



**Ideal for**  
Residential and  
office users

## Smart Energy Adapter

The Billion SG1100 is a ZigBee-based USB adapter that by simply plugging into a desktop PC or notebook will conveniently enable a wireless ZigBee connection with a ZigBee-based device, such as ZigBee Meter. This configuration together with the deployment of Billion's Power Management System software installed in the PC or notebook will enable home users can monitor, analyze and control the power usage of all in-door appliances that are connected with Billion SG3010 Smart Green Dongle. This PC-based 3-in-1 package optimizes in-home energy management thus reducing electricity usage and power bills.

This energy management package including the SG1100 Smart Smart Energy Adapter is an ideal solution for residential and office users. Utility companies and ZigBee network system integrators can use this configuration for the deployment for automatic meter reading, home automation, and ZigBee-based sensor applications over Home Area Networks (HAN).

### Features and Specification

- Fully IEEE 802.15.4 and ZigBee PRO compliant
- 16 channels in the 2.4GHz ISM band
- Integrated omni-directional antenna
- USB 1.1 interface
- AES-128 hardware supported encryption
- Radio output power from -43dbm to +3dbm
- RX Sensitivity -95dbm
- Up to 150M line-of-sight range
- Activity LED indicator
- One-touch Easy commissioning
- Virtual COM port interface
- Supports Windows 98 SE / 2000 / XP, Mac OS X, Linux
- USB powered
- Operating temperature from -40°C to 85°C
- Power Management System (PMS) software
  - PC-based
  - Current power status information display
  - Energy statistics for electrical appliances
  - Usage percentages for electrical appliances
  - Power Trend (usage by day / month ) for electrical appliances
  - Power usage and cost analysis
  - Manage and switch on/off of electrical appliances

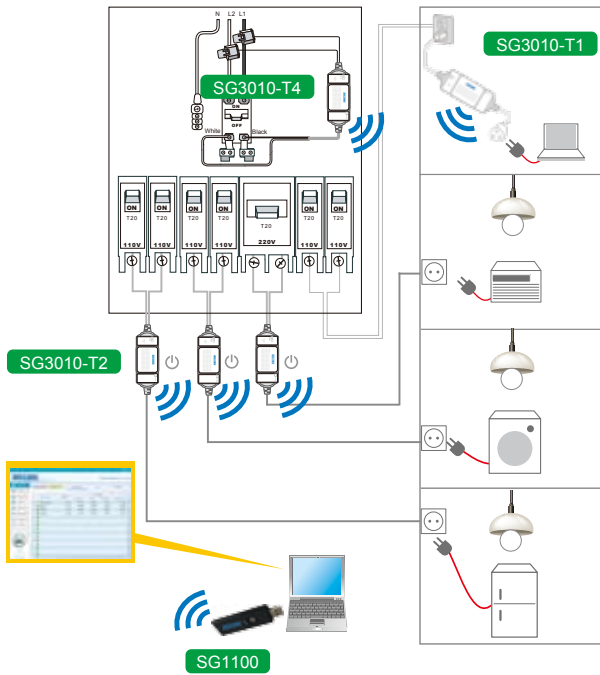
### Product Models

SG1100-PMS	Smart Energy Adapter plus PC-based Power Management Utility (PMS) software
SG1100-DVK	Smart Energy Adapter plus Development Kit

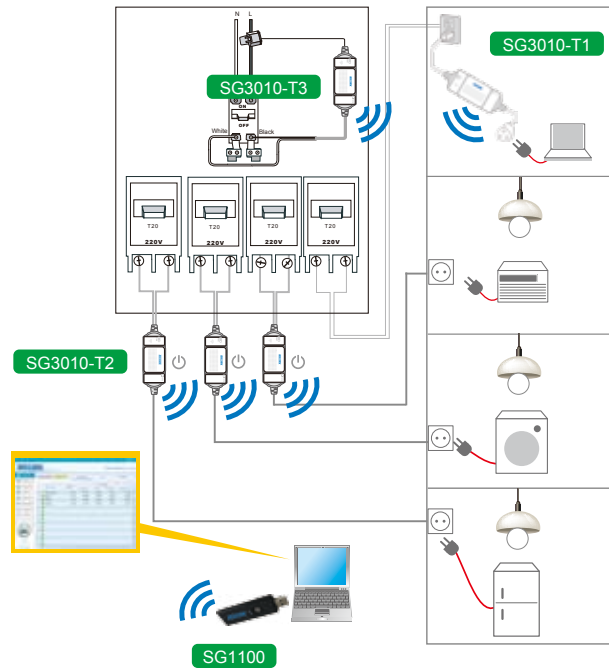
## Application Scenario

### PC-based Energy Management Solutions

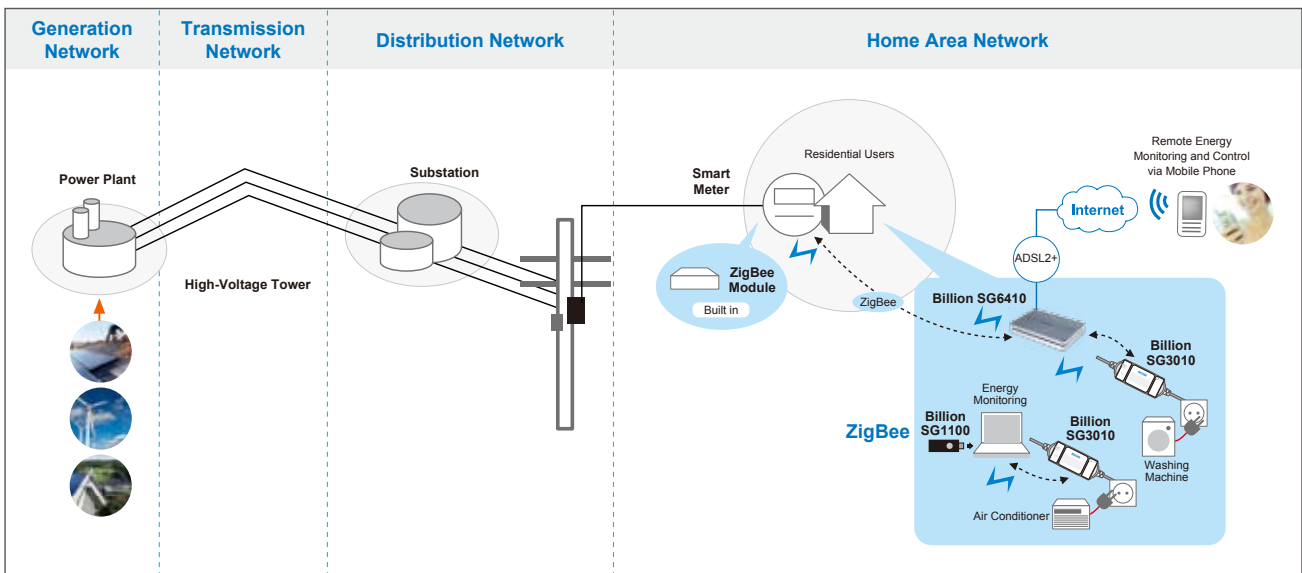
► Single-phase 3-wire (e.g. USA and Taiwan)



► Single-phase 2-wire (e.g. Europe)



### Home Area Network Application Scenarios



- Billion SG1100 instantly enables a wireless ZigBee connection for desktops or notebooks to monitor in-home electricity usage via Billion SG3010 Smart Energy Adapter with plug and play convenience.
- Customers can remotely control electrical devices via a Billion SG6410 connected to a Billion SG3010 in a home area network. Users can also automatically obtain power utilization information via ZigBee gateway for downstream analysis and profiling.

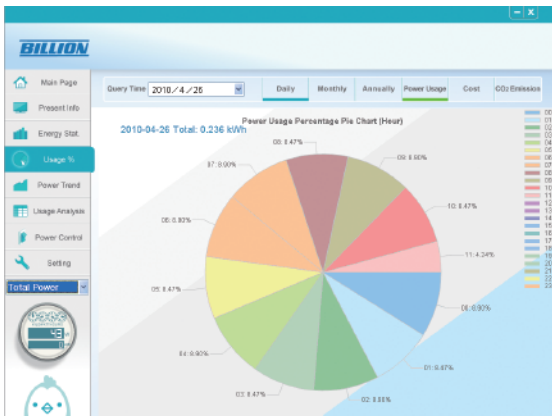
# Power Management System



► Power status monitoring



► Energy Statistic



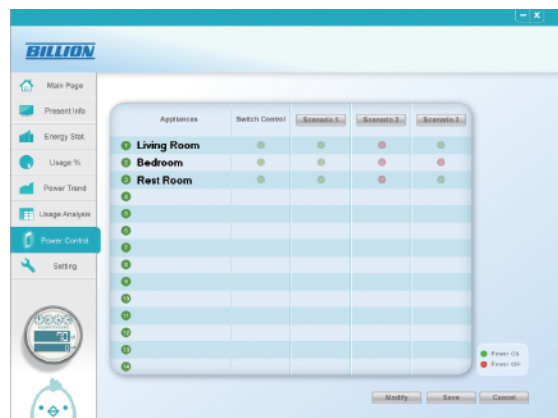
► Usage Percentage



► Usage Analysis



► Power Trend



► Power Control