



Information & Services Solutions

Smart Meter Solutions





Smart Meter Solutions

Providing a ***Total Solution*** to Utility / Municipality / Body Corporates

• [Single Phase Electricity Meter/Demand Controller, Three Phase Electricity Meter/Demand Controller, CI100](#)
with –

- Smart Meter Management
 - Pre-Pay **and** Conventional Post-Pay AMR Metering from same meter infrastructure
 - Two way Communication with on-line Firmware Upgrade Capabilities
 - Remote Meter Control, On/Off
 - Remote and Local Token Recharge ([Refer to Vending Slide](#))
 - Tamper Management ([Refer to Tamper Slide - CIU](#))
 - Consumer Display to Interface with Meter Information and Token Loads
 - Profiling on Consumption of all Consumer Services
- [Communication](#)
 - Long Range - GPRS/Edge/HSDPA/ADSL/Wi-Max/Ethernet
 - Short Range Meshed Network (NAN) – 2.4GHz (ZigBee)
- Smart Load Management
 - Scheduled and Un-Scheduled Demand/Load Management or Load Limiting
 - Profiling and Categorize Consumers with Data Stored Centrally on a MSQl Database
 - Analysis of Load to Plan and Manage Scheduled Load Management Activities/Jobs
 - Shift Load by Manipulating Consumer behavior by Time-of-Use Tariffs and Load limiting
 - Promote Load Control Units for Appliances to Support Consumer Energy Saving Requirements
 - Multiple Tariff Structures to Implement Consumer Incentives and Disincentives
 - Time-of-Use or Step Tariff Billing on Pre-Pay and Post-Pay



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- Smart Management of Independent Power Producers
 - Consumers can Choose to Receive Electricity Supply from Various Suppliers
 - System Supports various Suppliers with Independent Tariffs per Supplier with Dynamic Billing
 - Support Energy Supply from the Consumer to the Grid with Reverse Billing to the Power Supplier
- Quality of Services Management
 - Smart Meters Monitors in real time Frequency, Voltage Fluctuations with Central Reporting
 - Smart Meters Disconnect Supply and Report when Quality of Supply is outside set Parameters
 - Mapping of Electricity Grid with Electricity Measurement and Management at each Distribution Node
 - Reconcile Consumer Consumption with Meter Readings at Distribution Nodes
 - Support Power Line Load Management with Quick Response Load Reduction
- [Communication Network](#)
 - Long Range GSM communication is Self Healing as per the Cellular network Capabilities
 - Short Range ZigBee Communication is a Meshed Grid Self Healing Network and Supports 6 Hops
- Asset Management
 - Online Management of Meter Locations
 - Online Management of Vending Infrastructure and Vendor Accounts (Pre-Pay and/or Post-Pay)
- Workforce Management
 - Online Management of Installations and Maintenance
 - Online Monitoring of Workforce in the Field with Quality of Service Checks Online Management of Stock Issue to Consignment
- WEB Interfaces
 - Consumer interface for Fault Reporting, Service Token Purchases, etc.
- Generic Meter Interfaces
 - The Management System and the Communication Network has Generic Interfaces to Demand Meters for Industrial Consumers (Meters with External Port to Support Communication to an External Radio)



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Thank You





The CI100 is used for all services including pre-pay and post-pay, e.g. Water, Electricity, Debt Collection and Communication to Customers.



DIN Rail Mounted



BS Footprint

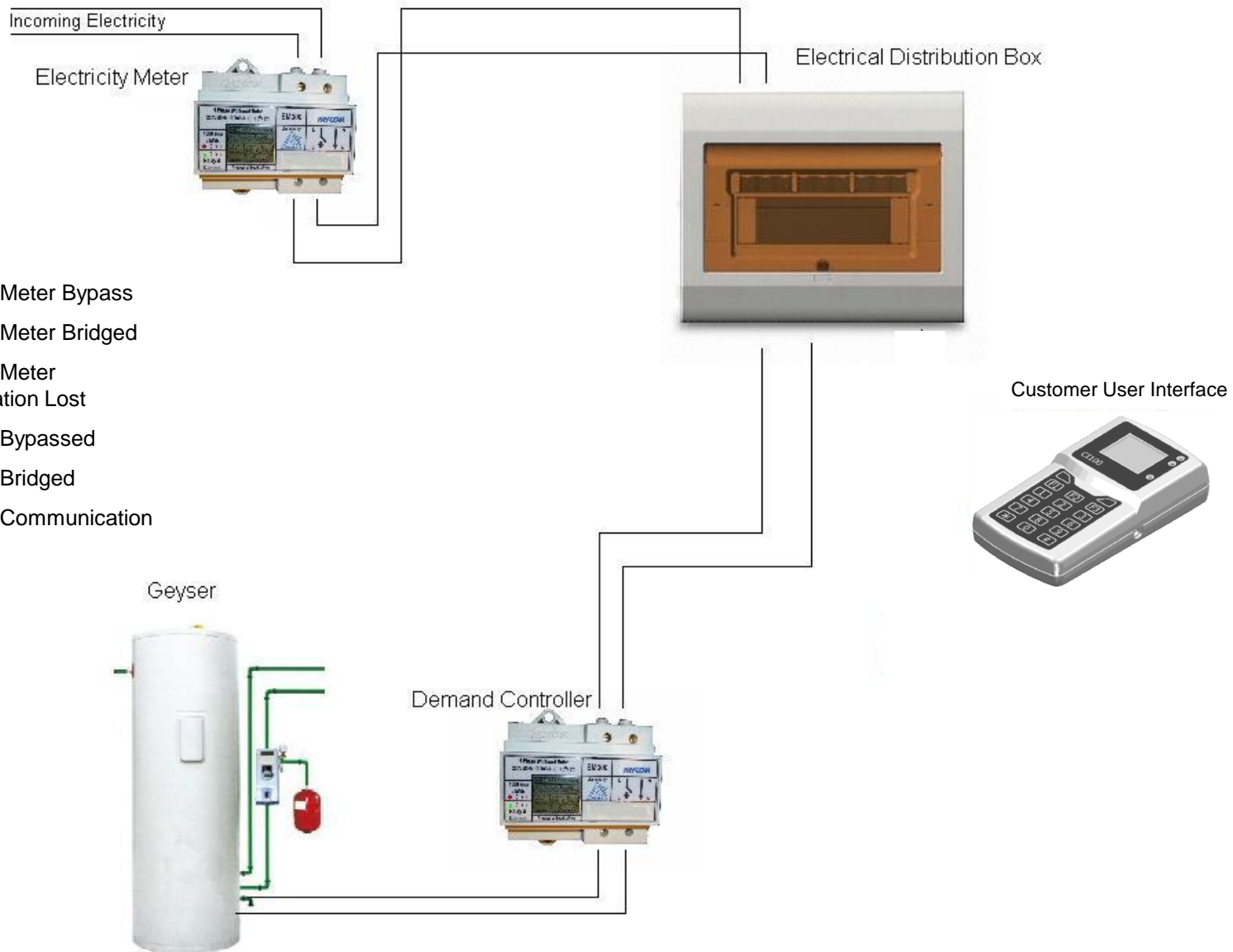


Surface Mounted



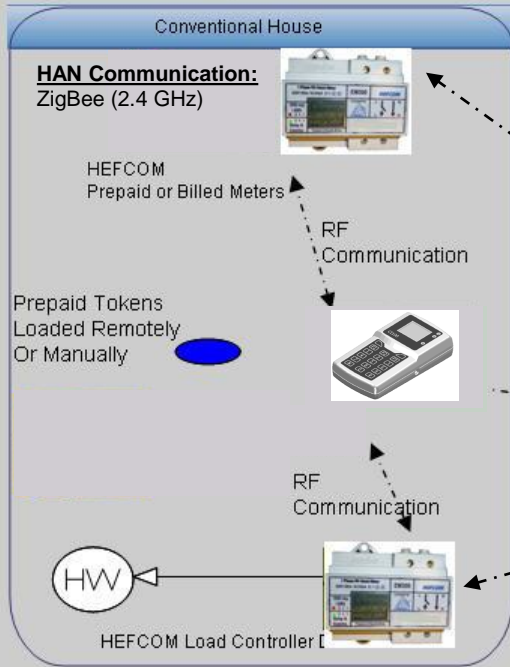
- *Pre-Pay and Post-Pay metering from the same unit*
- *Demand Management*
- *Load Limiting*
- *kWh Consumption Rationing*

Electricity Tamper Management

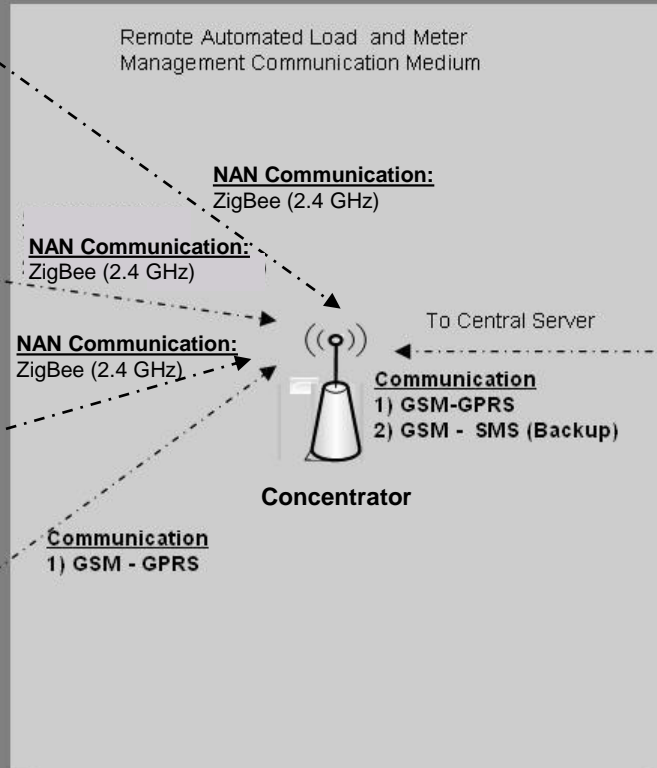


- Electricity Meter Bypass
- Electricity Meter Bridged
- Electricity Meter Communication Lost
- DSM Unit Bypassed
- DSM Unit Bridged
- DSM Unit Communication Lost

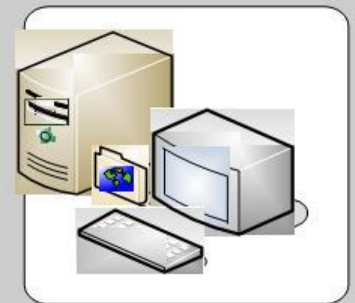
Meter with Load Management Devices



Prepaid Vendor
Connected via GPRS



HEFCOM Remote Automated Metering Management, Vendor Management and Load Management Server



Installation of Electricity Meters, Demand Controllers and Water Meters Average Ratio 75 to 1 Concentrator

