

ZigBee Smart Energy Features

Metering Support:

- Multiple commodities including electric, gas, water, and thermal
- Multiple units of measure for international support
- Battery or mains powered
- Multiple measurement types including load profile, power factor, summation, demand, and tiers
- Historical information (previous day, today, etc.)
- Status indicators including tampering
- Real-time consumption / production information
- Ability to record both generation (delivered) and consumption (received)
- Support for meter-as-gateway and meter-as-device on the network

Demand Response and Load Control Support:

- Scheduling of multiple events
- Built-in support for customer override
- Auditing of event enrollment, participation, and other actions
- Ability to individually or simultaneously target specific groups of devices including HVACs, water heaters, lighting, electric vehicles, and generation systems
- Multiple control methods including temperature set points and offsets, criticality levels (such as emergency signals) and duty cycling
- Ability to randomize start and end times to avoid spikes

Pricing Support:

- Multiple commodities including electric, gas, water, and thermal
- Multiple units of measure for international support
- Multiple currencies for international support (using ISO 4217)
- Support for multiple providers and rates in a single location
- Support for price ratios and price tiers
- Support for separate generated (delivered) and consumed (received) prices

Text Message Support:

- Scheduling and canceling of messages
- Ability to request message confirmation
- Multiple urgency levels
- Optional message duration for short-lived messages
- Support for multiple international character sets

Preliminary Device Support:

- Meter-integrated or standalone AMI gateways
- In-home displays including low-cost standalone devices such as refrigerator magnets and energy orbs
- Programmable communicating thermostats (PCT)
- Generic load control devices for appliances such as water heaters, lights and pool pumps
- Smart appliances
- Electric and plug-in hybrid electric vehicles
- Energy management systems
- Range extenders

Security:

- Support for consumer-only, utility-only or shared networks
- Automatic, secure network registration using either pre-installed keys or standard public-key cryptography methods such as ECC
- Data encryption

Other:

- Time Synchronization provided by meter integrated or stand alone gateways
- Compliant with draft OpenHAN standard
- Designed for easy upgrade and adaptability