circuit
	Phase B, C	0.24 VA maximum

1.5 Insulation, Surge Protection and Performance

Conforms to ANSI C12.1: 1995, ANSI C12.19: 1997,
ANSI C12.20: 1997, ANSI C12.21: 1999
ANSI/IEEE C37.90.1 – 1989
IEC 801-4 (4kV) 1988
FCC Part 15 and FCC

Type:	Metal Oxide Varistors
	Line to neutral and neutral to ground
Ratings:	480 VAC RMS continuous
	4400V peak fast transient
	4000A peak transient

1.6 Functionality

1.6.1. Meter shall be capable of displaying kWh, KW, Time of Use, kVAR, KVA and Power Factor metering parameters depending on the model type ordered.

1.6.2 Meter shall have the ability to function as a stand-alone metering device For kWh, KW, Time of Use, kVAR, and KVA so that in the event the central processing station would fail, all data parameters could be collected at the meters themselves.

1.6.3 Demand type meters shall have a utility accepted demand reset mechanism and can be accessed from the front of the meter. The reset mechanism shall meet ANSI C12.1 Section 4.12.2.8

1.6.4 Meter shall have the ability to act as a Data Recorder if necessary, capable of storing up to two years of consumption data.

1.6.5 Meter shall maintain readings in the event of a power failure utilizing non-volatile memory on kWh and KW meters and the on board real time clock will remain powered through the use of a sealed Lithium battery on Time of Use meters.

1.7. Meter shall have a LCD display

1.7.1. Meter shall display Potential and Consumption annunciators.

1.7.2. Meter will be capable of displaying an error condition if inverted a current transformer or cross phase of the installation wiring is detected.

1.7.3. Meter shall have the ability to display individual Voltage, Current and Phase angle values.

2. Enclosure

2.1 Enclosure shall be in-door or out-door type and provide protection to a NEMA 4X rating.

2.2 Enclosure material shall be Flame Retardant GE Lexan with a UL rating of 5V

2.3 Meter shall be seal able using a wire type meter seal.

2.4 A 1 1.16" pre-drilled hole shall be in the bottom of the meter enclosure to accommodate (3/4" conduit)

2.5 Enclosure shall also have integrated mounting flanges.

2.6 Stainless Steel hardware shall be used for securing the lid to the base

3. Current Transformers

3.1 Meter shall use 100 mA secondary current transformers that allow for the paralleling of up to 4 sets of CTs.

3.2 Secondary of the transformer shall output current to ensure the accuracy of the service being metered.

3.3 Current Transformers shall be available in ranges from 50 Amps to 5000 Amps.

3.4 Current Transformers shall be available in solid or split core configurations.

3.5 Current Transformers shall be capable of measuring current up to 300 feet away from the metering point.

4. **TESTING**

4.1 Meter shall provide the ability to be tested in place using a utility standard testing procedure, which utilizes an accessible infrared Test LED.

4.2 Meter shall have a Test Mode capable of displaying instantaneous Voltage. Current and the Phase Angle between each vector as referenced from phase A Voltage.

5. SOFTWARE

5.1 Software shall be capable of interrogating meters directly from the front of the meter with out removing the meter seal or opening the front cover.

5.2 System level software shall be able to perform the following functionality"

- Poll each meter individually or sequentially
- Provide an instantaneous vector diagram for each meter.
- Provide kWh, KW, TOU, kVAR, KVA, and Carbon Footprint register reading for each meter.

5.3 Meter data can be polled via web page, email or PC Applications. Data can be tracked and analyzed over time. Data can be archived on PC.

5.4 Data can be archived on a local PC a remote bill generating site or an off site data polling repository.

6. OPTIONS

6.1 Pulse Output
Meter shall provide two pulse outputs. One being a utility standard Form C KYZ output, and the second being a Form A solid-state contact. The Form A contact can be wired as a Demand Threshold Output.

6.2 RS485 Communications
RS485 communications will be provided on an option board located inside the meter's enclosure capable of supporting up to 250 metering points. This multi-drop network will have a running distance of up to 5000 feet.

6.3 Data Recorder
Meter shall have the option of being equipped with an additional 32KB of random access memory for either one or two channels of interval load profile data.

6.4 WIFI / Ethernet
Each meter shall have the ability to be polled through internet, email, and PC Applications using WIFI module that connects to local wireless network or LAN

- Meter shall be capable of calculating bills on specified rates and emailing to customers.

6.5 Pulse Input
Meter shall provide two pulse inputs, allowing it to meter other utilities, including water.

6.5.1 Data Recording duration in days shall be according to the following table:

Interval Length in Minutes
5
15
30
60

7. DEMAND CONTROL

7.1 Demand Control

Meter shall be capable of receiving and e-mail providing option (6.4 15 installed) for Demand Control options. The solid State Contact closures will be provided as an interface. Demand Controls require an e-mail to initiate a closure and a second e-mail to open the contact.

The system and all its components must receive the approval of all agencies having jurisdiction **prior to installation of any equipment or wiring.**

The system supplier shall guarantee his ability to provide off-site diagnostic analysis of the system via telephone lines, as well as his ability to provide off-site preparation of bills in the required format, if required by the Owner. The supplier shall provide on-site diagnostics analysis of the system (if needed) Installation assistance in the form of telephone assistance or on-site visits, including one year's free diagnostic service (including on-site, or off-site repairs and adjustments).

The meters shall be the NE Meter manufactured by Global Power Products or equal.