



adroit
Engineering & Beyond

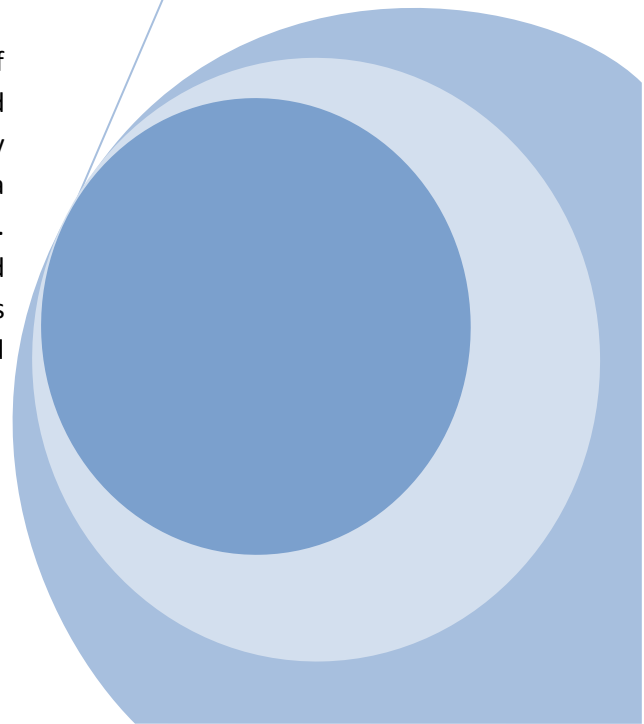


Energy Management System

Prepaid & Postpaid EMS

Our EMS solution is intended to put the customer in control of their energy consumption through monitoring and automated billing for mains and Genset power supply. The energy efficiency, in terms of energy consumed can be monitored on a time-based manner and bills can be mailed to consumer end. Information can be generated by the software for customized electricity bill and utility charges payment. The main station is the centralized system for overall energy accounting and customer record management.

Adroit Control Engineers



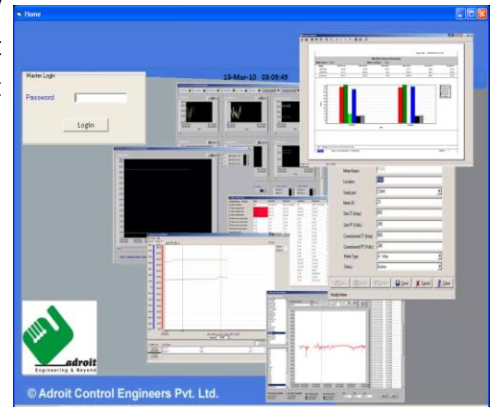
Adroit Energy Management System

Indian power sector is facing serious problem of lean revenue collection as against energy supplied due to energy thefts and network losses. All the steps taken so far, regarding the improvement of the revenue collection did not yield satisfactory results. It is reported that the most faulty sub system is the metering and meter reading system. The traditional billing systems are discrete, inaccurate, costly, slow, and lack flexibility as well as reliability. Therefore, several attempts were made to automate the billing systems. Even though accurate and fast readings are obtained, bill payment is still performed based on the old billing procedure. They require an individual/agent to physically come and take down the readings and report to house hold/office the amount one has to pay.

Overview

The term Energy Management System can also refer to a computer system which is designed specifically for the automated control and monitoring of electricity of a building or group of buildings such as university campuses, office buildings or factories. The data obtained from these can then be used to produce bills, trend analysis and annual consumption.

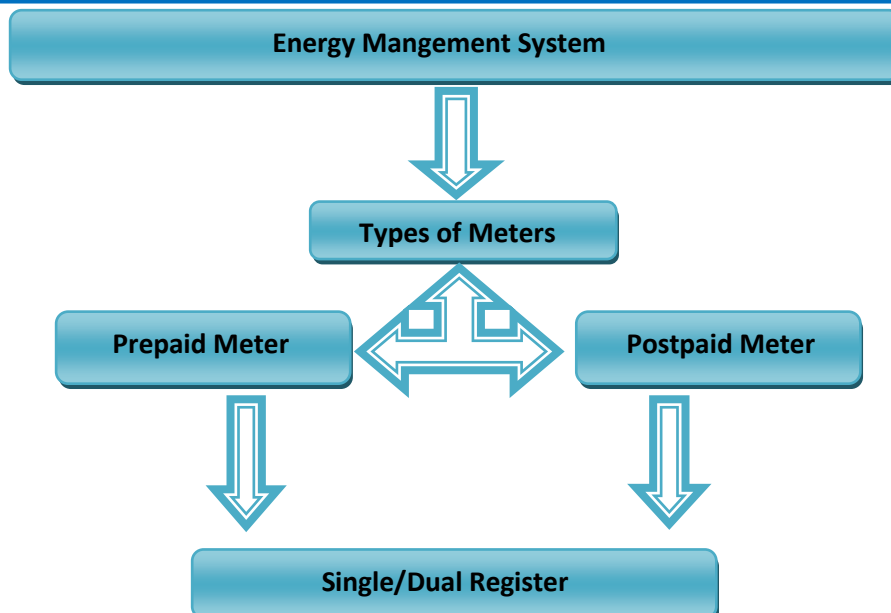
Adroit's EMS is an automated data acquisition, operation support, billing and reporting system which gather data from Meters on RS485 Serial communication or any available communication port (like optical port etc). Adroit's EMS used mainly for energy consumption and billing of Electricity Board and Gen-set separately. It is available in different packages for reading different number of meters. Its versatility leads from simple and powerful features.



- Plug and Play Enterprise Level EMS
- Fast Data Scan rates @ 150 ms / meter
- Integrates with all Energy Meters offering a physical communication port
- Multiuser login / Password protection

Adroit has a good track record of providing Energy management solutions with strong references from Realty Estate majors.

Blueprint



Adroit Energy Management System

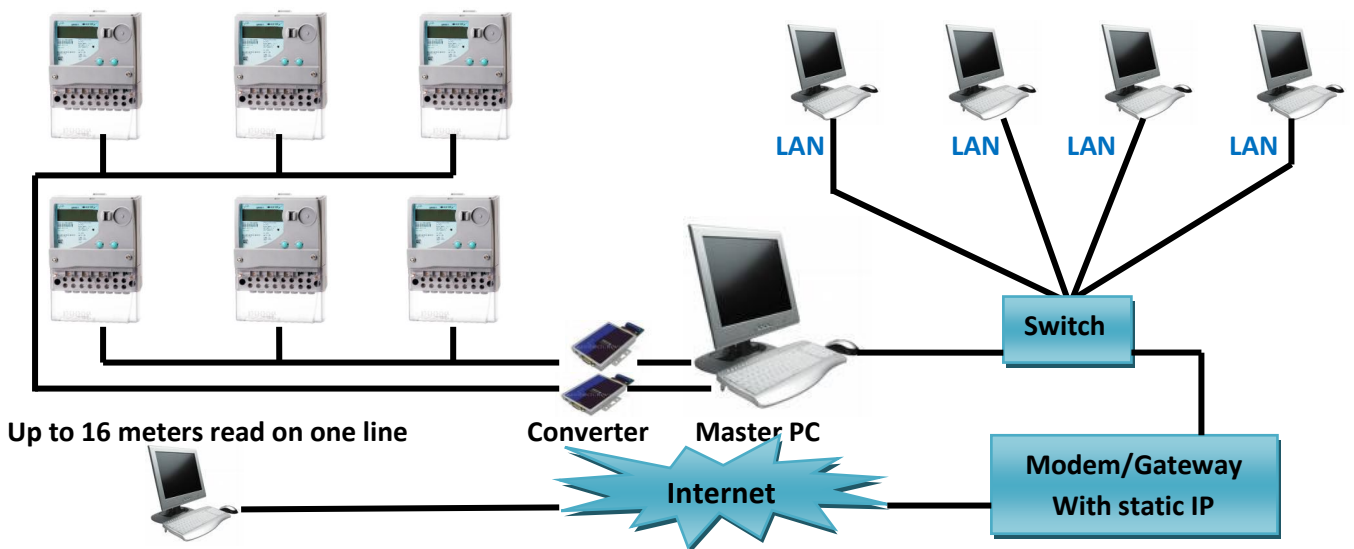
Post Paid Metering System (Billing System)

Adroit's Postpaid EMS is appropriate for commercial buildings where an electrical system is used. The System provides the centralized Power monitoring and Control. The data obtained from these can then be used to produce electricity bills, trend analysis and annual consumption forecasts.

Following are some of the key benefits of EMS are:

- Billing can include separate reading for Electricity board and Gen-set
- Bills can be customized to include utility charges
- Elimination of human errors and Data accuracy improvement
- Availability of different modes of communication – Wired, Short Range Wireless, Remote Access
- Available in different Packages for reading different Number of meters

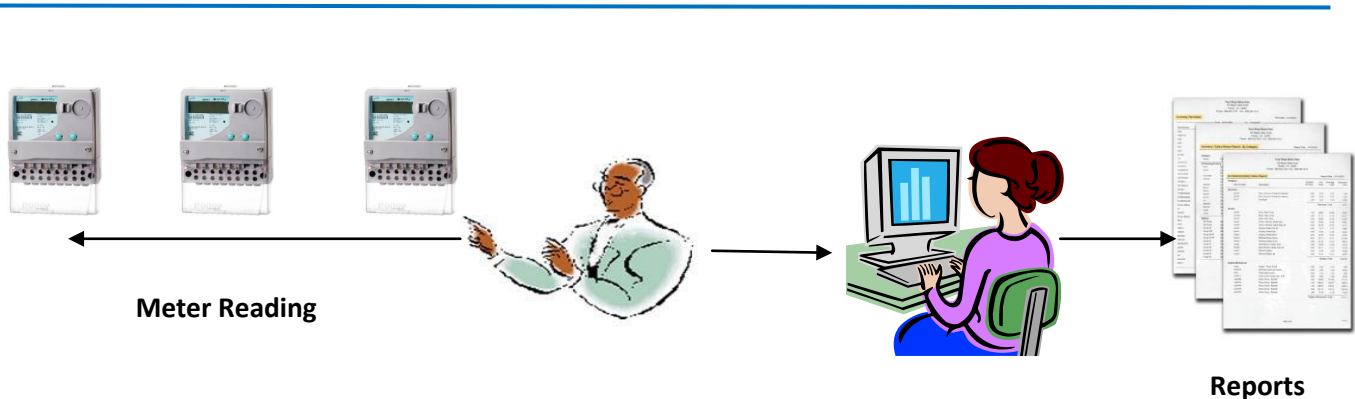
System Architecture (Postpaid/Wired EMS)



System Architecture (MRI Reading)



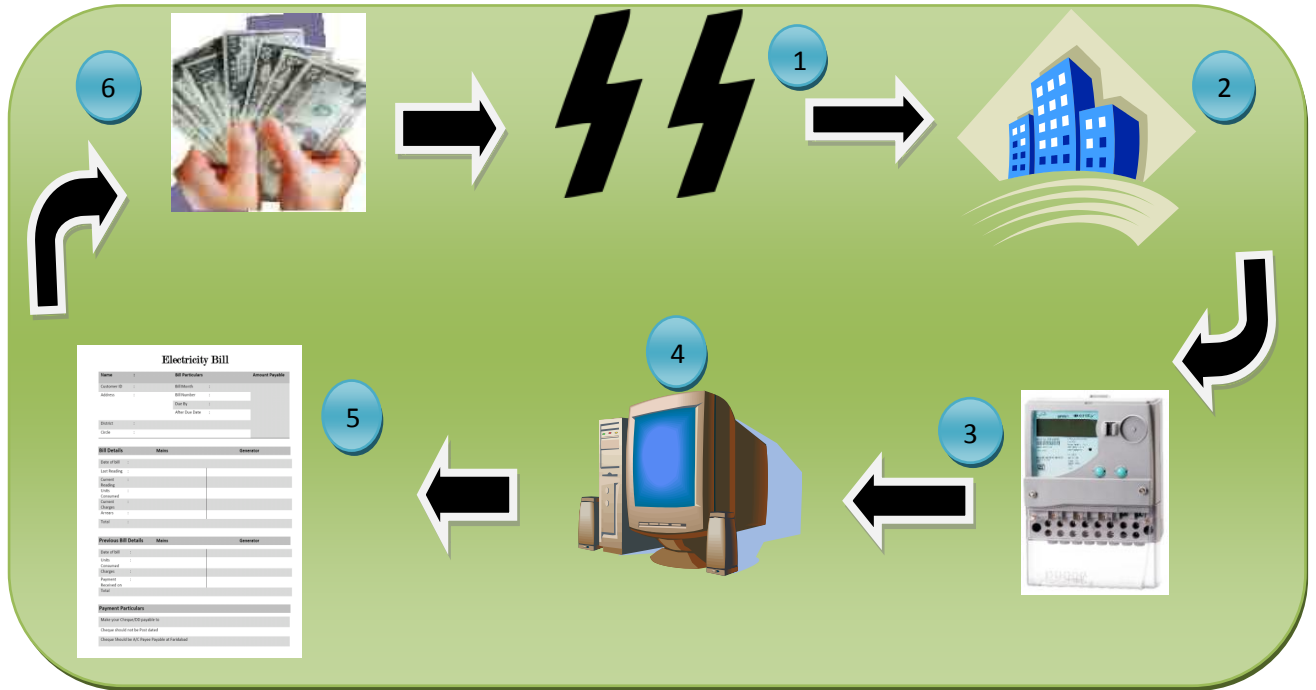
System Architecture (Manual Reading)



System features & Arrangement

Adroit Energy Management System

Schematic Representation (Postpaid EMS)

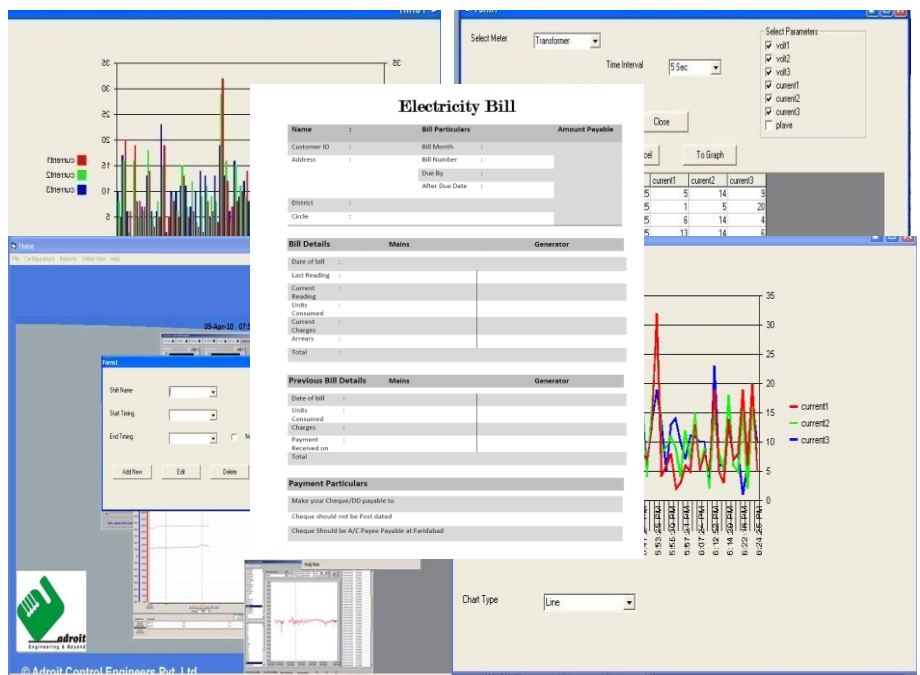


System Features (Postpaid/Commercial Purpose)

- Option to choose from wide range of Hardware devices – While we are channel partners for Rishabh and Secure, as per client requirement, our solutions can be interfaced with various other makes like Conzerv, Trinity, L&T, Actaris, Cadel etc
- Combined bill generation for both Diesel Gen set (DG) & Electricity mains
- Auto mailing of bill
- Auto Reminder for payment
- Report of bill below a specified limit

Reports (Postpaid/Commercial purpose)

- Customized bills
- Customized Report
- Alarm Listing
- Monthly comparison of Overall consumption
- Yearly Report



EMS Reports

Adroit Energy Management System

Prepayment Metering System (Recharge system)

General Arrangement



Pay .Utilize .Refill .Administer

Adroit's Prepaid EMS allows a scheme of electricity billing that can reduce problems associate with billing. Adroit's Prepaid EMS requires the customer to make advance payment before electricity can be used. Our objective is to analyze, understand and design a prepaid energy meter which provides both the consumer and suppliers with better services regarding meter billing and payment. Its versatility leads from simple and powerful features:

- Flexible Tariff
- User friendly configuration and operation
- Multiuser login / Password protection



System Features (Prepaid/Commercial purpose)

- Total Recharge report of the month
- Individual recharge for the month
- Report for no recharge for the month
- No disconnection over night or during weekends (friendly credit facility)
- Cost effective pay as you use system
- Remote consumer display unit with keypad (Optional)
- Load limiting and Load management
- Tamper and fraud detection capability

Advantages (Prepaid/Commercial purpose)

- Pay before use
- Keep customers on supply
- Recover money owed (debt)
- Lower Overheads
- Changing of tariff in meter
- No bill distribution
- No need to chase payments
- No further actions such as disconnections

