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INHEMETER CO., LTD.

INHEGRID SOLUTION

INHEGRID SOLUTION

Make Grid Smarter



About INHEMETER

INHEMETER is one of the world-leading “end to end” solution providers and service companies dedicated to the power sector. We provide efficient, auditable and high-performanced management platforms to monitor and manage utility’s asset, resource and infrastructure. Our experienced and talent team, using cutting edge technology, provide matured and world-class solution and service to different utilities all over the world. Based on our rich experience we are aware of utility requirements and we have successfully provided relevant solutions and services to different utilities.

Content

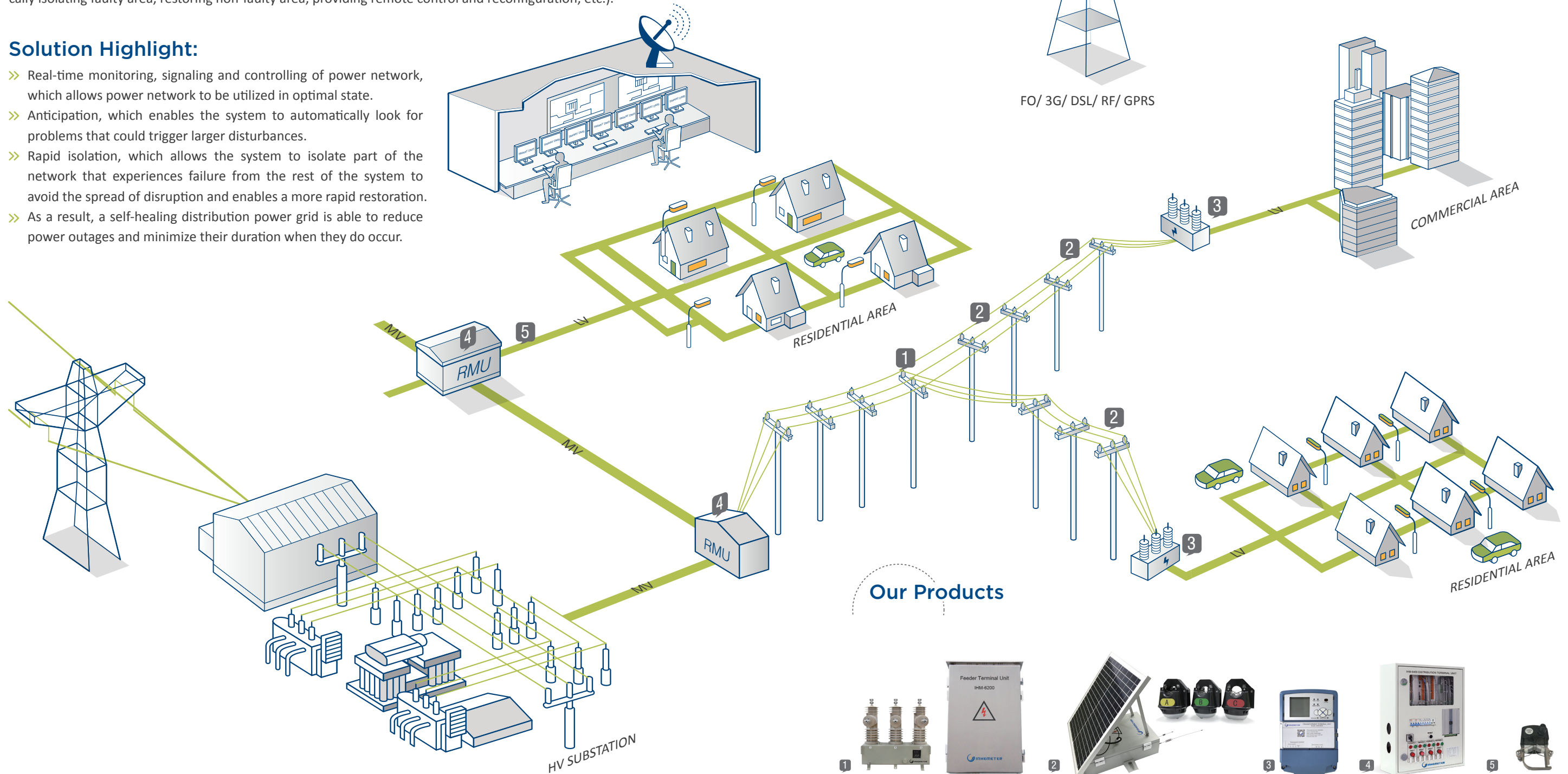
04	SELF-HEALING DA SOLUTION
05	IHM-6200 FEEDER TERMINAL UNIT
06	IHM-6400 DISTRIBUTION TERMINAL UNIT
07	VACUUM CIRCUIT BREAKER
08	VACUUM LOAD BREAKER SWITCH
09	SF6 LOAD BREAKER SWITCH
10	IHM-6100 FCI AND DATA COLLECTOR
12	IHM-6101 FCI+ ZERO SEQUENCE AND DATA COLLECTOR
13	IHM-6000 TRANSFORMER TERMINAL UNIT
14	SMARTDMS SCADA/DMS CENTRAL SYSTEM
15	SELF-HEALING DA COMMUNICATION INFRASTRUCTURE
16	BENEFITS OF SELF- HEALING DA
18	SMART PREPAYMENT LPU METERING SOLUTION
19	MV/HV SMART PREPAYMENT LPU METERING ARCHITECTURE
20	MV/HV METERING UNIT
21	SMART LOAD SWITCH
22	LV SMART PREPAYMENT LPU METERING KIOSK
23	DTZ1513- BOX-LV-CYYY COMBINED CT METERING KIOSK
25	DTZ1513- BOX-TXXX-YYY HIGH CURRENT DC METER
26	SMART SUBSTATION METERING
28	DTZ1513 THREE PHASE CT/VT METER
29	SMARTMDM (METER DATA MANAGEMENT)
31	EPC PROJECT
32	POWER NETWORK REHABILITATION
33	MICRO-GRID SOLUTION
34	DISTRIBUTION GENERATION

Self-Healing DA Solution

Distribution networks are growing very fast and covering large scale in urban and rural area, pinpointing of fault in distribution network, providing isolation of faulty area to minimize the number of users that are impacted by the disturbance, clearing fault and restoration of network in minimum duration need advanced technology. Self-Healing Distribution Management Solution is a complete solution implemented on distribution power network, and includes medium/ high voltage feeder, distribution substation and high voltage substation. The solution provides real-time monitoring and intelligent control (monitoring critical parameters of distribution power network, locating and reporting faults, automatically isolating faulty area, restoring non-faulty area, providing remote control and reconfiguration, etc.).

Solution Highlight:

- » Real-time monitoring, signaling and controlling of power network, which allows power network to be utilized in optimal state.
- » Anticipation, which enables the system to automatically look for problems that could trigger larger disturbances.
- » Rapid isolation, which allows the system to isolate part of the network that experiences failure from the rest of the system to avoid the spread of disruption and enables a more rapid restoration.
- » As a result, a self-healing distribution power grid is able to reduce power outages and minimize their duration when they do occur.



Our Products



IHM-6200

Feeder Terminal Unit

IHM-6200 FTU (Feeder Terminal Unit) is designed based on advanced technology for management of MV feeders (11kV, 15kV, 20kV, 22kV, 33kV) to help utility company for detection and pinpointing of fault in distribution network, providing isolation of faulty area to minimize the number of users that are impacted by the disturbance, clearing fault and restoration of network in minimum duration.



Product Highlight:

- » Compatible for MV feeder 11kV, 15kV, 20kV, 22kV, 33kV
- » Remote data acquisition
- » Current protection
- » Reclosing remote control local control locally button operation and switch state acquisition
- » It supports multiple communication methods to facilitate the automatic distribution system reconfiguration
- » Support 7 or 14 analogue inputs include zero sequence
- » Support 8 or 18 digital inputs and 2 or 4 digital outputs

Through modern communication network (GPRS/ 3G/ RF/ FO), it realizes remote data measurement related to the MV feeder operations and in real-time condition, as well as data acquisition, data analysis, capturing and reporting abnormal events.

IHM-6400

Distribution Terminal Unit

IHM-6400 DTU (Distribution Terminal Unit) is installed in the distribution feeder switching station, Ring Main Unit (RMU), HV substation and mini-substation to acquire the analog and digital data to detect and report the faults of distribution feeder lines. This information will remotely report to the Central system via remote communication.



Product Highlight:

- » Support many inputs analog (2 to 16 feeder lines), digital input data (up to 96 DI), digital output data, control output (up to 18) Remote data acquisition
- » Report the faults of distribution line
- » Execution control command from the central system

IHM-6400 DTU can receive control command from the central system to remotely operate the distribution switch. In this way, IHM-6400 DTU can identify the faulty, re-configure the network, recovering the power supply and reduce the power outage time as well as improve power supply reliability of distribution network.

Vacuum Circuit Breaker

Inhemeter's Vacuum Circuit Breaker accomplishes safe and efficient fault interruption to prevent temporary faults, especially in overhead lines where lightning strikes, wind-borne debris, crossed lines, fallen branches, or small animals and birds on the insulation can cause problems.



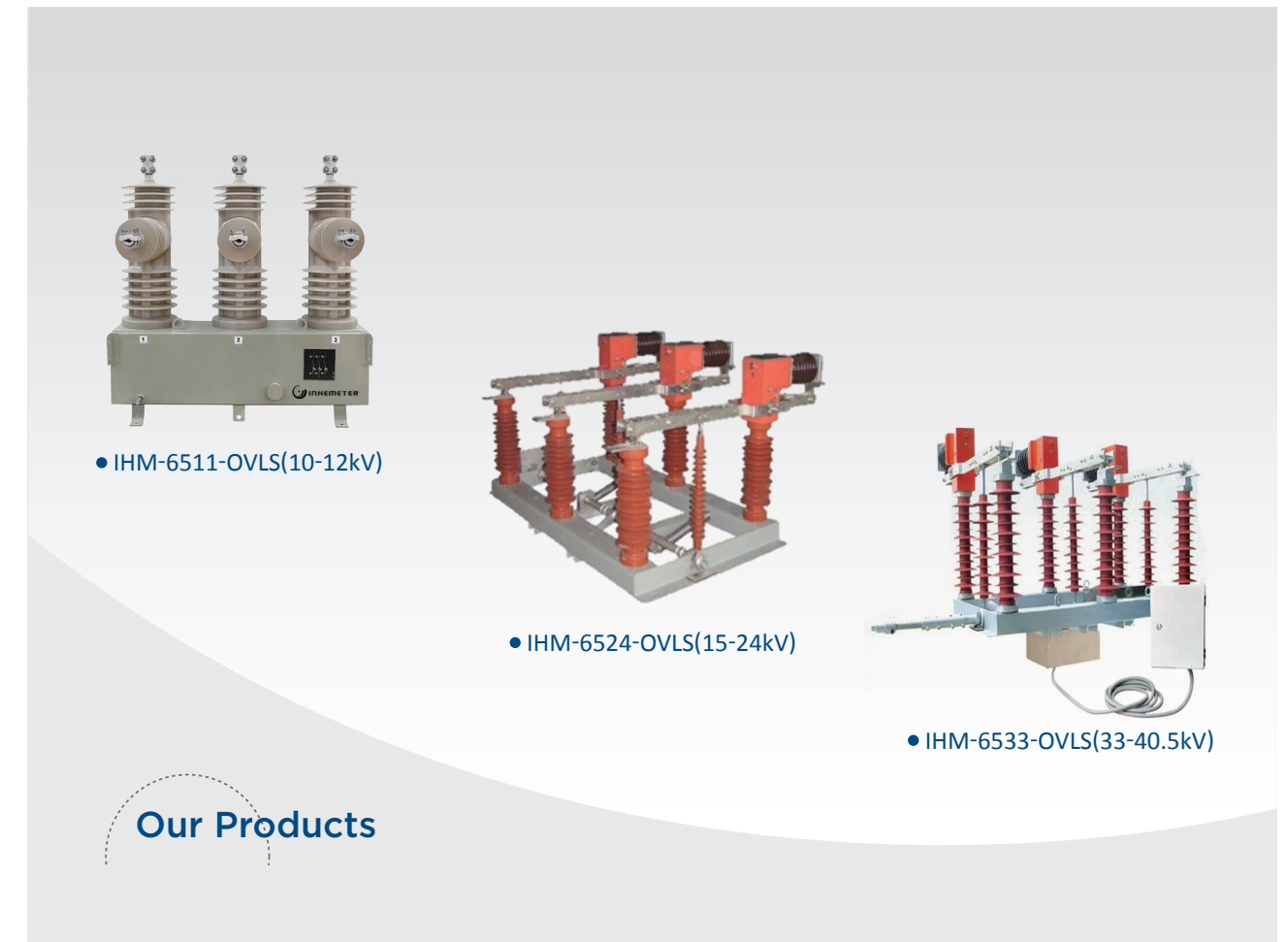
Product Highlight:

- » Compatible for MV feeder 10-12kV, 15-24kV, 33-40.5kV
- » Rated current 400A, 630A or 1250A
- » Protection degree IP67
- » High performance
- » Rated operation order Open -0.3s- close and open -180s- close and open
- » Closing time $\leq 100\text{ms}$
- » Breaking $\leq 50\text{ms}$

Inhemeter's Vacuum Circuit Breaker is suitable for outdoor installation and with connection to FTU/DTU it provides advanced distribution management for utility company, including remote reconfiguration of MV/HV network, connection and disconnection, reclosing, isolation of faulty area, ...

Vacuum Load Breaker Switch

Inhemeter's Vacuum Column Load Breaker Switch with high arc extinguishing and insulation capability has been designed based on advanced technology to accomplish safe and efficient load interruption in overhead lines in urban or rural area.



Product Highlight:

- » Compatible for MV feeder 10-12kV, 15-24kV, 33-40.5kV
- » Rated current 630A
- » Protection degree IP67
- » High performance
- » Closing time $\leq 100\text{ms}$
- » Breaking $\leq 50\text{ms}$

Inhemeter's Vacuum Column Load Breaker Switch is suitable for outdoor installation on up to MV/HV feeders (pole mounted) and with connection to DTU/FTU it provides advanced distribution management for utility company, including remote connection and disconnection of load in MV/HV network, isolation of faulty area.

SF6

Load Breaker Switch

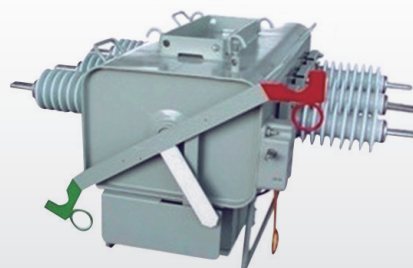
Our Products



• IHM-6511-OSLS (10-12KV)



• IHM-6533-OSLS (33-40KV)



• IHM-6524-OSLS (15-24KV)

Inhemeter's SF6 gas-insulated column Load Breaker Switch with high arc extinguishing and insulation capability has been designed based on advanced technology to accomplish safe and efficient load interruption in overhead lines in urban or rural area.

Product Highlight:

- >> Compatible for MV feeder 10-12KV, 15-24KV, 33-40.5KV
- >> Rated current 630A
- >> Protection degree IP67
- >> High performance
- >> Closing time <=100ms
- >> Breaking <=50ms

Inhemeter's SF6 gas-insulated column Load Breaker Switch is suitable for outdoor installation on up to MV/HV feeders (pole mounted) and with connection to DTU/FTU provides advanced distribution management for utility company, includes remote connection and disconnection of load in MV/HV network, isolation of faulty area.

IHM-6100

FCI and Data Collector

• TYPE A: SIMPLE



• TYPE B: WITH SOLAR POWER



• TYPE C: WITH GPS TIME AND TEMPERATURE SENSOR



IHM-6100 FCI (Fault Circuit Indicator and Data collector) has been designed based on advanced technology for overhead cable to pinpoint fault location and accurately log load in any point along the electric distribution power network (faults like two-phase or three-phase short-circuit fault and single-phase earth fault). IHM-6100 utilize low power RF network to communicate with Smart Data Collector. IHM-6100 is equipped with visual indication to support visual tracking and audit at field while sending critical data, event and alarm to the central system through RF network.

IHM-6100 has been designed based on latest technology to be supplied from power line and maintenance-free during long life. Installation process of IHM-6100 is very simple and can be installed on energized line anywhere. Data Collector is the core element of fault locating system acting as gateway between FCI and central system, using short-range wireless to communicate with FCIs and remote communication like FO/ 3G/ GPRS with central system. Smart Data Collector is using solar energy and maintenance-free battery (high reliable power supply system ensures the system stable and reliable), utility company can monitor the condition information and fault information of the line in real time.

Product Highlight:

- >> Monitoring of Overhead MV feeder Status
- >> Supplied directly from power line
- >> Outage and Loss of Current Notification
- >> Supper capacitor for 3 days and battery (15 years)



• FCI DATA COLLECTOR

IHM-6101

FCI+ Zero Sequence and Data

IHM-6101 (Fault Circuit Indicator and data collector) has been designed based on advanced technology for underground cable to pinpoint fault location and accurately log load in any point along the electric distribution power network (faults like two-phase or three-phase short-circuit fault and single-phase earth fault). IHM-6101 has been designed based on latest technology to be maintenance-free during long life. Installation process of IHM-6101 is very simple and can be done on hot line anywhere.

Product Highlight:

- » Monitoring of Underground MV feeder Status
- » Battery Operated (15+ year life)
- » Outage and Loss of Current Notification
- » Support RF network or Fiber optic
- » Seamless back-office integration – OMS/DMS, SCADA and other Software

Data Collector is the core element of fault locating system acting as gateway between FCI and central system, using fiber optic or RF to communicate with FCI, make the system with channel monitoring, fault alarm and switching capability, support system diagnosis, self-healing and data continuous transmission function after the communication interruption recovery. Utility company can monitor the condition information and fault information of the line in real time.

Our Products



• FCI Data Collector



• IHM-6101 FCI+ Zero Sequence

IHM-6000

Transformer Terminal Unit



IHM-6000 Smart Transformer Terminal Unit (TTU) with measurement functionality is designed based on the advanced measurement and sensor technology. Through modern communication network (GPRS /3G/RF/FO/DSL), it realizes remote monitoring and control related to the Transformer's operations and in real-time condition, as well as data acquisition, data analysis and capturing and reporting abnormal events. It can monitor transformer running state in real time (voltage, current, power factor, load unbalance, temperature, power...), meanwhile acting as Data Concentrator for gathering metering data from secondary side of transformer. It provides the data necessary to conduct preventive maintenance and proper network planning, ultimately improving the stability of the power supply.

IHM-6000 TTU utilize efficiently PLC (OFDM or BPSK), RF media for downlink communication to smart meters and GPRS/3G/DSL/fiber optic for uplink communication. With flexible input and output Smart TTU can control other IEDs in Distribution substation like Smart Capacitor, Streetlight feeder, Ti-Switch (for Micro-Grid), Smart Switch for connection and disconnection of transformer and also receive signals from IEDs.

SmartDMS SCADA/ DMS Central System

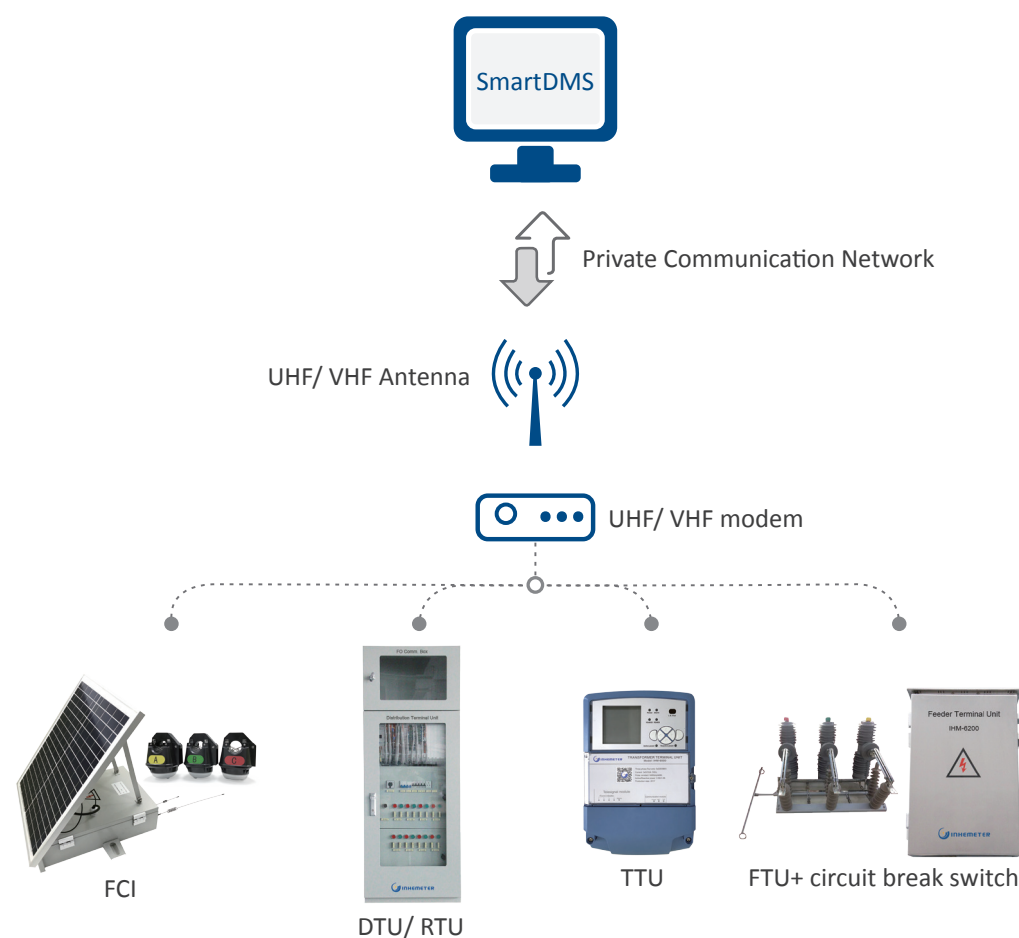
SmartDMS System Central system is complete solution to monitor, control and manage Distribution power network including medium/high Voltage feeder, distribution substation and high voltage substation, the system provides real time monitoring and intelligent control (monitoring critical parameters of distribution power network, locates and reports faults, automatically isolates faulty area, restores non-faulty area, provides remote control and reconfiguration, etc.). SmartDMS is a GIS based and user-friendly system for monitoring and controlling of distribution power network. SmartDMS receiving information and alerts from IEDs from power network, make process and analysis on received data and create related report for utility company and send related intelligent controlling to IEDs. SmartDMS provides Standard interface to existing like OMS, IVR, and EMS system.

SmartDMS Functions:

- » SCADA function includes Data acquisition and process, Monitoring, alarm and event log, control (operation and closure), Real-time, communicate with FTU, DTU, TTU, FCI and other terminals through the optical fiber, 3G, GPRS or wireless private network, to realize the real-time data acquisition and remote-control function.
- » Distribution network condition monitoring and Accident analysis, recall and holographic inversion
- » Human Interface Machine includes IEC61970 CIM /XML import and export, Gallery of integrated graphics interface, Device management and Authority management
- » Feeder line automation function, Adopt the integrated FA mode, online topology analysis and generate the recovery plan, terminal layer can be set through the flexible working mode of master station, Fault isolation with peer-to-peer communication mode, it can be finished in a terminal layer, recovery of fault in short time (so it can ensure that the substation circuit breaker, reconnect successful), reduce
- » Outage time and Perfect fault simulation system (users can customize any FA simulation plans, including the point of failure, failure time, failure types, the FTU action and various parameters, such as communication status of distribution network)
- » WEB subsystem includes Graphics and curve query, Particulars relating to the real-time query and alarm, Real time data query and Equipment parameters query
- » Distribution comprehensive information exchange that comply with IEC61970/IEC61968 standard and convenient communication interface function between different systems
- » Information processing and management function Data processing, statistical calculation, information storage, distribution network fault information display and processing, fault information inquiry, historical event query, history data query, real time data view report function and so on.

Self-Healing DA Communication Infrastructure

To accomplish Self-healing DA, System should use very reliable communication infrastructure, below figure shows licensed UHF/VHF communication network for FTU+CB, DTU/RTU, TTU, etc. all intelligent equipment is using UHF/VHF as main communication media.



Product Highlight:

- » Security, UHF/VHF modem that use licensed frequency make sure there is no interfere from other devices
- » Reliability, UHF/VHF modem will provide reliable communication for utility company and utility company can achieve goal of Control system for reliable control
- » Operation cost, UHF/VHF solution doesn't have operation cost and with one-time investment utility company can use this media without any other charge fee
- » Private communication, UHF/VHF is private communication under control of utility company

Benefits of Self-Healing DA

Self- Healing DA uses intelligent equipment and real-time communications technologies to monitor Critical Parameters in distribution power network at all times and provides following services to utility companies to make power network more stable and efficient.

Below table shows some result after implementation of Self- Healing DA:

Index	Normal time	After implementation of Self- Healing DA
Average response time on pinpoint a fault / outage	2 hours	Less than 10 seconds
Average restoration of power network	2-3 hours	Less than 60 seconds
Average time spent on performing switching / isolation for planned outages	2-3 hours	1 to 4 minutes
Customer power cut due to outages	2 hours	Less than 20 seconds

In addition to above mentioned results , there are following benefits for utility company:

- » Most of time for restoration is spent to find fault location and with this solution we divided line to different zones and based on information those are sent by FCI and FTU, we can locate fault less than one minutes.
- » System can provide fault time and duration, and frequency of happening
- » Rapid isolation, which allows the system to isolate parts of the network that experience failure from the rest of the system to avoid the spread of disruption and enables a more rapid restoration.
- » Reduce power outages and minimize their length when they do occur.
- » Real-time monitoring, signaling and controlling of distribution power network, which allows power network to be utilized in optimal state.
- » Anticipation, which enables the system to automatically look for problems that could trigger larger disturbances.



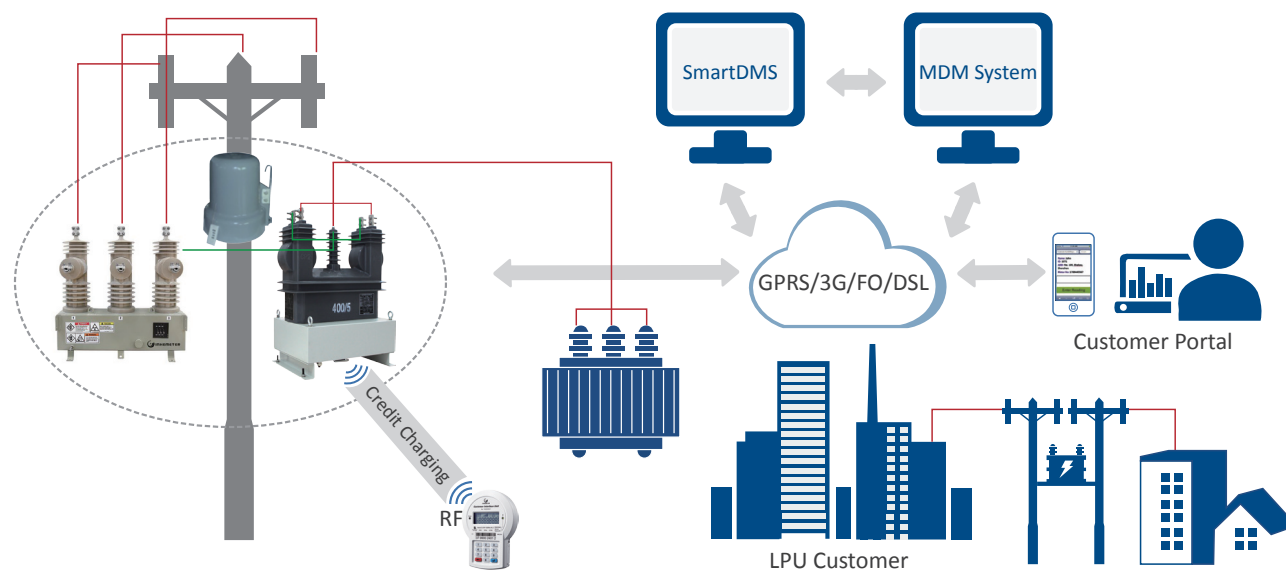
Smart Prepayment LPU Metering Solution

LPU customers (Large Power Unit Customers, who are supplied by MV/HV feeder and they have private transformer) are very important for utility companies because they are few but their consumption is very high. Management of these customers are critical for utility companies because big portion of revenue come from them. Normally this kind of customer already has been equipped with Smart meter and AMR system but AMR system and Smart Meter cannot guarantee revenue protection for utility companies and improve cash flow because:

- » Prior to install any type of meter regardless it is ordinary or smart, some other installations should be done like installing a set of CT and PT, also after physical installation of meter, wire connections should be established and all connection should be secured against unauthorized access. Commonly all of these equipment including meter, CT, PT, wiring, are installed in customer property and accessing to metering equipment is not feasible for utility company and most of the time Smart meter cannot recognize manipulation on wiring, CT, PT.
- » Installed Smart meter and AMR system are utilized as post payment (there is always big gap between issuing bill and receiving payment by utility companies). Bad payment, Non-payment, delayed cash flow are existing challenges in utility companies and for this kind of customer situation becomes more serious, because utility company should sustain big gap between delivery of services and receiving payment.

In addition to above mentioned, because of high consumption of this kind of customers, if any fault is happened in customer side it will affect power network and right now most of these customers don't have proper protection against faults.

MV/HV Smart Prepayment LPU Metering Architecture



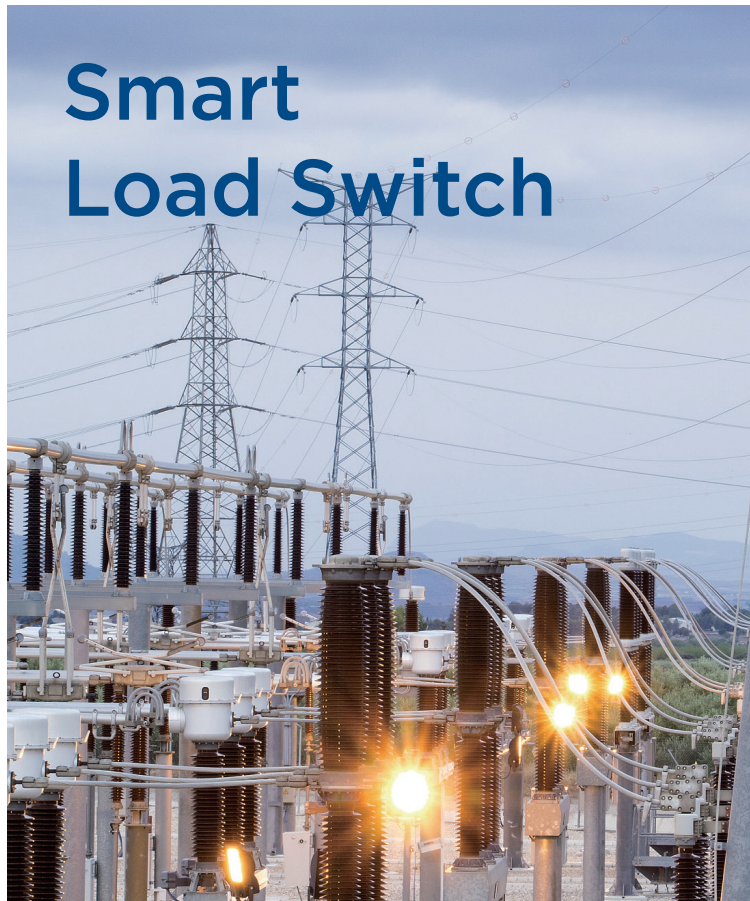
MV/HV Metering Unit



DTZ1513- BOX-11/15/22/33KV-XXXX (XXX can be 100A, 200A, 250A, 300A, 400A and 600A) is new generation of Anti-Tamper Compact Direct Connection multi-functions three phase smart metering device with modular design. The device includes CT, VT, Box and communication module directly connect to Medium/High voltage feeder. DTZ1513- BOX-11/ 15/ 22/ 33KV-XXXX measure accurately electrical energy directly from medium voltage and is suitable solution for LPU commercial and industrial Customers. With flexible communication module meter provides various communication media for remote management and reading.

This meter can be utilized for prepayment (Comply with STS standard) and post payment applications (selectable by utility company) because of integrated design of this device (CT, VT, Meter and communication module are compact in one box, installed outside of customer property and also directly connected to MV/HV line) has excellent anti-tamper feature to help utility for revenue protection. DTZ1513-BOX-11/ 15/ 22/ 33KV-XXXX can utilizes RF or Cable media to CIU, RF Media for HHU and 2G/ 3G/ 4G/ FO for Smart Metering. For accomplishment of Connect and disconnect function (for prepayment and load control application), DTZ1513-BOX-11/ 15/ 22/ 33KV-XXXX can be connected to MV Smart Switch or existing RMU.

Smart Load Switch

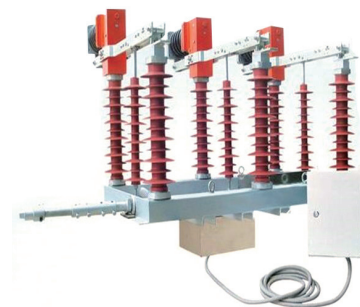


SF6 or Vacuum Column Load Breaker Switch with high arc extinguishing and insulation capability has been designed based on advanced technology to accomplish safe and efficient load interruption in overhead lines in urban or rural area.

Vacuum Column Load Breaker Switch is suitable for outdoor installation on up to MV/HV feeders (pole mounted) and with connection to DTU/FTU it provides advanced distribution management for utility company, including remote connection and disconnection of load in MV/HV network, isolation of faulty area.

IHM-6200 FTU (Feeder Terminal Unit) is designed based on advanced technology for management of MV feeders (11kV, 15kV, 20kV, 25kV, 35kV) to help utility company for detection and pinpointing of fault in distribution network, providing isolation of faulty area to minimize the number of users that are impacted by the disturbance, clearing fault and restoration of network in minimum duration.

Our Products



• VACUUM LOAD SWITCH

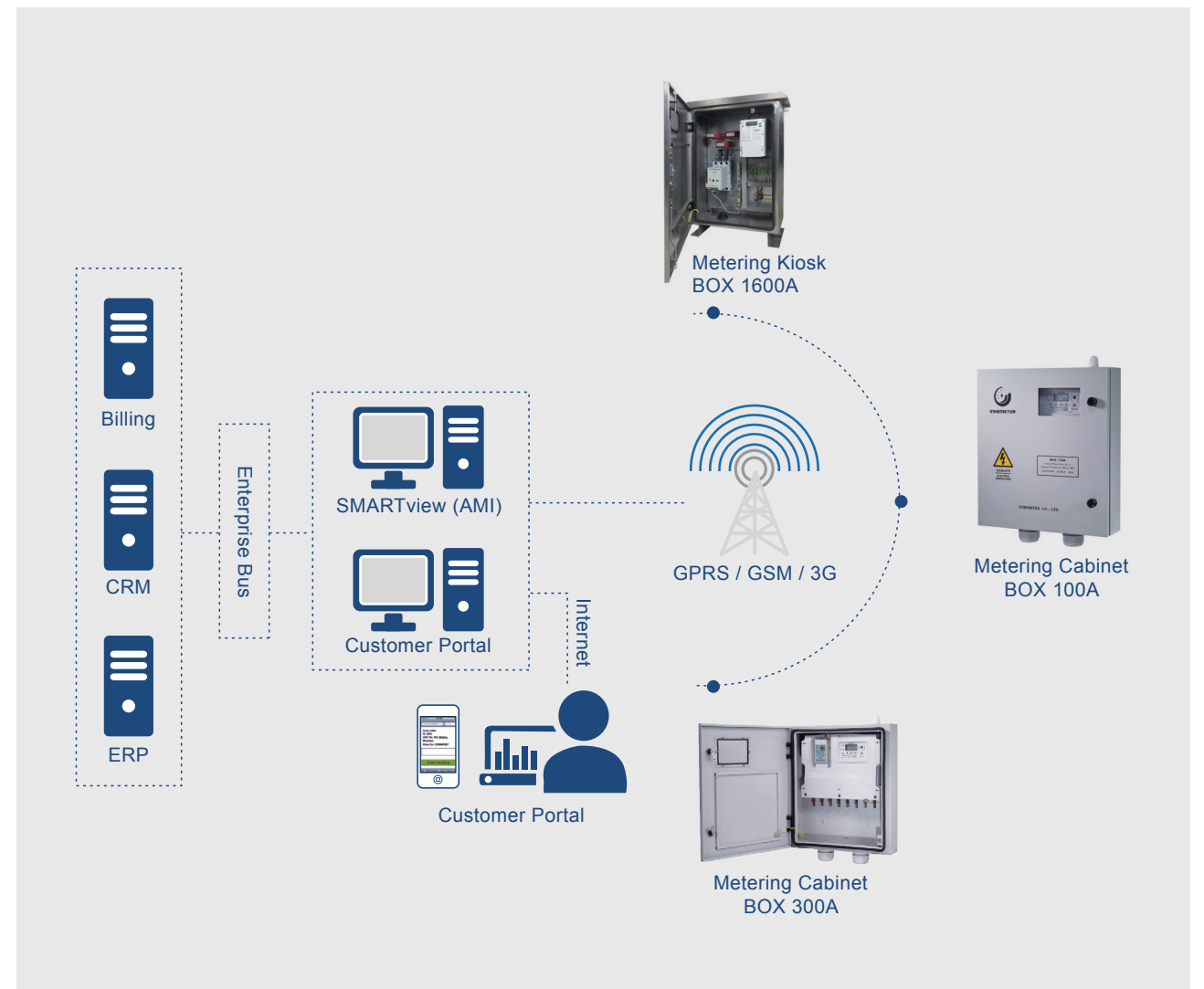


• SF6 LOAD SWITCH



• FTU

LV Smart Prepayment LPU Metering Kiosk



DTZ1513- BOX-LV-CYYYY

Combined CT Metering Kiosk

Our Products



• DTZ1513-BOX-LV-C0400A



• DTZ1513-BOX-LV-C0630A



• DTZ1513-BOX-LV-C0800A



• DTZ1513-BOX-LV-C1600A



• DTZ1513-BOX-LV-C2000A



• DTZ1513-BOX-LV-C3200A



• LV BOX with Capacitor



• DTZ1513-BOX-LV-C1000A

DTZ1513-BOX-LV-CYYYY (Where YYYYY is maximum current can be 400A, 600A, 800A, 1000A, 1200A, 1600A, 3200A) is new generation of Anti-Tamper Compact CT Connection three phase smart metering kiosk. The kiosk includes CT, anti-theft Box, High Current circuit breaker and communication module. DTZ1513-BOX-LV-CYYYY is compact solution for commercial and industrial Customers. With flexible communication module, the kiosk provides various communication media for remote management and reading. This meter can be utilized for prepayment (STS) and post payment applications (selectable by utility company). Because of integrated design of this kiosk (CT, Smart Meter, Breaker and communication module are compact in one box, installed outside of customer property) has excellent anti-tamper feature to help utility for revenue protection. DTZ1513-BOX-LV-CYYYY can utilize different communication media to CIU or Data Concentrator (for Smart Metering application) like GPRS, Cable, PLC or RF based on customer requirements. Some LPU customers inject a lot of reactive power, resulting in decrease of power factor, for this LV BOX with Capacitor DTZ1513-BOX-LV-C1000A reason Smart Capacitor is added to metering kiosk to improve power factor.

DTZ1513- BOX-TXXX-YYY

High Current DC Meter

Inhemeter's DTZ1513-BOX-TXXX-YYY (XXX is maximum current and can be 160A, 250A and 300A; YYY can be CIP means communication is based on PLC and CIU means communication to CIU is based on cable) is new generation Direct Connection multi-functions three phase smart meter with modular design. The meter is used to measure electrical energy accurately for commercial, industries, and Complex and agriculture customers. With flexible communication module meter provides various communication media for remote management and reading.

This meter can be utilized for prepayment (Comply with STS standard) and post payment applications (selectable by utility company) because of integrated design of this meter (no need CT and external beaker) has excel-lent anti-tamper feature to help utility for revenue protection. DTZ1513- BOX-TXXX-YYY can utilize different communication media to CIU or Data Concentrator (for Smart Metering application) like PLC, Cable or RF based on customer requirements.

DTZ1513-BOX-TXXX-YYY is Three Phase Four Wires Direct Connected High Current Split PLC/ Cable Keypad Prepayment Meter designed and developed to measure maximum current of 100 -300A per phase for high current industrial, agriculture or commercial consumers or Complex. It complies with STS Standard.

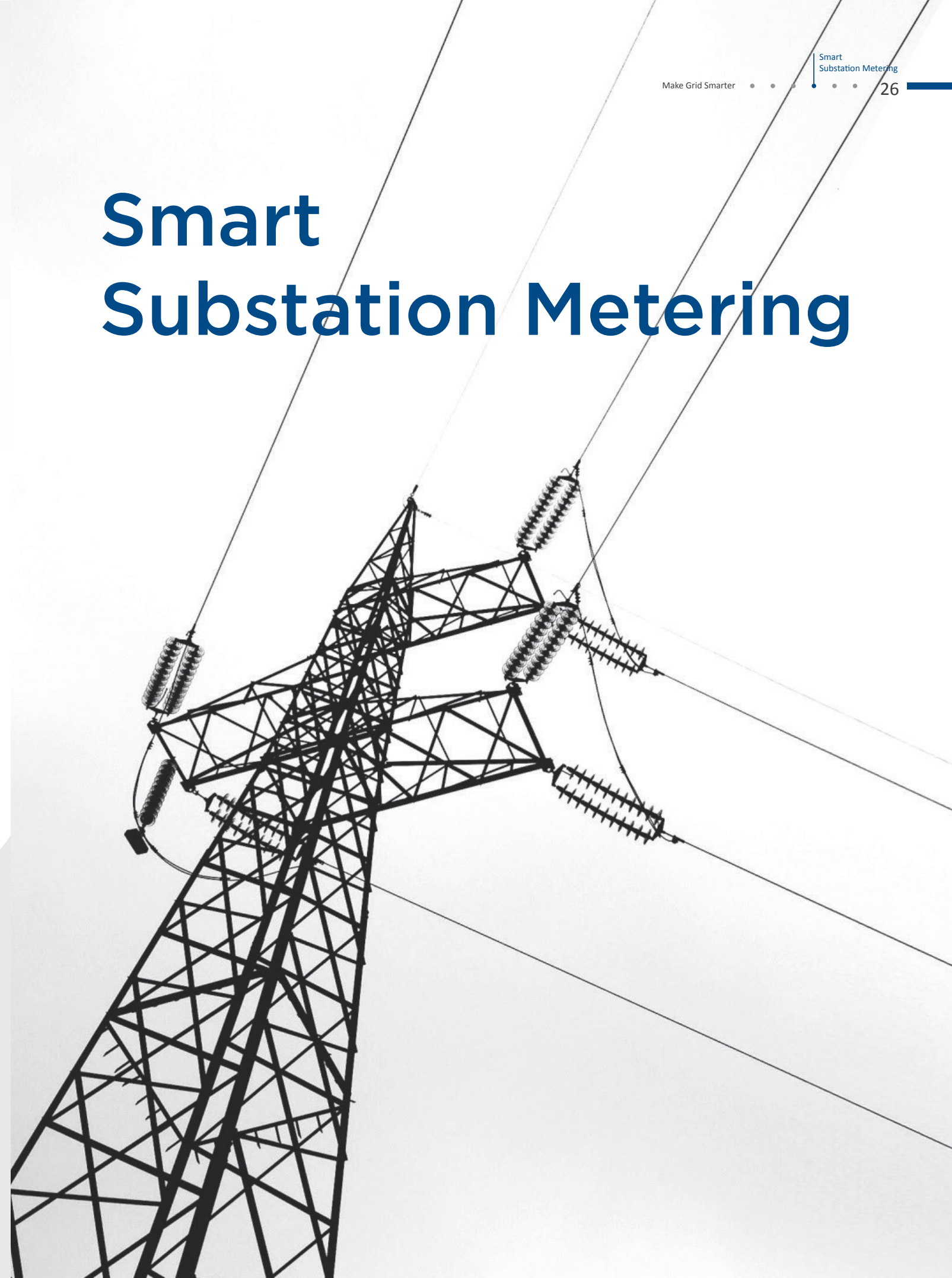
Technical Feature:

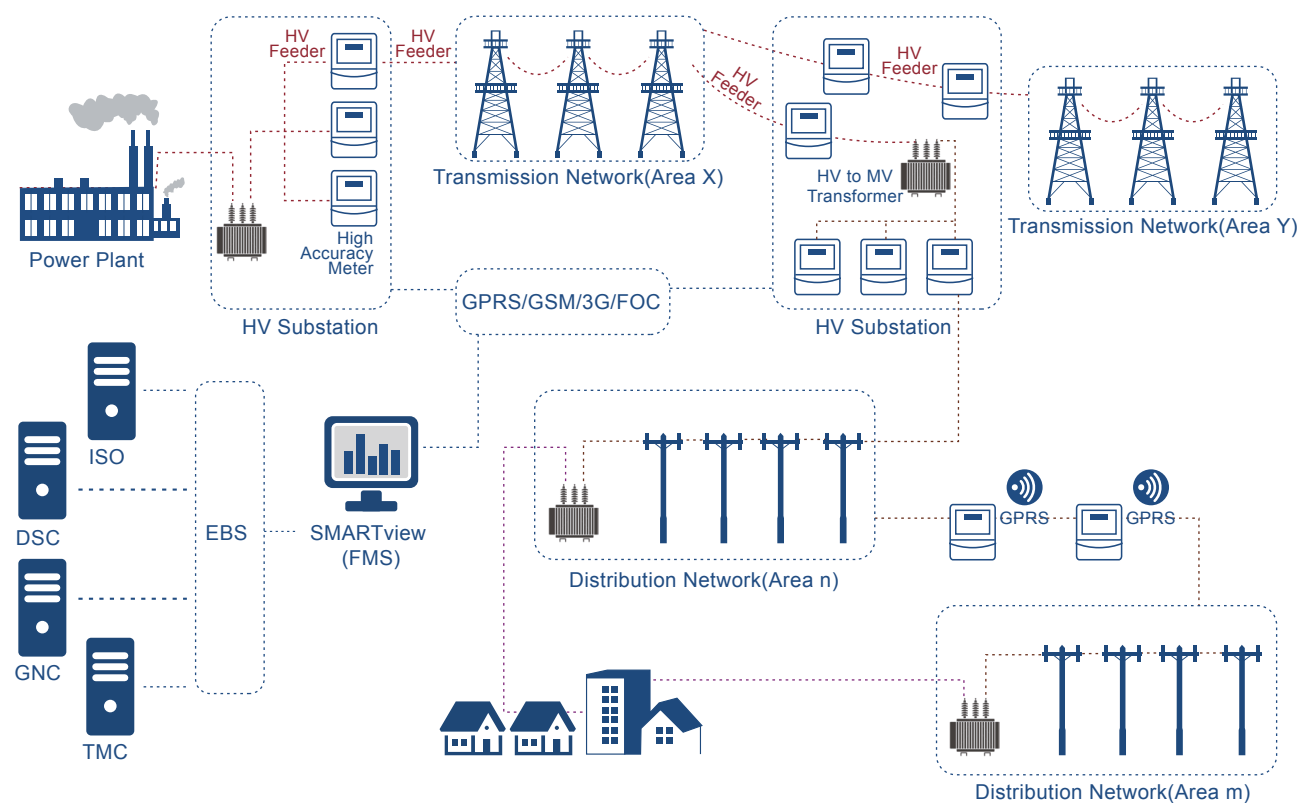
- » Comply with STS Standard and can be used by third party vending system
- » High Tamper proof (integrated design no need CT for external breaker)
- » High current up to 300A direct connection
- » Internal circuit breaker
- » Import and export active energy measurement
- » Four quadrants measurement for reactive energy
- » Multi tariff function (TOU, step tariff, flat tariff; money or kWh settlement)
- » Comply with DLMS/COSEM protocol
- » Support IP54 and suitable for outdoor installation
- » Prepayment and Post Payment selectable
- » Support different communication media from meter to CIU like Cable and PLC
- » Two ways communication to Data Concentrator for Smart Metering Application
- » Local and remote firmware upgrade
- » Load control function



Our Products

Smart Substation Metering





Smart Substation Metering

Feeder metering or substation metering solution become more and more important in utility companies all over the world because:

- Utility companies are under pressure to decrease cost of transmission and distribution of electricity and provide low cost electricity for their customers at this way they should decrease energy loss in power network, for this reason they should accurately measure critical point of power network to pinpoint weak point of power network.
- In some country Utility companies are unbundling and privatizing, it means different service providers are responsible for different part of Power network (for example electricity is generated by generation company, is transmitted by transmission company and is distributed by distribution company) and all of these companies are receiving service fee based on offered services.
- Power market enforcement, power market is establishing in many countries and different service providers participate in power market and accurate measurement of electricity energy accurately in point of delivery of service is mandatory for independent system operator (ISO).

High Accuracy meters are installed at high Voltage substations to measure the amount of energy derived to transmission lines from generation companies (GNC), from one Transmission Company (TMC) to another transmission company, from Transmission Company to Distribution Company (DSC) or from Distribution Company to another distribution company. In this transaction, huge volume of energy is exchanged and grid meters need to be highly accurate and secure to prevent financial loss of different companies. By providing metering data from Power Grid, ISO or utilities as well as transmission and Distribution companies, this solution helps them prepare generation schedules and better management of power network. Meter data also is used for billing purpose and monitored to identify variations from committed schedules of generation companies for less/more power supplied to the grid.

Inmeter Feeder and Substation metering system includes flexible AMM (Automated Meter Management) system, High Accuracy meter and GPRS/GSM/3G or Fiber optic communication interface to collect data from the different parts of power network.

DTZ1513 Three phase CT/VT meter



DTZ1513 Three phase CT/VT meter is new generation of very high precise multi-functions three phase CT/VT Connection smart meter with modular design. The meter is used to measure electrical energy accurately in power plant, high voltage substa-tions, Distribution Substation, exchange point of transmission line, Commercial entities as well as big and small industries and provides increased cost effectiveness and process efficiency in the metering of large energy quanti-ties. With flexible communication ports meter provides various communication media for remote management and reading. DTZ1513 Three phase CT/VT meter is equipped with sophisticated data acquisition, comprehensive functionalities, Flexible tariff, Multi-protocol and Communication.

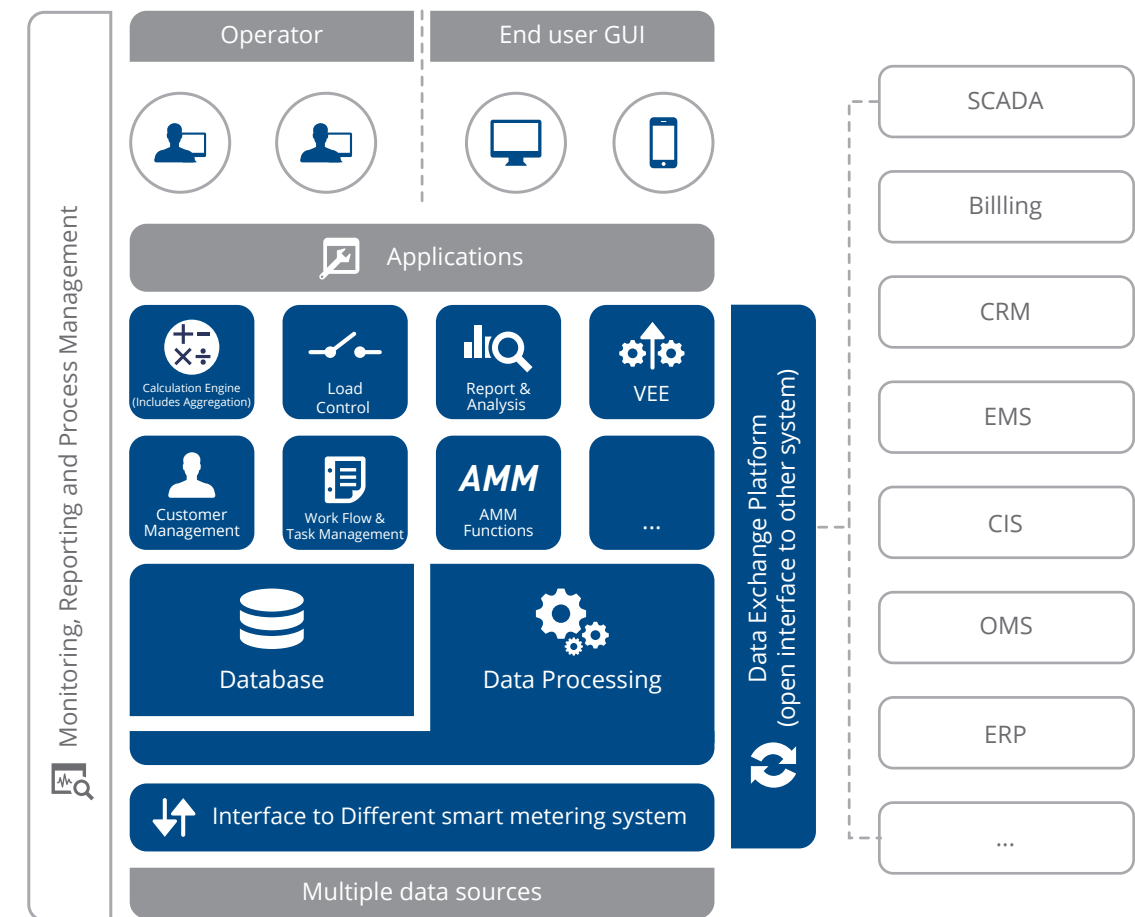
Technical Feature:

- » High accuracy under all operational conditions: Class 0.2S or 0.5S
- » Wide range reference voltage: 3x57.5 - 3 x 240 phase to Neutral
- » Wide range auxiliary power supply
- » Flexible input and output
- » Local and remote firmware upgrade
- » Open standardized protocol for metering and SCADA: DLMS/COSEM, RTU MODBUS, DNP3.0, MV90TM, IEC 870-5-102
- » Data encryption schemes to ensure the data security in communication
- » Up to 32 odd harmonics and THD measurement
- » Waveform Capture
- » V2h,I2h for copper and core losses measurement
- » Prepayment and Post Payment selectable

SmartMDM (Meter Data Management)



Flixible & Robust
 Revenue protection
 Efficient Asset managment
 Automative & Modern Managment
 High Performance • Secure • Scalable



Most of utilities all over the world are deploying or will deploy Smart Metering project, deployment smart metering system generates huge amount of data. The proper management of such a large quantity of data (Big Data), creates big challenges for utilities companies. Raw information without process is not valuable and useful for utility company, for this reason MDM system is Critical part of Smart Metering System. Utilities are facing several serious challenges which can be solved or at least eliminated by analyzing grid/energy data and detecting problematic points and then taking remedy actions. Among all problems those utilities are continuously suffering from, following items can be mentioned like Energy loss (technical and commercial), Over-loading of transformers and lines, High peak time consumption, Poor management of outages and assets, Poor, late or not detecting and managing events and alarms.

MDM systems are developed to help utilities to solve these kinds of problems through analyzing existing data items which are already gathered from grid and customers meters. However, meters can be read manually and then their data can be fed into MDM but almost always MDM systems are used together with AMM systems to automatically gather data from meters. Inhemeter MDM System (SmartMDM) is enterprise level system deals with metered data. SmartMDM processes data items, analyzes them and generates high level and meaningful reports and information to top managers, utility engineers and all other types of users. SmartMDM usually deals with data regardless how and when they are collected, so either they are gathered by AMM (Automatic Meter Management) or entered manually can be processed by SmartMDM. SmartMDM is application-oriented system which is developed to produce meaningful information to users.

EPC Project

Proven expertise of Inhemeter in the Engineering (electrical, civil and structural), Procurement, construction and project management enable Inhemeter to participate in turnkey or EPC based projects.

Inhemeter's Scope of service for EPC project are:

- » HV, MV and LV power network
- » High voltage substation
- » Distribution substation
- » High Voltage Substation Automation
- » Electrification of new customers
- » Microgrid
- » Distribution automation
- » Distributed generation
- » Renewable Energy



Power Network Rehabilitation

Obsolete and under pressure Power network is one of the main source of system losses and unreliability. Inhemeter has undertaken projects ranging from improvement of existing Electricity Power Network and development of new substations, employing innovative technologies. Successful experiences in Malawi, Ivory Coast are the best proof of Inhemeter capabilities in this field.

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- » Electrification of new customers



Micro-Grid Solution

Micro-Grid solution based on renewable energy resource helps utilities and government to supply reliable energy to their inhabitants. Inhemeter Micro-Grid Management solution manage all aspects of Micro-Grid including grid monitoring, planning, security and protection, operation and maintenance.

One of the most important part of Micro-Grid network is Reliable, Secure, and efficient power generation methods.

Inhemeter offers two types of Distributed Generation Technologies; Solar Panel and Combined Heat and Power Generation (CHP).

Micro-Grid management system prepare grid situation management, connect and disconnect to main grid management, online monitoring and two-way power transaction management.

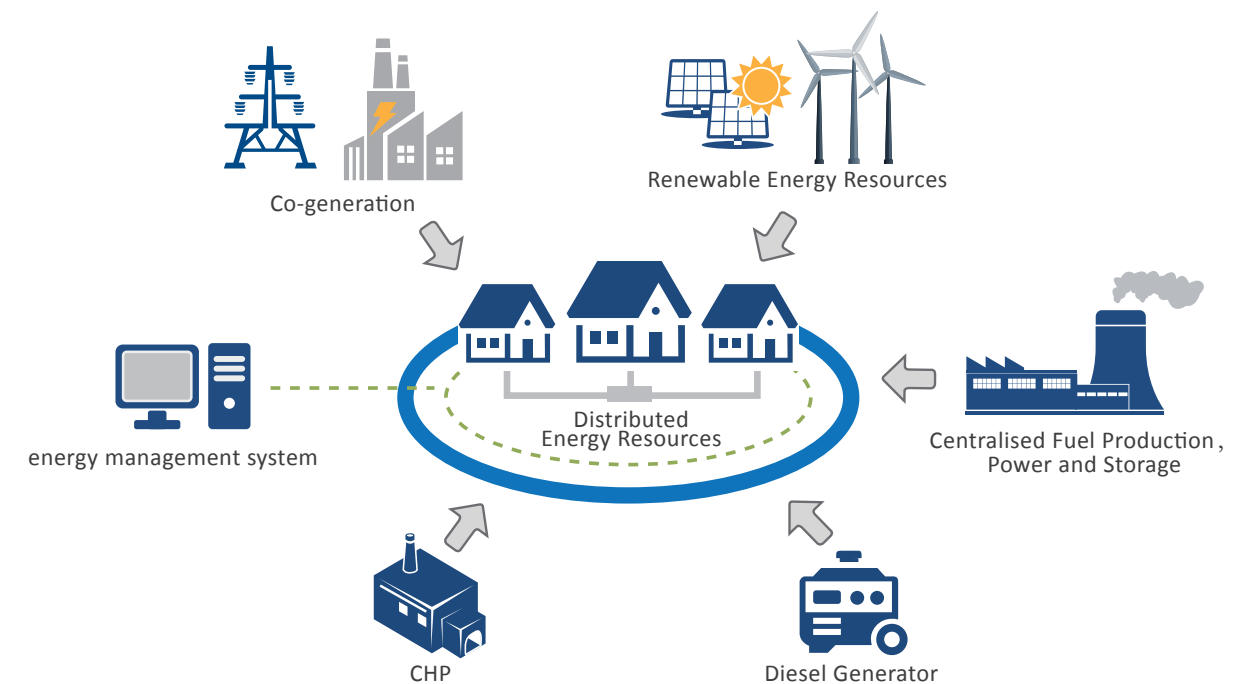


Distribution Generation

Distributed generation, also called on-site generation or decentralized generation, is generation of electricity from sources that are near the point of consumption, as opposed to centralized generation sources such as large power plants.

Distributed generation systems, which can include on-site renewable energy systems and combined heat and power (CHP), Diesel generator, reduce the amount of energy lost in transmitting electricity because the electricity is generated near the point of consumption, often even in the same building or facility. This also reduces the size and number of power lines that must be constructed.

Based on rich experience Inhemeter provides total solution for design, procurement, installation and commissioning of distributed generation off-grid and on-grid.



Make Grid Smarter

With modern life style, electrical energy become more important than it was before, the demand of electricity energy is increasing but generation of electricity doesn't increase as same as the demand, right now utility companies are under big pressure to supply electricity energy to customers. To overcome above mentioned challenges Inhemeter develop InheGrid Solution (End-to-End Smart Grid solution) to empower utilities companies to operate their power network in optimum way, implementation of InheGrid Solution helps Utilities Companies as below:

- >> Make power network more visible for utility company and specify weak point of network that utility company have loss of electricity
- >> Accomplish DMS (Demand Side Management) to overcome shortage of electricity
- >> Provide infrastructure for integration new resource of electricity energy in power network
- >> Utilize IT system, Automated management platform and modern technology for management and controlling of power network