User Manual-CSI CloudPro APP (Full Version)

V1.0.0

1. Product Introduction

1.1 About CSI CloudPro

Target users of CSI CloudPro are businessmen who provide various services in the life cycle of plants and generates business value based on these services.

(e.g. The manufacturer provides physical hardware sales and after-sales services. The installer provides services such as project development, project construction and O&M of plants.)

We provide different business segments for different service contents to meet the complex business scenarios and requirements of businesses.

1.2 Definition

User

Users are who invest PV power plants. They wish to have full-day surveillance of the running status of PV power plants, which aims to guarantee the safety of their own properties.

Business

Businesses are manufactures, distributors, and who provide services like power plant developing&constructing, construction supervision, O&M and etc,. There are two types of businesses. One is enterprise type. Another is individual type. Both of them can provide the same services,

but their authentication methods are different.

Subject

Every user and business are independent subjects in the system.

Business Sector

System has two independent sectors. One is O&M sector. Another is device sector. Both of two sectors are called "Business Sector".

Group/Member

A group is a collection of members inside a company. Usually, a group is a department or a sub-company. System supports up to five levels of group.

A member is an employee inside a company.

Role

Role: To control data permissions and function permissions of members.

Data Permission&Function Permission

Data Permission: To control what kind of data and how much data a member(subject) can access to. (Data refers to plant data.)
Function Permission: To control what kind of function a member(subject) can have.

External Relationship

External relationship refers to the relationship between subjects. A subject can authorize data permissions and function permissions to other subjects.

External Role

External Role: To control function permissions of other subjects to the authorized objects.

Founder

Founders are who create the objects. Only the founder has the right to decide which subjects have access to the objects he creates. Subject

who receives an object can decide whether he wants to have access to the object and can authorize the object to internal members.

Authorization

Action that the object is viewed to an independent subject and internal member is called "Authorization".

2. How to Obtain a CSI CloudPro Account

Step 1 Register

Scan QR code below to download and install CSI CloudPro App. (Both android and IOS systems are supported.)

- (1) Android: Scan QR code and open with browser, download APK and install.
- (2) IOS: Scan QR code, open with browser, jump to App Store and download.



3. O&M Sector

3.1 Homepage

Check the data of all plants that current account has access to, including plant running status from multiple dimensions. Moreover, it simplifies

Preset

Communication Status

-Check "Total Plants", "No Devices", "All Devices Offline", "Partial Devices Offline", "Normal" on this page. Click "More" to go to "Plant List".

- -Total Plants: No. of total plants that current account has access to.
 - -No Devices: No. of plants with no devices.
 - -All Devices Offline: No. of plants with all devices offline.
- -Partial Devices Offline: No. of plants with partial devices offline.

(Partial: At least one device is offline in the plant. But it does not refer to all devices.)

-Normal: No. of plants with all devices online.

Alert Status

- -Check "Alerting", "No Alerts" on this page. Click "More" to go to "Plant List".
- -Alerting: No. of plants with alerts (Received within 10 mins of the plant updated time).
 - -No Alerts: No. of plants with no alerts.

Peak Hour Ranking

- -Check date and ranking list on this page.
- -Click the list to check "Plant Details".
- -Only data up to the previous day is used.
- -Limit to 10.

My Watchlist

-Click "More" to go to "Plant List". You can check power plants you followed here.

- -Click the list to check "Plant Details".
- -Limit to 10.

Production Overview

- -Check "Total Power", "Installed Capacity", "Daily Production", "Monthly Production", "Yearly Production", "Total Production" on this page.
- -Total Power: Total production power of all plants current account has access to.
- -Installed Capacity: Total installed capacity of all plants current account has access to.
- -Daily Production: Sum of daily production of all plants current account has access to.
- -Monthly Production: Sum of monthly production of all plants current account has access to.
- -Yearly Production: Sum of yearly production of all plants current account has access to.
- -Total Production: Sum of total production of all plants current account has access to.

Production History

- -Check date, time, production bar chart, statistical data on this page.
 - -Summation of all plants data.

3.2 Plant

Check all plants current account has access to, which is designed by listing. You can create plants, search plants here.

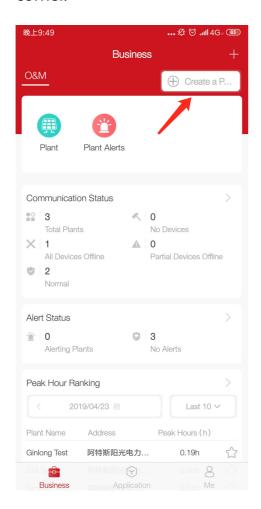
3.2.1 Create a Plant

Create a plant at APP.

APP(CSI CloudPro) :

-Go to "Business" page, click "+" in the upper-right corner and select "Create a Plant".

-Go to "Business" - "O&M" - "Plant", click "+" in the upper-right corner.





Process-Create a Plant

Step 1: Enter plant information.

Step 2: More operations.

•Enter Plant Information:

-Include basic information, system information, revenue information and owner information.

-Please notice:

1. Region: please select the administrative area where the plant is, which makes weather information more accurate.

- 2. Time Zone: Default time zone will be determined based on the country/region where the plant is located. Please confirm if default time zone is accurate.
- 3. Grid Type: Different preset content will be displayed on *"Plant Details"* page depending on the grid type. See 3.2.3 (Plant Details) for more detailed information.
- -Click "Save" if you have filled out all these information. And you can go to "More" page.

More Operations

-Include "Add a new gateway/logger"

3.2.2 Plant List

Preset

Loc/Name

- -Display plant location and plant name.
- -Click to jump to "Plant Details".

Communication Status

-Include "Total Plants", "No Devices", "All Devices Offline", "Partial Devices Offline", "Normal".

Alert Status

-Include "Alerting", "No Alerts".

Production Power

-Display production power. (Unit: kW)

Daily Production

-Display daily production. (Unit: kWh)

Installed Capacity

-Display plant installed capacity information.

3.2.3 Plant Details

3.2.3.1 Homepage

Check plant status, statistical data, weather information and etc, here.

Overview

- -System will display device type, No. of all devices, No. of offline devices and No. of alerts here(Received within 10 mins).
- -No. of alerts is fixed. Other items will be determined by device type. (Supported device type: Inverter, meter, module, weather station and logger)

Production History

- -Production history is filtered by day, month, year and total.
- -Check production power, local temperature, weather and irradiance from daily chart.
- -Check daily production, daily peak hours, local temperature, weather, daily irradiance and daily PR from monthly chart.
- -Check monthly production, monthly peak hours, monthly irradiance and monthly PR from yearly chart.
- -Check yearly production, yearly peak hours, yearly irradiance and yearly PR from total chart.

Real-time Production

- -Production Power: Latest production power(Absolute Value).
- -Daily Peak Hours=Daily Production/Installed Capacity
- -Daily Production: Latest daily production.
- -Monthly Production: Sum of daily production.
- -Yearly Production: Sum of daily production.
- -Total Production: Latest total production. Support accumulated production through device uploaded.

•Environmental Benefits & Revenue

-Display environmental benefits & revenue corresponding to accumulated production.

•Real-time Consumption

- -Consumption Power: Latest consumption power(Absolute Value).
 - -Daily Consumption: Latest daily consumption.
 - -Monthly Consumption: Sum of daily consumption.
 - -Yearly Consumption: Sum of daily consumption.
- -Total Consumption: Latest total consumption. Support accumulated production through device uploaded.
- -Only "Self-consumption" plant can check real-time consumption.

Real-time Flow Chart

- -Display the connection of production, grid and consumption.
- -Only "Self-consumption" plant can check real-time flow chart.

•Real-time Grid

- -Grid Status: "Static", "Grid-connected", "Electricity Purchasing", "Unknown".
 - -Grid Power: Latest grid power(Absolute Value).
 - -Daily Grid Feed-in: Latest daily grid feed-in.
 - -Monthly Grid Feed-in: Sum of daily grid feed-in.
 - -Yearly Grid Feed-in: Sum of daily grid feed-in.
- -Total Grid Feed-in: Latest total grid feed-in. Support accumulated production through device uploaded.
 - -Daily Electricity Purchasing: Sum of daily electricity purchasing.
- -Monthly Electricity Purchasing: Sum of daily electricity purchasing.
- -Yearly Electricity Purchasing: Sum of daily electricity purchasing.

-Total Electricity Purchasing: Latest total electricity purchasing. Support accumulated production through device uploaded.

Self-used History

- -Self-used history is filtered by day, month, year and total.
- -Check production power, consumption power, grid-connected power, electricity purchasing power and time-sharing self-used consumption from daily chart.
- -Check daily production, daily consumption, daily grid feed-in, daily electricity purchasing and daily time-sharing self-used consumption from monthly chart.
- -Check monthly production, monthly consumption, monthly grid feed-in, monthly electricity purchasing and monthly time-sharing self-used consumption from yearly chart.
- -Check yearly production, yearly consumption, yearly grid feedin, yearly electricity purchasing and yearly time-sharing self-used consumption from total chart.

Weather

-Display the weather condition where the plant is. Include daily weather and weather in three days.

3.2.3.2 Sub-system/Device

Check all sub-system/device information here. Users can add a device.

Device

-Check all devices here. Support: inverter, meter, module, weather station and logger.

3.2.3.3 Alert

Filter Options

•Filtered by Updated Time

- -In 10 mins: Alerts updated in 10 mins.
- -Today: Today's alerts.
- -In 3 Days: Alerts updated in 3 days. (Today's alerts included.)
- -In 7 Days: Alerts updated in 7 days. (Today's alerts included.)
- -This Month: Select a natural month. You can check alerts in target month.

3.3 Alert

3.3.1 Alert List

Filter Options

•Filtered by Updated Time

- -In 10 mins: Alerts updated in 10 mins.
- -Today: Today's alerts.
- -In 3 Days: Alerts updated in 3 days. (Today's alerts included.)
- -In 7 Days: Alerts updated in 7 days. (Today's alerts included.)
- -This Month: Select a natural month. You can check alerts in target month.