

**T@Energy**

**Wisdom Energy Management System**

User Manual V1.1

**Henan Compere Smart Technology Co., Ltd.**

## Content

1 Software use.....	1
2 Software operating environment.....	1
3 Server environment.....	1
4 Login interface.....	2
5 Homepage.....	2
5.1 Homepage display.....	2
6 Energy monitoring.....	4
6.1 Real-time data (signal).....	4
6.2 Real-time data (minute level).....	5
6.3 Real-time data (second level).....	5
6.4 Historical data (event).....	6
6.5 Historical data (minute level).....	6
6.6 Historical data (second level).....	7
6.7 Historical data report.....	8
6.8 Power distribution diagram.....	8
6.9 Daily/Monthly frozen data.....	9
6.10 Statistical analysis report.....	9
6.10.1 Device failure report.....	9
6.10.2 Device start-stop report.....	10
6.10.3 Device runtime report.....	10
6.11 Historical curve (minutes).....	10
6.12 Historical curve (seconds).....	11
7 Video monitoring.....	12
7.1 Live video.....	12
7.2 Video playback.....	12
7.3 PTZ control.....	13
7.4 Video settings.....	13
8 Energy consumption statistics.....	16
8.1 Department energy consumption.....	16
8.2 Sub-item energy consumption.....	16
8.3 Energy consumption rank.....	17
9 Energy consumption analysis.....	17
9.1 Enterprise energy consumption analysis.....	18
9.2 Department comprehensive energy consumption.....	18
9.3 Equipment energy consumption analysis.....	19
9.4 Comprehensive analysis of energy indicators.....	19
9.4.1 Energy and charge analysis.....	19
9.4.2 Load characteristic analysis.....	20
9.4.3 Tariff period analysis.....	21
9.4.4 Power factor analysis.....	21
10 Value-added management.....	22
10.1 Department assessment.....	22

10.2 Product energy consumption.....	23
11 Reporting service .....	23
11.1 Electricity .....	24
11.1.1 Daily report (electricity) .....	24
11.1.2 Monthly report (electricity) .....	24
11.1.3 Annual report (electricity) .....	25
11.1.4 Quarterly report (electricity) .....	25
11.1.5 Shift report (electricity) .....	25
11.2 Water .....	26
11.2.1 Daily report (water) .....	26
11.2.2 Monthly report (water) .....	26
11.2.3 Annual report (water) .....	27
11.3 Numerical statement.....	27
11.3.1 Hourly report.....	27
11.3.2 Daily report .....	28
11.3.3 Monthly report.....	28
11.3.4 Annual report.....	29
11.4 Peak Valley Flat.....	29
11.4.1 Daily report (Peak Valley Flat) .....	29
11.4.2 Monthly report (Peak Valley Flat) .....	30
11.4.3 Annual report (Peak Valley Flat) .....	30
12 Production management.....	31
12.1 Product management.....	31
12.2 Data entry.....	32
12.3 Team management.....	33
13 Alarm center.....	34
13.1 Telemetry over-limit alarm.....	34
13.2 Signal deflection alarm .....	35
13.3 Operation and maintenance alarm (Ops alarm).....	35
13.4 Historical event alarm .....	36
13.5 Equipment over-limit alarm .....	36
14 Equipment management.....	37
14.1 Equipment parameters.....	37
14.2 Maintenance and test cycle .....	38
14.3 Maintenance record.....	38
14.4 Test Data.....	38
14.5 Defect management.....	39
15 Typical ticket.....	39
15.1 Typical work ticket.....	40
15.2 Typical ticket initiation.....	40
15.3 Typical ticket audit.....	40
15.4 Typical ticket approval .....	41
16 Profiles (upload and download) .....	41
17 System Management .....	42

- 17.1 Module Management .....42
- 17.2 User Management .....43
- 17.3 Role management.....45
- 17.4 Dictionary management .....46
- 17.5 Plotting module .....48
- 17.6 System configuration .....48
  - 17.6.1 Enterprise archives .....48
  - 17.6.2 Gateway (Concentrator) .....49
  - 17.6.3 Monitoring point .....50
  - 17.6.4 Price management .....51
  - 17.6.5 Monitoring point data item.....53
  - 17.6.6 Product classification management .....53
  - 17.6.7 Drawing management .....54
  - 17.6.8 Template management.....55
- 18 Operation controlling .....57
  - 18.1 Gateway login log .....57
  - 18.2 Operational log.....58
  - 18.3 Message log.....58
  - 18.4 Gateway online management .....59
  - 18.5 Acquisition integrity .....59
  - 18.6 Accessed number.....60
  - 18.7 Operations management.....60
  - 18.8 Scheduling task .....61
- 19 Announcement .....62
  - 19.1 Publication management .....62
  - 19.2 Announcement .....63

# 1 Software use

T@Energy Smart Energy Management System is an energy management platform based on B/S architecture using advanced intelligent integration technology. The platform collects energy consumption and operation information of each monitoring point (transformation, lighting, air conditioning, elevator, water supply and drainage, hot water machine and key equipment), and forms a classification, sub-item, and sub-region statistical analysis of energy consumption. It plays an important role in the unified dispatch of energy, optimizing energy medium balance, reducing gas emissions, improving environmental quality, reducing comprehensive energy consumption and increasing labor productivity, and helping customers use energy more efficiently.

## 2 Software operating environment

This platform needs to run in the Internet environment. The computer used must have an Internet connection. There is no requirement for the operating system of the computer, and it can be displayed across the system platform. The browser recommends Chrome, Firefox, Safari, IE 9+.

## 3 Server environment

Server hardware operating environment:

Processor: Intel Pentium 4 core or above, 2.4 GHz or more;

Memory: The server installs a large database, recommended 8G or more;

Server software operating environment:

- Acquisition server: centos Linux 64-bit Version 6.7
- Database: MySql 5.6+ 64-bit version
- Real-time library: Redis3.2 or other
- Web service: Tomcat 8 or other
- JDK version: JDK 1.8

# 4 Login interface

Enter the URL link of T@Energy Smart Energy Management System and click “Enter” to enter the login interface. Logins are divided into user name password login and SMS verification login. Different users can log in according to their different usernames and passwords.

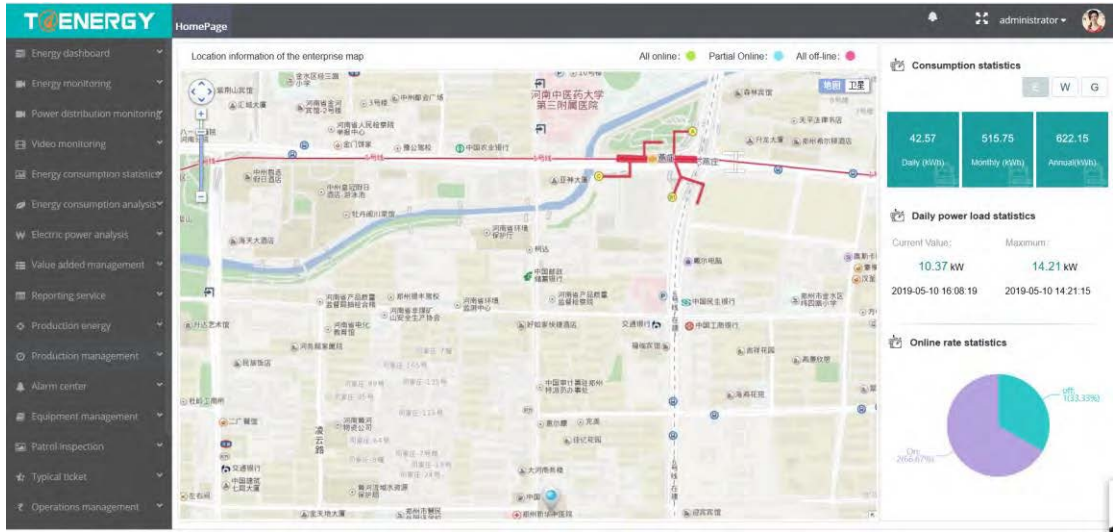


# 5 Homepage

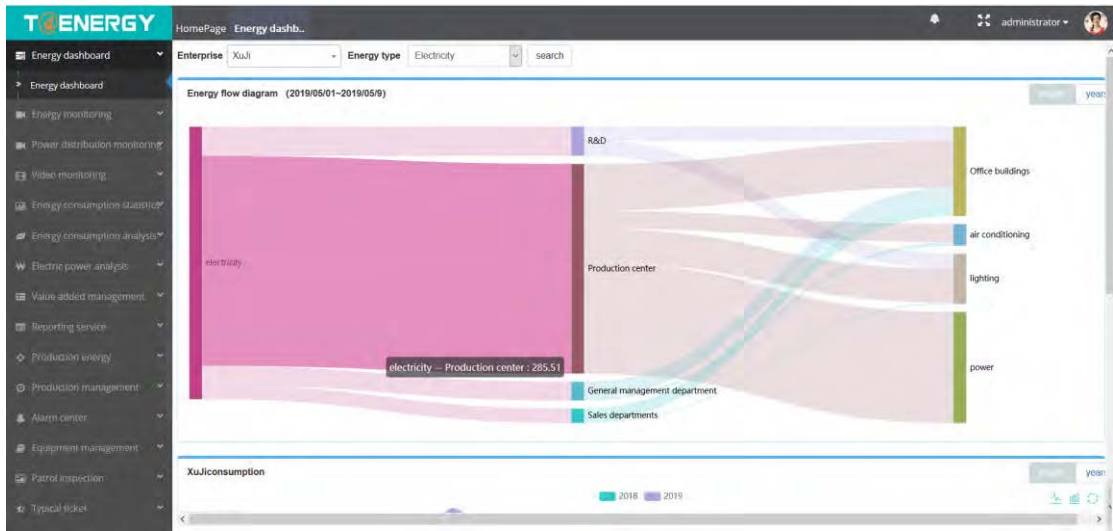
## 5.1 Homepage display

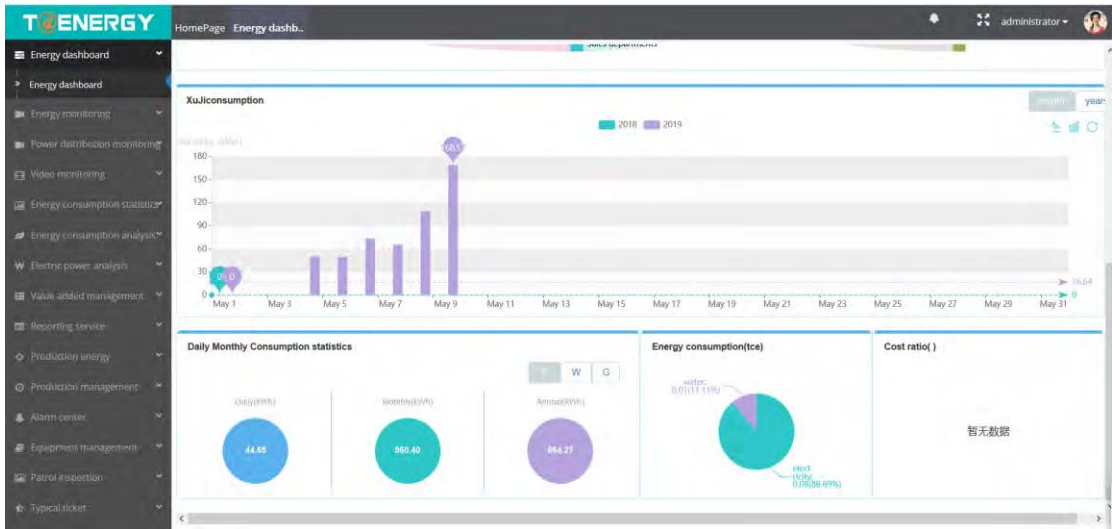
After entering the homepage, the map location information of the enterprise under the user is displayed on the left side, and the square graph in the upper right corner shows the total energy consumption of different type energy of the enterprise under the user, such as water, electricity and other types, click the corresponding button to switch energy consumption types, including total annual consumption, total monthly consumption, total daily consumption, and daily maximum and

minimum value statistics. The pie chart in the lower right corner shows the online rate statistics of enterprise monitoring equipment.



In the user enterprise map location information, you can click the icon showing the address information to jump to the energy dashboard page, and you can select the enterprise to Search the internal energy consumption information of the corresponding enterprise. The above trend shows the monitoring points of each department of the enterprise. For the energy consumption information of the device, click the icon of the year and month icon in the upper right corner to switch the year and month. The middle column chart shows the energy consumption data of the selected enterprise. Click the icon of the year and month to switch. The following pie chart shows the consumption value and cost ratio information of the energy consumption of the enterpris.





## 6 Energy monitoring

Energy monitoring includes "real-time data (signal)", "real-time data (minutes)", "real-time data (seconds)", "historical data (event)", "historical data (minutes)", "historical data" 12 levels of "seconds", "historical data report", "Power distribution diagram", "Daily/monthly frozen data", "statistical analysis report", "history curve (minutes)", "history curve (seconds)", specific described as follows.

### 6.1 Real-time data (signal)

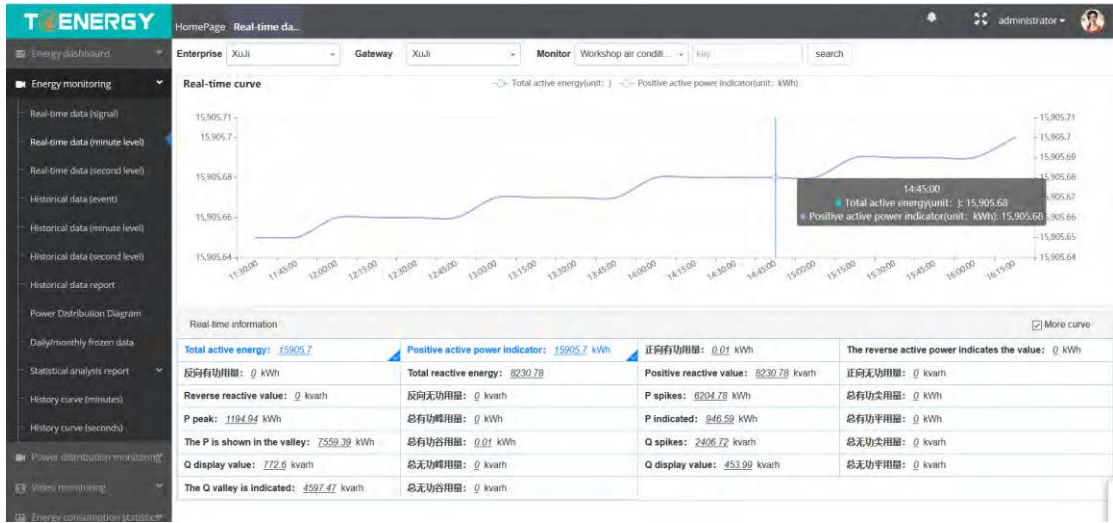
Real-time data (signal) shows the IO events and over-limit events of a monitoring point under a certain concentrator of an enterprise. It can display the event occurrence time, data description, status value and remarks. The form is displayed in the form of a table. As shown below:

The screenshot shows the 'Real-time data' monitoring interface. At the top, there are filters for 'Enterprise: Xuji', 'Gateway: Xuji', and 'Monitoring: Workshop air condit...'. Below the filters is a table with the following columns: 'number', 'The event type', 'Acquisition date', 'Data item description', 'Alarm value', 'Set value', and 'Note'. The table is currently empty, displaying the message 'No matching records were found'.



## 6.2 Real-time data (minute level)

Click on "Real Time Data (Min Level)" and the following interface appears:

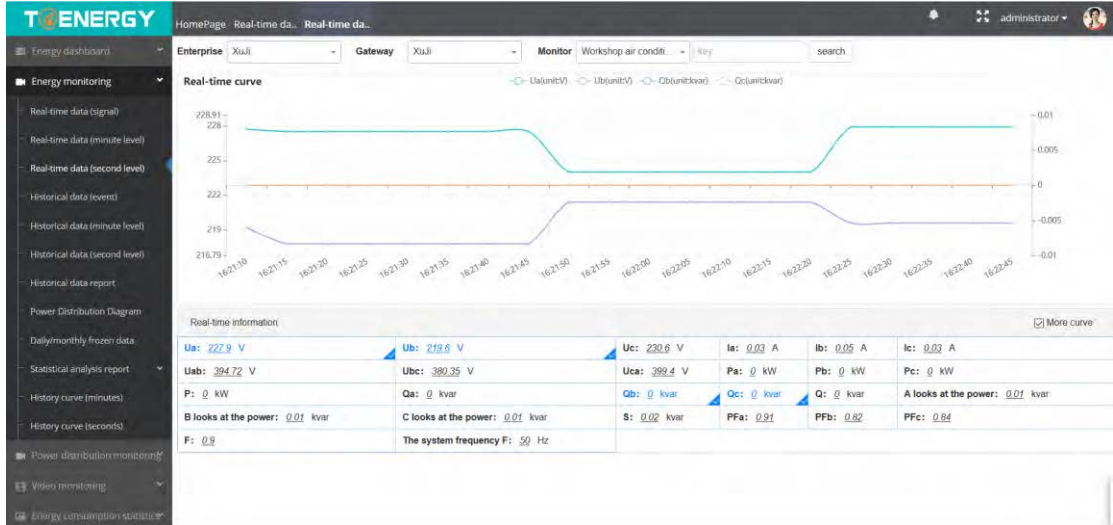


This interface can display the minute-level parameter data of a monitoring point under a certain enterprise. The upper chart displays the real-time data curve, which can be displayed by clicking the data item below. The lower part is the minute level data name and value, which is positive active indicator (meter reading value), positive reactive indicator, negative active indicator, negative reactive indicator, positive active energy, positive reactive energy, negative active energy, negative reactive energy, and other electrical parameters.

The minute level data is displayed according to the acquisition frequency. The real-time curve part can display the last 20 times of data according to the acquisition frequency, and the time scale is updated by the concentrator. Click the "Search" button to refresh the display data.

## 6.3 Real-time data (second level)

Click on "Real Time Data (seconds)" and the following interface appears:

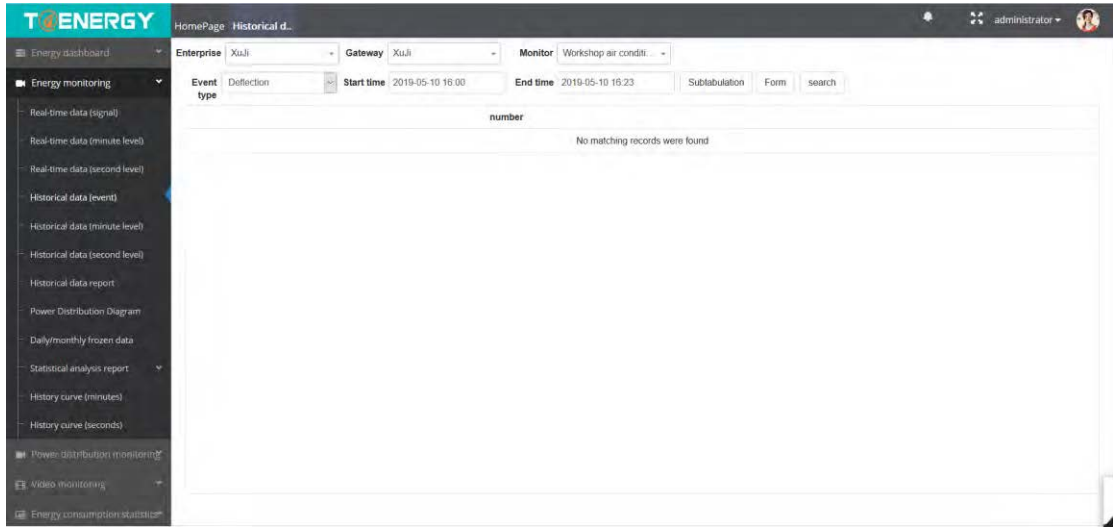


This interface can display the second-level data of a certain monitoring point in a certain enterprise. The upper part of the interface displays the real-time data curve, which can be displayed by clicking the data item below. The lower part is the minute level data name and value, which is Ia, Ib, Ic, Ua, Ub, Uc, Uab, Ubc, Uac, Pa, Pb, Pc, P, Qa, Qb, Qc, Q, PFa, PFb, PFc, PF, Frequency, etc.

The second-level data is displayed according to the acquisition frequency. The real-time curve part can display the last 20 times data according to the acquisition frequency, and the time scale is the uploaded by the concentrator. Click the "Search" button to refresh the display data.

### 6.4 Historical data (event)

Click on "Historical Data (Events)" and the following interface appears:



This interface can display the event data of a monitoring point in a certain enterprise group. According to the event type, start time and end time, the sub-table and table Search can be separately performed. The table Search has values, data items and remarks while the sub-table Search doesn't have. Click the "Search" button to refresh the display data.

### 6.5 Historical data (minute level)

Click on "Historical Data (minute Level)" and the following interface appears:

number	Acquisition date	Total active energy	Positive active power indicator	正向有功用	The reverse active power indicates the value	反向有功用	Total reactive energy	Positive reactive value
1	2019-05-10 16:00:00	15905.69	15905.69	0	0	0	8230.78	8230.78
2	2019-05-10 16:15:00	15905.7	15905.7	0.01	0	0	8230.78	8230.78

This interface can display the historical minute data of a monitoring point in a certain enterprise group, and can save the minute-level data of the last three months, but the time interval of the minute-level data displaying is  $\leq 1$  day, which means, the interval between "starting time" and "end times" is  $\leq 1$  day. Click "Search" to display the minute level data for this time period.

### 6.6 Historical data (second level)

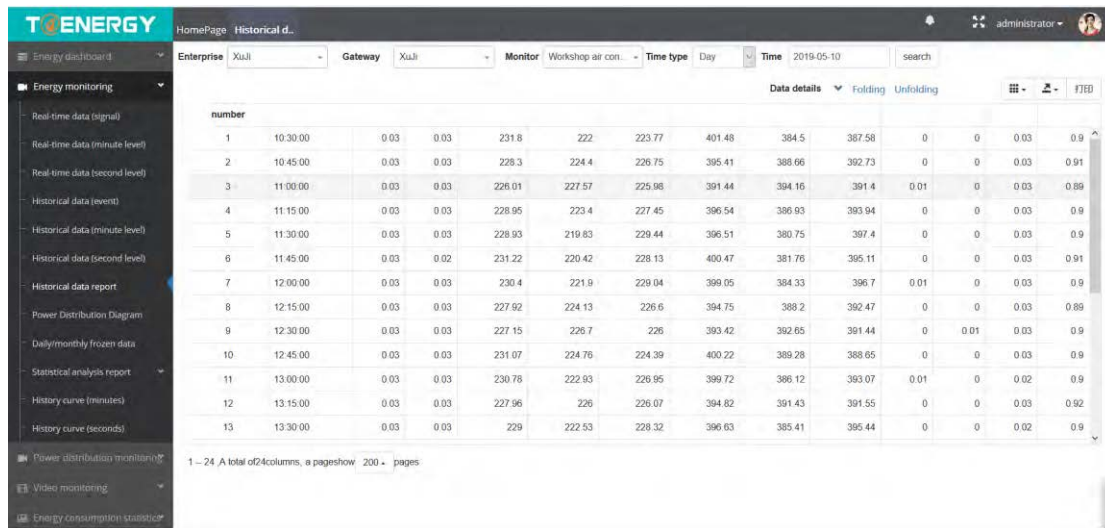
Click on "Historical Data (second level)" and the following interface appears.:

number	Acquisition date	Ua	Ub	Uc	Ia	Ib	Ic	Uab	Ubc	Uca	Operation
1	2019-05-10 16:00:00	227.1	224	228.8	0.03	0.056	0.028	393.3372	387.968	396.2816	Details
2	2019-05-10 16:00:05	227.1	224	228.8	0.03	0.056	0.028	393.3372	387.968	396.2816	Details
3	2019-05-10 16:00:10	227.1	224	228.8	0.03	0.056	0.028	393.3372	387.968	396.2816	Details
4	2019-05-10 16:00:15	227.1	224	228.8	0.03	0.056	0.028	393.3372	387.968	396.2816	Details
5	2019-05-10 16:00:20	227.1	224	228.8	0.03	0.056	0.028	393.3372	387.968	396.2816	Details
6	2019-05-10 16:00:25	227.1	224	228.8	0.03	0.056	0.028	393.3372	387.968	396.2816	Details
7	2019-05-10 16:00:30	227.1	224	228.8	0.03	0.056	0.028	393.3372	387.968	396.2816	Details
8	2019-05-10 16:00:35	227.1	224	228.8	0.03	0.056	0.028	393.3372	387.968	396.2816	Details
9	2019-05-10 16:00:40	226.5	224	227.9	0.029	0.053	0.027	392.298	387.968	394.7228	Details
10	2019-05-10 16:00:45	226.5	224	227.9	0.029	0.053	0.027	392.298	387.968	394.7228	Details
11	2019-05-10 16:00:50	226.5	224	227.9	0.029	0.053	0.027	392.298	387.968	394.7228	Details
12	2019-05-10 16:00:55	226.5	224	227.9	0.029	0.053	0.027	392.298	387.968	394.7228	Details
13	2019-05-10 16:01:00	226.5	224	227.9	0.029	0.053	0.027	392.298	387.968	394.7228	Details
14	2019-05-10 16:01:05	226.5	224	227.9	0.029	0.053	0.027	392.298	387.968	394.7228	Details

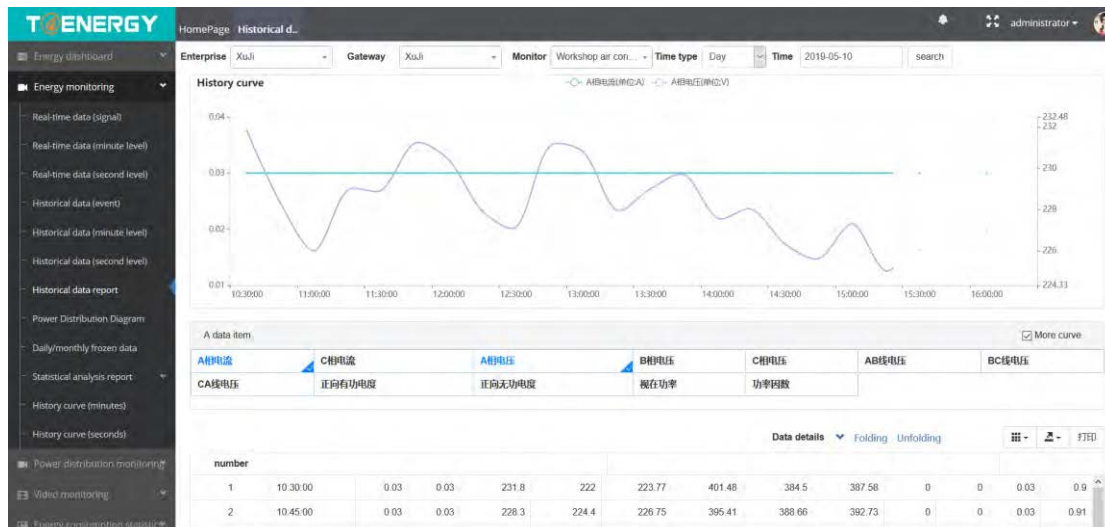
This interface can display the historical second-level data of a monitoring point in a certain enterprise group, and can save the second-level data of the last three months, but the time interval of the second-level data displaying in the software is  $\leq 1$  day, which means, the interval between "starting time" and "end times" is  $\leq 1$  day. Click "Search" to display the second level data for this time period.

## 6.7 Historical data report

Click on "Historical Data Report" and the following interface appears:



This interface can display the historical data report details of a monitoring point in a certain enterprise group, and can query the data reports of different time periods in the day, month and year respectively. Click "Fold / Unfold" in the above image to display the following interface:

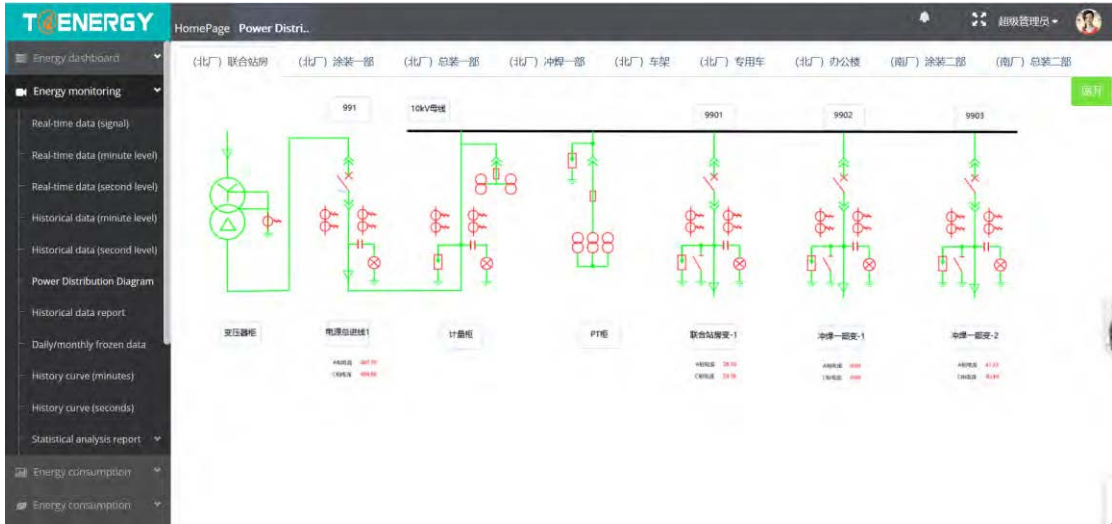


Clicking different data items will show different historical curve, which can be used to compare between different data items.

## 6.8 Power distribution diagram

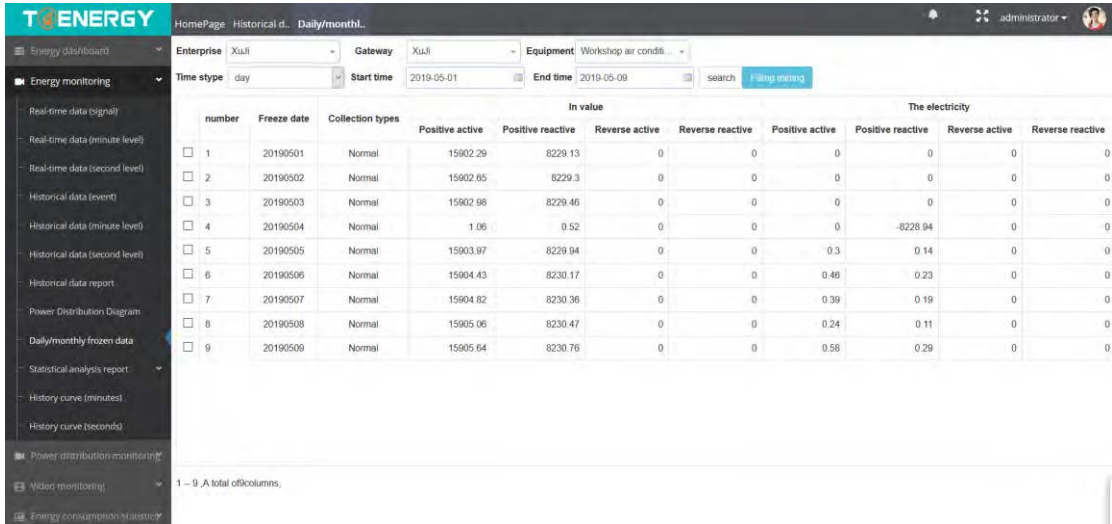
Click on "Power Distribution Diagram" to display the following interface.

Click the top table to switch diagrams.



## 6.9 Daily/Monthly frozen data

Click on “Daily/Monthly frozen data” to display the following interface:



The enterprises, gateways, and devices can be selected. The time type can be selected from day and month, and the start time and end time can be set. Additional acquisition is available for uncollected data.

## 6.10 Statistical analysis report

Device failure report, device start-stop report, and device runtime report can be checked under the statistical analysis report.

### 6.10.1 Device failure report

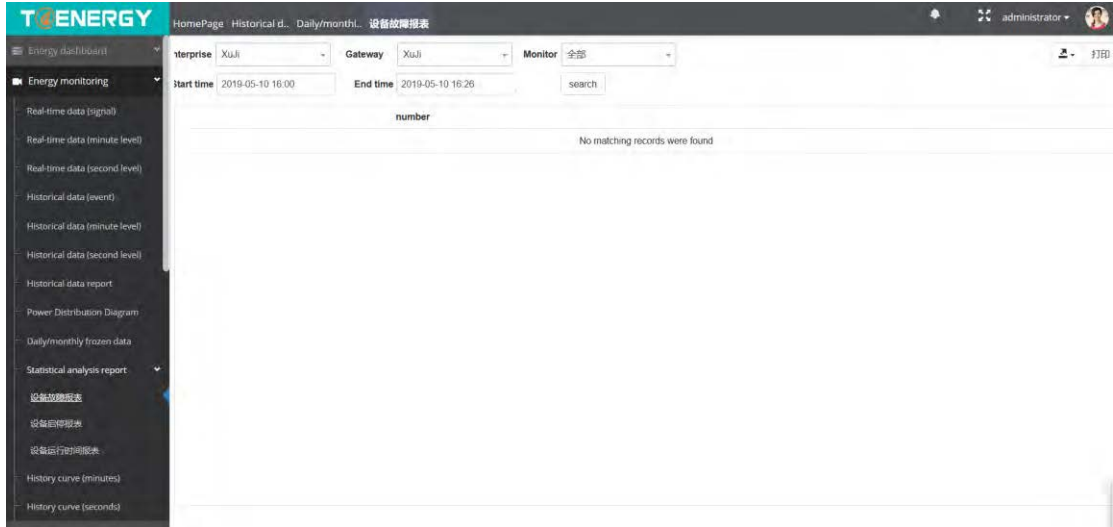
This interface can display the device fault report status of a monitoring point in a certain enterprise



group, including the monitoring point name, collection date, event type, and fault type.

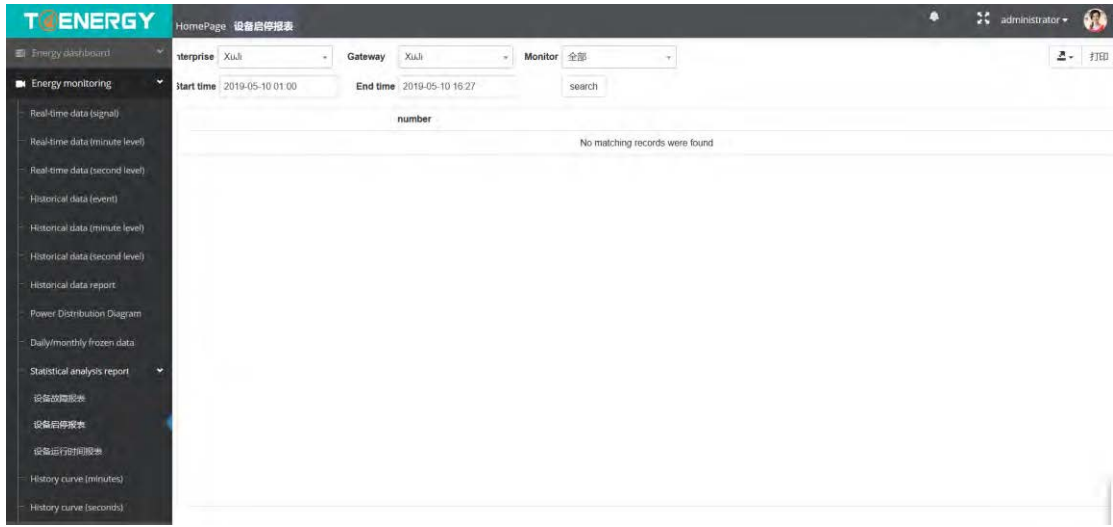
### 6.10.2 Device start-stop report

This interface can display the device fault report status of a monitoring point in a certain enterprise group, including the monitoring point name, collection date, event type, and occurrence time.。



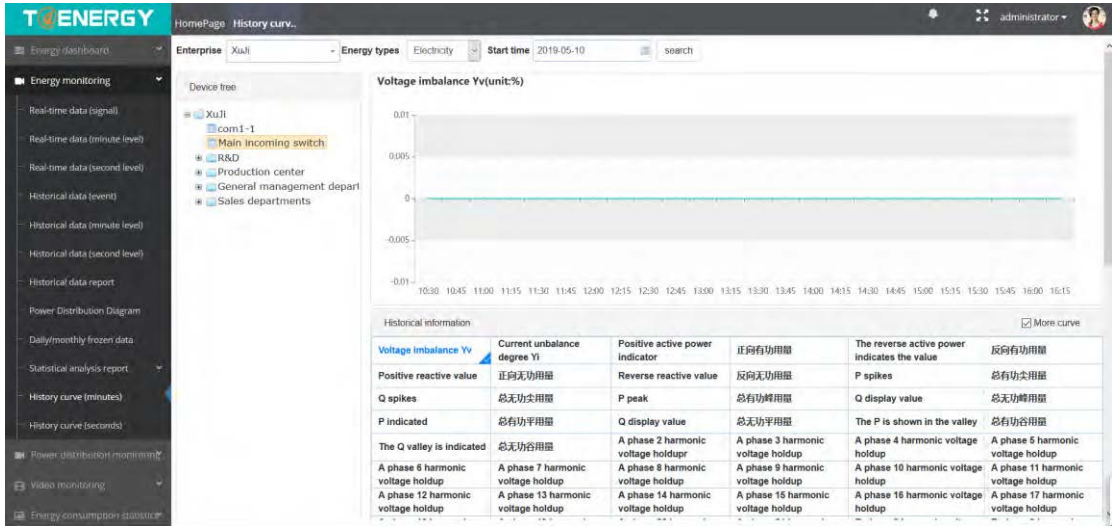
### 6.10.3 Device runtime report

This interface can display the device fault report status of a monitoring point in a certain enterprise group, including the monitoring point name, running time, startup time, stop time, and device status.



### 6.11 Historical curve (minutes)

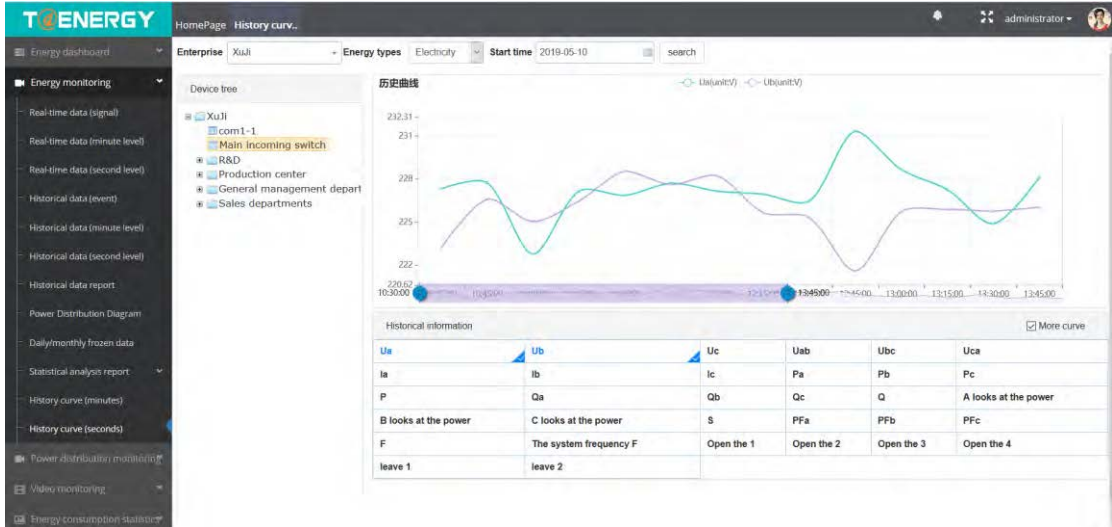
Click on “Historical Curve (minutes)” to display the following interface:



This interface can display the minute-level data of the historical curve of a certain energy source of a certain enterprise. The left side of the interface is displayed as the device tree. Click different devices to display different historical curve minute-level information. The upper right part shows the historical curve, which can be displayed by clicking the data item below. The lower part is the different data item name.

## 6.12 Historical curve (seconds)

Click "Historical Curve (Seconds)" to display the following interface:



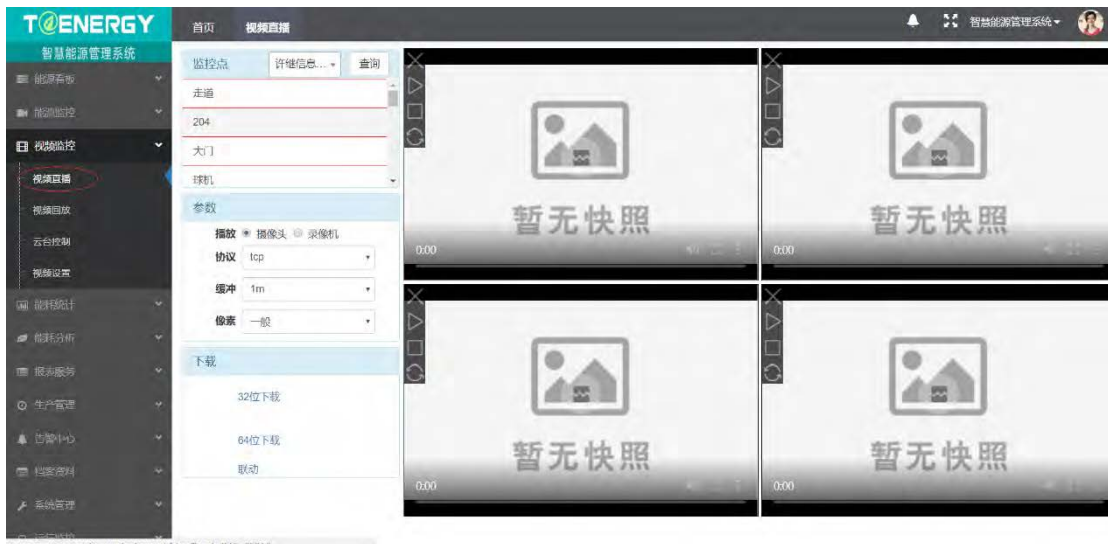
This interface can display the second-level data of the historical curve of a certain energy source of a certain enterprise. The left side of the interface is displayed as the device tree. Click different devices to display different historical curve second-level information. The upper right part shows the historical curve, which can be displayed by clicking the data item below. The lower part is the different data item name.

## 7 Video monitoring

The video monitoring module has four modules: live video, video playback, PTZ control, and video settings. The details are as follows.

### 7.1 Live video

The live video is a video surveillance of the monitoring points under the selected enterprise. You can set the video playback parameters, such as pixels, buffers, protocols, etc. You can also download multi-format videos. Includes 32-bit download, 64-bit download, linkage, etc.

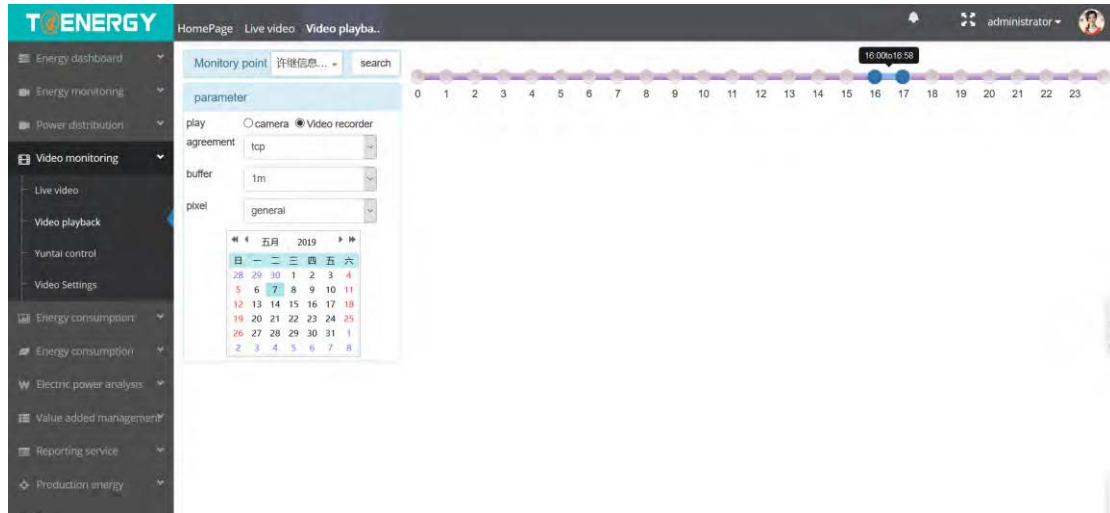


### 7.2 Video playback

Video playback is a view of the surveillance video of the past time of the enterprise. You can select 24 hours by sliding above. It also includes the video playback parameters settings, such as

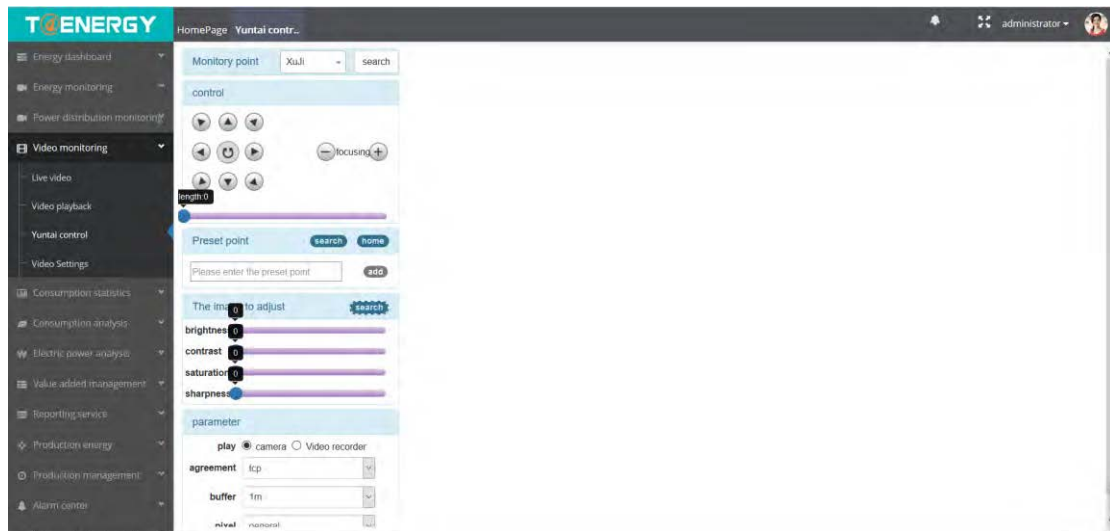


pixels, buffers, protocols, and time selection.



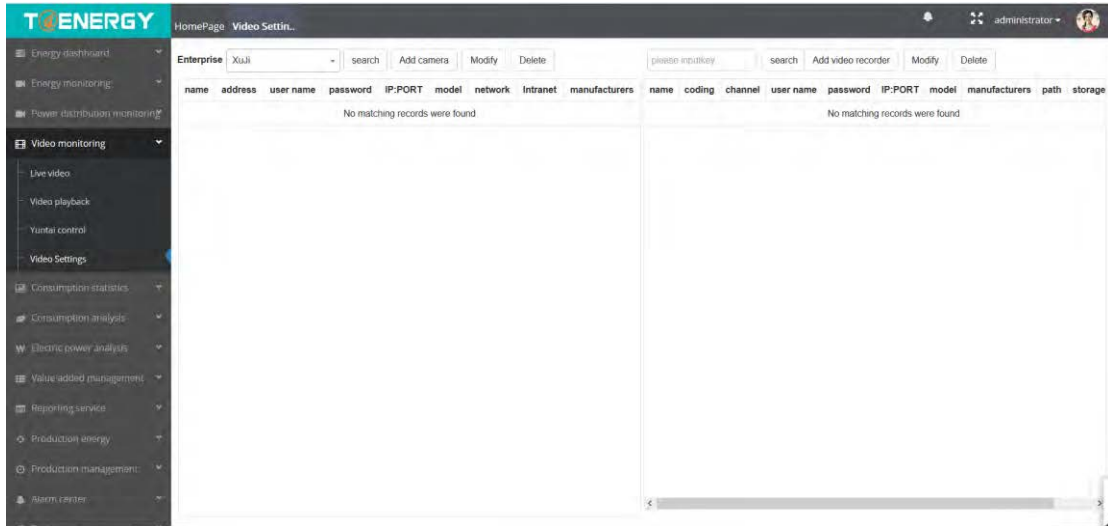
## 7.3 PTZ control

PTZ control is some specific settings for video recording, such as focusing, brightness, contrast, saturation, sharpness and other monitoring screen settings, and adding presets, etc.

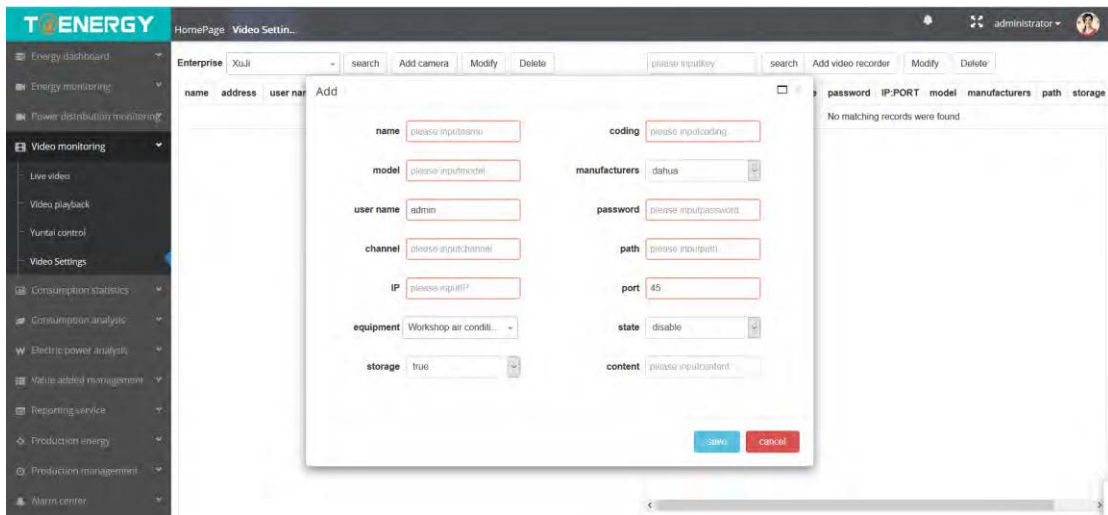


## 7.4 Video settings

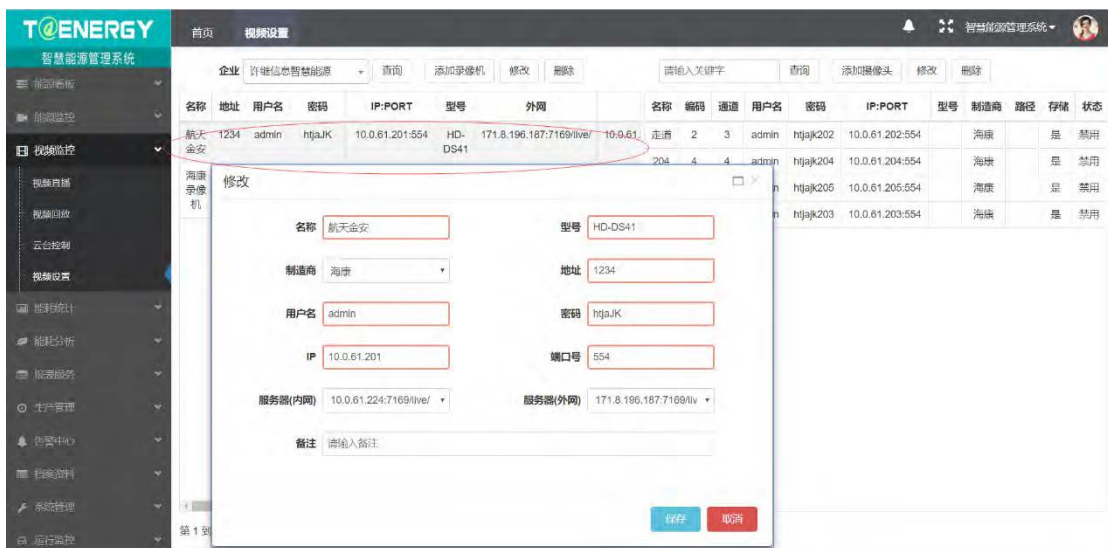
Add recorders, cameras, and parameters to the recorder, camera, etc. (modify, delete) under the enterprise.



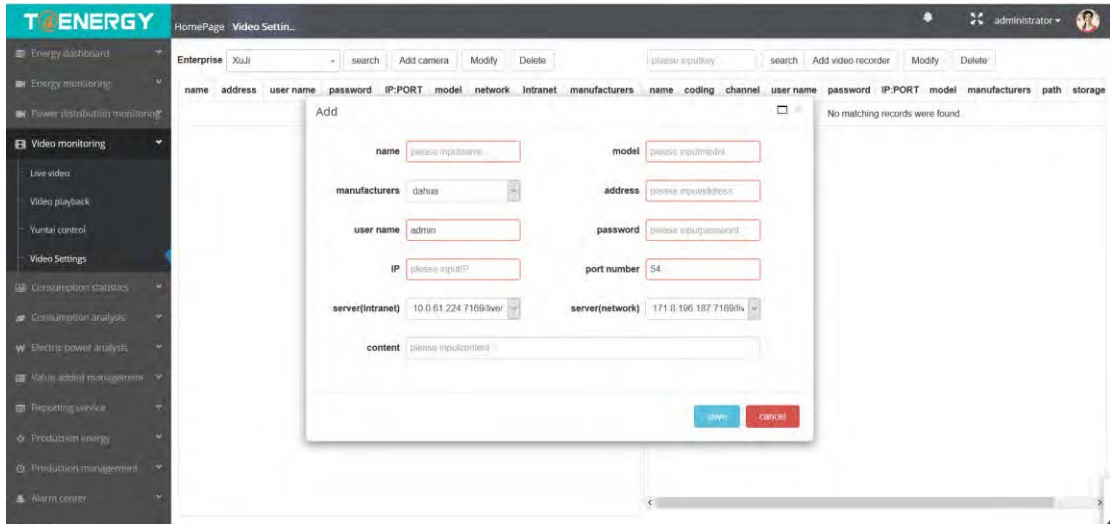
Add recorder:



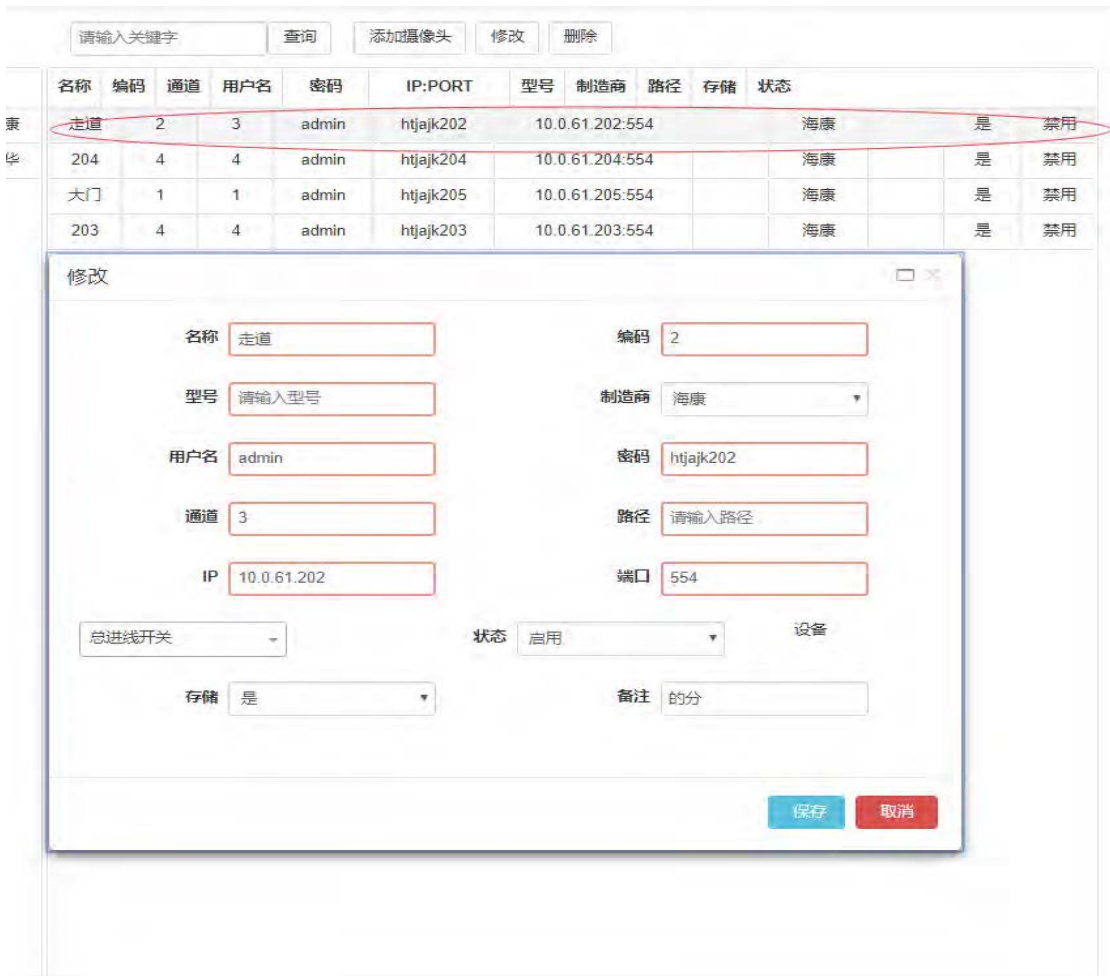
Click on a certain data of the existing recorder to modify and save it.



Add camera:



Click on a certain data of the existing camera to modify and save it.

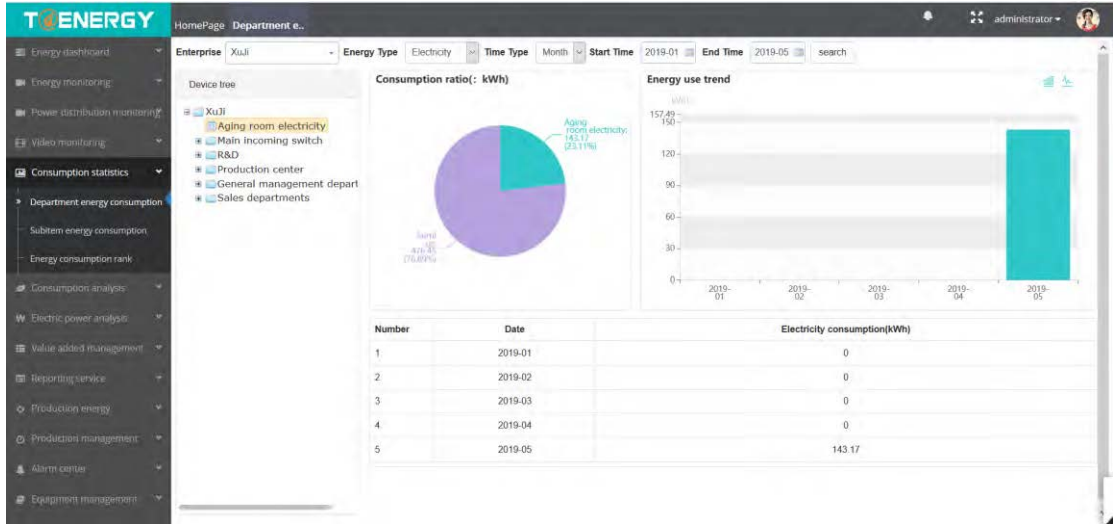


# 8 Energy consumption statistics

There are three modules for departmental energy consumption, sub-item energy consumption, and energy consumption ranking under energy consumption statistics. .

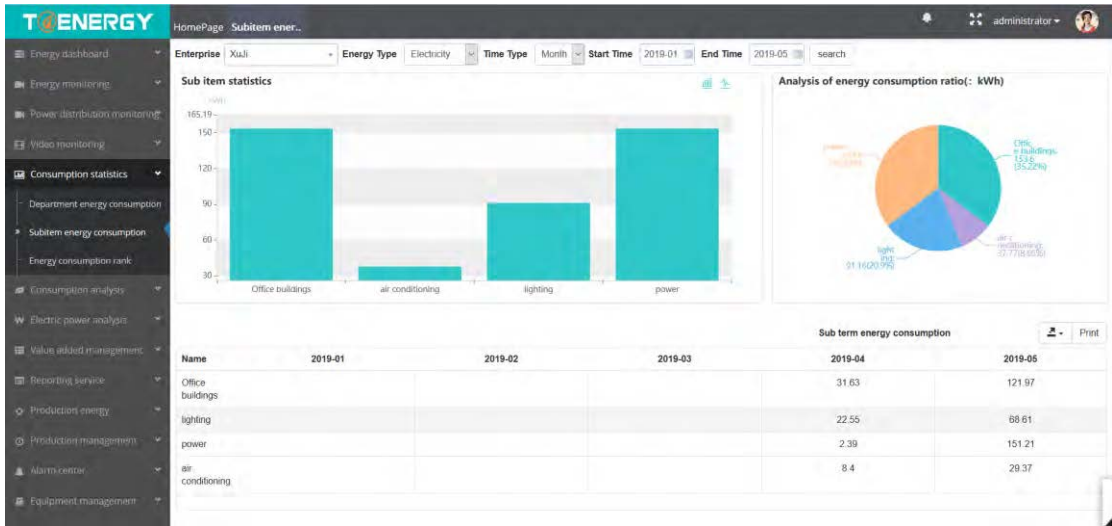
## 8.1 Department energy consumption

The above are the conditions of the query: enterprise, energy type, time type, time period. The upper left corner is the device tree distributed within the enterprise's monitoring points, and the pie chart on the right is the energy consumption ratio. A column chart is a display of energy consumption for a query period. Below is a table display showing time period energy consumption information.



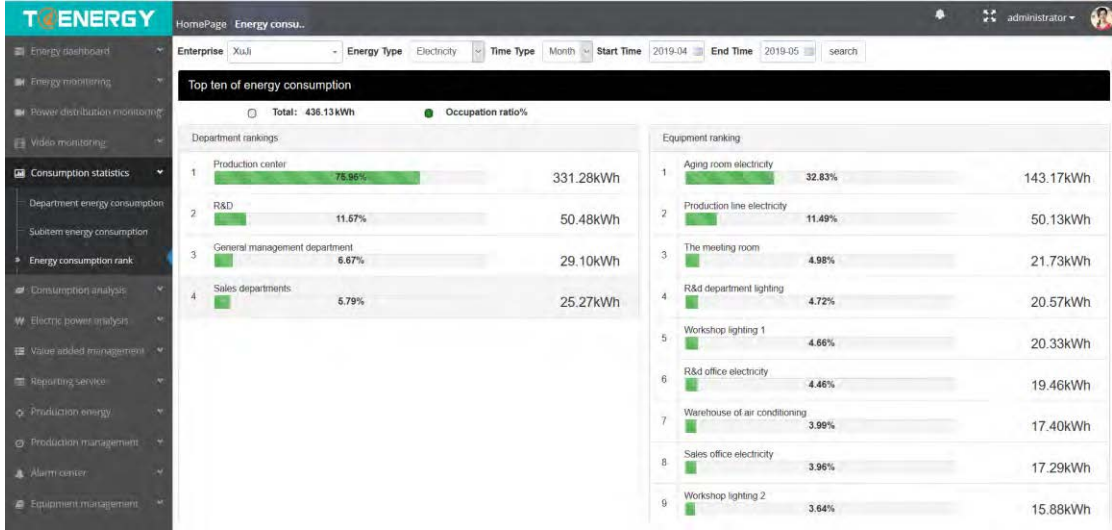
## 8.2 Sub-item energy consumption

The sub-item energy consumption is a classification of energy consumption, which is classified into office electricity, lighting, air conditioning, and power. The above are the conditions of the query: enterprise, energy type, time type, time period. Information is displayed in three charts: bar chart, pie chart, and table.



### 8.3 Energy consumption rank

The above are the conditions of the query: enterprise, energy type, time type, time period. The statistics of the top ten consumption of the department and the top ten of the equipment consumptions are separately calculated.



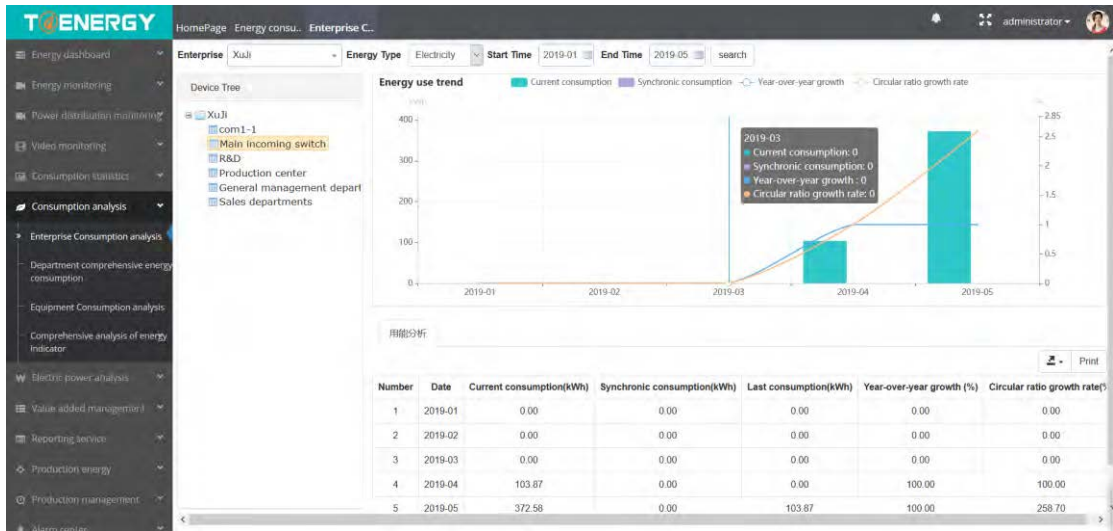
## 9 Energy consumption analysis

Under the energy consumption analysis, there are four modules: enterprise energy consumption analysis, department comprehensive energy consumption, equipment energy consumption analysis, and comprehensive analysis of energy indicators. Detailed description below:



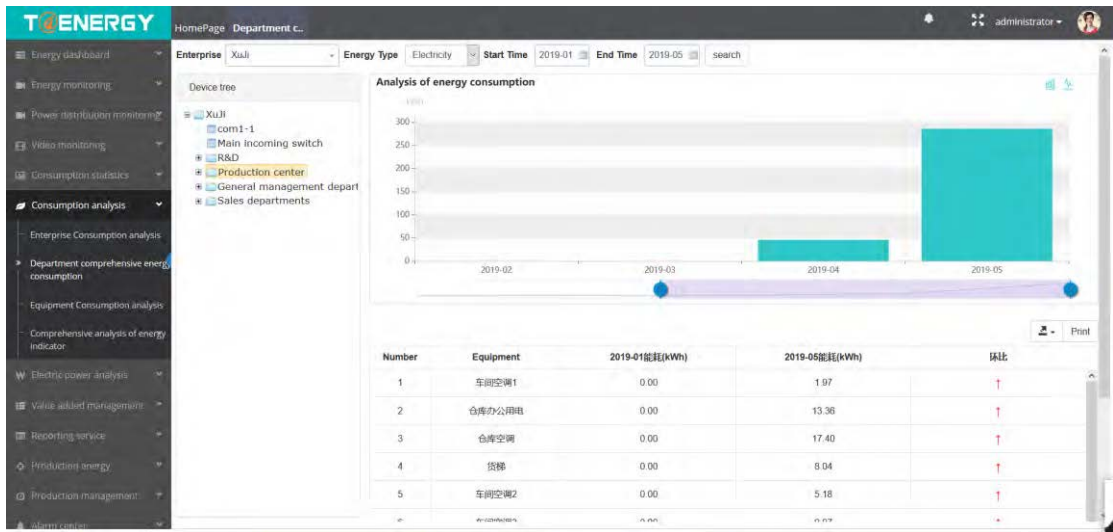
## 9.1 Enterprise energy consumption analysis

The above is the query conditions: enterprise, energy type, time period, click search to see energy consumption graph. The upper left corner is the device tree of the monitoring points distributed within the enterprise. The right side is the graph showing the current and year-to-year comprehensive energy consumption information during the query time period. The following is a tabular display.



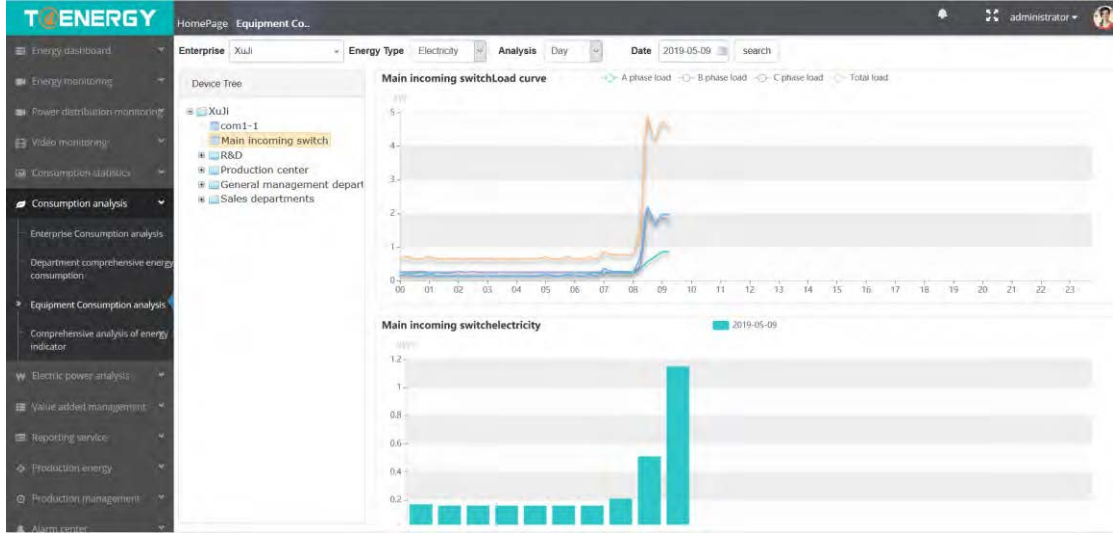
## 9.2 Department comprehensive energy consumption

The above is the query conditions: enterprise, energy type, time period, click search to check energy consumption graph. The upper left corner is the equipment tree of the monitoring points distributed inside the enterprise, and the right histogram is the comprehensive energy consumption of the monitoring point equipment. The following is a tabular display:



### 9.3 Equipment energy consumption analysis

The above is the query conditions: enterprise, energy type, time period, click search to check energy consumption graph. The upper left corner is the equipment tree of the monitoring points distributed inside the enterprise, and the right histogram is the comprehensive energy consumption of the monitoring point equipment. The following is a tabular display:

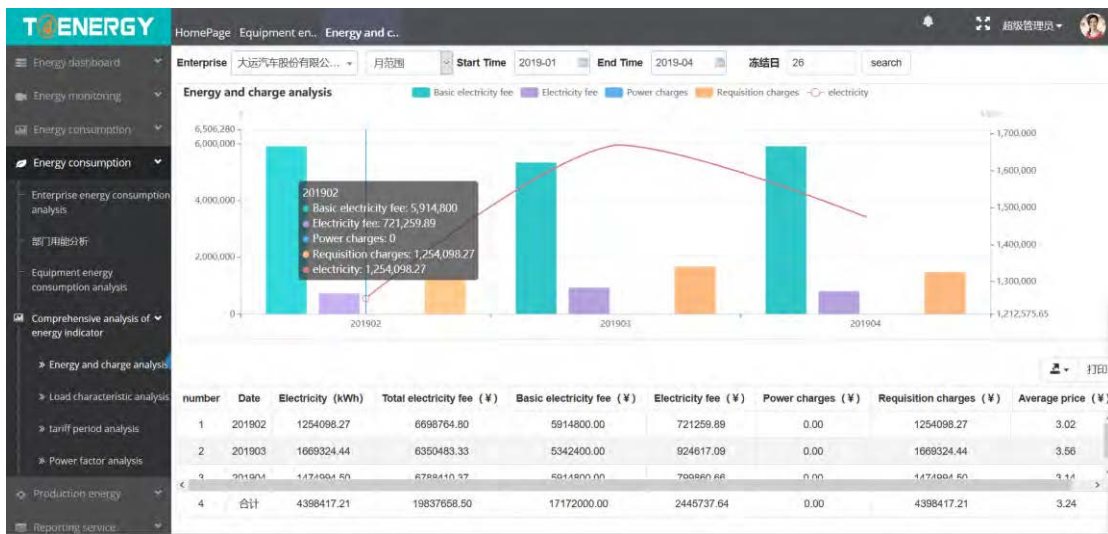
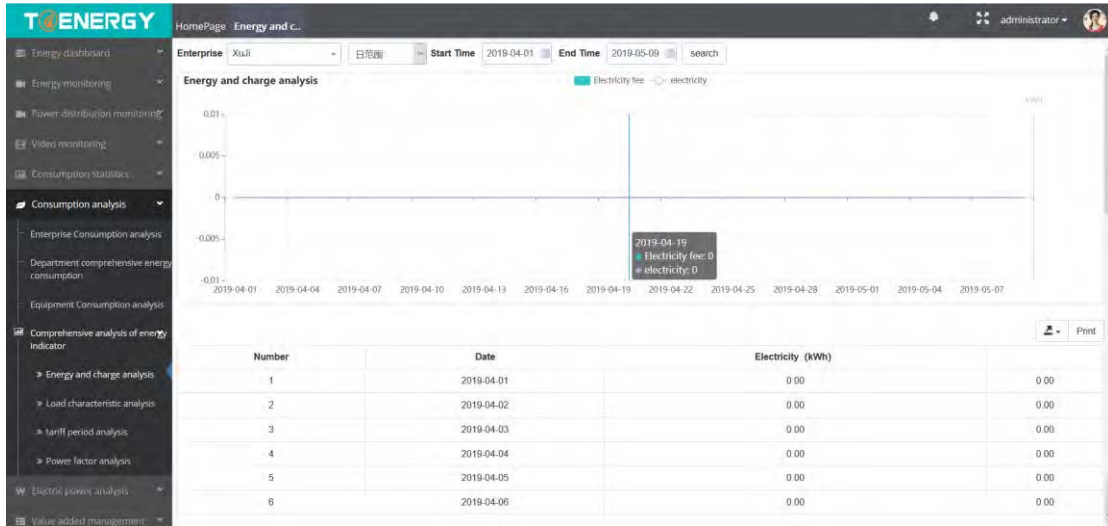


### 9.4 Comprehensive analysis of energy indicators

Comprehensive analysis of energy indicators includes electricity tariff analysis, load characteristics analysis, electricity price period analysis, power factor analysis.

#### 9.4.1 Energy and charge analysis

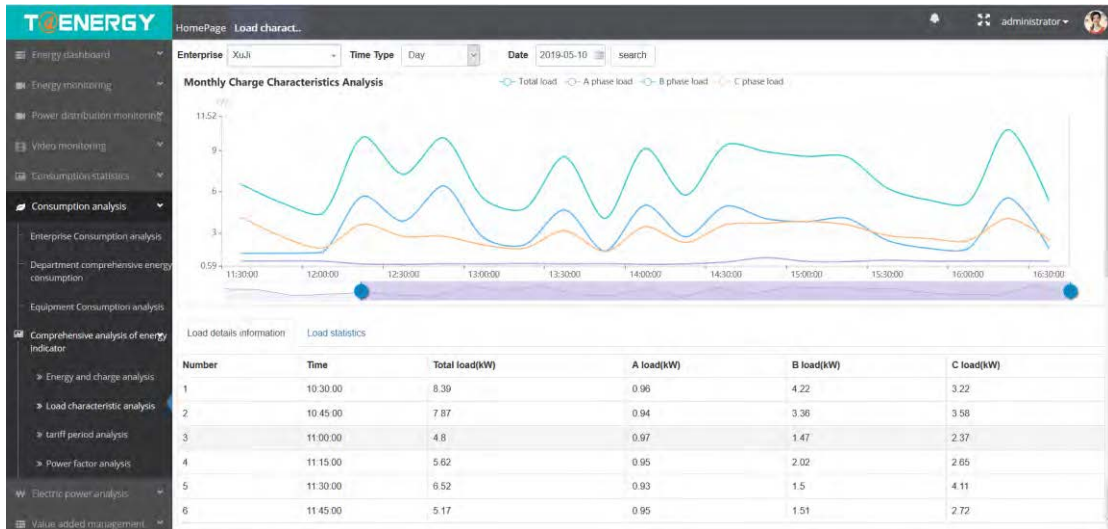
Analyze and query the electricity bills of the enterprise during a certain period. It is displayed in graph (electricity), basic electric fee (column pattern), Electricity fee (column graph), Power charges (column graph), and Requisition charges (column graph). The following is shown in the form of a table.



## 9.4.2 Load characteristic analysis

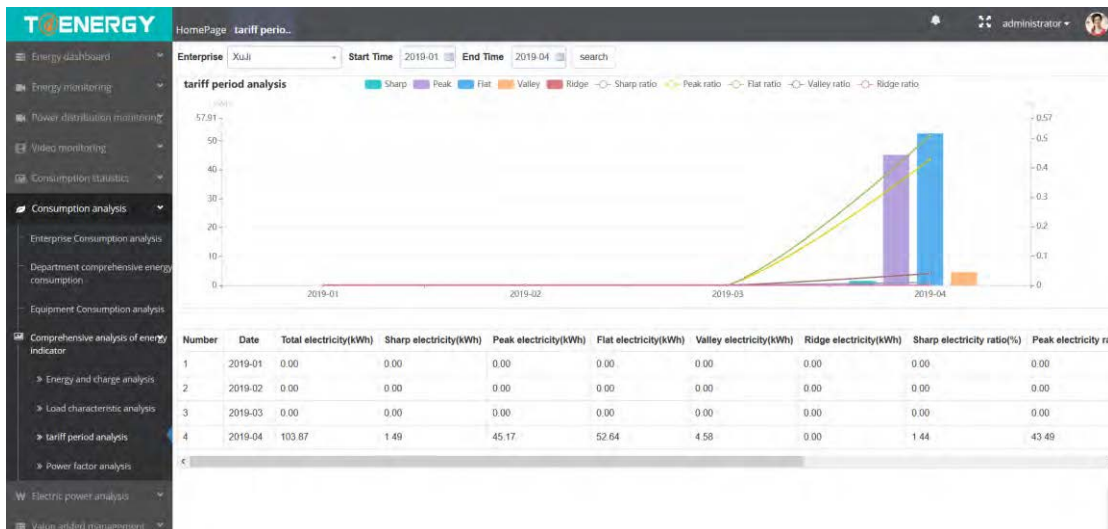
The above is the query condition: Enterprise, date type, and date, click search to check the load characteristics curve. The maximum and minimum load, average load, load rate, peak-to-valley difference, peak-to-valleyrate, etc. will be displayed in a line chart and table format, respectively.





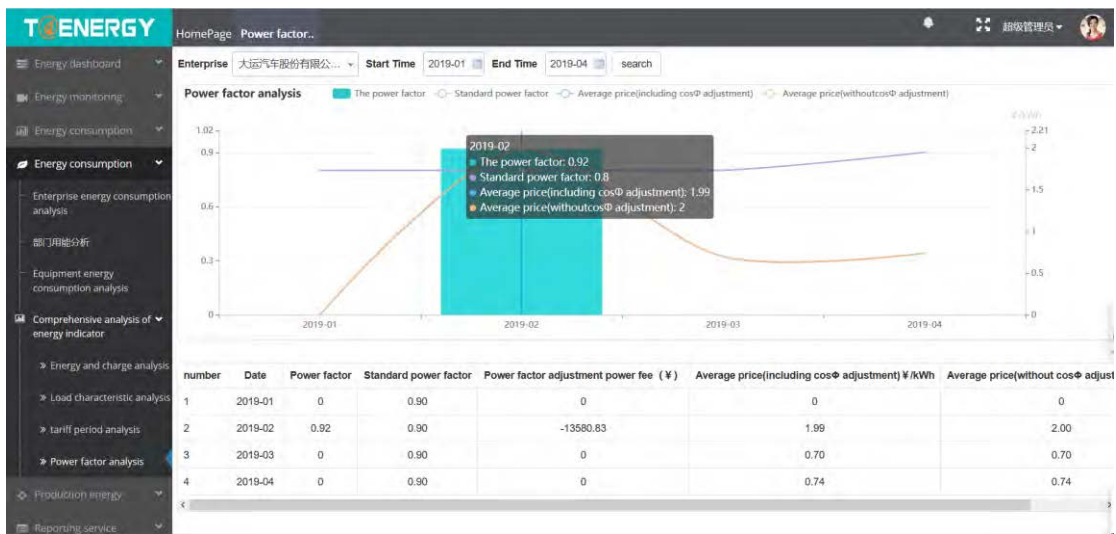
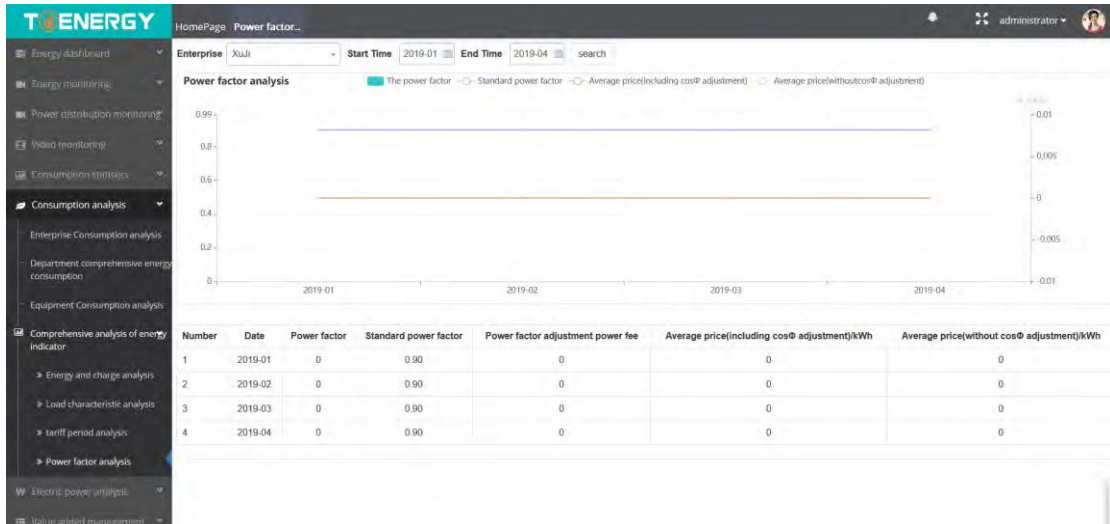
### 9.4.3 Tariff period analysis

The query condition is Enterprise and time period, electricity price information, and the amount of electricity, peak power, flat electricity, ridge power, peak power, etc. are displayed in a combination of charts.



### 9.4.4 Power factor analysis

The query conditions is enterprise and time period, the power factor, standard power factor, power factor adjustment electricity fee, average electricity fee, etc. are displayed in a chart combination.

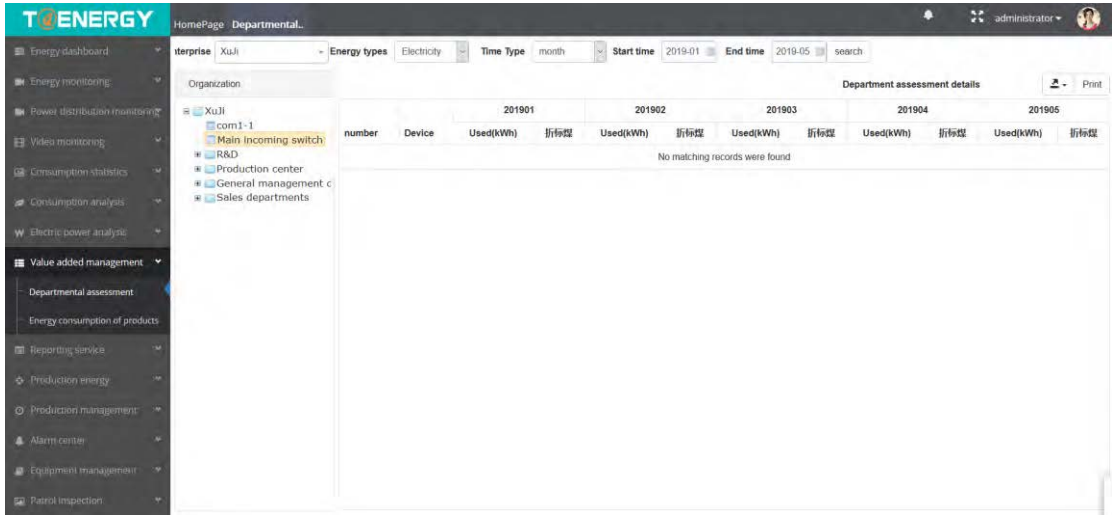


## 10 Value-added management

Under the value-added management, there are two modules, which is department assessment and product energy consumption. Detailed description below.

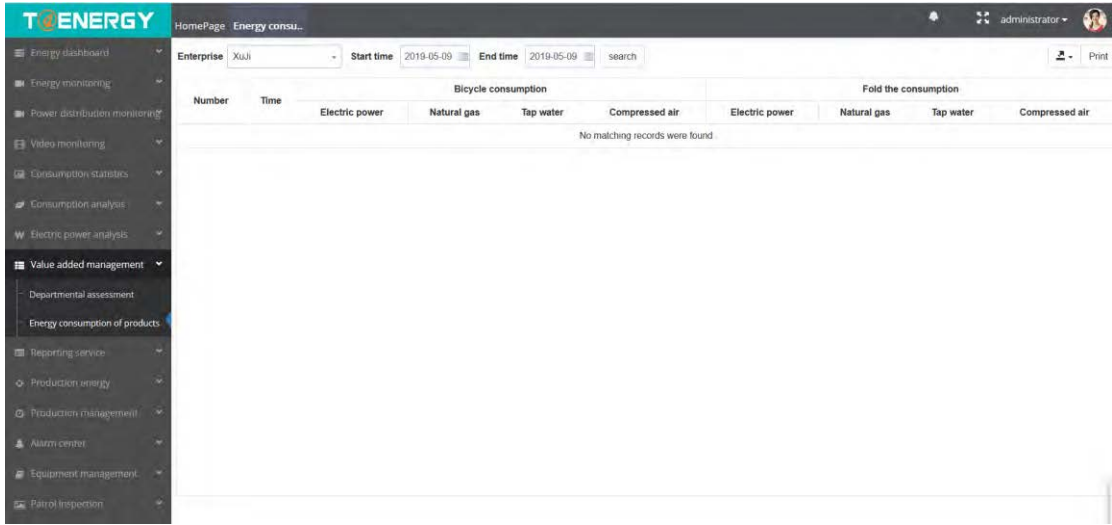
### 10.1 Department assessment

Click on different organizations under different enterprises to select different time types to view different energy consumption quantitative assessment details, including equipment name, dosage and standard coal.



## 10.2 Product energy consumption

You can view the energy consumption and tons of standard coal energy consumption of single equipment like electric power, natural gas, tap water and compressed air according to different enterprises and time periods.



## 11 Reporting service

Water and electricity service module:

# 11.1 Electricity

## 11.1.1 Daily report (electricity)

The tree structure in the upper left corner shows the organization of the enterprise. The left side shows the energy consumption and electricity bill information of monitoring equipment in the selected time period. The start time and the end time span is <1 month.

number	Device	05/01	05/02	05/03	05/04	05/05	05/06	05/07	05/08	05/09
		Used(kWh)	Used(kWh)	Used(kWh)	Used(kWh)	Used(kWh)	Used(kWh)	Used(kWh)	Used(kWh)	Used(kWh)
1	Workshop air conditioning 1	0.0	0.0	0.0	0.0	0.3	0.46	0.39	0.24	0.58
2	Workshop air conditioning 2	0.0	0.0	0.0	0.0	0.71	1.2	0.96	0.95	1.36
3	Sales department lighting	0.0	0.0	0.0	0.0	0.41	0.35	0.57	0.23	0.29
4	Workshop air conditioning 3	0.0	0.0	0.0	0.0	0.01	0.02	0.01	0.02	0.01
5	Workshop lighting 1	0.0	0.0	0.0	0.0	2.99	4.81	3.89	3.82	4.82
6	R&D department lighting	0.0	0.0	0.0	0.0	3.13	4.98	4.17	3.8	4.49
7	Production line electricity	0.0	0.0	0.0	0.0	8.13	11.02	10.33	9.99	10.66
8	Workshop lighting 2	0.0	0.0	0.0	0.0	0.02	2.92	4.7	3.84	4.4
9	Warehouse lighting	0.0	0.0	0.0	0.0	0.72	3.19	3.84	1.18	1.25
10	Warehouse office electricity	0.0	0.0	0.0	0.0	2.71	2.73	2.89	2.83	2.6
11	Sales department air conditioner	0.0	0.0	0.0	0.0	0.11	0.12	0.07	0.13	0.22
12	R&D air conditioning	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Warehouse of air conditioning	0.0	0.0	0.0	0.0	3.55	2.96	1.43	4.4	5.06
14	Cargo elevator	0.0	0.0	0.0	0.0	1.08	2.15	1.38	1.55	1.88
15	Aging room electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.18	93.99
16	Main incoming switch	0.0	0.0	0.0	49.96	49.59	73.48	85.38	59.59	74.58

## 11.1.2 Monthly report (electricity)

The tree structure in the upper left corner shows the organization of the enterprise. The right side shows the energy consumption and electricity bill information of monitoring equipment in the selected time period. The start time and the end time span is <1 month.

number	Device	201901		201902		201903		201904		201905	
		Used(kWh)	Cost	Used(kWh)	Cost	Used(kWh)	Cost	Used(kWh)	Cost	Used(kWh)	Cost
1	Workshop air conditioning 1	0	0	0	0	0	0	0.00	0.00	0.00	0.00
2	Workshop air conditioning 2	0	0	0	0	0	0	0.00	0.00	0.00	0.00
3	Sales department lighting	0	0	0	0	0	0	0.00	0.00	0.00	0.00
4	Workshop air conditioning 3	0	0	0	0	0	0	0.00	0.00	0.00	0.00
5	Workshop lighting 1	0	0	0	0	0	0	0.00	0.00	0.00	0.00
6	R&D department lighting	0	0	0	0	0	0	0.00	0.00	0.00	0.00
7	Production line electricity	0	0	0	0	0	0	0.00	0.00	0.00	0.00
8	Workshop lighting 2	0	0	0	0	0	0	0.00	0.00	0.00	0.00
9	Warehouse lighting	0	0	0	0	0	0	0.00	0.00	0.00	0.00
10	Warehouse office electricity	0	0	0	0	0	0	0.00	0.00	0.00	0.00
11	Sales department air conditioner	0	0	0	0	0	0	0.00	0.00	0.00	0.00
12	R&D air conditioning	0	0	0	0	0	0	0.00	0.00	0.00	0.00
13	Warehouse of air conditioning	0	0	0	0	0	0	0.00	0.00	0.00	0.00
14	Cargo elevator	0	0	0	0	0	0	0.00	0.00	0.00	0.00
15	Aging room electricity	0	0	0	0	0	0	0.00	0.00	0.00	0.00
16	Main incoming switch	0	0	0	0	0	0	0.00	0.00	0.00	0.00

### 11.1.3 Annual report (electricity)

The tree structure in the upper left corner shows the organization of the enterprise. The right side shows the energy consumption and electricity bill information of monitoring equipment in the selected time period.

2019			
number	Device	Used(kWh)	Cost
1	Workshop air conditioning 1	0.00	0.00
2	Workshop air conditioning 2	0.00	0.00
3	Sales department lighting	0.00	0.00
4	Workshop air conditioning 3	0.00	0.00
5	Workshop lighting 1	0.00	0.00
6	R&D department lighting	0.00	0.00
7	Production line electricity	0.00	0.00
8	Workshop lighting 2	0.00	0.00
9	Warehouse lighting	0.00	0.00
10	Warehouse office electricity	0.00	0.00
11	Sales department air conditioner	0.00	0.00
12	R&D air conditioning	0.00	0.00
13	Warehouse of air conditioning	0.00	0.00
14	Cargo elevator	0.00	0.00
15	Aging room electricity	0.00	0.00
16	Main incoming switch	0.00	0.00

### 11.1.4 Quarterly report (electricity)

The tree structure in the upper left corner shows the organization of the enterprise. The right side shows the energy consumption and electricity bill information of monitoring equipment in the selected time period. The time span is between quarters.

number	Device	Q1 2019		Q2 2019		Q3 2019		Q4 2019	
		Used(kWh)	Cost	Used(kWh)	Cost	Used(kWh)	Cost	Used(kWh)	Cost
1	Workshop air conditioning 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Workshop air conditioning 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	Sales department lighting	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Workshop air conditioning 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	Workshop lighting 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	R&D department lighting	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Production line electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	Workshop lighting 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	Warehouse lighting	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	Warehouse office electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	Sales department air conditioner	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	R&D air conditioning	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	Warehouse of air conditioning	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	Cargo elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	Aging room electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	Main incoming switch	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 11.1.5 Shift report (electricity)

The tree structure in the upper left corner shows the organization of the enterprise. The right side shows the energy consumption and electricity bill information of monitoring equipment in the



selected time period. The start time and the end time span is <1 month.

The screenshot shows the 'Shift report' interface in T-ENERGY. The left sidebar contains a navigation menu with categories like 'Energy dashboard', 'Energy monitoring', 'Reporting service', 'Electricity', 'Water', and 'Numerical statement'. The main area displays a table of electricity usage data for the period from 05/01 to 05/09. The table has columns for 'number', 'Device', and 'Used(kWh)' for each day. The data is as follows:

number	Device	05/01	05/02	05/03	05/04	05/05	05/06	05/07	05/08	05/09
1	Workshop air conditioning 1	0.0	0.0	0.0	0.0	0.3	0.46	0.39	0.24	0.58
2	Workshop air conditioning 2	0.0	0.0	0.0	0.0	0.71	1.2	0.96	0.95	1.36
3	Sales department lighting	0.0	0.0	0.0	0.0	0.41	0.35	0.57	0.23	0.29
4	Workshop air conditioning 3	0.0	0.0	0.0	0.0	0.01	0.02	0.01	0.02	0.01
5	Workshop lighting 1	0.0	0.0	0.0	0.0	2.99	4.81	3.89	3.82	4.82
6	R&D department lighting	0.0	0.0	0.0	0.0	3.13	4.88	4.17	3.8	4.49
7	Production line electricity	0.0	0.0	0.0	0.0	8.13	11.02	10.33	9.99	10.66
8	Workshop lighting 2	0.0	0.0	0.0	0.0	0.02	2.92	4.7	3.84	4.4
9	Warehouse lighting	0.0	0.0	0.0	0.0	0.72	3.19	3.64	1.18	1.25
10	Warehouse office electricity	0.0	0.0	0.0	0.0	2.71	2.73	2.89	2.63	2.6
11	Sales department air conditioner	0.0	0.0	0.0	0.0	0.11	0.12	0.07	0.13	0.22
12	R&D air conditioning	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	Warehouse of air conditioning	0.0	0.0	0.0	0.0	3.55	2.96	1.43	4.4	5.06
14	Cargo elevator	0.0	0.0	0.0	0.0	1.08	2.15	1.38	1.55	1.88
15	Aging room electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.18	93.99
16	Main incoming switch	0.0	0.0	0.0	49.96	49.59	73.48	65.38	59.59	74.50

## 11.2 Water

### 11.2.1 Daily report (water)

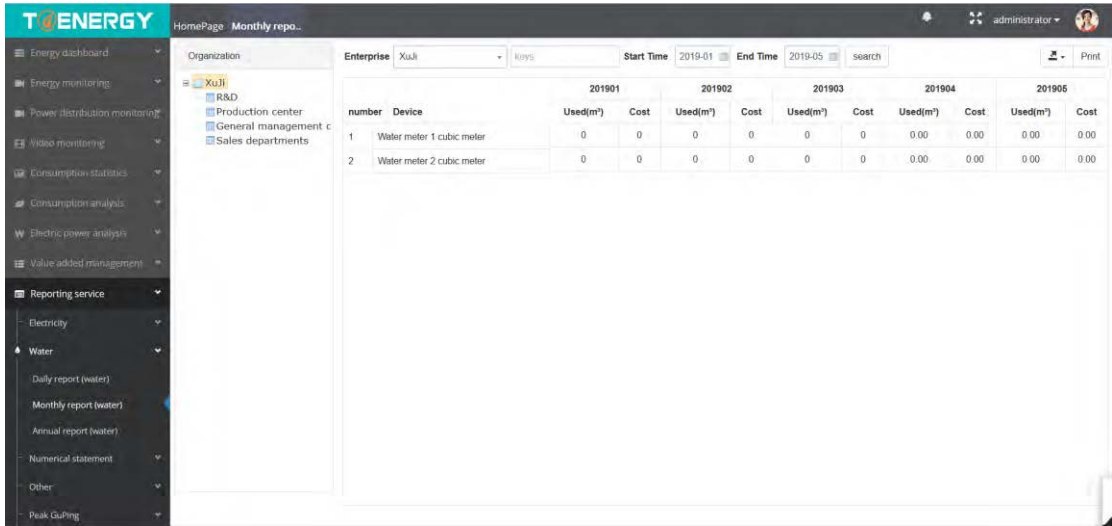
The tree structure in the upper left corner shows the organization of the enterprise. The right side shows the water consumption and water fee information of monitoring equipment in the selected time period. The start time and the end time span is <1 month.

The screenshot shows the 'Daily report' interface in T-ENERGY. The left sidebar is similar to the previous screenshot but highlights the 'Water' section. The main area displays a table of water consumption data for the period from 05/01 to 05/09. The table has columns for 'number', 'Device', and 'Used(m³)' for each day. The data is as follows:

number	Device	05/01	05/02	05/03	05/04	05/05	05/06	05/07	05/08	05/09
1	Water meter 1 cubic meter	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
2	Water meter 2 cubic meter	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0

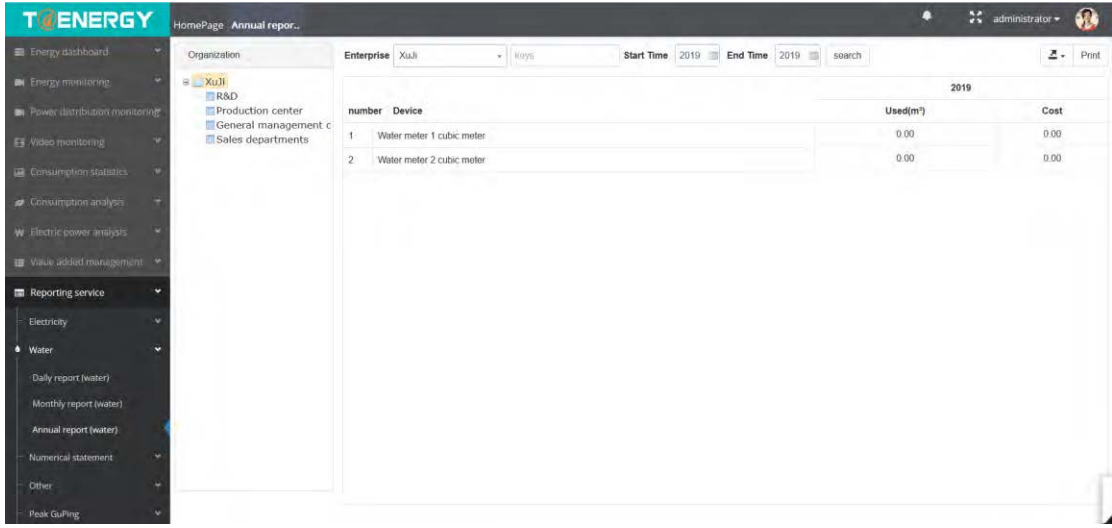
### 11.2.2 Monthly report (water)

The tree structure in the upper left corner shows the organization of the enterprise. The right side shows the water consumption and water fee information of monitoring equipment in the selected time period. The start time and the end time span is <1 year.



### 11.2.3 Annual report (water)

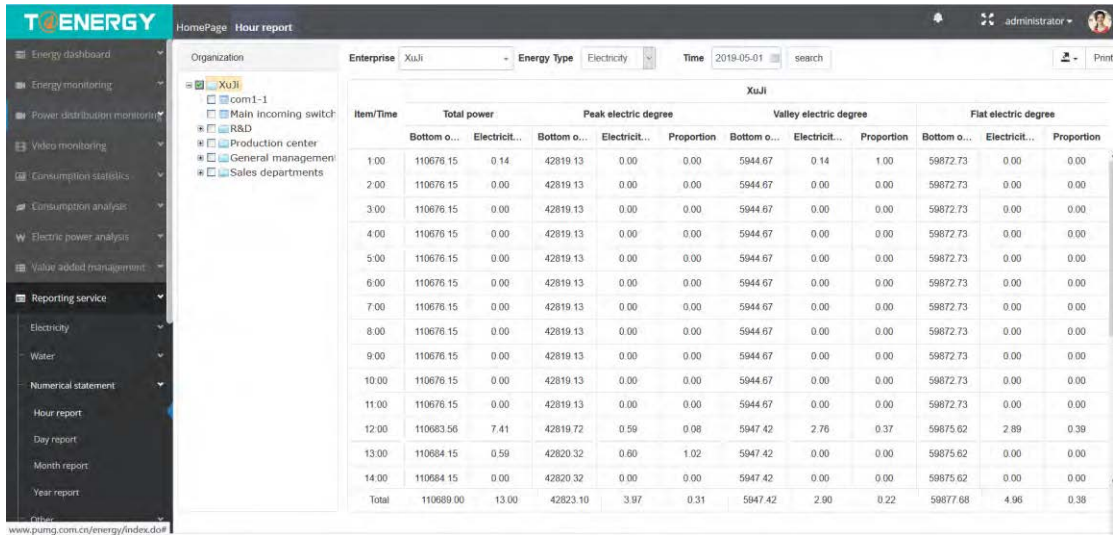
The tree structure in the upper left corner shows the organization of the enterprise. The right side shows the water consumption and water fee information of monitoring equipment in the selected time period. The time span is between years.



### 11.3 Numerical statement

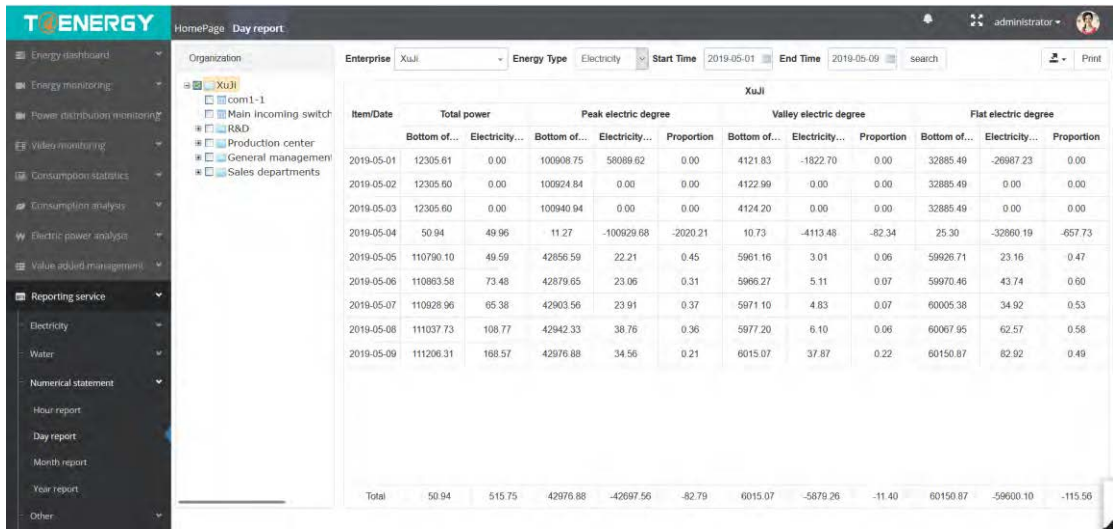
#### 11.3.1 Hourly report

The tree structure in the upper left corner shows the organization of the enterprise, and the right side shows the total electricity consumption of 24 hours, sharp, peak, valley, flat electricity consumption and the ratio.



### 11.3.2 Daily report

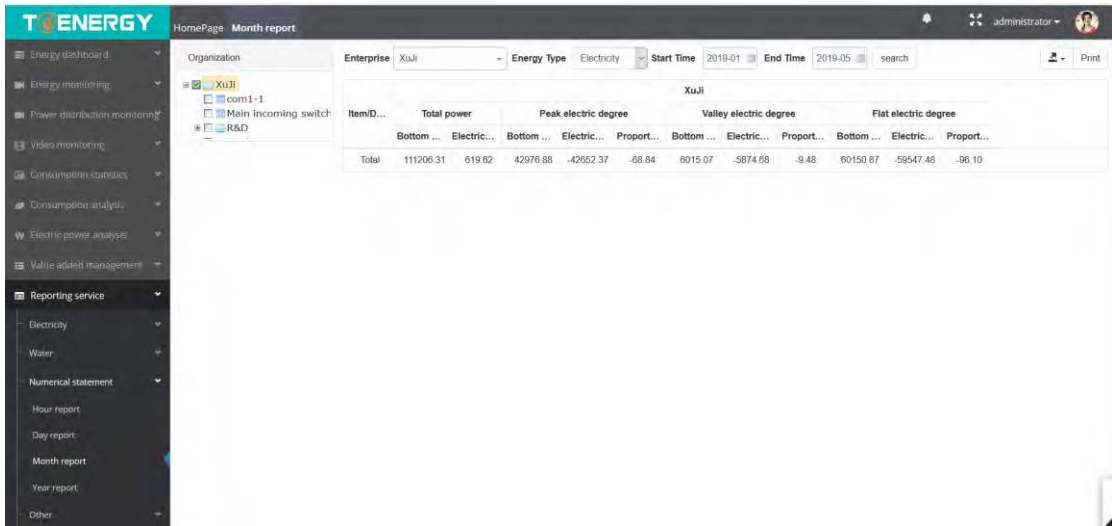
The tree structure in the upper left corner shows the organization of the enterprise, and the right side shows the readout, consumption and ratio of daily total electricity, peak electricity, valley electricity and flat electricity.



### 11.3.3 Monthly report

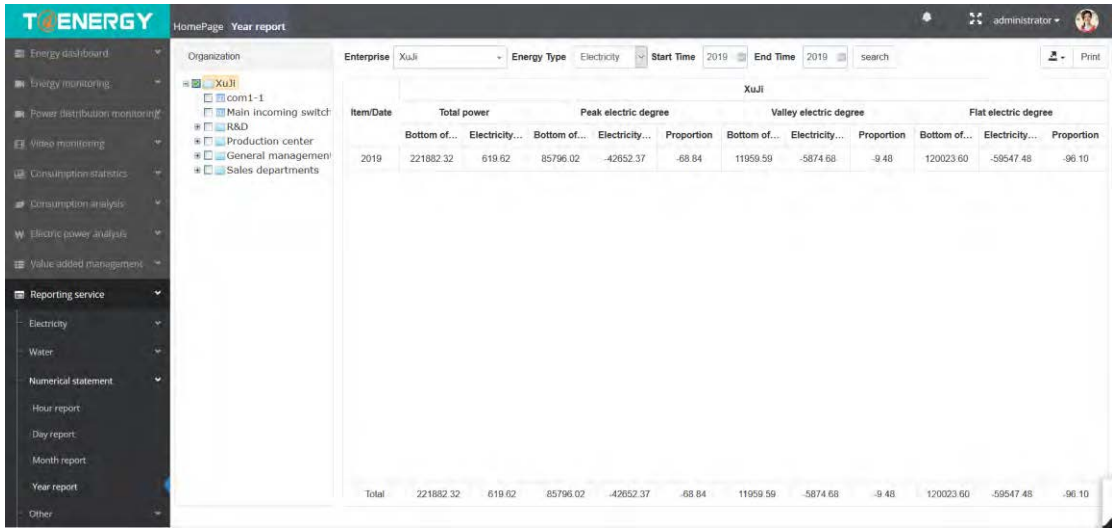
The tree structure in the upper left corner shows the organization of the enterprise, and the right side shows the readout, consumption and ratio of monthly total electricity, peak electricity, valley electricity and flat electricity.





### 11.3.4 Annual report

The tree structure in the upper left corner shows the organization of the enterprise, and the right side shows the readout, consumption and ratio of annual total electricity, peak electricity, valley electricity and flat electricity.



### 11.4 Peak Valley Flat

#### 11.4.1 Daily report (Peak Valley Flat)

According to the number of days, you can view the positive active energy peak readout, positive active energy valley readout, positive active energy flat readout and total value of different departments under the enterprise.

Number	Department name	Ositive active peak value	Positive active valley	Positive active power level
1	R&D	18321.72	16534.99	8771.67
2	Production center	110901.86	195341.41	153739.4
3	General management department	140.71	133.43	15134.57
4	Sales departments	26470.33	14685.18	21122.07
5	Total	155534.62	226895.01	198767.71

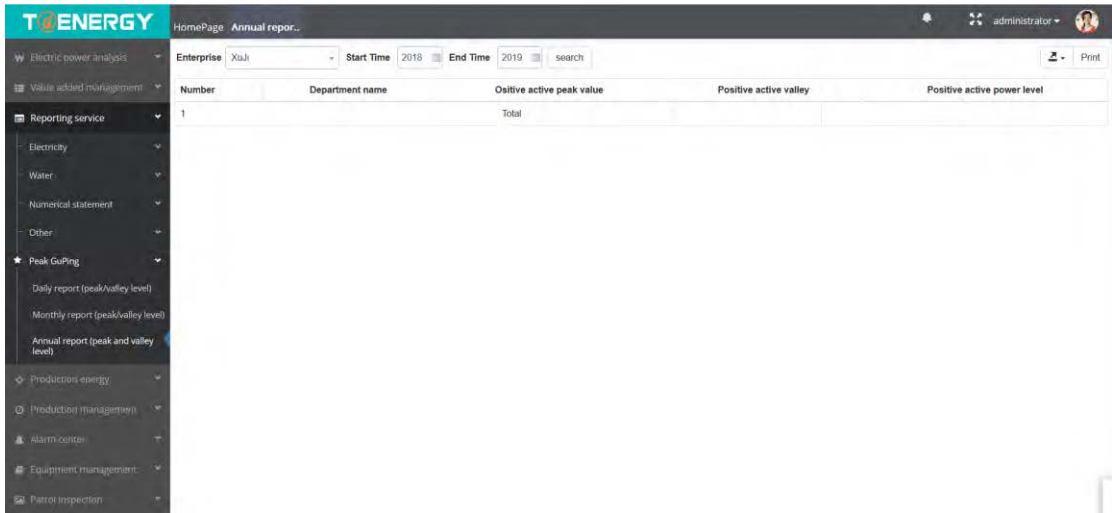
### 11.4.2 Monthly report (Peak Valley Flat)

According to different month, you can view the positive active energy peak readout, positive active energy valley readout, positive active energy flat readout and total value of different departments under the enterprise.

Number	Department name	Ositive active peak value	Positive active valley	Positive active power level
1	General management department	23.51	21.29	15.62
2	Total	23.51	21.29	15.62

### 11.4.3 Annual report (Peak Valley Flat)

According to different year, you can view the positive active energy peak readout, positive active energy valley readout, positive active energy flat readout and total value of different departments under the enterprise.



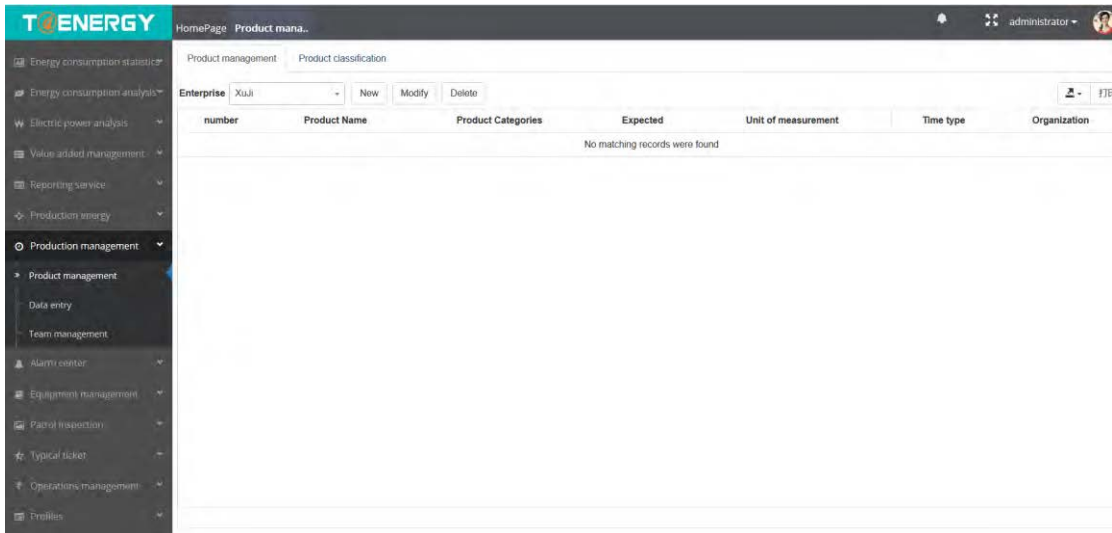
# 12 Production management

There are product management, data entry, team management services under production management.

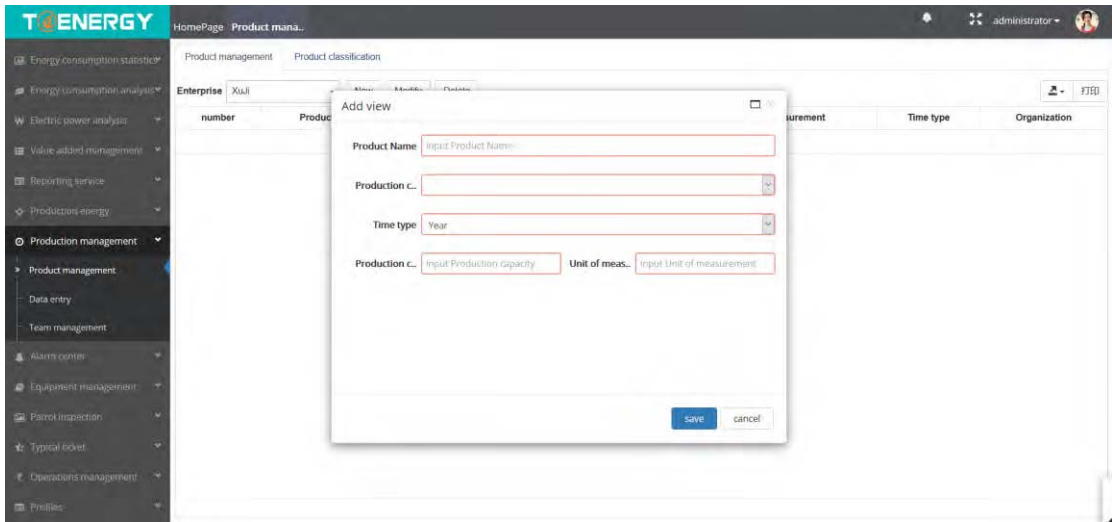
## 12.1 Product management

Product management and product classification are included in product management. Clicking on the display information in the product management, the information can be deleted or modified or added.

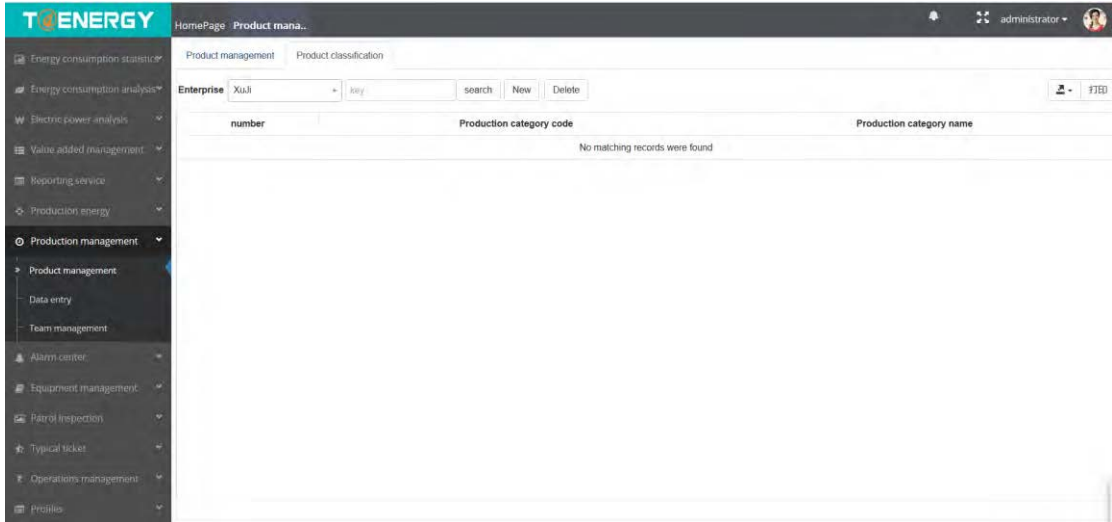
Product management interface:



Product management add:

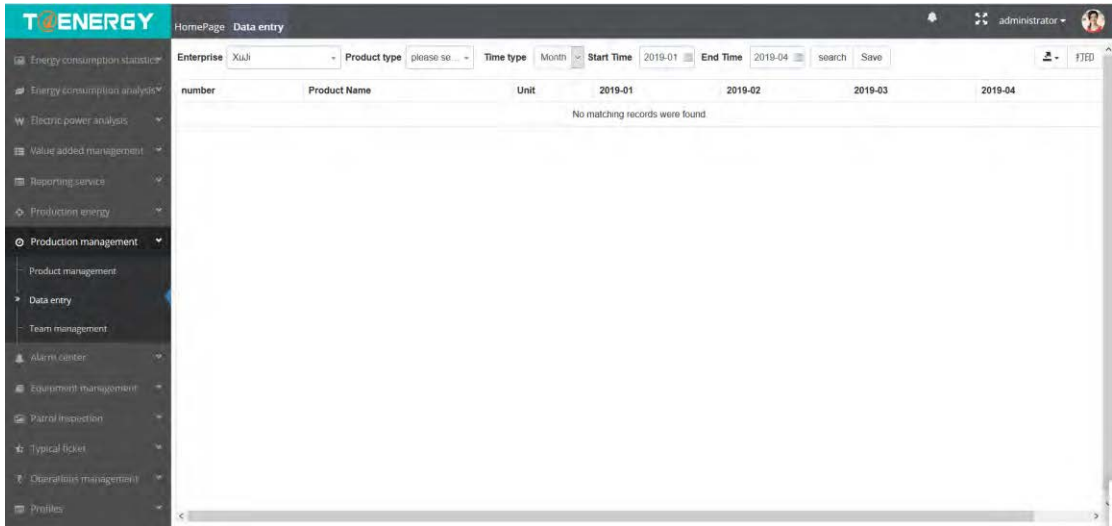


Product classification interface:



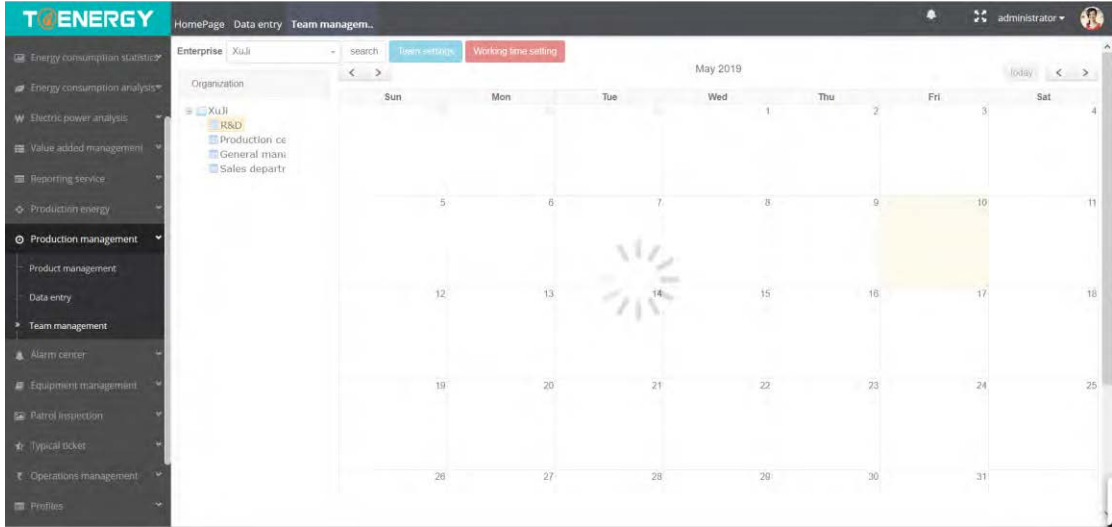
## 12.2 Data entry

Information display of the device. Double-click on the selected data to modify it. After editing, click the 'save' button to save.

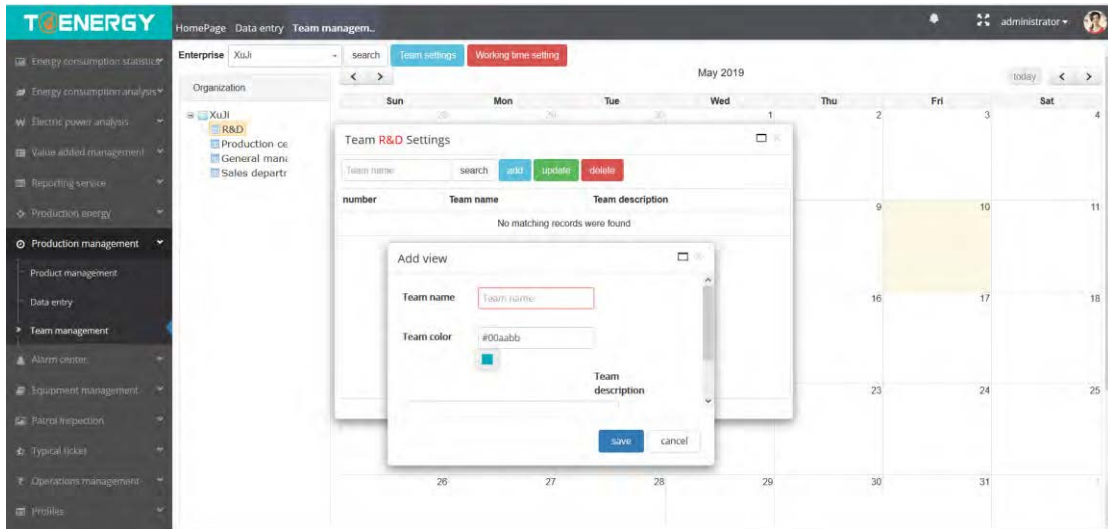


### 12.3 Team management

At the top left is the corporate organization, which can be displayed on the right after clicking on the branch. Used for team settings and working time settings.

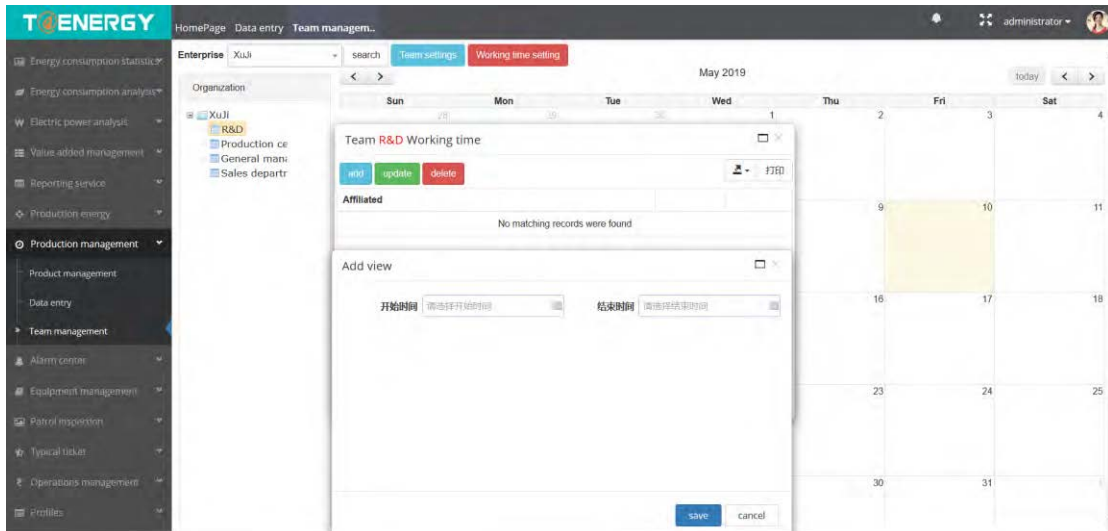


Click on the team settings:



Working time setting:

Click to add start and end time:

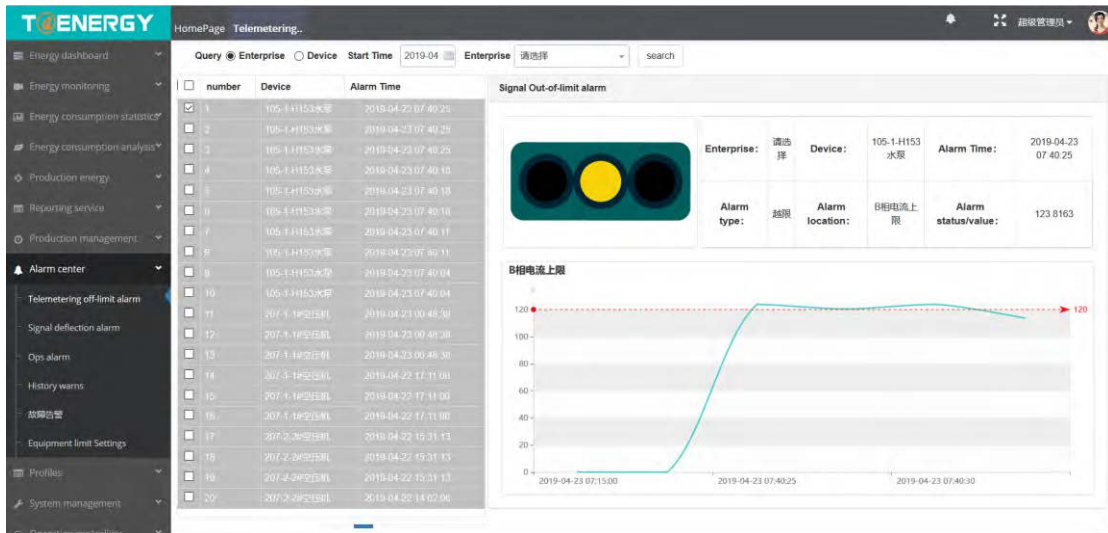


## 13 Alarm center

The alarm center is divided into: telemetry over-limit alarm, signal deflection alarm, operation and maintenance alarm, historical event alarm, and equipment over-limit alarm. .

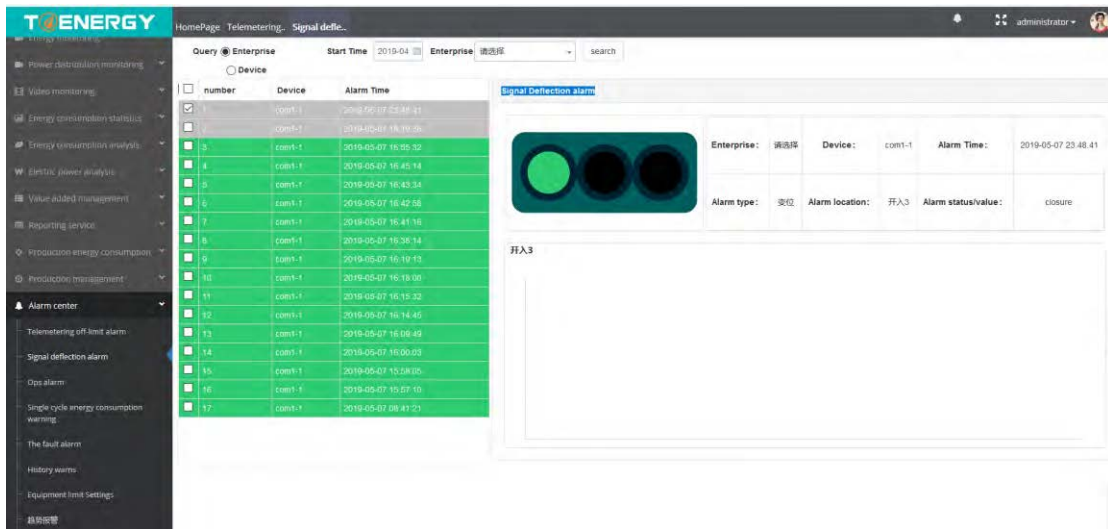
### 13.1 Telemetry over-limit alarm

This part shows whether the running value of the monitoring equipment under the enterprise exceeds the set value. The above is the selected condition, then click the Query button. The list on the left shows the device alarm and time, and the upper right shows the detailed information of the device alarm. The bottom right is the over-limit information displayed in a line chart



### 13.2 Signal deflection alarm

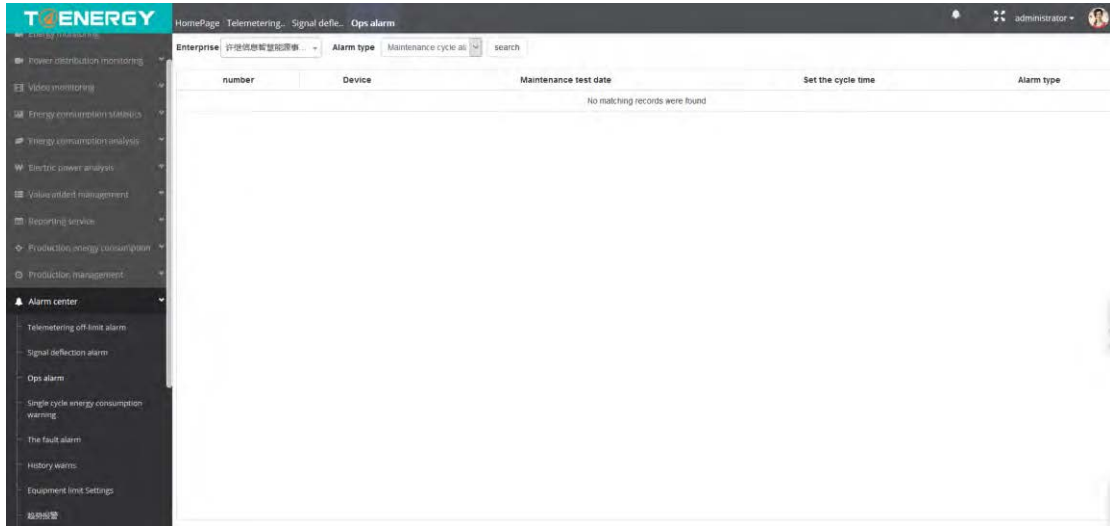
This part displays the monitoring device under the enterprise switch closure information. The above is the selected condition, then click the search button, the list on the left is the display device displacement and time, and the upper right is the details of the device deflection.



### 13.3 Operation and maintenance alarm (Ops alarm)

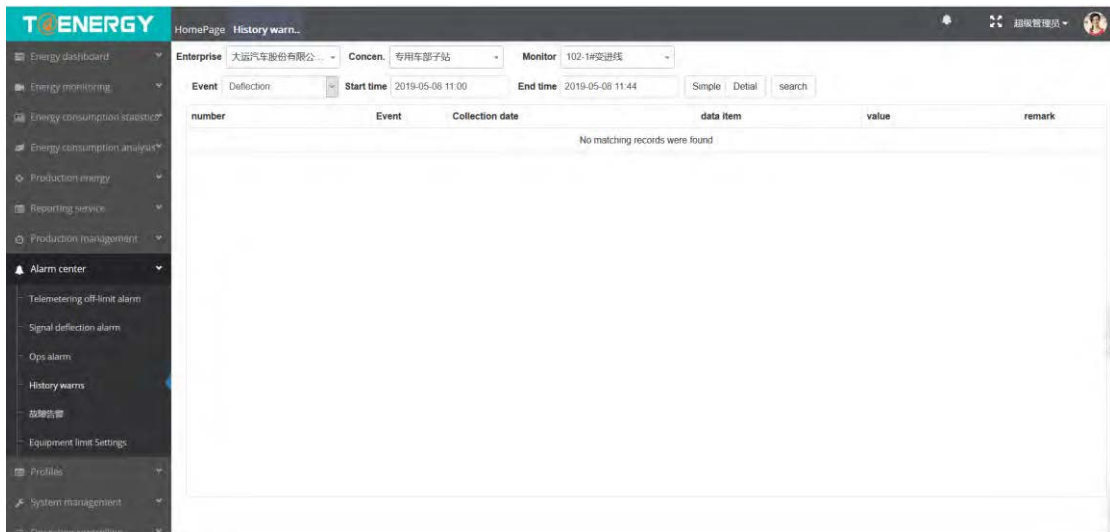
Used to query the alarm type under the enterprise. Above is the query condition that can be selected.





### 13.4 Historical event alarm

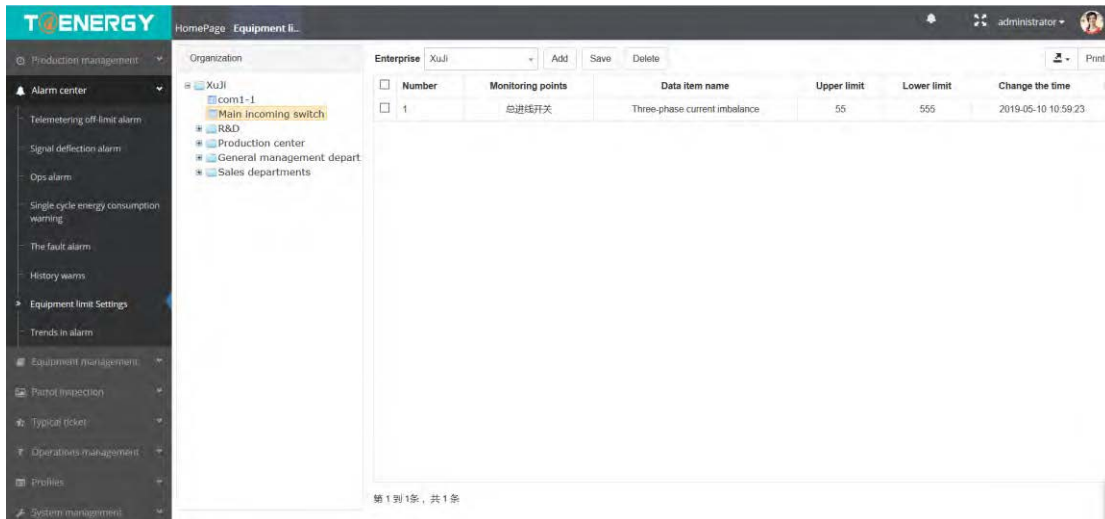
For the display of equipment alarm information in the past time period, the query conditions are enterprise, gateway, monitoring point, event type, start and end time, and display with sub-table.



### 13.5 Equipment over-limit alarm

Used to set the limit value of the equipment under the enterprise.





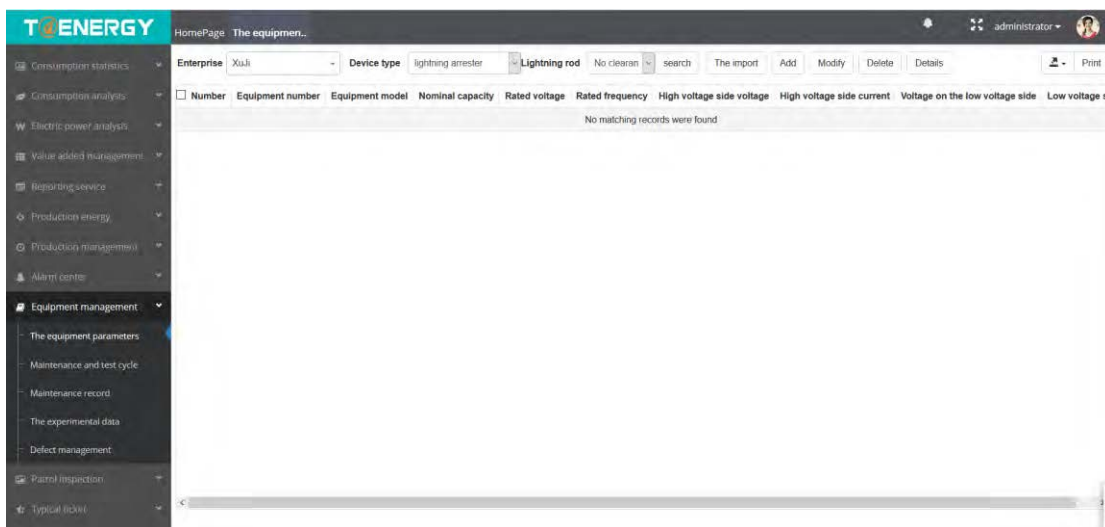
When adding the limit setting item, set it for a certain monitoring point, select the monitoring point, click “Add”, the data item name can select from Ua, Ub, Uc, Ia, Ib, Ic, upper and lower limits can be set. It can also delete the limit setting item. After the setting is completed, execute the "upper and lower limit" delivery operation in "Operation and Maintenance Management".

## 14 Equipment management

There are five modules in equipment management, which is equipment parameters, maintenance and test cycle, maintenance records, test data, and defect management.

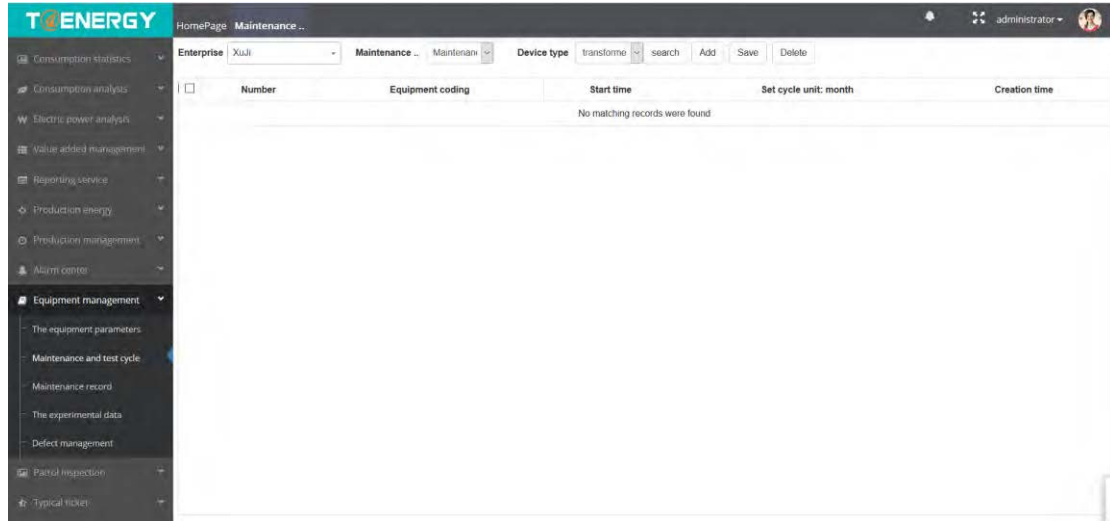
### 14.1 Equipment parameters

Companies can query the different device code, model, rated capacity, voltage, frequency, high-voltage side voltage & current, low-voltage side voltage & current and add, modify, delete or view details of relevant data.



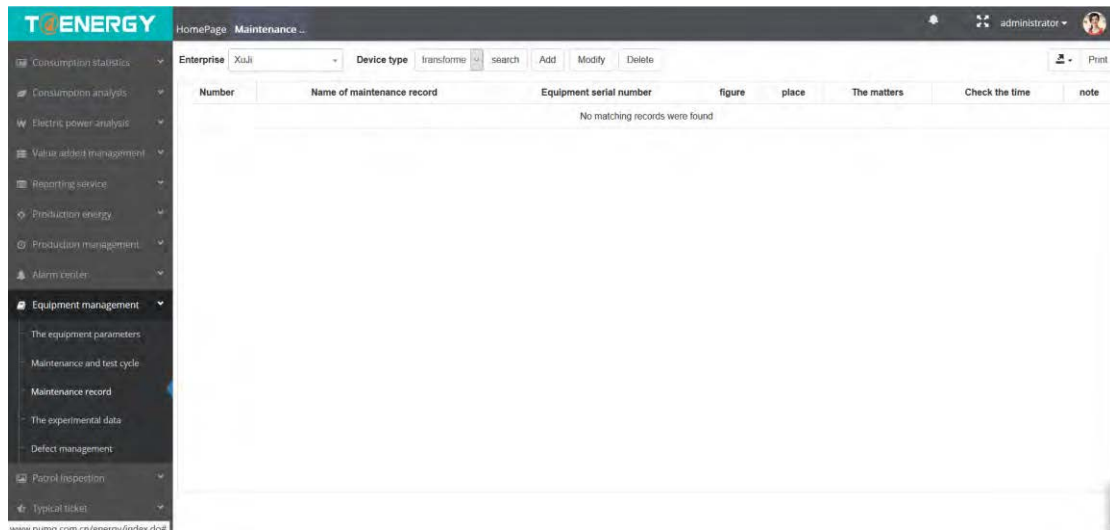
## 14.2 Maintenance and test cycle

Users can view the maintenance and test cycle of the related equipment according to the enterprise, cycle type, and device type, including device code, start time, set cycle, and creation time. You can also add, delete and save the repairing and testing equipment.



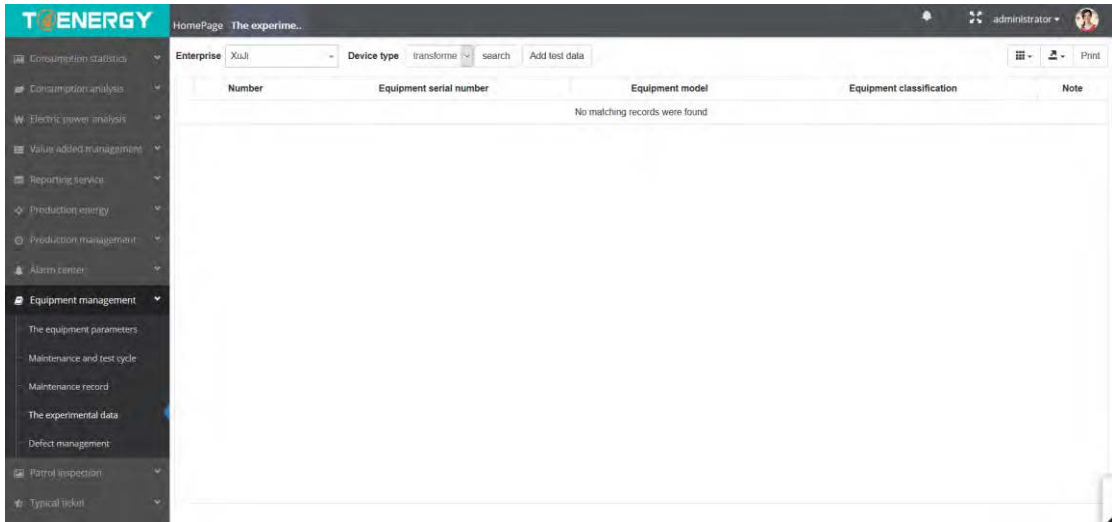
## 14.3 Maintenance record

Users can query the maintenance records of related equipment according to the enterprise and equipment type, includes maintenance record name, equipment No., person, place, item, maintenance time, remarks, etc., and related operations such as adding, modifying, and deleting.



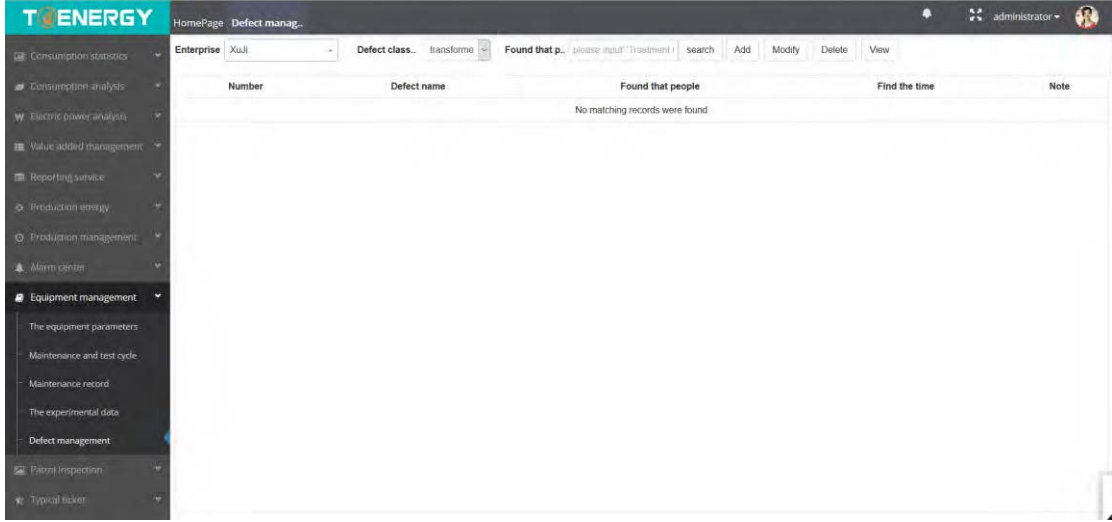
## 14.4 Test Data

Users can query the experimental data of the related device according to enterprise and device type, includes the device No., device model, device classification, remarks, etc., and add the test data.



## 14.5 Defect management

Users can query the records of related equipment defects including defect name, discovery personnel, discovery time, remarks according to the enterprise, defect classification, and discovery personnel. They can also add defect name, defect classification, discovery personnel, date of discovery, arrangement of personnel, arrangement date, and cause of defect, failure analysis, treatment measures, missing personnel, missing date, inspection personnel, acceptance date. Select one record to modify, delete, view, etc.

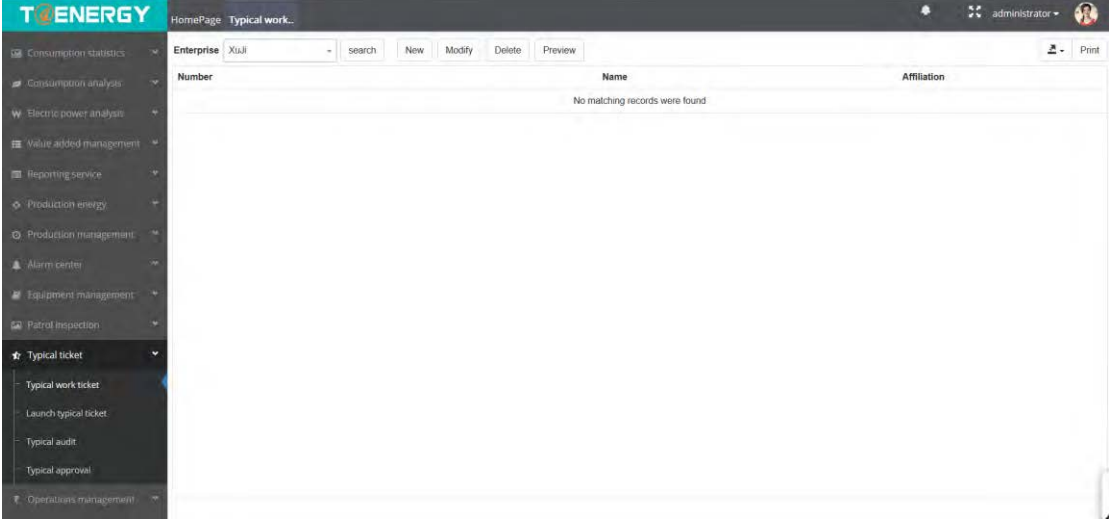


## 15 Typical ticket

The typical ticket module has four modules: typical work ticket, typical ticket initiation, typical ticket audit, and typical ticket approval.

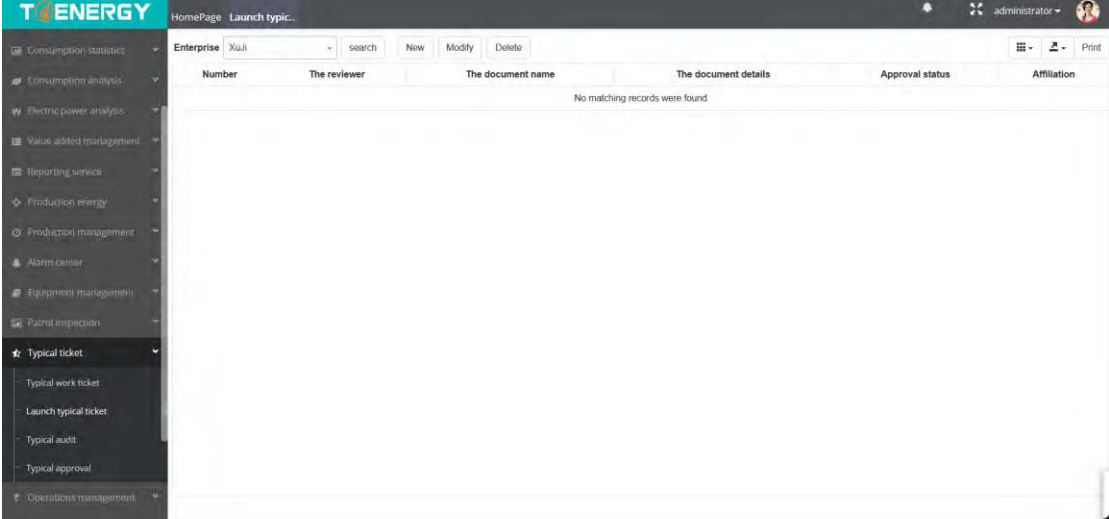
## 15.1 Typical work ticket

According to company name query typical work tickets, affiliation, users can add, edit, delete typical job ticket templates, preview templates, etc.



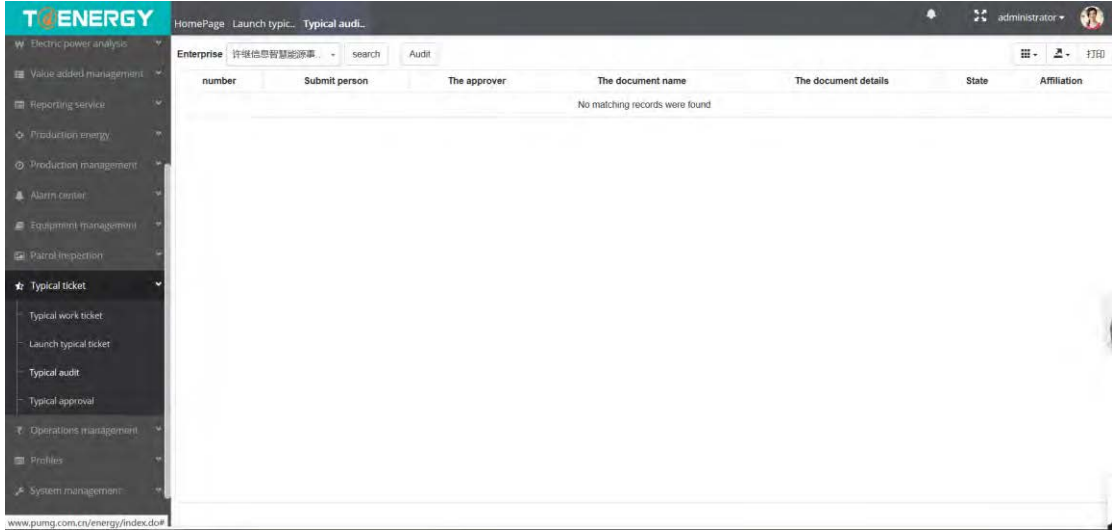
## 15.2 Typical ticket initiation

Users can query the reviewers, document name, the document details, approval status, affiliation of typical work ticket according to the enterprise. They can also add, modify, delete submission, etc.



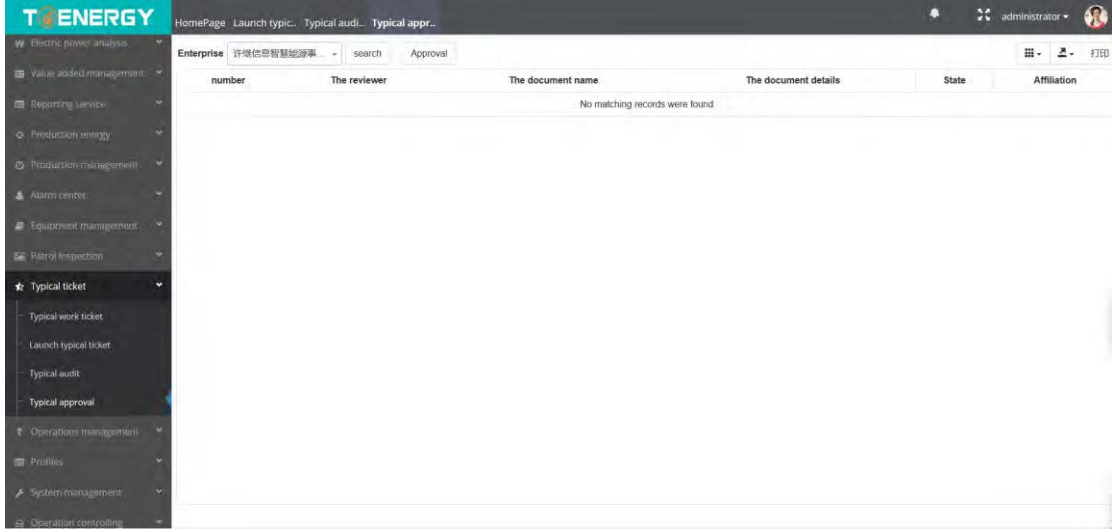
## 15.3 Typical ticket audit

Users can query the relevant information of the typical ticket audit includes the author, the approver, the document name, the document details, the status, and the affiliate according to different companies. They can also select a record for the audit operation.



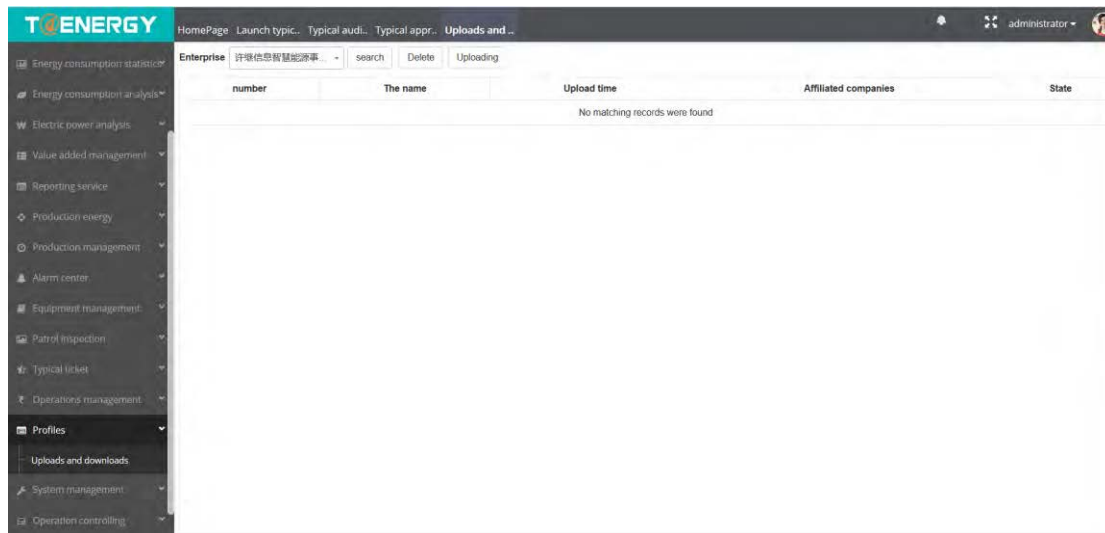
## 15.4 Typical ticket approval

Users can query the relevant information of the typical ticket review includes the reviewer, document name, document details, status, and affiliates according to different companies. They can select a record to approve the operation.



## 16 Profiles (upload and download)

Click “upload”, choose the file to upload.



## 17 System Management

System management includes Module Management, User Management, Role Management, Dictionary Management, Drawing Components, and System Configuration.

The most common ones are user management and role management.

The setup process is as follows:

Step 1: Add roles in the role management, and set permissions on the role;

Step 2: Create a new user;

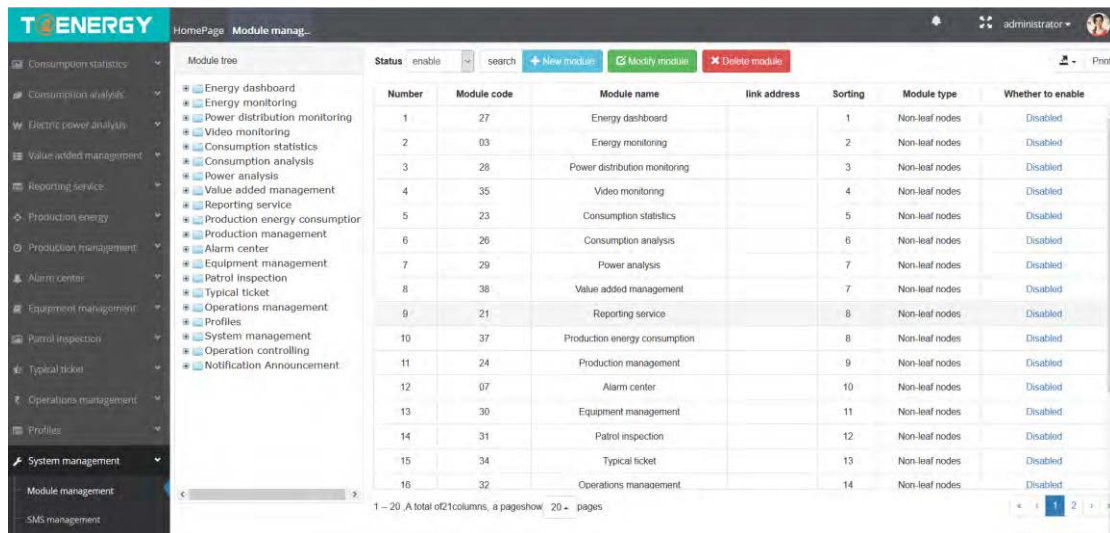
Step 3: Assign roles to new users.

### 17.1 Module Management

Click "Module Management" to display the following interface:

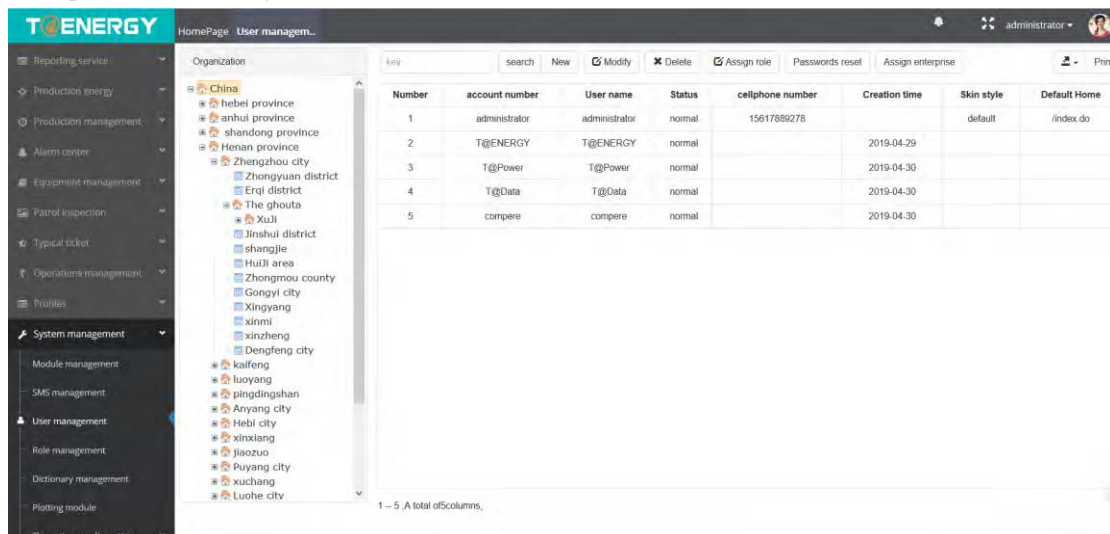
It contains the complete first-level module of the system. Clicking on each module can display the sub-modules under the module. You can modify or delete these sub-modules, and you can also export the excel tables of these modules.





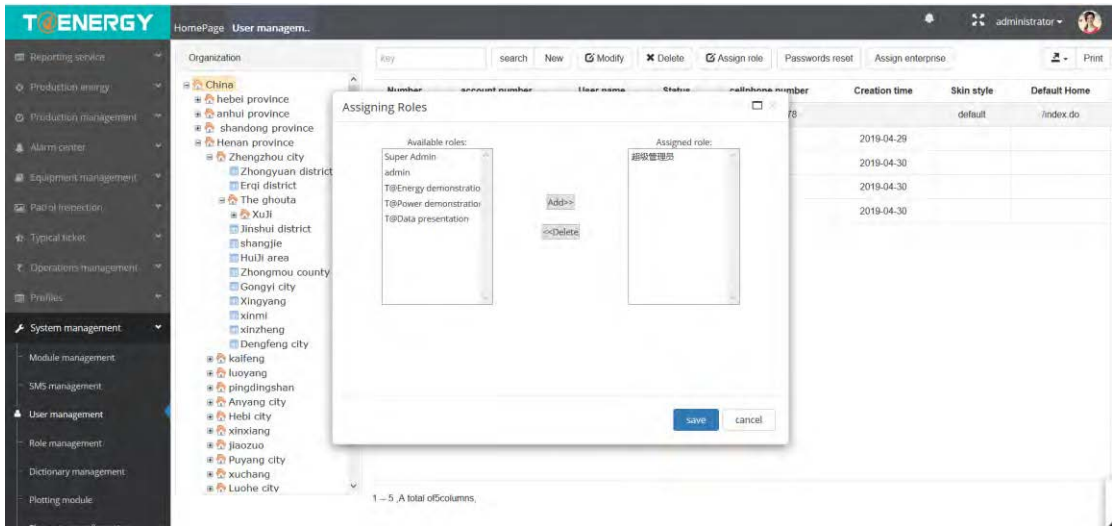
## 17.2 User Management

User management is divided into user management and user auditing. Click "User Management" to display the following interface:

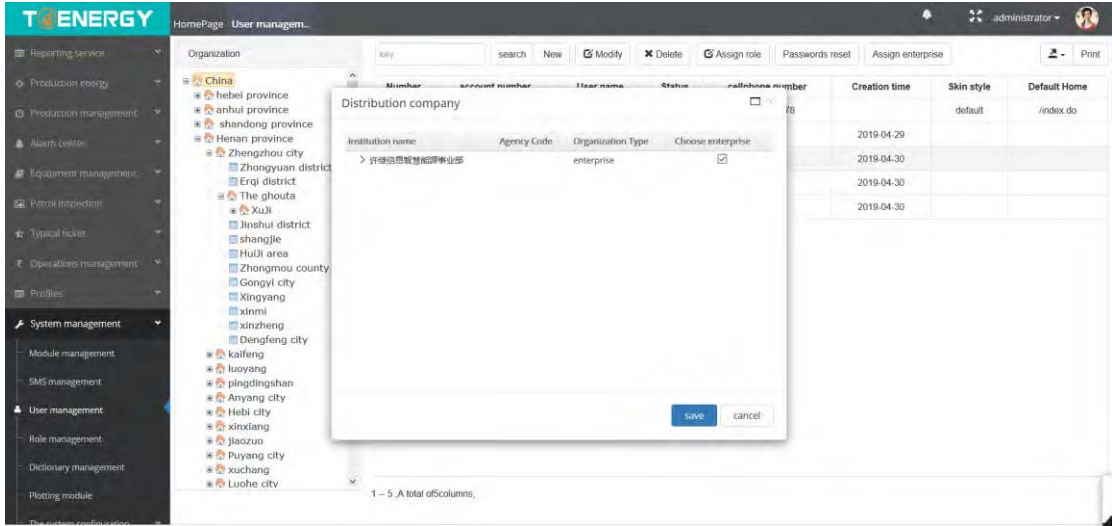


This function can add users by region or by enterprise, such as adding users in Shijiazhuang area. You need to click on Shijiazhuang (enterprise users must click on the enterprise first), and then click Add.

The account can be in English or Chinese. The user name can also be English or Chinese. When setting the password, it must be recorded. After setting, click "Save". Assign a role to the newly created user (must create the role firstly), click "Assign Role", the following interface appears:



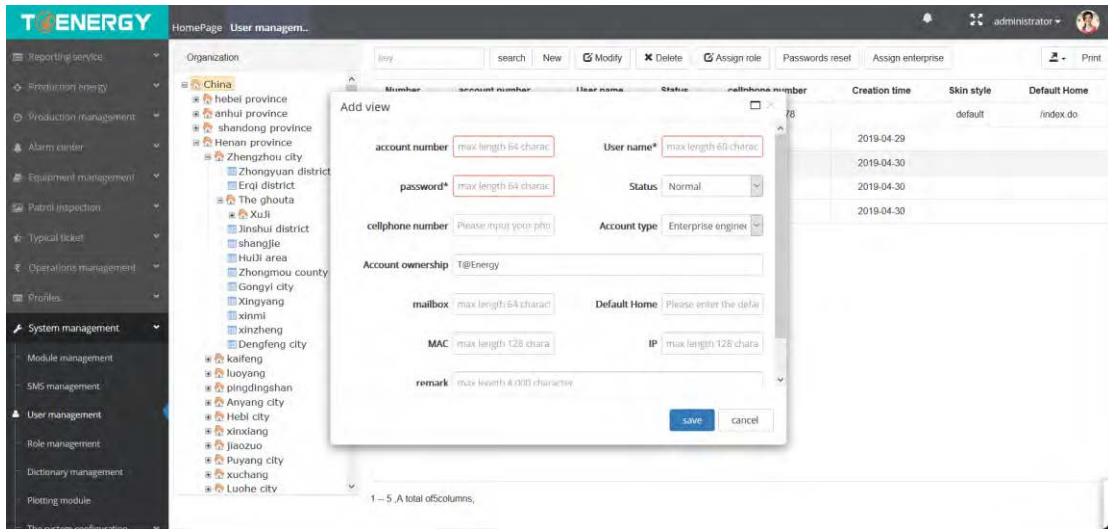
Click user to assign company



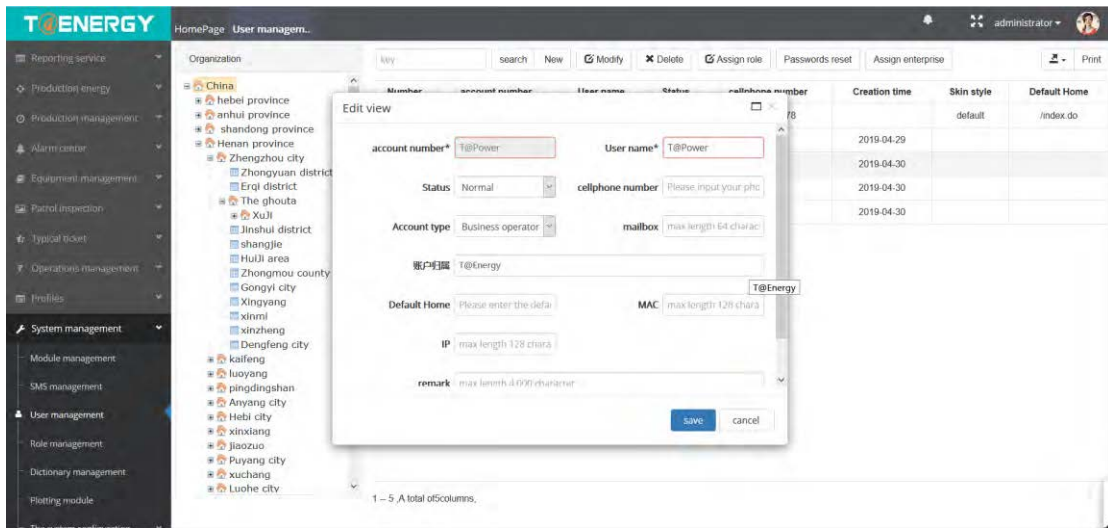
The left side is the established role, and the right side has been assigned a role for this user. Note that the user can only add one role. After adding, click “Save” to save the settings. Once the setup is complete, you can log out and log in to the newly created user.

There are also "Modify", "Delete", "Enable/Disable" and "Password Reset" functions for established users.

Add user:

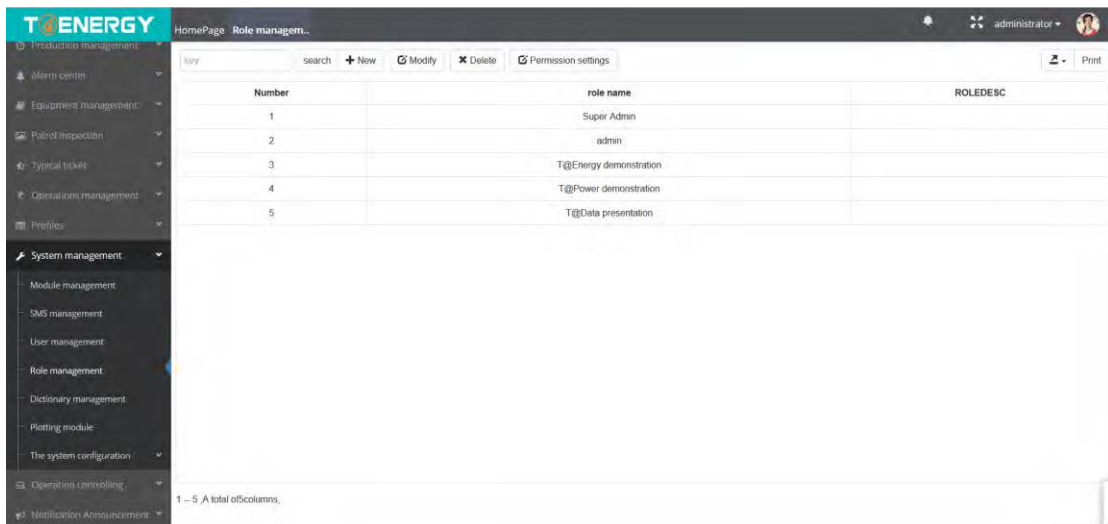


Modify user information:

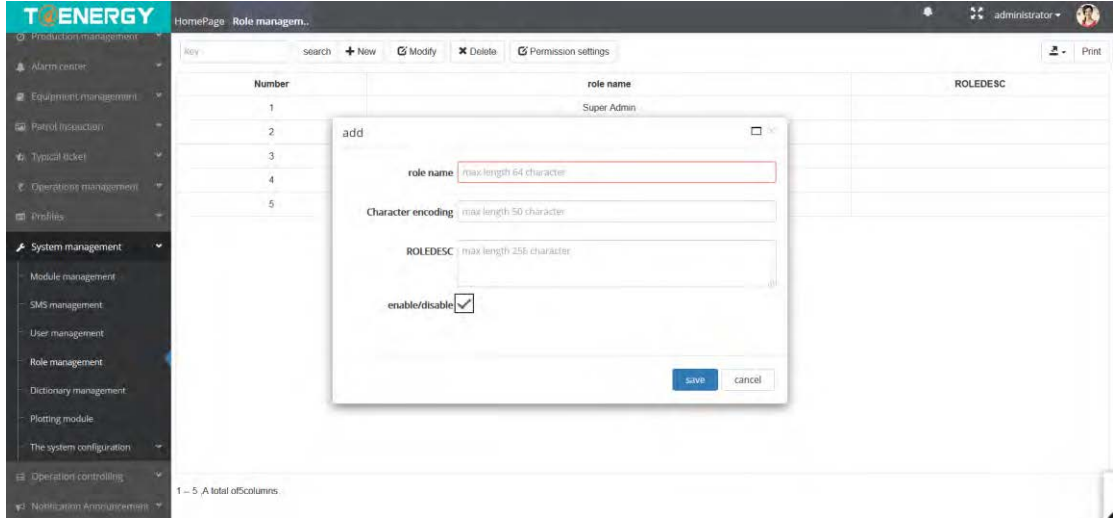


## 17.3 Role management

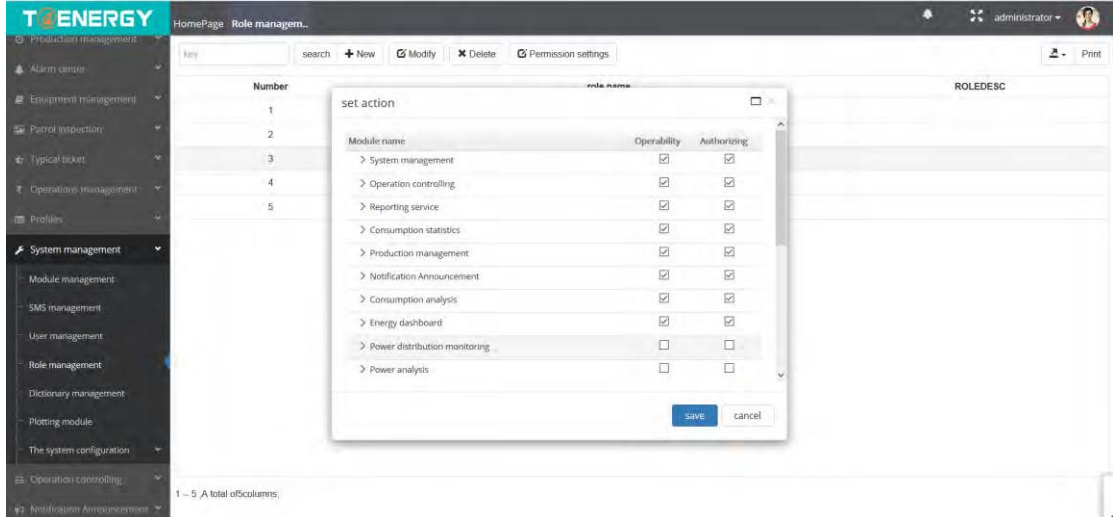
Click on "Role Management" to enter the following interface:



Click "Add" for adding a new role, as follows:



The role name can be defined by itself, and the role can be encoded and described. Enable/disable can be chosen according to requirements. Click "Save". After adding role, you can set permissions for the role, click on the role name, select the role, click "Set permissions" as shown below:



Currently, the modules that can be set are "system management", "energy monitoring", "file setting", "acquisition operation and maintenance" and "operation monitoring" modules, which can be set by "operable" or "licensable". Click "Save".

In addition, there are "modify", "delete" and "enable/disable" functions for the established roles.

## 17.4 Dictionary management

Internal system fields encoding settings, you can modify, delete, add, etc.

Number	Code	Name	Dictionary code	Dictionary name	Mnemonic code	Status
1	BASE_FILE_TYPE	document type				
2	BASIC_TYPE	Basic tariff type				
3	DICACTIONTYPE	Action type				
4	DICBTTYPE	Lightning rod type				
5	DICCHANNEL	ChannelNam				
6	DICCOMPANY	Video makers				
7	DICDATATYPE	Time Types				
8	DICEVENTCLASSIFY	Fault classification				
9	DICEVENTTYPE	Event type				
10	DICFAULTTYPE	The accident types				
11	DICFGP	Peak GuPing				
12	DICFILLSTATE	Collection integrity type				
13	DICGROUP	Packet types				
14	DICGROUPS	Leading group				
15	DICHOST	Lead the IP				
16	DIChref	The drawing link				

Add:

Add view

Name\*

Code\*

display order  Whether to enable

Remark

Modify:

Edit view

Name\*

Code\*

display order  Whether to enable

Remark



## 17.5 Plotting module

Display pictures, text, lines, etc. used in the drawing.

Name	Group type	Image	Head portrait	Sorting	Status	Extended attributes
	other	Repeater.png			Enable	
	other	RFID.png			Enable	
	other	right.png			Enable	
	other	Router.png			Enable	
	other	Router_icon.png			Enable	
	other	rserver.png			Enable	
	other	RTU.png			Enable	
	other	SCADA.png			Enable	
	other	server.png			Enable	
	other	server1.png			Enable	
	other	smv.png			Enable	
	other	sphy.png			Enable	
	other	Switch.png			Enable	
	other	sxt.png			Enable	

## 17.6 System configuration

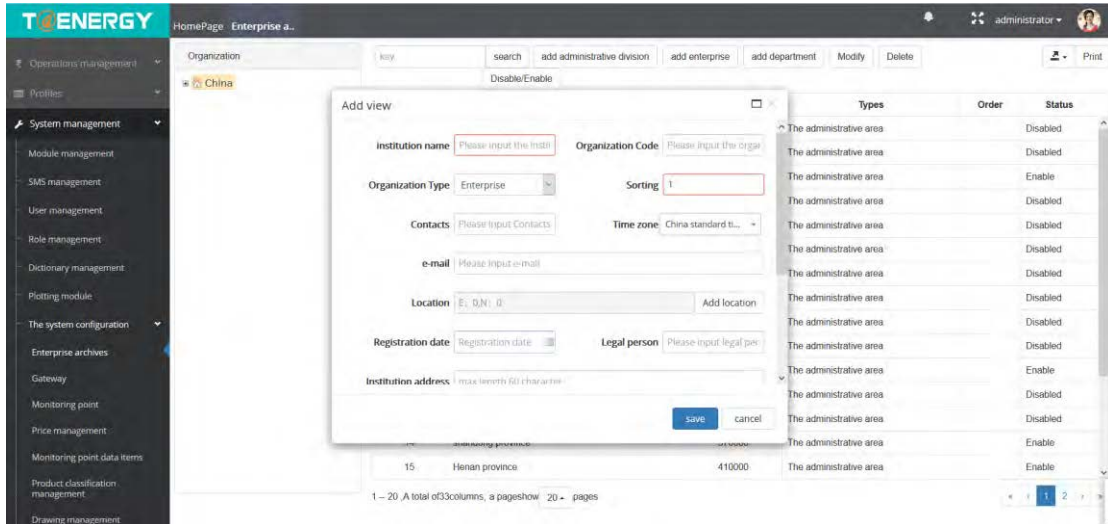
Under the system configuration, there are enterprise files, gateways, monitoring points, price management, monitoring point data items, product classification management, drawing management, and template management.

### 17.6.1 Enterprise archives

Click “Enterprise archives”, the interface will be displayed:

You can create a new administrative division, or you can click on an administrative area, establish an enterprise under this administrative area, click on the new enterprise, and the following interface appears.

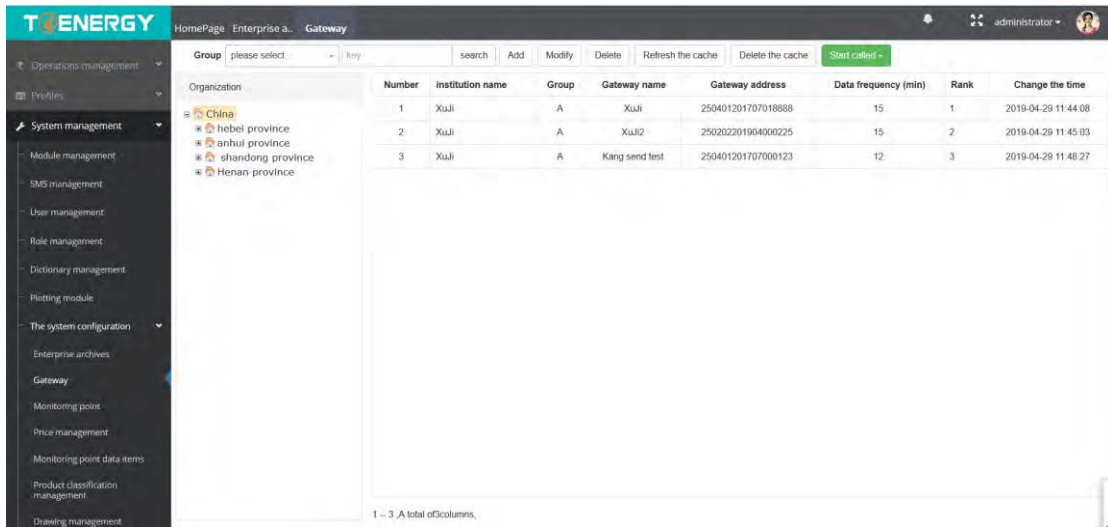




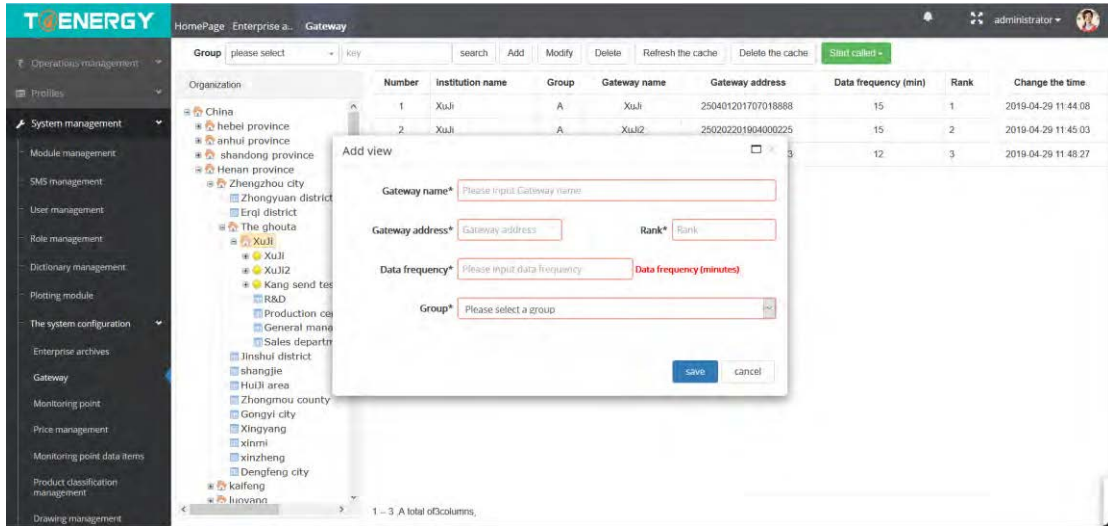
The name of the institution (ie the name of the company) must be filled out. Click "Save."  
 There are also adding company, removing the administrative area and deleting company function.

## 17.6.2 Gateway (Concentrator)

Click “Gateway”, the following interface will be displayed:



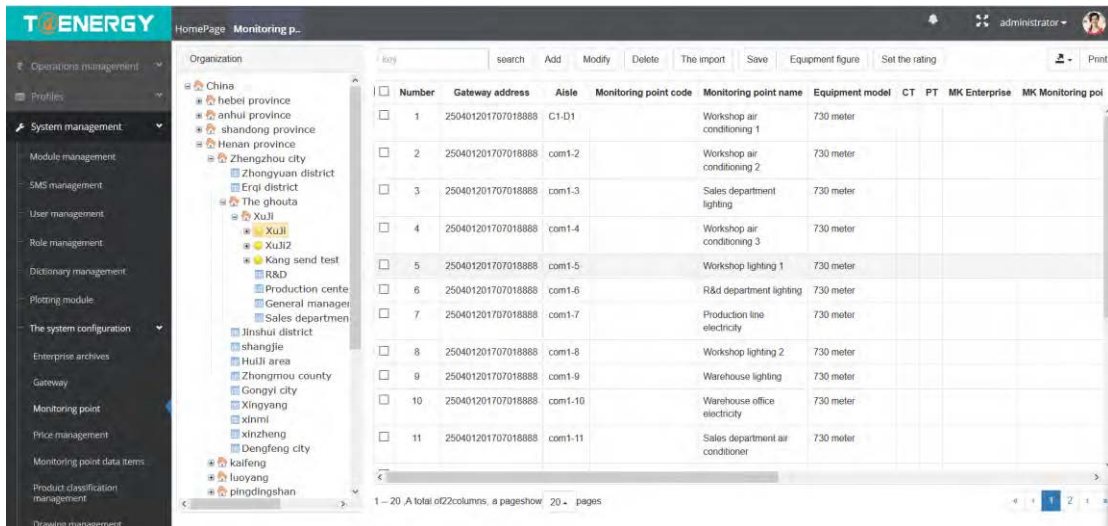
Take “Xu Ji” as an example. Click “Xu Ji” in the organization, it can display all the gateways of the enterprise and their No. and modification time records on the right side. Click “Add” to add new gateway, as shown below:



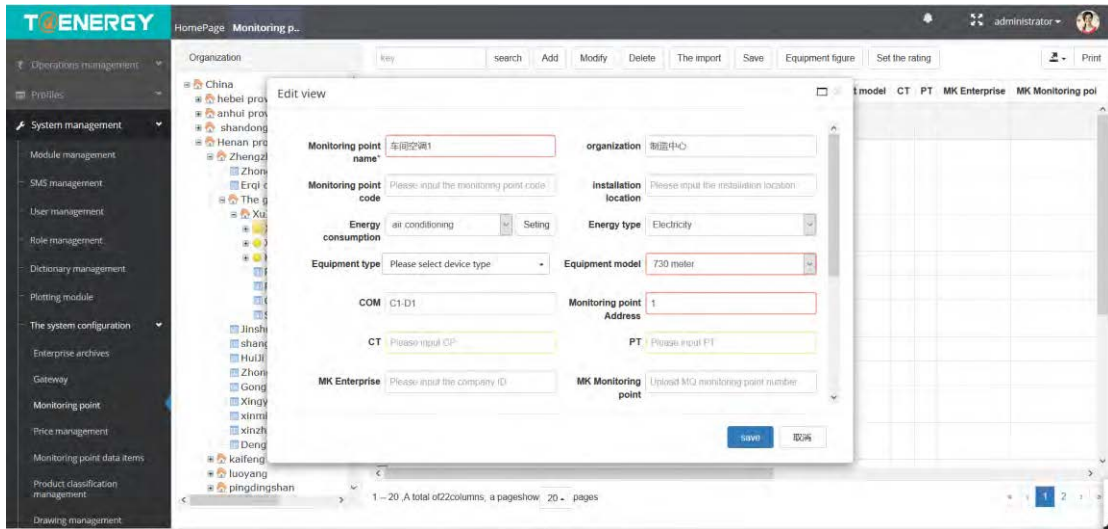
The gateway name and address (factory default number) must be filled in. And each gateway must first establish enterprise and gateway information on the data collection subsystem before logging into the data acquisition subsystem. Otherwise, the gateway can't log in to the data collection subsystem. In addition, after selected a specific gateway, users can modify, delete, refresh the cache, delete the cache, and interrogation.

### 17.6.3 Monitoring point

Click monitoring point, the following interface will display:

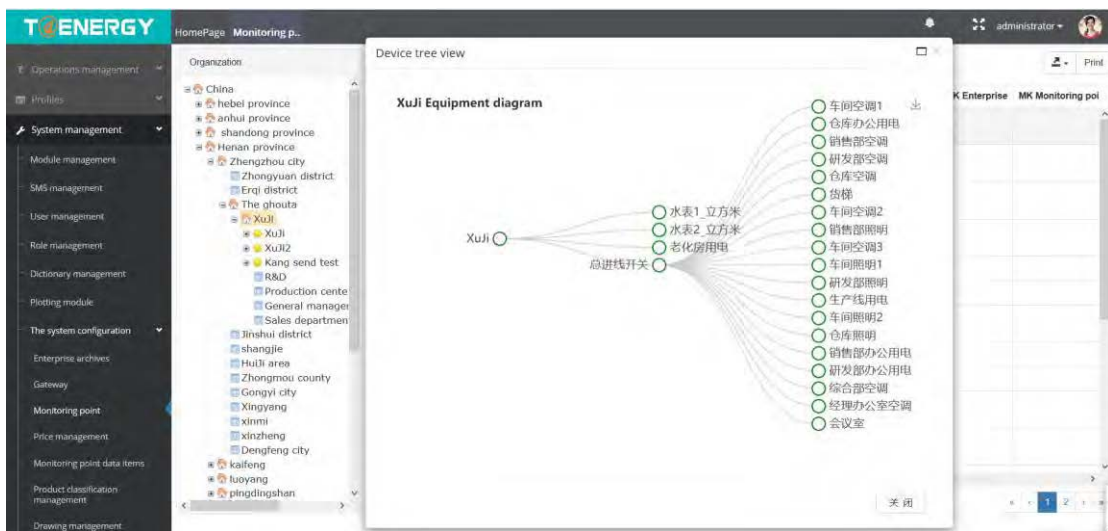


Take Xuji as an example, click the “Xuji”, the system will display all the monitoring points under the gateway on the right side. The monitoring points info are collected after the gateway is online and synchronizing variable in the “acquisition and operation”. Choose a monitoring point, click “Modify” to display the following interface:



Users can edit the attribute information of the monitoring point name, CT (such as 100/5), PT (such as 10000/100), station number, etc., and click "Save" after modification. This operation requires refreshing the concentrator cache.

In addition, the monitoring point information can be deleted, imported, and exported. Set the rated value to view the enterprise equipment map, taking Xu Ji information as an example: as shown below:



## 17.6.4 Price management

Click “Price management”, the following interface will be displayed:

number	Voltage grade (kV)	Start time	End time	Power factor standard	Electricity capacity (kVA)	The billing type	The basic price (¥)	Water price (¥)	Gas price (¥)	Heat price (¥)	Operation
1	10	2018-12	2019-12	0.90	7950	Charged according to volume	24	4.6	3.7	10	Details Costs query
2	10	2018-12-31	2019-12-31	0.90	7950	Charged according to volume	24	4.6	3.7	10	Details Costs query

Click 'Details' to view detail:

Details

Electricity entry: Water/gas/swarm input

Voltage grad.: 10.0 (kV)    日期类型: 月

Start time: 2018-12    End time: 2019-12

The basic price

The billing: Charged according to

Electricity: 7950.0 (kVA)    The basic pr.: 24.0 (¥)

Power charge

Electricity: 4.0

cancel

Costs Query:

Costs query

number	The date	The total power consumption (kWh)	The total electricity (¥)	The total water consumption (t)	Always use water (¥)	Total	price (¥)	Gas price (¥)	Heat price (¥)	Operation
1	2019-02	1039530.99	2070629.75	0	0	0	6	3.7	10	Details Costs query
2	2019-03	1769489.4	1244032.99	12883	56261.8	6	3.7	10	Details Costs query	
3	2019-04	1410511.5	1041138.25	11769	54137.4	6	3.7	10	Details Costs query	

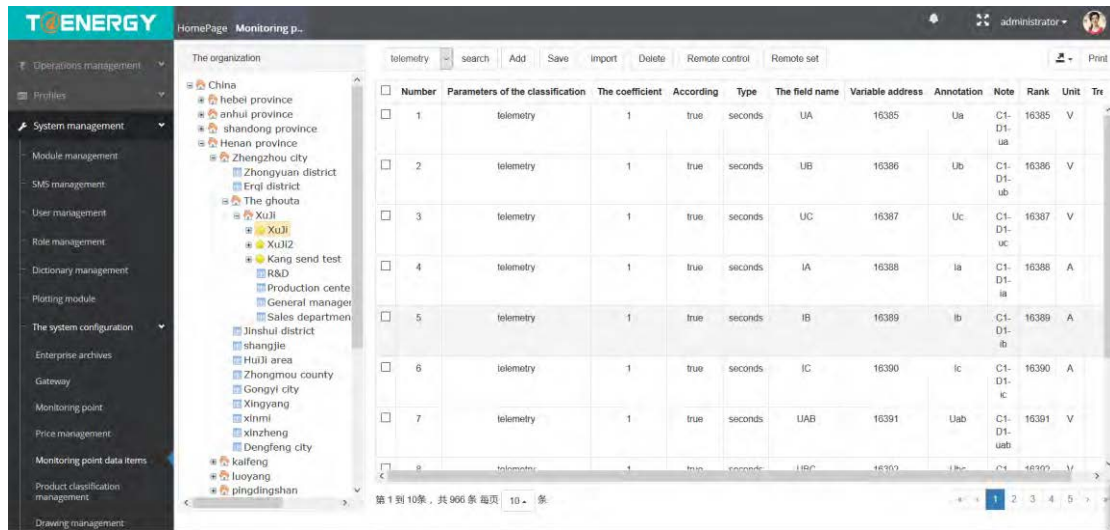
1 - 3 A total of 3 columns.

cancel

Users with authority can also add, delete and modify the prices.

## 17.6.5 Monitoring point data item

Click “Monitor Point Data Item” to display the following interface:



Take ‘XuJi information’ as example, if you click on the gateway “XuJi information”, the data item of all monitoring points under the gateway will be displayed on the right. Click monitoring point "Tune Filter (Main) (1\_1)", the data item information of the monitoring point is displayed on the right side. The telemetry and remote information data item can be selected for query.

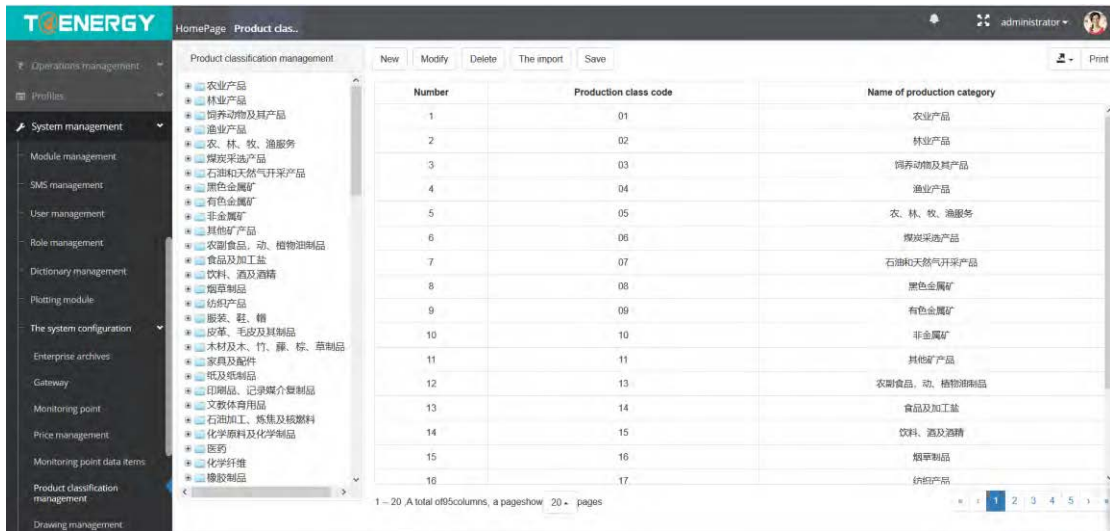
In addition, in the "Coefficients" column, you can edit according to the actual situation of the meter, then click "Save", and you need to refresh the gateway cache to perform sparse modification.

Note: Like the monitoring points, these data items are obtained by synchronizing the variables. No need to be added one by one.

## 17.6.6 Product classification management

Product classification management interface

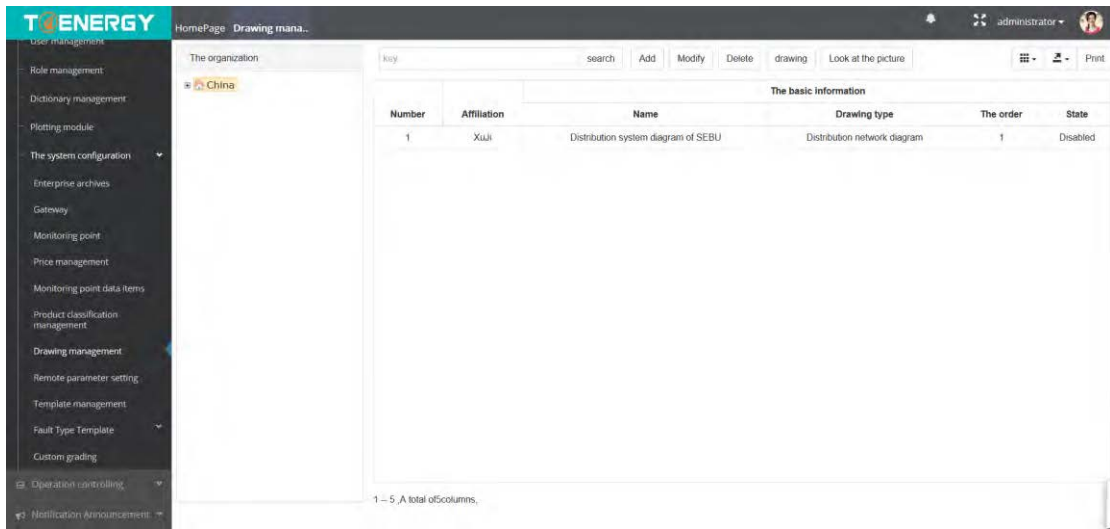




Add, Modify, Delete, import, Save can be operated in this page.  
Please note the data format before import.

## 17.6.7 Drawing management

Drawing management interface:

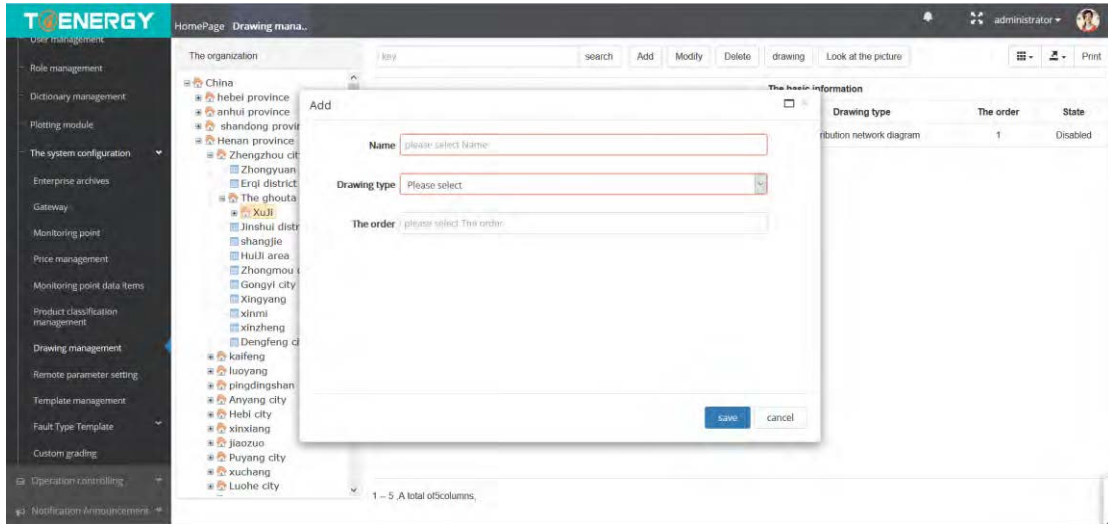


Users with authority can also add, delete, modify the drawings.

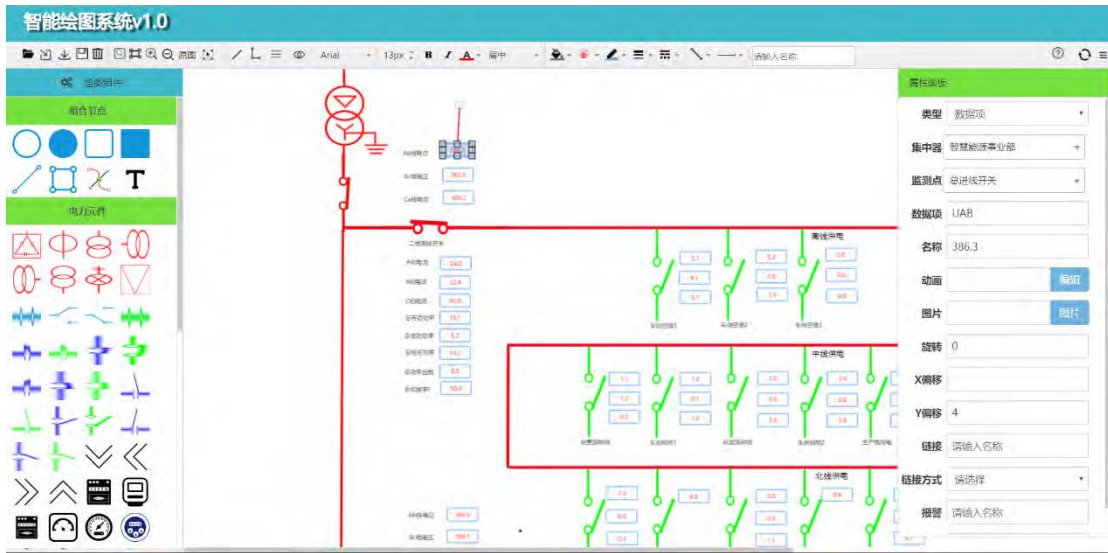
Adding:

First choose the enterprise in the organization.



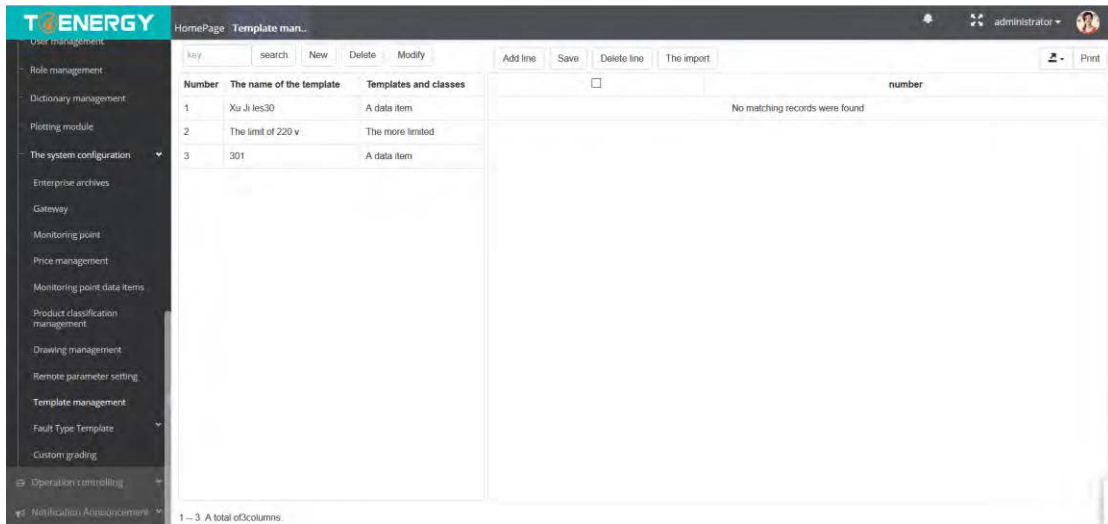


Drawing:



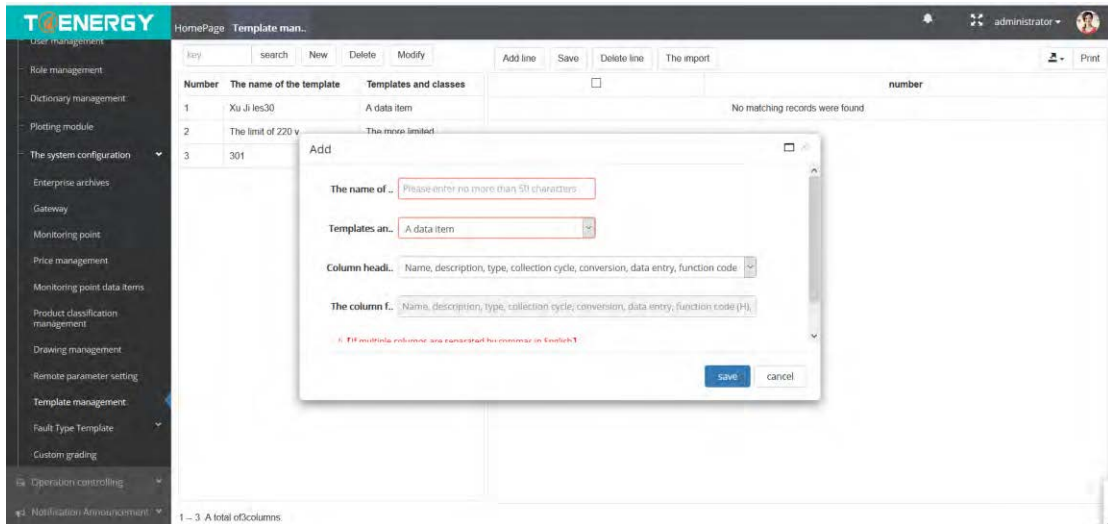
## 17.6.8 Template management

Click "Template Management", then enter the following interface:

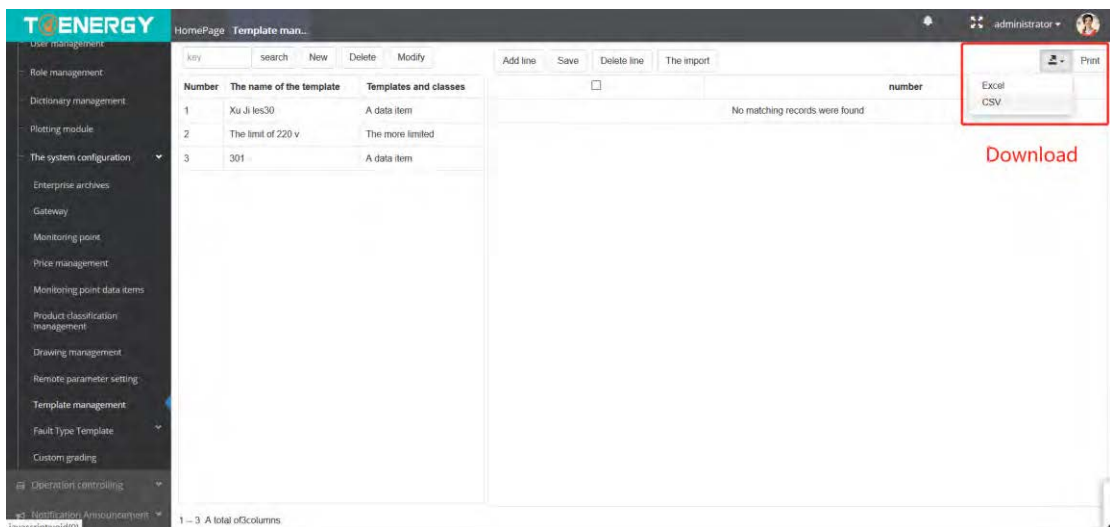


The file settings include "Add ", "Modify", "Delete" and "Add Row", "Delete Row", "Save", "upload", and "download". The main process is as follows:

Step 1: "Add", you can add a data item or an over-limit template, as shown below:



Step 2: "upload" must first download the template to enter the following Excel information, the template format cannot be modified:



序号	名称	描述	类型	采集周期	换算	数据项关系	功能码 (H)	数据地址 (H)	数据类型 (B)	偏移量	系数	高限	低限	输出方式
ua	A相电		1	1	0	0	0x03	0x0030	66	0	1	-1	-1	1
ub	B相电		1	1	0	0	0x03	0x0032	66	0	1	-1	-1	1
uc	C相电		1	1	0	0	0x03	0x0034	66	0	1	-1	-1	1
uab	Ab线		1	1	0	0	0x03	0x0036	66	0	1	-1	-1	1
ubc	Bc线		1	1	0	0	0x03	0x0038	66	0	1	-1	-1	1
uca	Ca线		1	1	0	0	0x03	0x003A	66	0	1	-1	-1	1
ia	A相电		1	1	0	0	0x03	0x003C	66	0	1	-1	-1	1
ib	B相电		1	1	0	0	0x03	0x003E	66	0	1	-1	-1	1
ic	C相电		1	1	0	0	0x03	0x0040	66	0	1	-1	-1	1
pa	A有功		1	1	0	0	0x03	0x0042	66	0	1	-1	-1	1
pb	B有功		1	1	0	0	0x03	0x0044	66	0	1	-1	-1	1
pc	C有功		1	1	0	0	0x03	0x0046	66	0	1	-1	-1	1
zyggl	总有功		1	1	0	0	0x03	0x0048	66	0	1	-1	-1	1
qa	A相无		1	1	0	0	0x03	0x004A	66	0	1	-1	-1	1
qb	B相无		1	1	0	0	0x03	0x004C	66	0	1	-1	-1	1
qc	C相无		1	1	0	0	0x03	0x004E	66	0	1	-1	-1	1
zwggl	总无功		1	1	0	0	0x03	0x0050	66	0	1	-1	-1	1
sa	A相视		1	1	0	0	0x03	0x0052	66	0	1	-1	-1	1
sb	B相视		1	1	0	0	0x03	0x0054	66	0	1	-1	-1	1
sc	C相视		1	1	0	0	0x03	0x0056	66	0	1	-1	-1	1
ssum	总视		1	1	0	0	0x03	0x0058	66	0	1	-1	-1	1
pfa	A功率		1	1	0	0	0x03	0x005A	66	0	1	-1	-1	1
pfb	B功率		1	1	0	0	0x03	0x005C	66	0	1	-1	-1	1
pfc	C功率		1	1	0	0	0x03	0x005E	66	0	1	-1	-1	1
zglys	系统有功		1	1	0	0	0x03	0x0060	66	0	1	-1	-1	1
f	系统无功		1	1	0	0	0x03	0x0062	66	0	1	-1	-1	1
U1	正序		1	1	0	0	0x03	0x0064	66	0	1	-1	-1	1
U2	负序		1	1	0	0	0x03	0x0066	66	0	1	-1	-1	1

Save as 'xls' file, then fill the data in the table then upload.

Step 3: Click 'Save' to upload the data to the system.

Step 4: 'Download' will export the data as excel file.

Step 5: In the operation and maintenance management, check if the newly created gateway is online, if it is online, synchronize its variables.

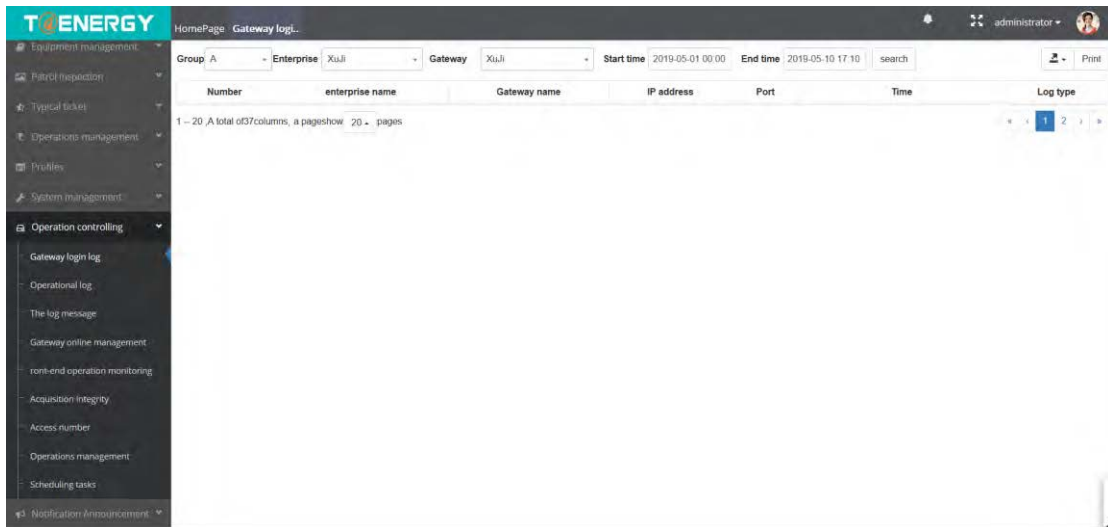
Step 6: After synchronizing the variables, the monitoring points and data items in the file settings will have corresponding information data, which can be edited if necessary.

## 18 Operation controlling

Operation controlling includes: gateway login log, operation and maintenance log, message log, gateway online management, front-end device operation monitoring, acquisition integrity, access quantity, operation and maintenance management, task scheduling, and other functional modules. Detailed descriptions are as below:

### 18.1 Gateway login log

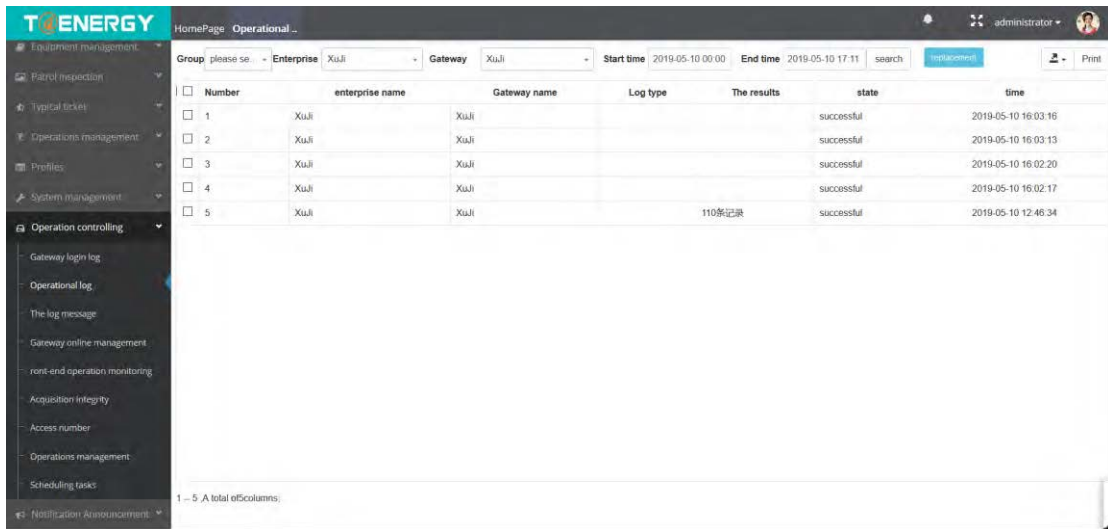
Click "Gateway login log", the login log of the gateways are as shown below:



Enterprise, gateway, start time and end time can be selected and the log can be download.

## 18.2 Operational log

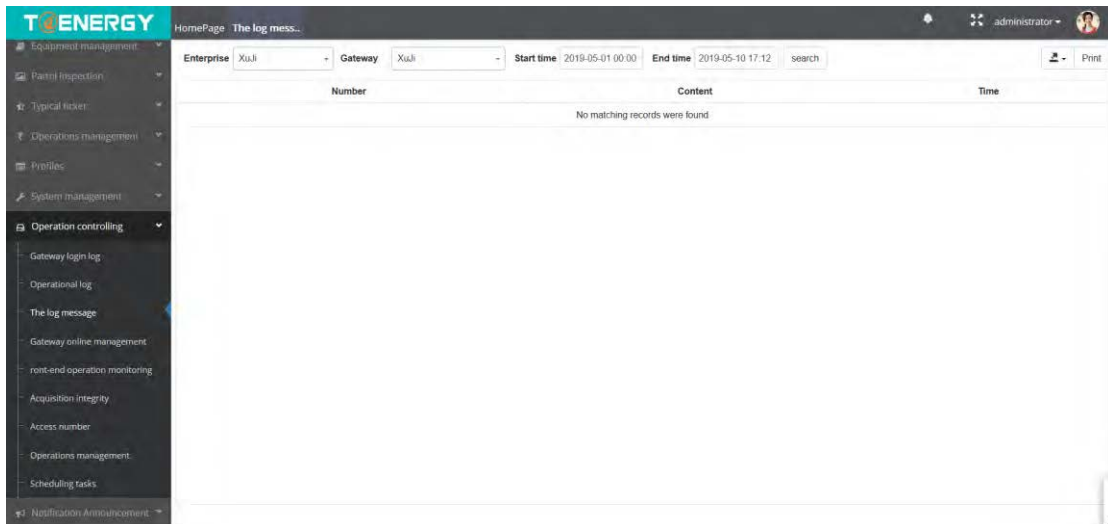
Click ‘Operational log’, to display the operation and maintenance log of the concentrator, as shown below.



Enterprise, gateway, start time and end time can all be selected. Click “Search” to display the operation and maintenance records. The time period can be changed and the log can be download.

## 18.3 Message log

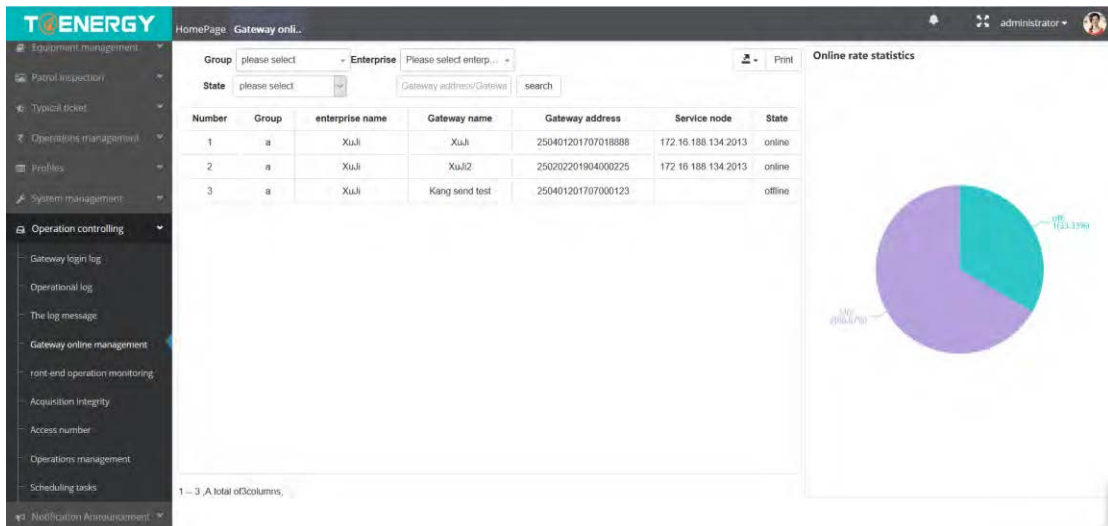
Click "Message Log" to display the log of the recent operation and maintenance message, as shown below:



Time period can be selected as you need.

## 18.4 Gateway online management

Click "Gateway online management", the following interface is displayed:



It can display all registered gateways, select the specific online gateway, click "downline", the specific gateway will be offline. Users can also download the registered gateway information in excel table. On the right is the online rate statistics for the gateways.

Users with authority can select the enterprise, click "Search" to display the gateway under the enterprise, and the online rate of the enterprise concentrator is displayed on the right.

## 18.5 Acquisition integrity

Click "Acquisition Integrity" to display the following interface:

Number	Group	enterprise name	Gateway name	Acquisition number	Collection number	Complete rate	Operation
1	A	XuJi	Kang send test	83	87	95.40%	defaulted
2	A	XuJi	XuJi2	27	69	39.13%	defaulted
3	A	XuJi	XuJi	27	69	39.13%	defaulted

Statistics on the gateway data collection of an enterprise, comparing the corresponding number of acquisitions and the actual collection number. If there is missing data, click “Supplementary mining” to supplement the data.

## 18.6 Accessed number

Click "Access number", then enter the following interface:

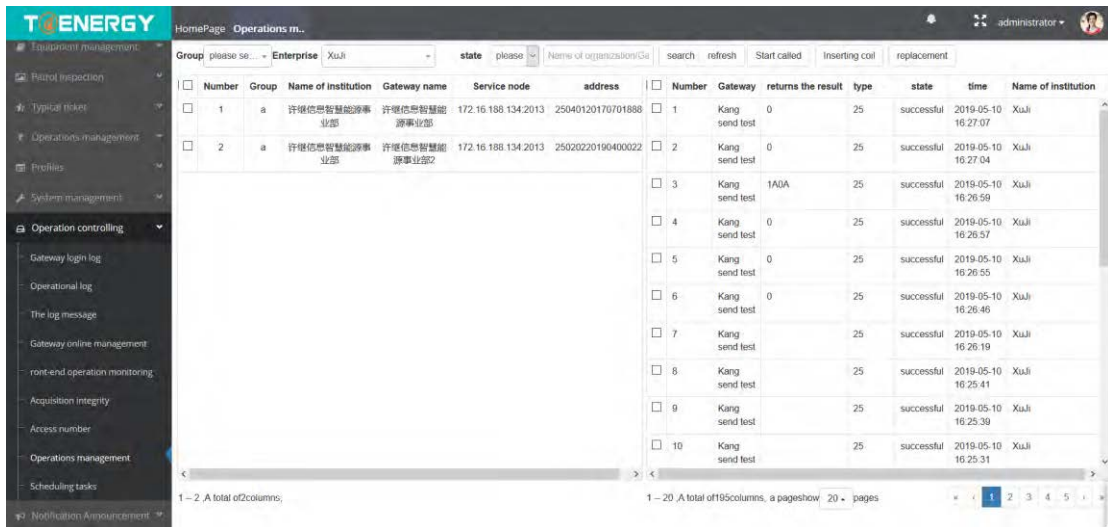
Number	enterprise name	Number of Gateways	Number of monitoring points	Number of variables
1	Compere	0	0	0
2	XuJi	3	24	1062

This interface can display the number of registered gateways in all enterprises, the number of monitoring points, the number of variables.

## 18.7 Operations management

Click “Operations management”, the following interface will be displayed:

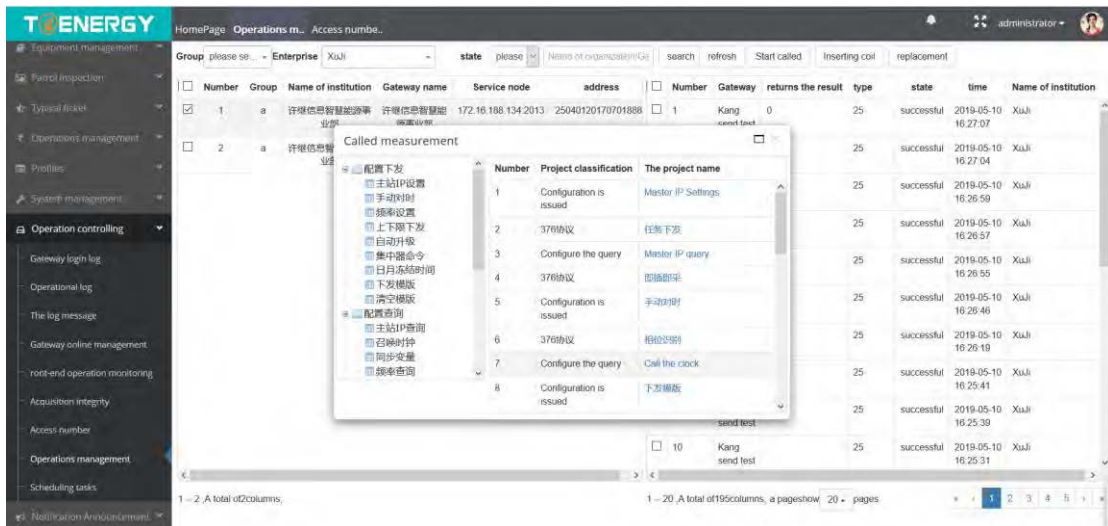




Users with authority can select the enterprise, and click “search” to display the online gateway of the enterprise. Select the online gateway and click “Interrogation”, the following interface appears.

1. “Configuration Search” includes: main station IP search, summoning clock (gateway), synchronization variable, frequency query, gateway version.
2. “History” includes: event record, minute record, daily frozen history data, and monthly frozen history data.
3. In the “Configuration Delivery”: the IP configuration of the primary station, the manual frequency setting, the delivery template, the empty template, the upper and lower limit delivery, the automatic upgrade, the gateway command, and the daily and monthly frozen time.

## Interrogation



## 18.8 Scheduling task

Click on "Schedule Task" to display the following screen:

Number	Name of scheduling	state	describe	The thread of execution	The ownership classification	Scheduling rules	Task start time	Next run time	Last run time	Scheduling imple
1	Analysis and statistics of load characteristics (day)	NORMAL			defaultGroup	0 0 0 * * ? *	2019-05-05 15:03	2019-05-11 00:00	2019-05-10 10:07	com cloud ee socket distri
2	Analysis and statistics of load characteristics (monthly)	NORMAL			defaultGroup	0 59 23 L * ? *	2019-05-05 14:55	2019-05-31 23:59		com cloud ee socket distri
3	Enterprise expense calculation (day)	PAUSED			defaultGroup	0 0 0 * * ? *	2019-05-05 15:02	2019-05-06 00:00		com cloud ee socket distrib
4	Enterprise expense calculation (monthly)	NORMAL			defaultGroup	0 59 23 L * ? *	2019-05-05 14:55	2019-05-31 23:59		com cloud ee socket distrib
5	Frozen data (month)	NORMAL			defaultGroup	0 59 23 L * ? *	2019-05-10 12:03	2019-05-31 23:59		com cloud ee socket distrib
6	冻结数据(日)	NORMAL			defaultGroup	0 0 0 * * ? *	2019-05-10 12:50	2019-05-11 00:00		com cloud ee socket distrib
7	周季冻结	NORMAL			defaultGroup	0 0 2 * 1 * ? *	2019-04-30 19:23	2019-05-11 02:00	2019-05-10 10:08	com cloud ee socket distri
8	电压电流谐波计算(日)	NORMAL			defaultGroup	0 0 0 * * ? *	2019-05-05 15:02	2019-05-11 00:00	2019-05-10 10:08	com cloud ee socket distri

Current task is to monitor data collection subsystem machine, you can also add, modify, delete, start, pause, abort, view the log for a task.

# 19 Announcement

There are Publication management and announcement.

## 19.1 Publication management

Click 'Publication management', to show the following interface:

Number	Title	Post status	Operation	Release time
No matching records were found				

Users with authority can also add, modify, delete, withdraw, public, view announcement, etc.

# 19.2 Announcement

