Schneider Electric is a $24 billion dollar global company with a presence in over 100 countries and provides Active Energy Management from power plant to plug so that Residential, Commercial & Industrial customers can make the most of their energy
A dedicated and multicultural team worldwide

117,000+ Employees
Operations in over 100 countries

*Source: One Voice internal survey 2009
Our legacy
Our vision

A world where we can all
achieve more while
using less
of our common planet
Innovative, behavior-changing, energy management system that monitors, communicates and manages residential and small building energy use through multi-component wireless interconnectivity.

Smart Grid connectivity is an additional feature increasing the value to the consumer, utility and environment.
Home Energy Management System

Inter-Device Communication (IDC), Control beyond Smart Grid

DRMS Cloud Service

AMI Network

Utility

Make the most of your energy SM

On the Go

On the Web
The wise™ Solution

A residential energy management solution with Demand Response applications…

Inter Device Communication (IDC) allows remote energy management

• The smartest plug and play solutions – PCT, LLC and IHD are inter connected!

• Color background indicates TOU rate and CCP

• Customer accesses advanced information to monitor, analyze, and actively manage energy consumption intuitively!

• Customer can have all system information on a computer, in-home energy display, or any other personal device, including smart phones…

• Easy and automatic remote updates

• Smart grid ready (e.g., real-time pricing, real-time consumption, demand response)

Make the most of your energy SM
The IHD displays details of energy consumption on a daily, weekly, and monthly, and yearly basis. This information is obtained from simple metering devices located within the smart energy system.

In addition to a clock and weather information, the homeowner can control remote devices with event opt-out capability offering increased functionality for the homeowner.

In Home Display

12:42 PM
Energy: Normal

Cost ($) Cost ($) Cost ($) Cost ($)
8AM  9     10    11    12    1    2 8AM  9     10    11    12    1    2 8AM  9     10    11    12    1    2 8AM  9     10    11    12    1    2

Today Today Today Today

Energy Pricing Display

Energy Use Display

Energy Use Display

Color Coded Rates
Low – Green
Medium – Blue
High – Orange
Critical - Red

Make the most of your energy SM
The Programmable Communicating Thermostat is the only PCT that is remotely controllable via IHD and has the ability to function as an In Home Display with color background pricing notification.

Make the most of your energy SM
The Large Load Control device is available in the following configurations:

1. with/wo energy reporting (current transformers)
2. Duty Cycle
3. Average Load Adjustment Percentage
4. Inter Device Communication (IDC)
5. Opt out capability

Four control buttons are provided. Three of these buttons are intended for device commissioning and maintenance functions. The fourth button (Opt In) is intended to available for user interaction.
Non AMI Solutions

- Encoder-Receiver-Transmitter (ERT) – IHD
- Broadband – PCT
- Current Transformers - for load information
Complete Demand Response Management System (DRMS) – enabling utilities to manage all demand side systems – command and control, demand response, rates, pricing, asset, usage management, and more

Application services platform that connects energy data and services from new and legacy systems – allowing utilities to mine information, distill it, and make decisions

Driving sustainable change through Active Energy Management™ providing, turn key residential and small business solutions – redefining your customers’ use of power.
Software Overview

Strategic balance of AMI and broadband internet usage offers increased functionality and communications redundancy.

EIS OpCenter and Central offers direct cloud-to-cloud or cloud-to-premise integration to maximize deployment flexibility.

Standard stacks model ensures deployment efficiency, installation and maintenance success and clear cost management.

Make the most of your energy™
EIS Stack – Command & Control

**EIS OpCenter™**
EIS OpCenter is the command and control interface enabling utilities, retail energy suppliers, and curtailment service providers to manage energy, rates, and programs at the portfolio level through DSM solutions for their customers.

### Demand Response
- Program & Event Management, Participant & Contract Management
- Notification, Control, Measurement & Verification, Baseline Mgmt

### Energy Efficiency & Monitoring
- Portfolio and Customer Level Monitoring
- Historical Usage Analysis & Load Forecasting

### On Premise Display
- Energy Management - Analytics and Demand Response
- Enhanced Interaction – Time, Weather, Temperature Control

### Automation and Integration
- Energy Efficiency Program Definition and Execution
- Integration – AMI Head Ends, MDMS, CIS, Billing, Legacy DR Head Ends

### Software and Tools
- On the Web – EIS OpCenter™
- Green Certification™ & RTO Automation™

### Electric Vehicle Management
- Real Time Reporting as Available Price and Demand Response Asset
- Specifically Designed Efficiency and Demand Response Programs

### Storage and Distributed Generation Integration
- Definable Asset in Demand Response and Price Response Programs
- Real Time Data Reporting of available Distributed Generation Assets

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### Energy Rate Management
- Fixed
- Fixed Seasonal
- TOU
- TOU Seasonal
- Inclining Block
- Inclining Block Seasonal
- Market Real Time
- Market Day Ahead
- Critical Peak Pricing

### Demand & Price Response Mgmt
- Dynamic control strategies
- Static control strategies
- Automated Triggers (Load, Price, Weather)
- Robust customer enrollment requirements
- Advanced notification
- Multiple incentive options
- Mandatory, Opt-in, Opt-out programs
- 100% UI managed by OpCenter user

Make the most of your energySM
EIS Stack - Residential

EIS HomeSMART ™
Enables customers to understand and control their energy costs and usage through intuitive demand response, energy monitoring, and automation delivered via the web, on-premise display, and mobile devices.

- **Demand Response**
  - Direct Load Control – Hot Water Heater & Pool Pump
  - HVAC Control – Programmable Controllable Thermostat

- **Energy Efficiency & Monitoring**
  - Whole Premise – AMI Integration & Point Measurement
  - Near Real Time – 5-15 Minute Interval with Intuitive Savings Tips

- **On Premise Display**
  - Energy Management - Analytics and Demand Response
  - Enhanced Interaction – Time, Weather, Temperature Control

- **Automation and Control**
  - Device Control – Gateway and Temperature
  - Automation – Custom Scheduling and Environment Events

- **Software and Tools**
  - On the Web – EIS HomeSMART ™ Portal
  - On The Go – EIS HomeSMART ™ Mobile

- **Electric Vehicle Management**
  - Demand and Price Response Intelligence
  - 1 or 2 Vehicle Support with Customer Portal Integration

- **Storage and Distributed Generation Integration**
  - Intelligent Charge and Discharge based on Demand and Price Response
  - Battery agnostic for best-fit solution deployment

**Energy Rate Support**
- Fixed
- Fixed Seasonal
- TOU
- TOU Seasonal
- Inclining Block
- Inclining Block Seasonal
- Critical Peak Pricing
- Market Real Time
- Market Day Ahead
- Critical Peak Pricing

**Premise HAN Technologies**
- IHD
- PCT
- Gateway

- Load Control
- EVCS
- Storage & DG Integration

Make the most of your energy℠
EIS Stack – Commercial

EIS BusinessSMART™
Scalable solution enabling small business to commercial customers by removing the complexity from energy management, offering a variety of premise technologies, delivering energy control, demand response without customer sacrifice.

**Demand Response**
- Direct Load Control – Lighting, Large Load, DG Invocation
- HVAC Control – PCT, Chiller

**Energy Efficiency & Monitoring**
- Whole Premise – AMI Integration & Point Measurement
- Near Real Time – 1-5 Minute Interval with Advanced Analytics

**On Premise Display**
- Energy Management - Analytics and Demand Response
- Enhanced Interaction – Time, Weather, Temperature Control

**Automation and Control**
- Device Control – General Load, Machinery, Access
- Automation – Custom Scheduling and Environment Events

**Software and Tools**
- On the Web – EIS BusinessSMART™ Portal
- ENERGY STAR Certification with EIS Green Certification™

**Electric Vehicle Management**
- Demand and Price Response Intelligence
- 1-N Vehicle Fleet Management with Portal Integration

**Storage and Distributed Generation Integration**
- Intelligent Charge and Discharge based on Demand and Price Response
- Battery agnostic for best-fit solution deployment (PQ, DR, Backup)

**Energy Rate Support**
- Fixed
- Fixed Seasonal
- TOU
- TOU Seasonal
- Inclining Block
- Inclining Block Seasonal
- Market Real Time
- Market Day Ahead
- Critical Peak Pricing

**Premise HAN Technologies**
- In Office Display
- Commercial PCT
- Commercial Gateway
- Load & DG Control
- Advanced Monitoring
- Lighting Control
- EVCS
- Storage & DG Integration

Make the most of your energy™
Solution Architecture

- EIS HomeSMART
  - Internet
  - Gateway
  - Load Control
  - Storage
  - DG
  - HED
  - EVCS

- EIS BusinessSMART
  - Internet
  - AMI
  - Gateway
  - Load Control
  - Storage
  - DG
  - IOD
  - EVCS

- EIS OpCenter
- Calico RTO Automation
- Calico Green Certification
- Third Party/Legacy
- Pricing Services (RTO/ISO)

- API Service
- Notification Services
- Data Model
- Messaging Routing
- Publish/Subscribe
- Security
- Integration Adapters

- MDMS
- Legacy

- EIS Central

- AMI Systems
- Third Party Clouds

Make the most of your energy℠
Delivering benefits with smart functionality = VALUE

● **Home owner energy monitoring and actionable information**
  - PCT and IHD all in one device
  - Overall consumption visible.
  - Empower consumers, to make control decisions based upon pricing and TOU/CPP
  - Opt-in/Opt-out communication by multiple end devices through IDC
  - Color coded pricing alerts
  - Set back and cycling automation
  - ERT communication of usage to IHD and Stat
  - Residential energy management solution with Demand Response applications...

● **Utility control**
  - Peak control through utility activation
  - HVAC cycling for customer comfort
  - Curtailed usage information
  - Consumer-created load management, automating their needs according to calendar, scenarios, and pricing; allowing customers to optimize their energy cost and comfort
  - Integration with AMI systems (Service Bus)
  - Alternate communication path via broadband

Make the most of your energy℠
Why Schneider?

- We have a **worldwide presence** in electrical and grid infrastructure
- As a partner we **reduce program risk**
- We use **open standards** (ZigBee®, Web services, etc.)
- We have deep **experience in designing electrical installations** for the residential market
- Our R&D investment worldwide is in excess of **$1 Billion Dollars**
- **We Deliver Solutions!**

Make the most of your energy™
The most comprehensive and integrated solution to make everyone's home more energy efficient and responsive to energy signals