Billion Energy Cloud

Quick Start Guide

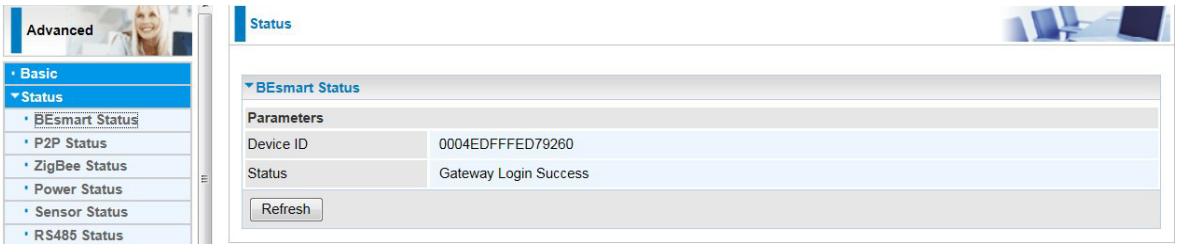
Chapter 1: Login Billion Energy Cloud

Open your web browser, enter the IP address of your SG6200NXL, which by default is **192.168.1.254**, and click "**Go**", a user name and password window prompt appears. Enter the user name and password that your **Administrator** has set for you and select the **Account Type**, then click **Login**. When you are authorised, you will access to the router.The default username and password are **"admin"** and **"admin"** respectively for the Administrator account type.

STEP_1 Check the SG6200NXL has connected Billion Energy Cloud

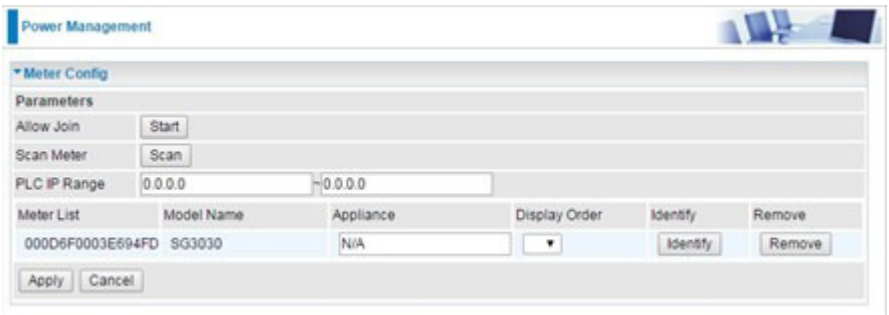
Advance->Status->BEsmart Status

Before check BEsmart Status, please ensure SG6200NXL connected Internet.



STEP_2 Check smart meter in the ZigBee network from WEB GU

Advance->Power management->Meter Config



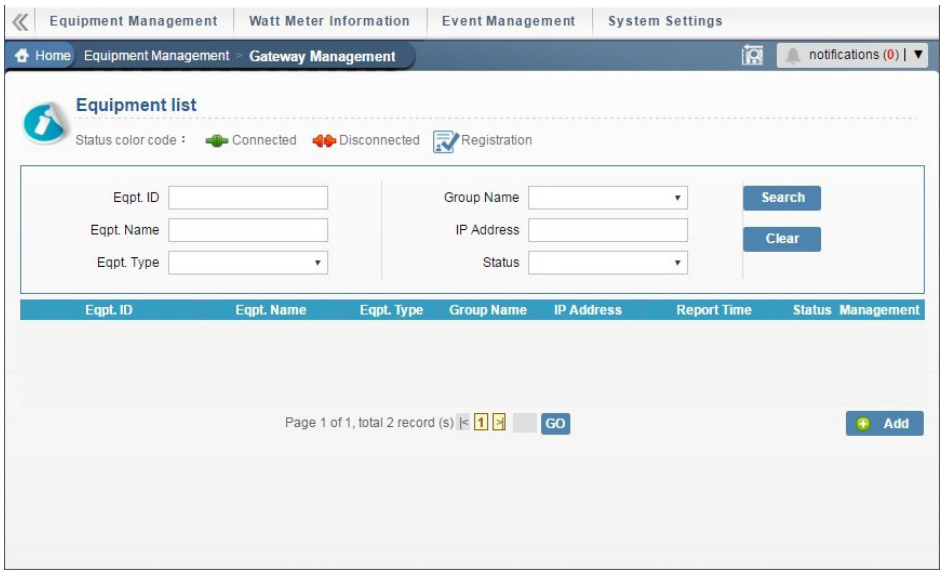
1.2 Login Billion Energy Cloud

Open your web browser, enter http://energycloud.billion.com/index.do, then enter your User name and Password.

Chapter 2: Manage Billion products in the cloud.

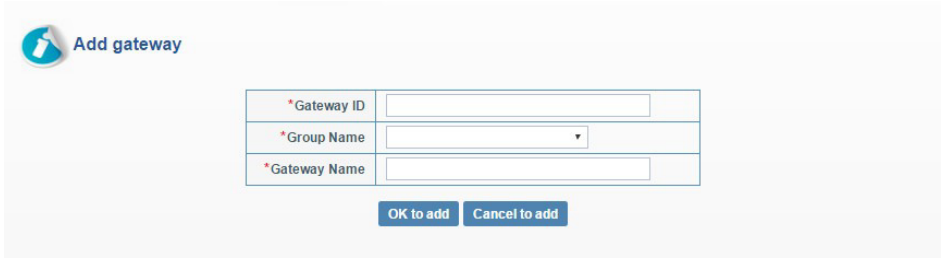
2.1 Register smart gateway in the cloud.

Equipment Management->Gateway Management



Click 

to add your smart gateway in the cloud.



Gatway ID:

Enter the smart gateway's ID.

The smart gateway's ID is come from SG6200NXL's WEB GUI

The head number is **BN90**, the complete ID is BN900004EDfffED79260.

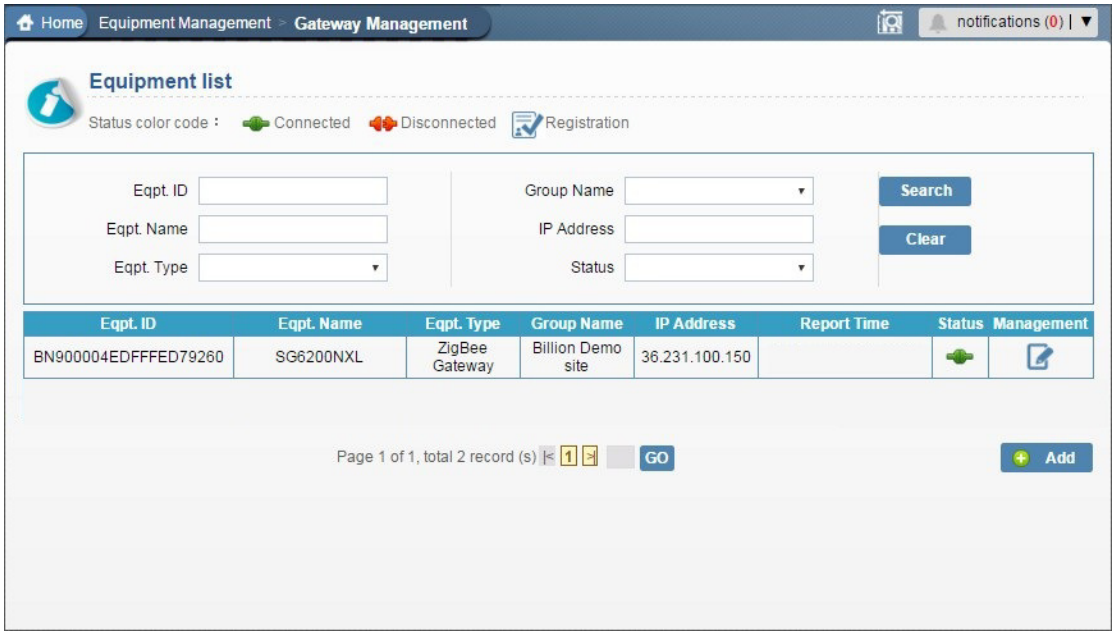
Group Name:

Select power management group that you went to add smart gateway.

Gateway. Name:

Enter the name to smart gateway.

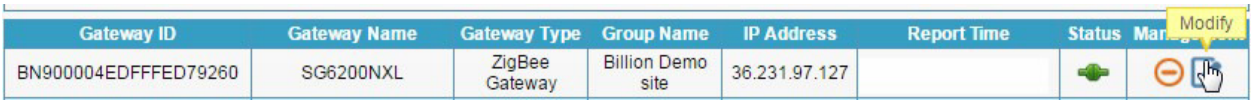
Finally, click OK to add then the smart meter has been registered in the cloud.



2.2 Add smart meter in the cloud.

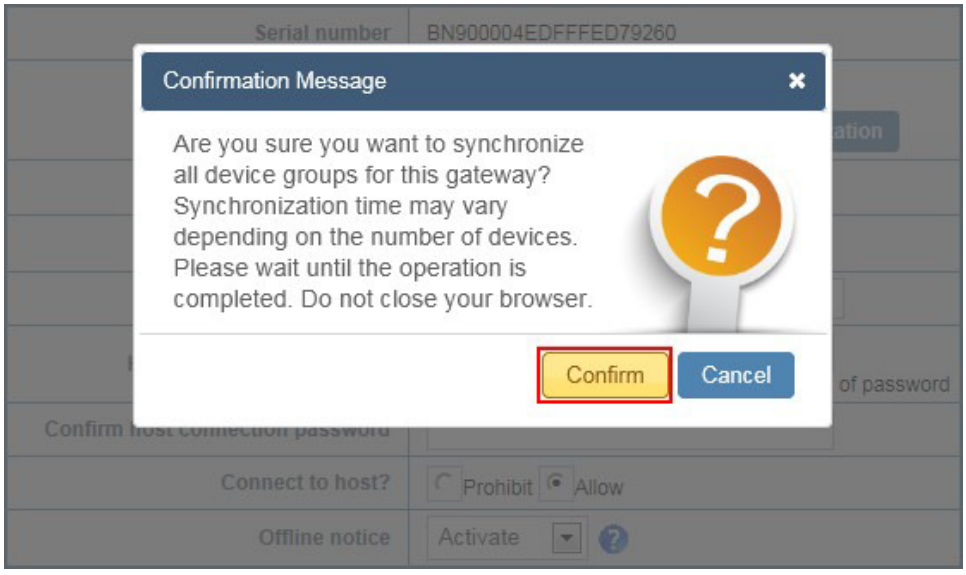
Equipment Management->Gateway Management

STEP 1: Click “Modify”

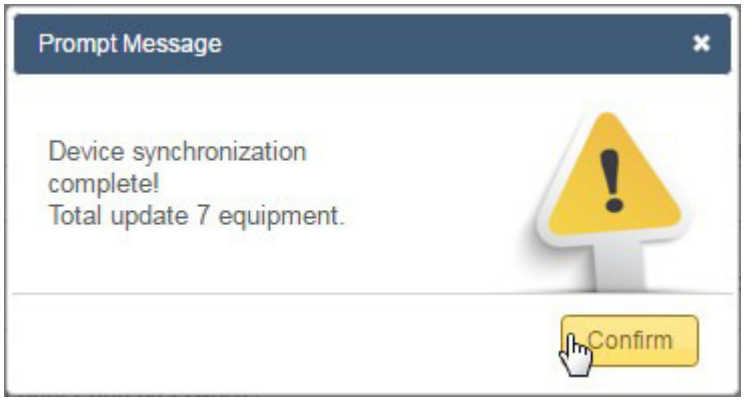


STEP_2 Click **“Device Group Synchronization”**

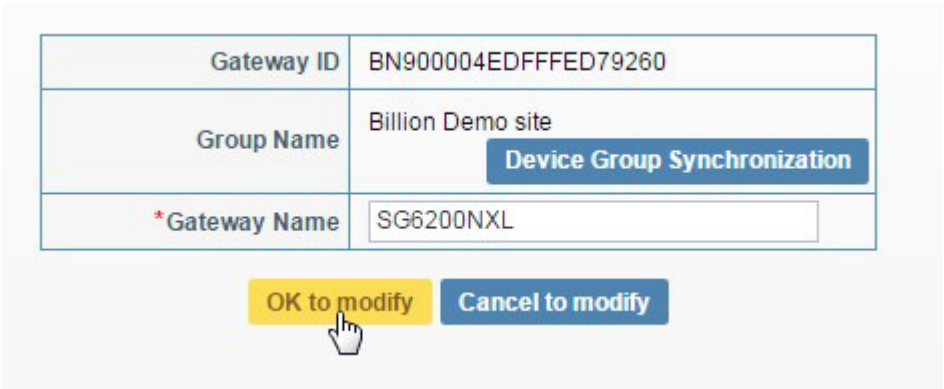
STEP_3 Click **“Confirm”**



STEP_4 Click **"Confirm"**



STEP_5 Click OK to modify

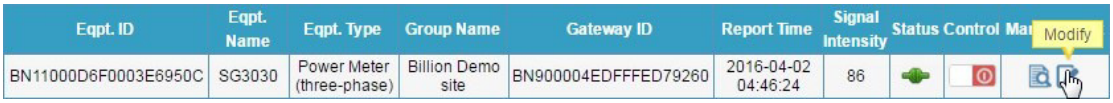


2.3 Configure smart meter

Equipment Management->Watt Management

2.3.1 Basic configuration

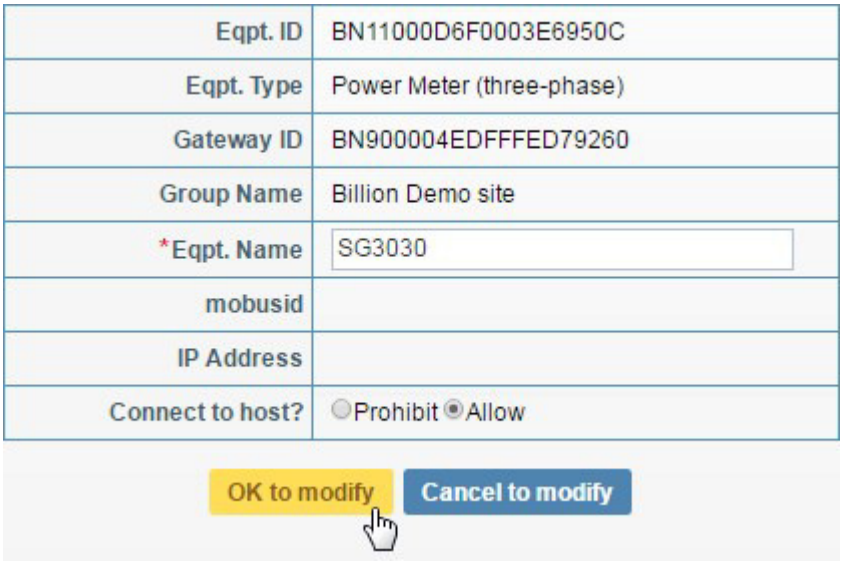
STEP_1 Click right **"modify"**



STEP_2

Enter the meter name to Eqpt. Name in order to define smart meter's name.

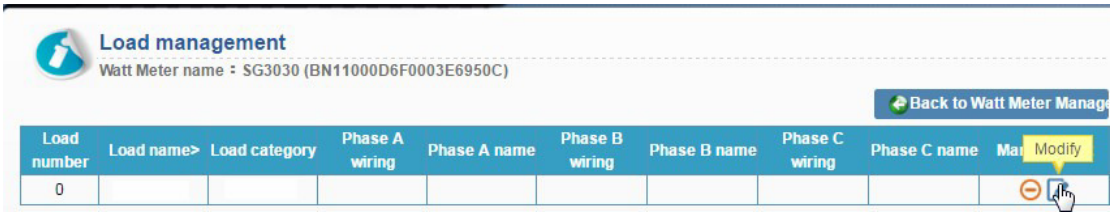
Then click **"OK to confirm"**



2.3.2 Advance configuration

STEP_1 Click left **"modify"**

STEP_2 Click left **"modify"**



STEP_3 Configure the smart meter information

Watt Meter name	SG3030 （BN11000D6F0003E6950C）
Load number	0
*Load name	
Load category	Main Panel-Board
Load Type	5: Three-Phase (universal)
Electricity Rate selection	台灣-低壓-表燈用戶二段式時間電價 Commencement Date：2015-11-01
Phase A wiring	
Phase A name	
Phase B wiring	
Phase B name	
Phase C wiring	
Phase C name	
CT Ratio	1
PT Ratio	1
Target Demand	KW
Master meter?	No Yes
Connect to host?	Prohibit Allow

Key parameter

1. **Load name:**

   Set the load name for the load you want to measure.

2. **Load category:**

   Select the Load category

3. **Load Type:**

   Select the Load Type

4. **Electricity Rate selection:**

   Currently, the Billion energy cloud support Taiwan and China for electrical rate.

   If customer want to integrate local electrical rate, please provide the rate information to Billion.

5. **Master meter:**

   If you want to see report, demand record…etc, please set Mater mode.

Chapter 3: Area Overview

Function Outline:

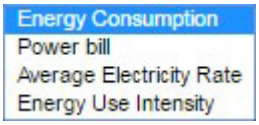
Power consumption of each building can be examined through mapping and positioning, including marking an abnormal condition, recording disconnection, abnormal consumption, etc. Overall power consumption can be ranked for the corporate to find out the building with the highest consumption.

3.1 Energy Consumption Chart

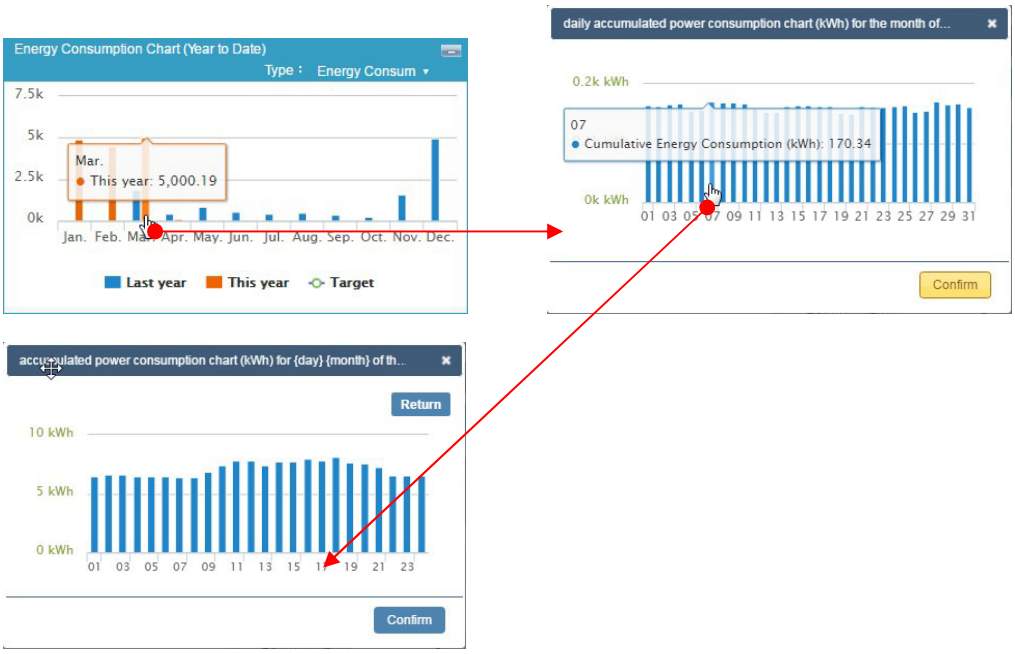
Energy Consumption Chart

Display the chart of different data type for last year, this year and target.

You can click “Type” to Select the data type you want as below

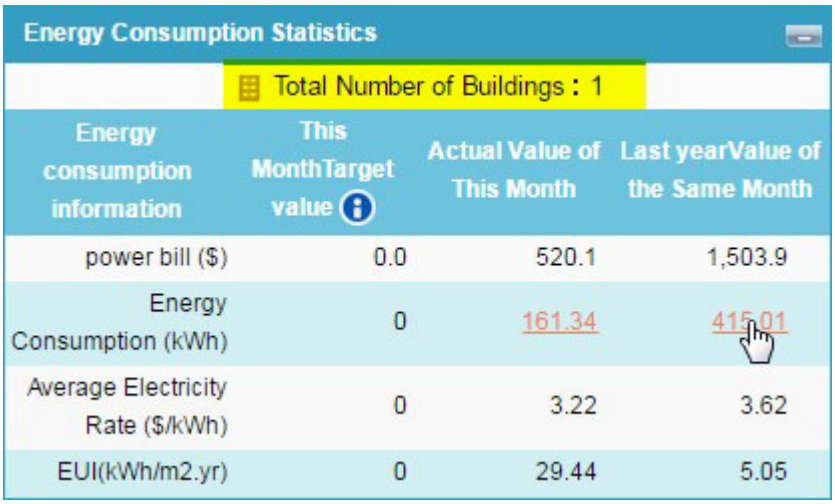


Click the “Bar” directly, you can see historical data of power consumption.



3.2 Energy Consumption Statistics

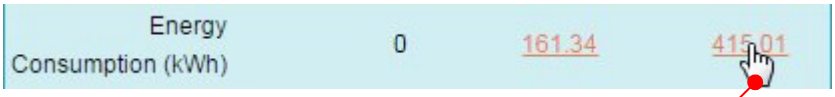
Provide summarize of energy consumption for customer.



Energy consumption information	This MonthTarget value	Actual Value of This Month	Last yearValue of the Same Month
power bill ($)	0.0	520.1	1,503.9
Energy Consumption (kWh)	0	161.34	415.01
Average Electricity Rate ($/kWh)	0	3.22	3.62
EUI(kWh/m2.yr)	0	29.44	5.05

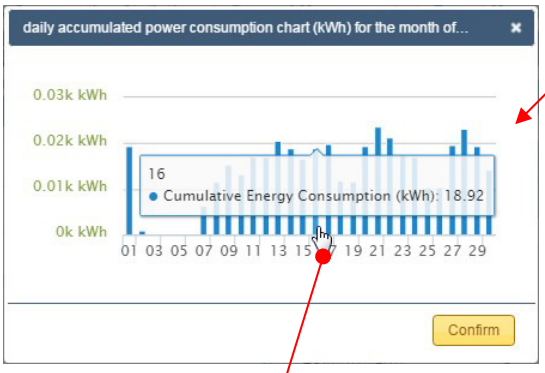
Total Number of Building:

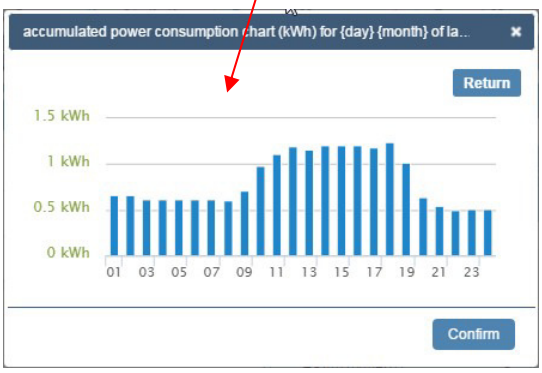
Display total number of buildings with main meters in the site. Data is collected from beginning of the year up to the present day.



Energy Consumption (kWh)	0	161.34	415.01

Click the value of Energy Consumption, you can see historical data of this month.



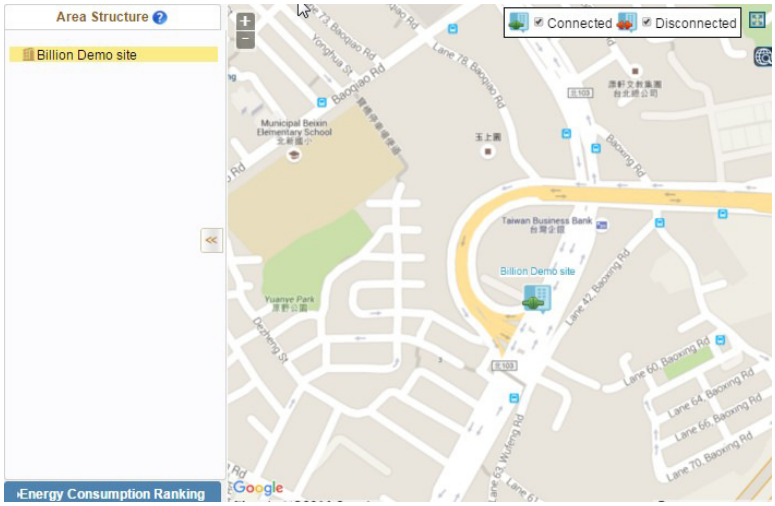


3.3 Energy Map

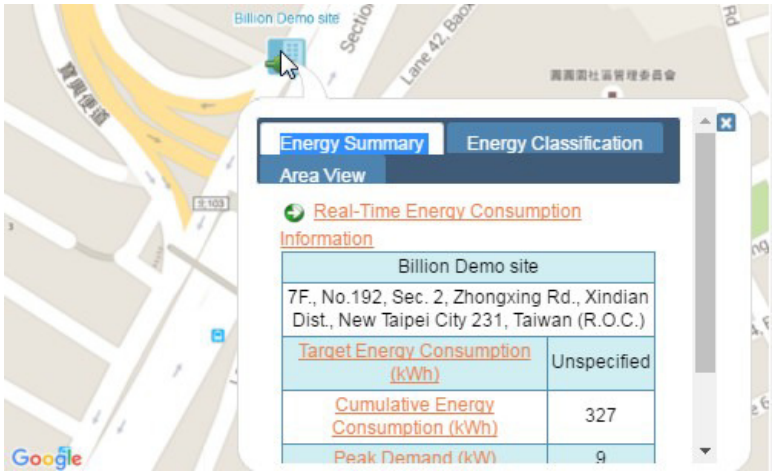
Function Outline:

Without the restrictions on time and geography, users are able to remotely manage equipment built at different locations.

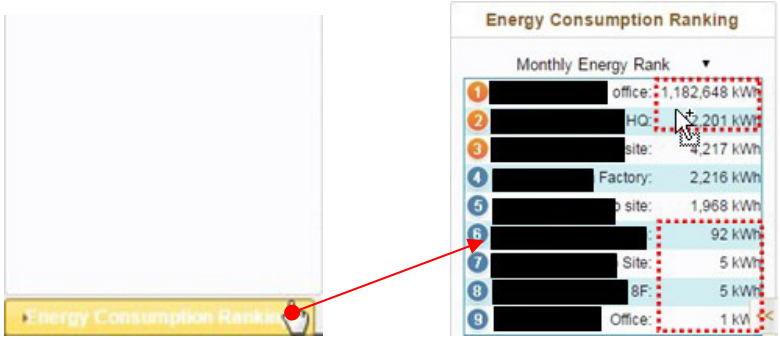
Users are able to significantly reduce maintenance costs while maximizing the efficiency of central management.



STEP_1 Click Building icon, you are able to see the detail power information.



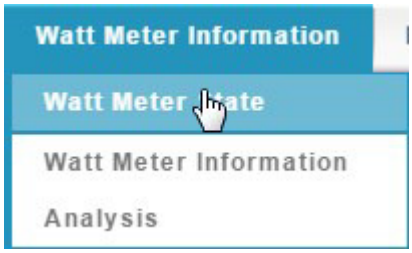
STEP_2 Click “Power Consumption Ranking” and the system will list buildings from highest to lowest consumption in the site. This can help user to quickly find out the building with the highest power consumption



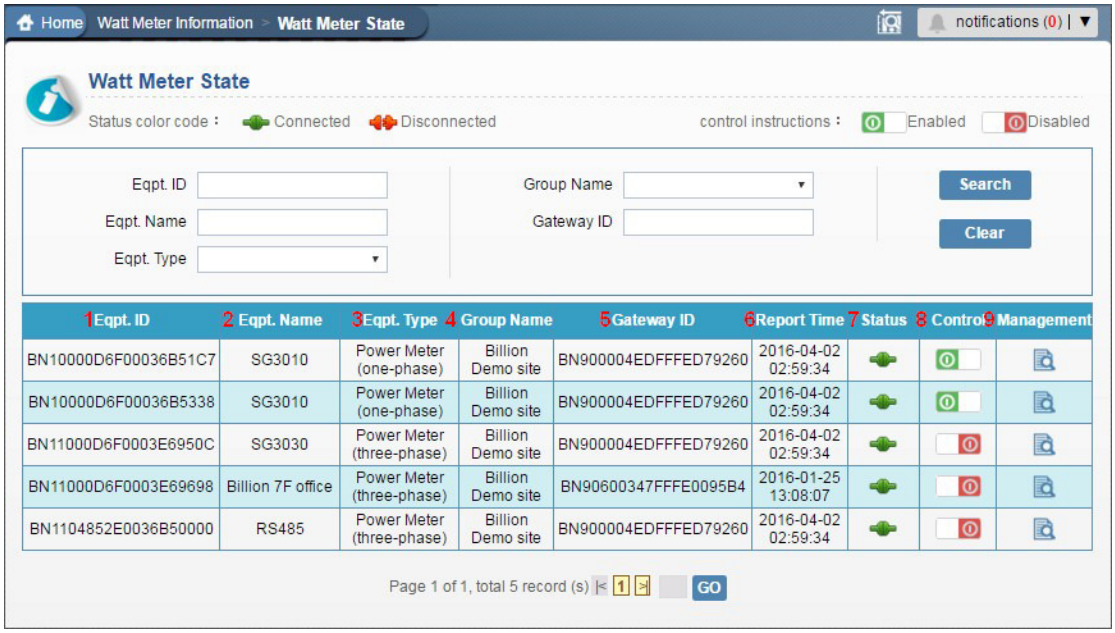
Chapter 4: Check the power status of Smart meter.

4.1 Display the meter information.

Watt Meter Information->Watt Meter State



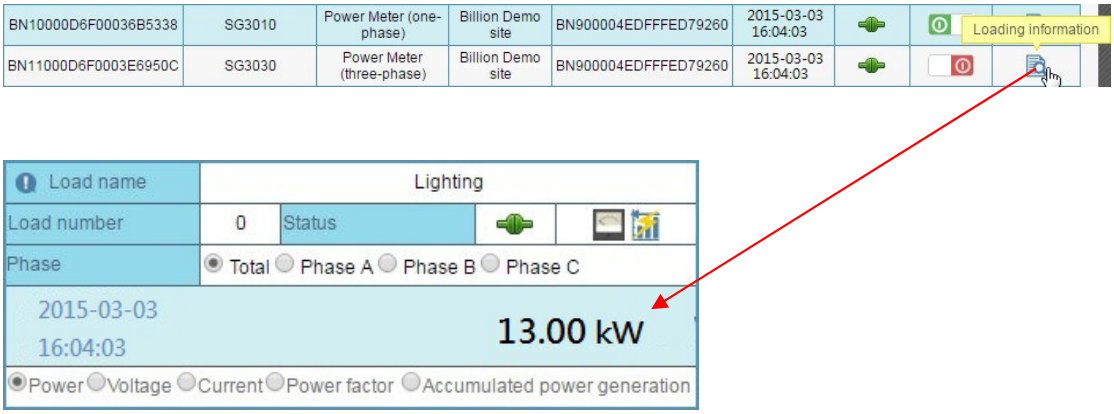
Watt Meter State



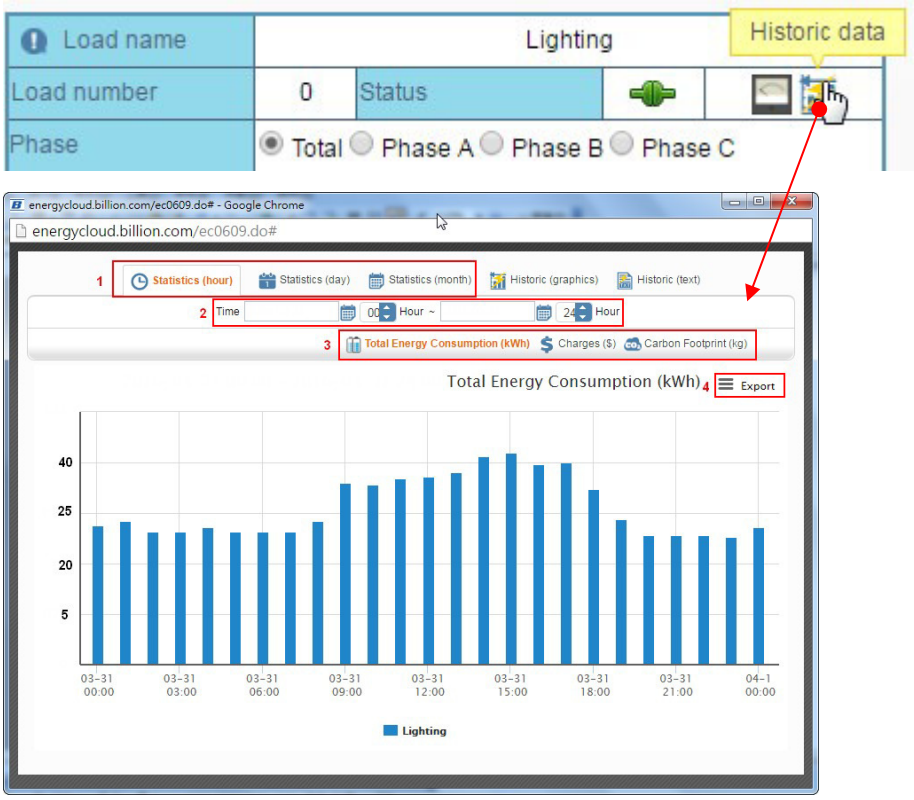
1. **Eqpt. ID:** Display the meter ID
2. **Eqpt. Name:** Display the meter Name you set.
3. **Eqpt. Type:** Display the meter type.
4. **Group Name:** Display the Group Name you set.
5. **Eqpt. Gateway ID:** Display the SG6200NXL ID.
6. **Report Time:** Display the last report time of meter.
7. **Status:** Display the online status of meter.
8. **Control:** Control the loading from meter. (coming soon)
9. **Management:** Display more detail power information of meter.

4.2 Display the real time power information.

Click **"Loading information"**



4.3 Display the historic power data by bar chart.



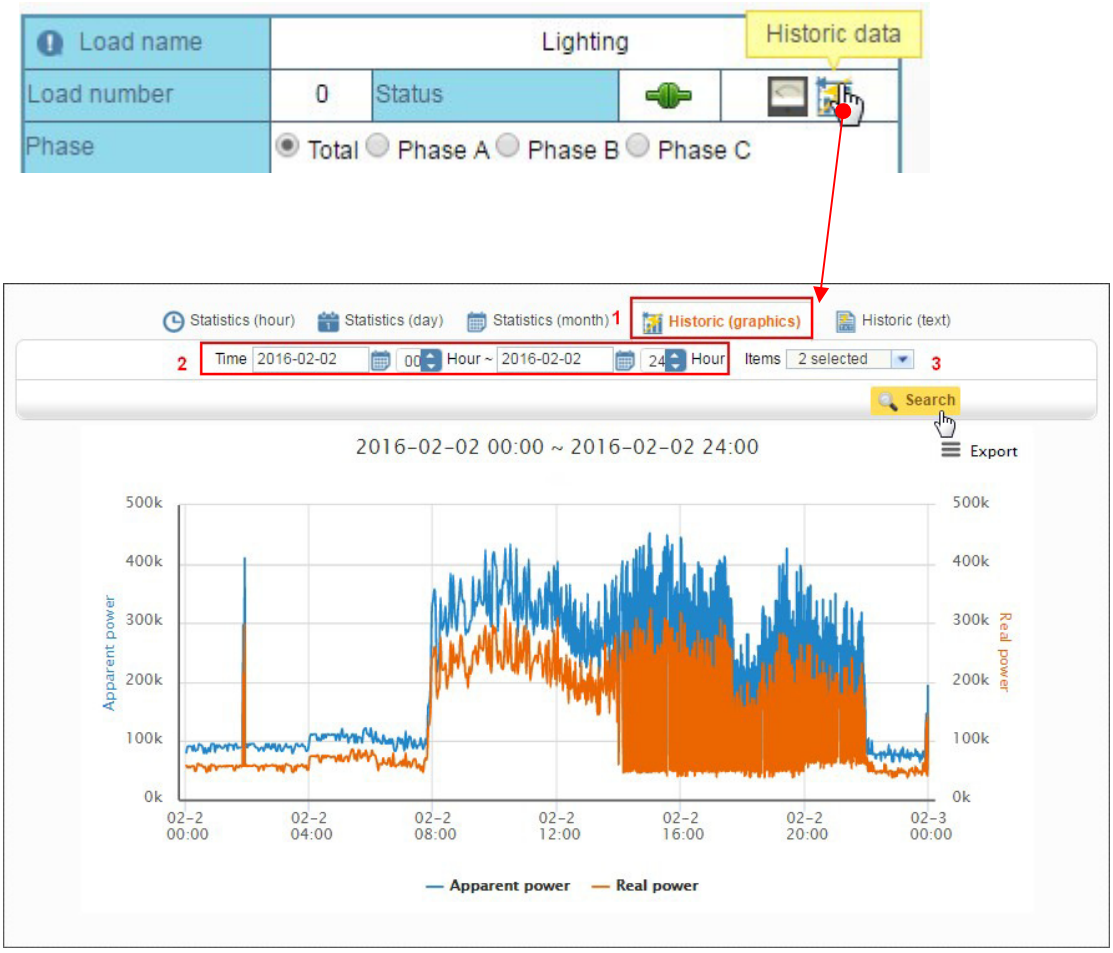
STEP_1 Statistics can be viewed by three options: Hour/Day/Month

STEP_2 Select time period you want to check.

STEP_3 You can view by three options: Total Energy, Charge and Carbon Emission.

STEP_4 Click "**Export**" to select from three export options.

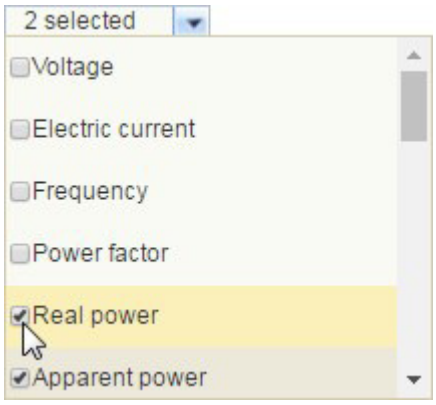
4.4 Display the historic power data by line chart.



STEP_1 Click "**Historic (graphics)**"

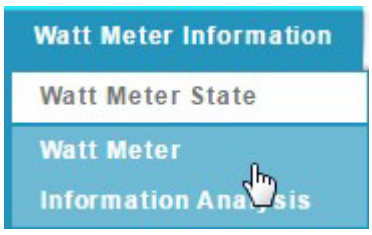
STEP_2 Select time period you want to check.

STEP_3 Select multiple power information you want to check.



4.5 Display the meter analyze

Watt Meter Information->Watt Meter Analysis



Watt Meter Analysis

Display the multiple meters analyze by Bar chart

STEP_1 Statistics can be viewed by three options: Hour/Day/Month

STEP_2 Select time period you want to check.

STEP_3 You can view by three options: Total Energy, Charge and Carbon Emission.

STEP_4 Click “Group” you want to check.

STEP_5 Select “watt meter” you want to check multiple meters.

Display the multiple meters analyze by Line chart

STEP_1 Click “**Historic (graphics)**”

STEP_2 Select time period you want to check.

STEP_3 Select power information you want to check.

STEP_4 Click “Group” you want to check.

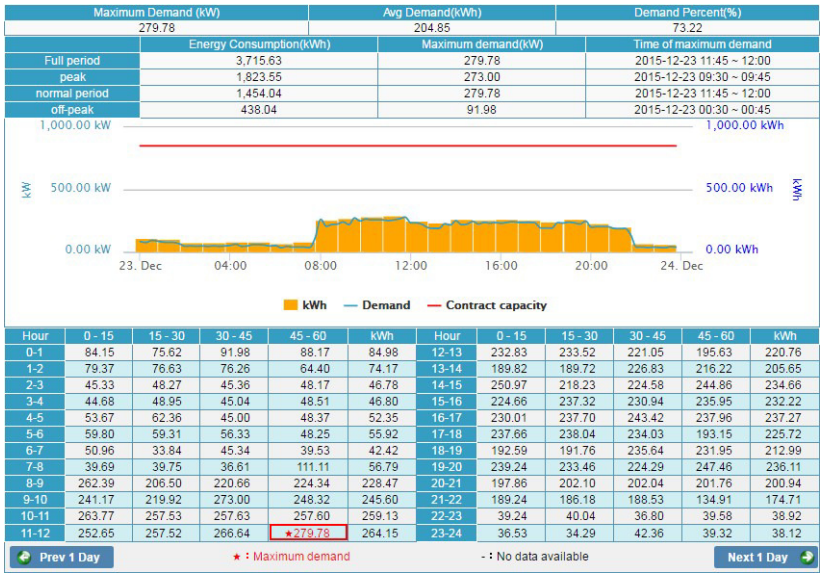
STEP_5 Select “watt meter” you want to check multiple meters.

Chapter 5: Analyze the power report

Report Management->Daily Demand Report

5.1 Analyze the power report

Power demand of a meter in an entire year is statistically analyzed to help find out the time when consumption is the highest, including total power consumption kWh in different periods and time when maximum demand KW occurred. Report can be exported in excel format.



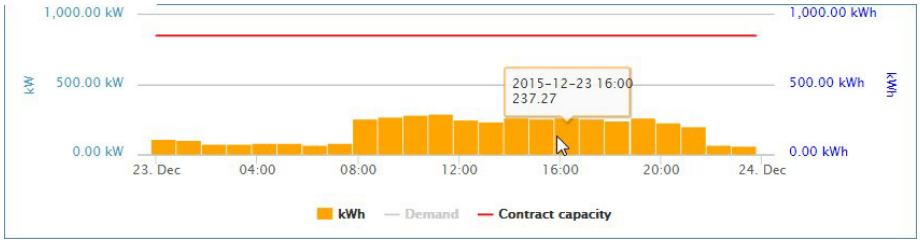
Maximum Demand (kW)	Avg Demand(kWh)	Demand Percent(%)
279.78	204.85	73.22

	Energy Consumption(kWh)	Maximum demand(kW)	Time of maximum demand
Full period	3,715.63	279.78	2015-12-23 11:45 ~ 12:00
peak	1,823.55	273.00	2015-12-23 09:30 ~ 09:45
normal period	1,454.04	279.78	2015-12-23 11:45 ~ 12:00
off-peak	438.04	91.98	2015-12-23 00:30 ~ 00:45

Hour	0 - 15	15 - 30	30 - 45	45 - 60	kWh	Hour	0 - 15	15 - 30	30 - 45	45 - 60	kWh
0-1	84.15	75.62	91.98	88.17	84.98	12-13	232.83	233.52	221.05	195.63	220.76
1-2	79.37	76.63	76.26	64.40	74.17	13-14	189.82	189.72	226.83	216.22	205.65
2-3	45.33	48.27	45.36	48.17	46.78	14-15	250.97	218.23	224.58	244.86	234.66
3-4	44.68	48.95	45.04	48.51	46.80	15-16	224.66	237.32	230.94	235.95	232.22
4-5	53.67	62.36	45.00	48.37	52.35	16-17	230.01	237.70	243.42	237.96	237.27
5-6	59.80	59.31	56.33	48.25	55.92	17-18	237.66	238.04	234.03	193.15	225.72
6-7	50.96	33.84	45.34	39.53	42.42	18-19	192.59	191.76	235.64	231.95	212.99
7-8	39.69	39.75	36.61	111.11	56.79	19-20	239.24	233.46	224.29	247.46	236.11
8-9	262.39	206.50	220.66	224.34	228.47	20-21	197.86	202.10	202.04	201.76	200.94
9-10	241.17	219.92	273.00	248.32	245.60	21-22	189.24	186.18	188.53	134.91	174.71
10-11	263.77	257.53	257.63	257.60	259.13	22-23	39.24	40.04	36.80	39.58	38.92
11-12	252.65	257.52	266.64	★279.78	264.15	23-24	36.53	34.29	42.36	39.32	38.12

Click an option in the index to hide a bar or coordinate in the graph.

Exampl Click “**Demand**”



Exampl Click “**KWh**”

Chapter 6: Demand Management

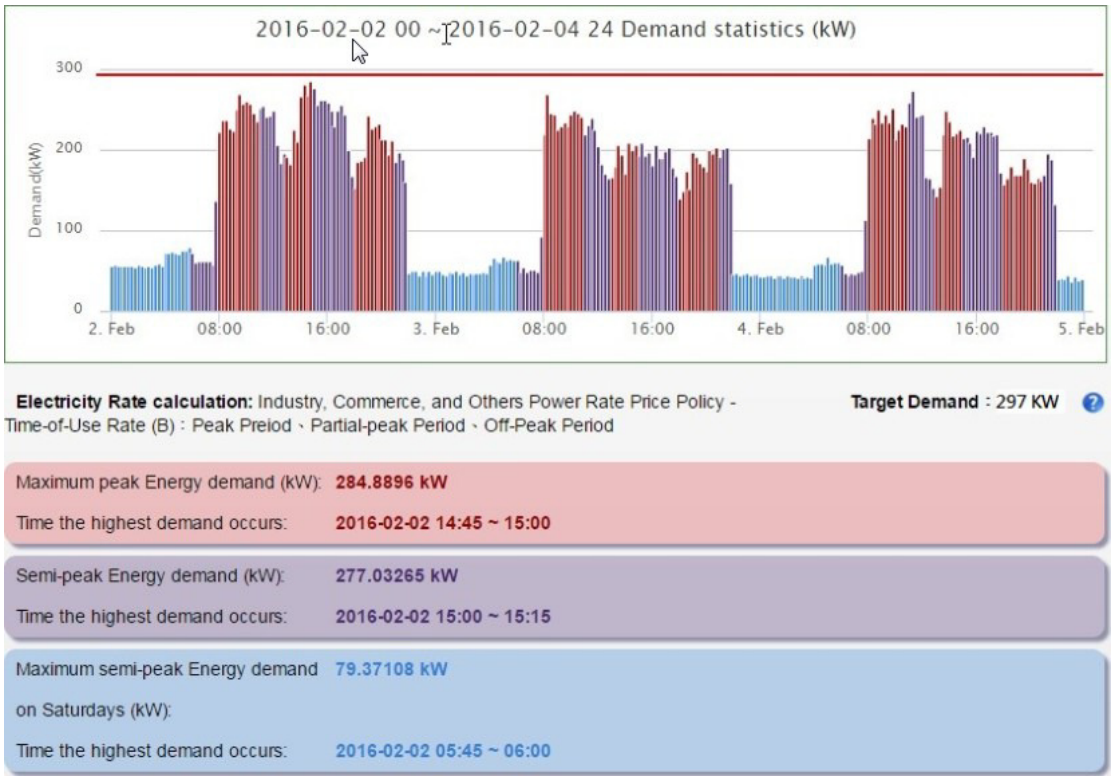
Demand Management->Demand Statistics

6.1 Display the demand statistics

STEP_1: Select smart meter you want to check.

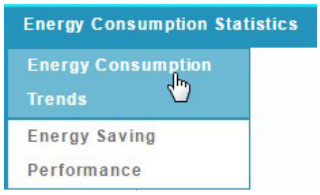
STEP_2: Select time period you want to check.

STEP_3: Click **"Search"**

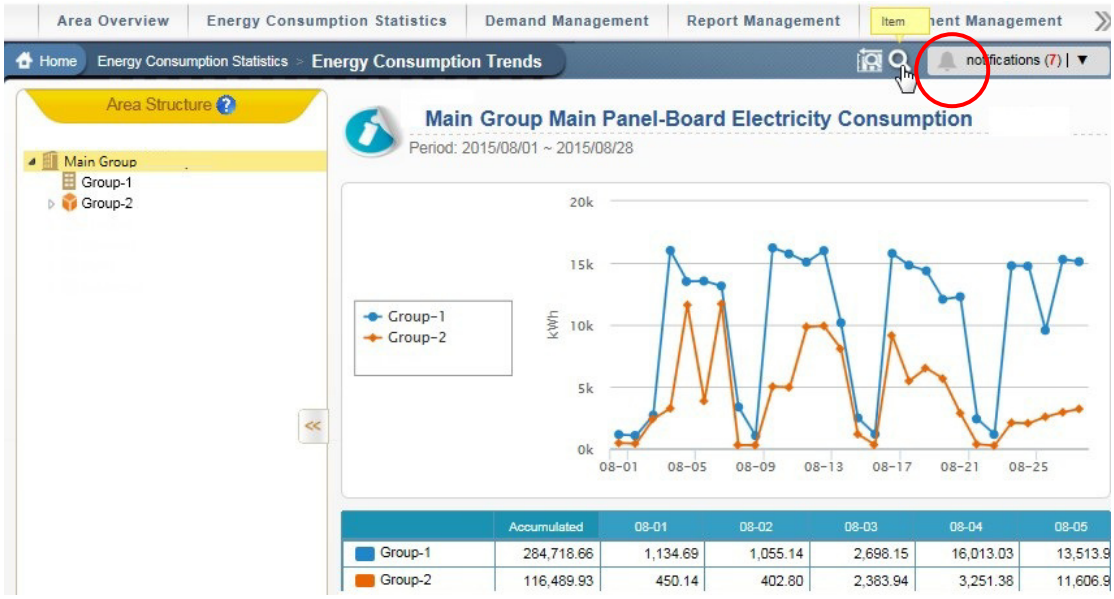


Chapter 7: Check power consumption statistics

7.1 Display power consumption trend.

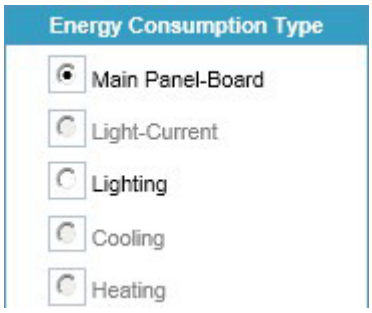


Click  to select statistical analysis options. You are able to see the trend you want.



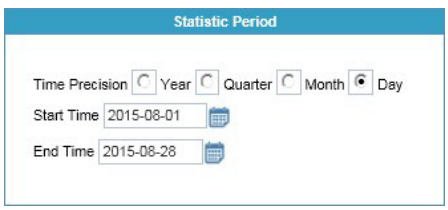
The options include as below

Energy Consumption:

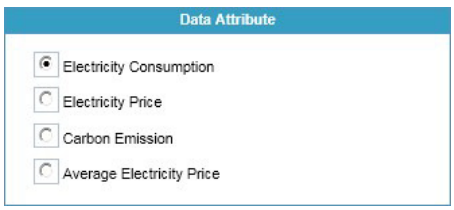


You can set energy consumption to meter by "Watt Meter Management"

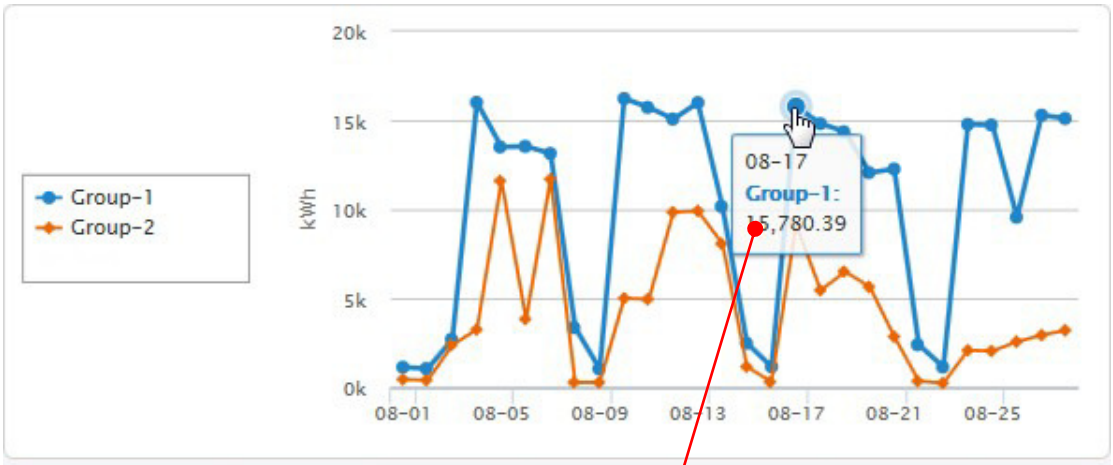
Statistic period



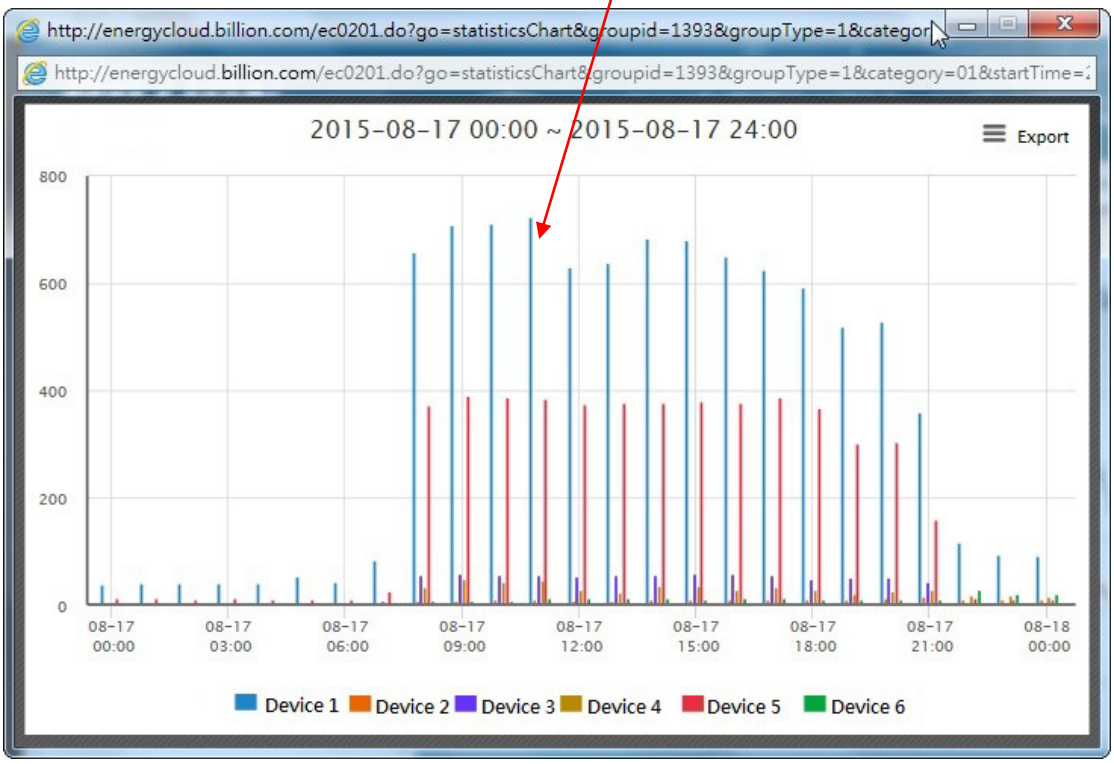
Data Attribute



Click the node on the line bar, you are able to see the detail.

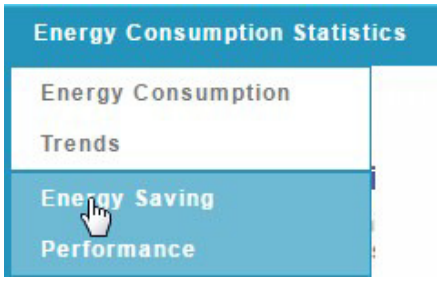


	Accumulated	08-01	08-02	08-03	08-04	08-05
Group-1	284,718.66	1,134.69	1,055.14	2,698.15	16,013.03	13,513.9
Group-2	116,489.93	450.14	402.80	2,383.94	3,251.38	11,606.9

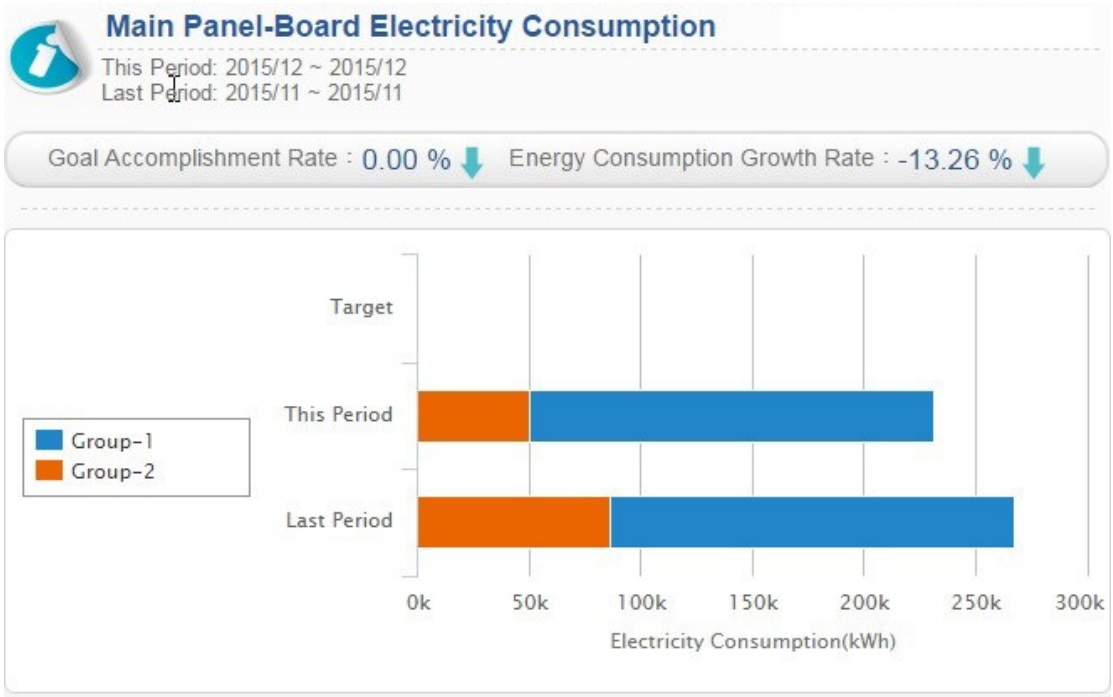


In this scenario, there are 6 meters to monitor 6 devices in the group-1, so customer can see them.

7.2 Display power consumption performance.



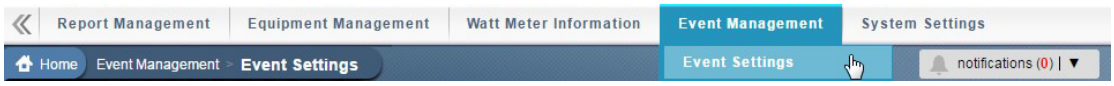
STEP_1 Click  to select statistical analysis options.



	Electricity Consumption(kWh)		
	Target	This Period	Last Period
Group-1	-	181,729.01	180,849.82
Group-2	-	50,210.34	86,535.90

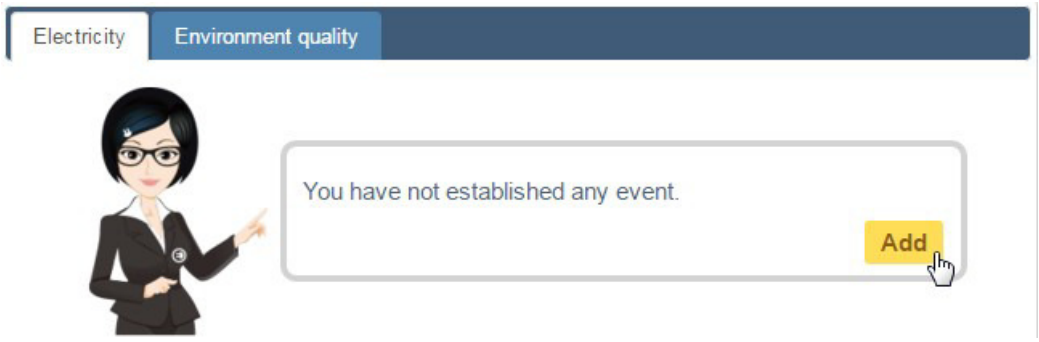
Chapter 8: Set event to your meters

Event Management

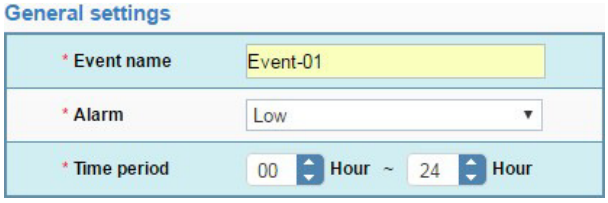


8.1 Set event.

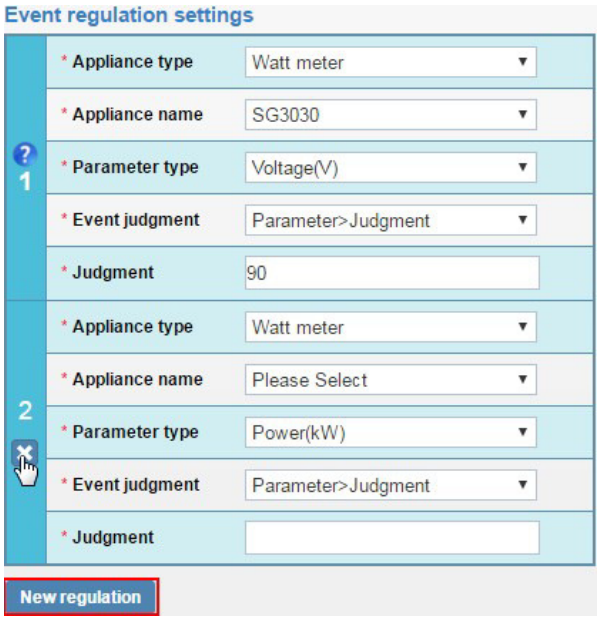
STEP_1 Click "**Add**"



STEP_2 General settings



STEP_3

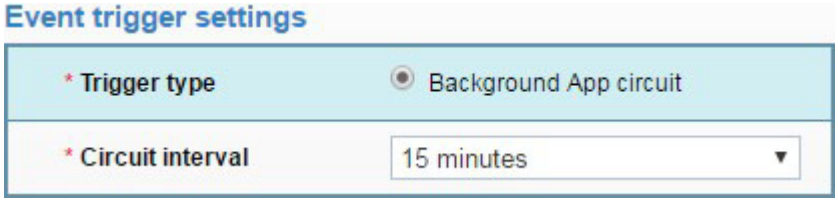


User can set multiple regulations to one meter.

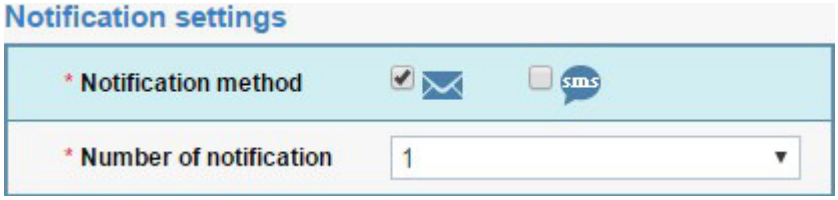
If user wants to add more regulations, click "New regulation"

If user want to add only one meter, click "**X**"

STEP_4

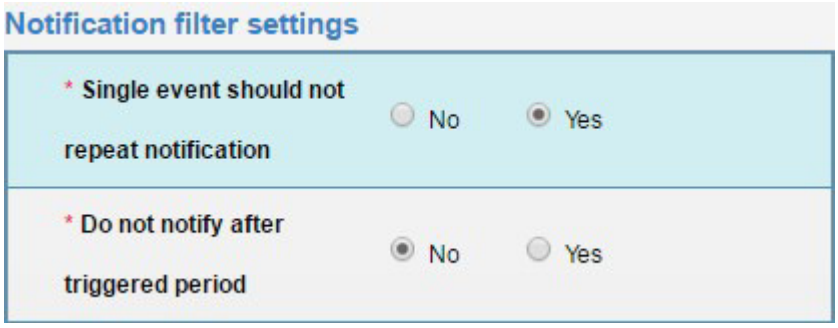


STEP_5

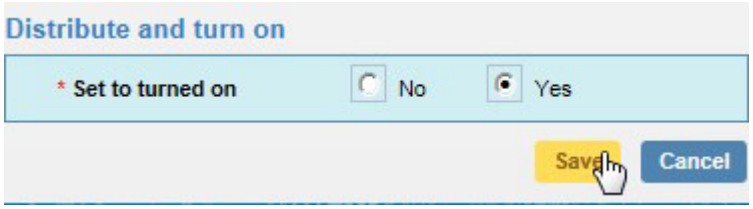


If user wants to set “SMS”, please provide the local telecom information to Billion.

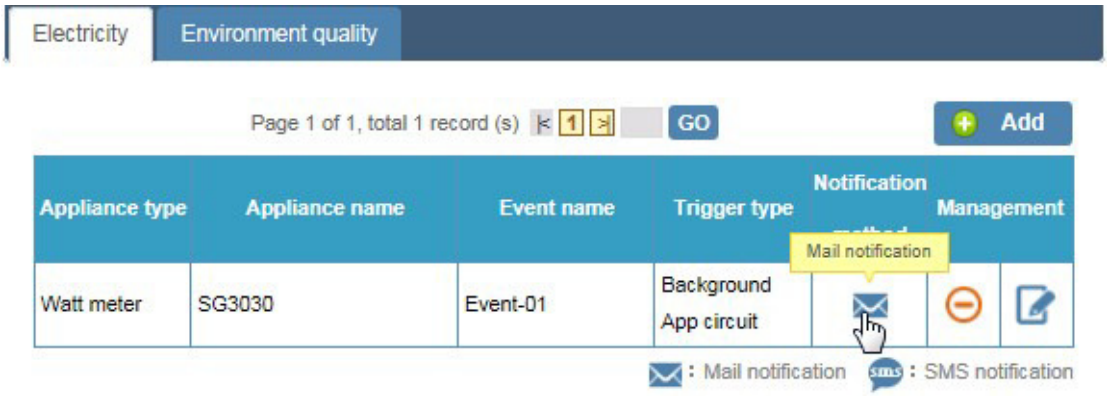
STEP_6



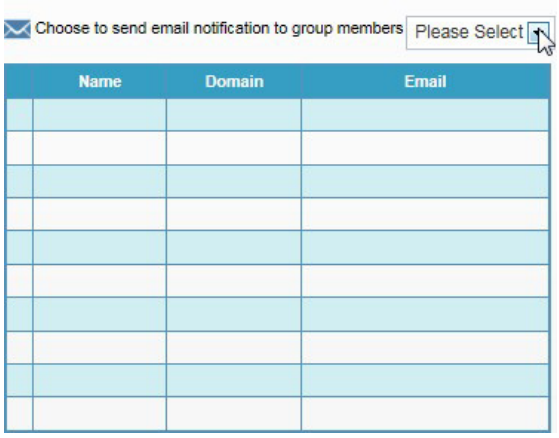
STEP_7



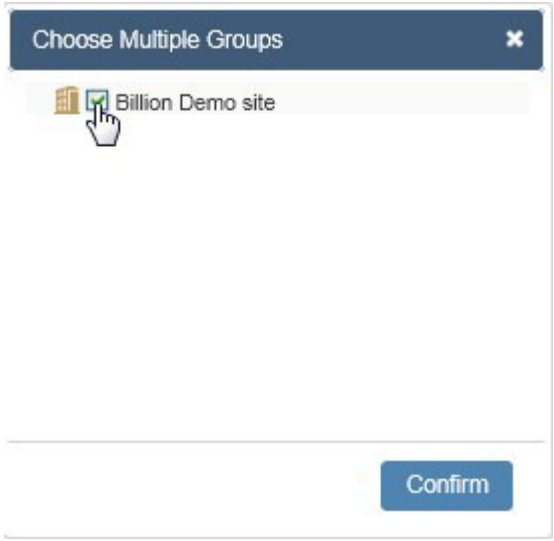
STEP_8 Click “**Mail Notification**” to add receiver.



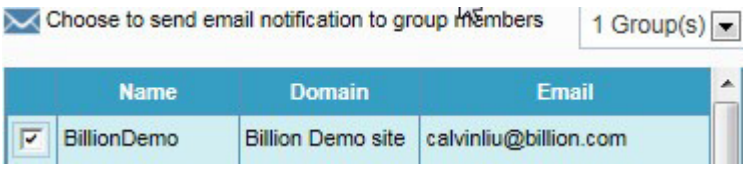
STEP_9 Select the group members.



STEP_10 Select Groups



STEP_11

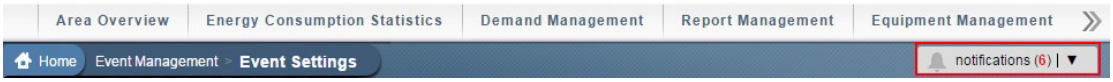


STEP_12

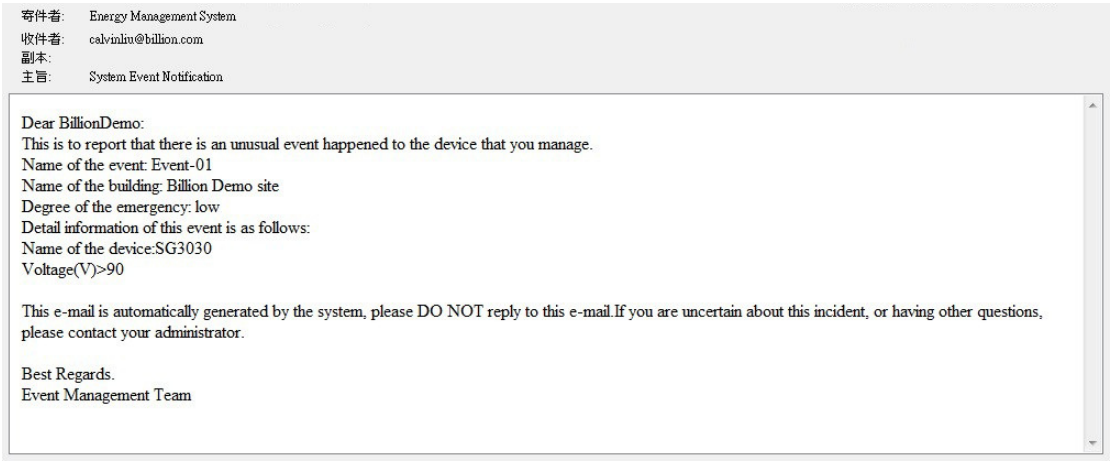
Click  to save your setting.

8.2 Test event setting.

If the event is triggering, the notification will display on the Cloud.



User will receive the event mail.



User can check the event record from Event Logs