**Energy Challenge**

Increasing energy costs are a challenge around the world. Understanding and managing the various energy programs and billing methods continues to become more and more complex. At the same time, facility managers are tasked with finding means to reduce energy costs year over year to meet targets and improve profitability.

Energy Utilities are faced with an ever-increasing demand from their customers. Peak Demand and Time of Use tariffs are growing in order to encourage consumers to pro-actively reduce energy use.

**The Solution: The Touch: An Energy Router.**

The Touch is a device that combines the functionality of an Energy Gateway, Data Logger, Demand Management Controller, and ADR DRAS Client all in one. It collects and streams data from existing EMS, BMS, SCADA, utility meters and energy meters to the Cloud for storage, analytics, visualization and reporting.

Once on the cloud, the data is accessible by energy managers and authorized service providers via automated and secure API. The Touch Energy Router also provides user-set Demand Management routines that automatically shed/move loads depending on anomaly’s, time, triggers or other on-site factors.

The Touch Energy Router propels energy management to the world of real time big data management, analytics and reporting. It amplifies the return on investment of spent energy capital expenditures by leveraging existing energy metering and management infrastructure for maximum benefits.
Touch: Energy Router Key Features

Supports **simultaneous data acquisition** from up to 122 metering devices (power, water, gas, flow, environmental, etc.)

- Up to 20 metering devices with RS-485 serial communication (Modbus RTU, BACnet RTU, or other published serial protocol)
- Up to 100 IP-Based metering devices (Modbus TCP, BACnet/IP, SNMP, or other published IP-based protocol)
- One KYZ Pulse Output energy meter
- One ZigBee SEP-enabled Utility Smart Meter
- Streams 1-minute energy data in real-time to the ESP Cloud and your external databases as desired (via API)
- Onboard demand management control over IP or dry contacts with less than 1 minute response time
- Certified with an embedded Automated Demand Response (ADR) client compatible with Open ADR 1.0 and 2.0b protocols
- Preserves data in local memory for up to a year until receiving confirmation of cloud storage
- Utilizes features that optimizes existing EMS and BMS infrastructures
- Designed to leverage currently deployed automation infrastructure and avoid stranded asset costs
- Additional data security with 128-bit encryption

**Communication Protocols and I/O**

The Energy Router is a flexible combination for connecting your energy data to the cloud. It can communicate over multiple protocols: BACnet/IP, Modbus TCP, SNMP, BACnet RTU, Modbus RTU, KYZ Pulse, ZigBee, and many other published protocols.

No longer are energy meters stranded due to incompatibility – you can now connect a variety of meters and view all of that data in one software app.

- Modbus RTU, Modbus TCP
- BACnet/IP
- SNMP
- ZigBee
- RS-485 serial interface
- KYZ pulse counter (input)
- TCP/IP
- 4 Dry contact relays (output)
- 4 USB ports

**Device:** 1GHz ARM CPU with 512MB RAM : Linux OS : 4GB Nonvolatile Memory

**Duty Cycle:** 100% duty cycle

**Communications:** Wired Ethernet 10 Base T and 100Base-TX (Autosensing): Wireless 3G/4G LTE

**Operating temp:** -20°C (-4°F) to 55°C (131°F)

**Storage temp:** 60°C : 95% non-condensing humidity

**Packaging & Size:** Wall mountable : NEMA rated enclosures : 12” x 12” x 4” (305mm x 305mm x 101.6mm)

For any additional information on this product feel free to contact us and we will be more than happy help.