



USER **GUIDE**

S-miles Cloud Monitoring Platform

— By Hoy miles

Hoy miles Power Electronics Inc.

No.18 Kangjing Road, Hangzhou 310015, P.R.China

+86-571-28056101

www.hoy miles.com

Last update time 2021.1.28
Contact: Service@hoy miles.com



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1. About

1.1 Introduction

Hoymiles' Monitoring platform is a smart photovoltaic operation monitoring and management system developed by Hoymiles, especially for installers of distributed photovoltaic power plants.

At present, the system mainly includes the Installer and the owner version. The corresponding web and mobile application versions are designed accordingly.

This platform provides an easy-to-use procedure for accounts under monitoring and a visual physical layout guide for the installation of Microinverters, which helps installers configuring monitored accounts rapidly, and provides installers power generation data on both plant- and module-levels, as well as detailed alarm information about the power plant regarding commissioning & diagnostics

1.2 System Composition

In order to use the Monitoring system, you must install DTU and Microinverter. On one hand, DTU communicates with the Microinverter in the system through wireless communication, collects the operating data, Microinverter status, and is also responsible for transmitting control commands to the Microinverter, adjusting the operating status of the system. On the other hand, DTU connects to Internet through a router, sends all Microinverter operating data and statuses to Hoymiles Monitoring server. DTU is also responsible for the control commands and data which are sent to the Microinverter into the system to achieve the remote control of the whole system.

1.3 Installer & End-user APP/Platform



S-mile end-user



S-mile installer



1. App download

- Scan the QR code to download.

For Installer,



For End-user,



- Search“Hoymiles” on Google Display or APP Store

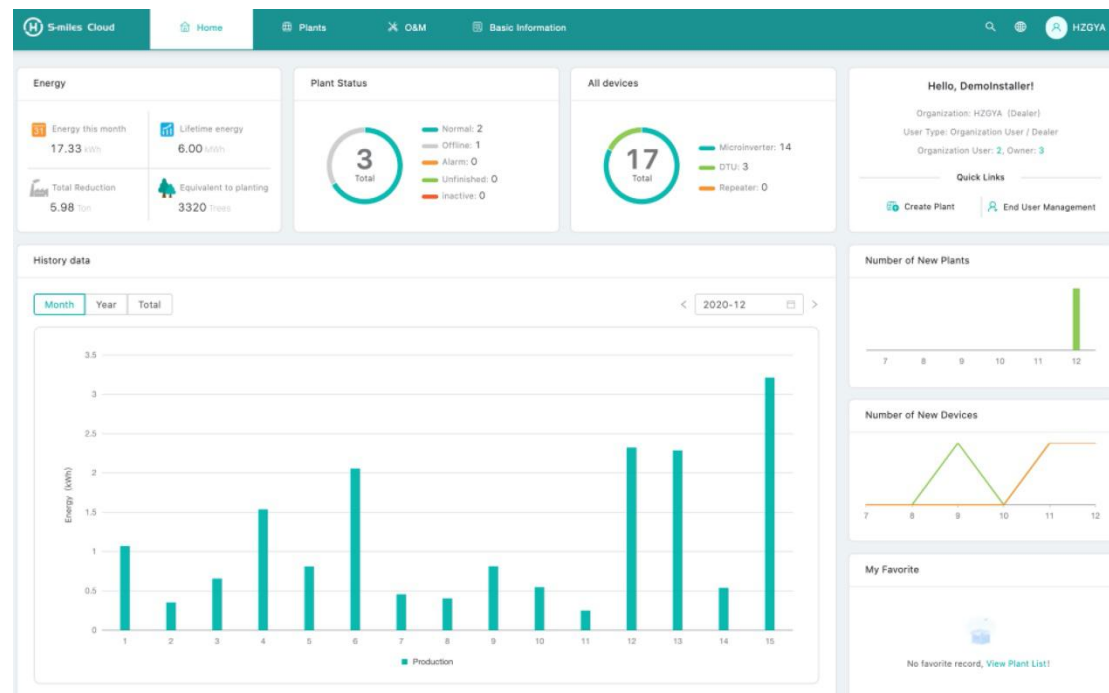
2. Webpage

Web: <https://world.hoymiles.com>



2. Overview

2.1 Home page



The homepage of the power station displays the number of power stations owned by the logged-in user, the power generation of the current month, the cumulative power generation of the power station, and the total number of alarm devices. The basic function bar at the top can modify the login account.

1. Top basic function bar

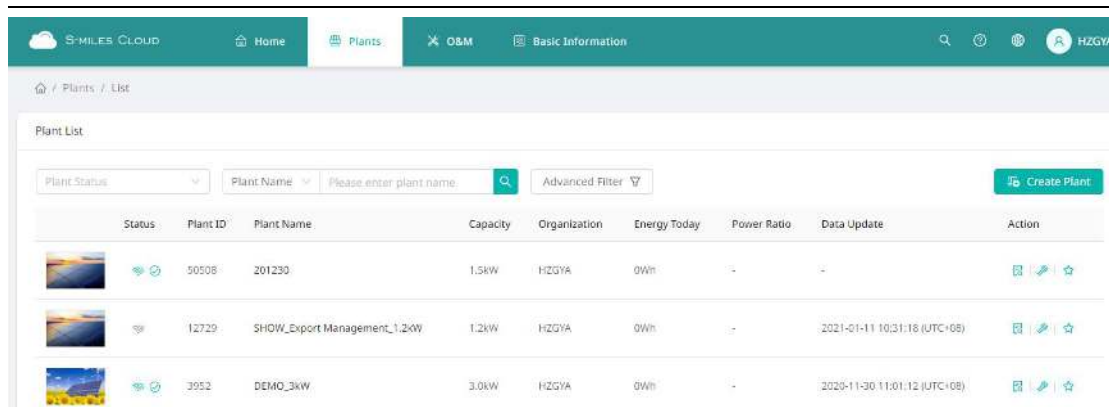
(1) Search: Input the power station name or device serial number, the platform search for the corresponding target. 

(2) Language: Click the language button to switch to the corresponding language. 

(3) Username: Click the username, "My account" and "Logout" will be displayed. Users can click to modify their personal information or log out of the system according to the needs. 

2.2 Plants

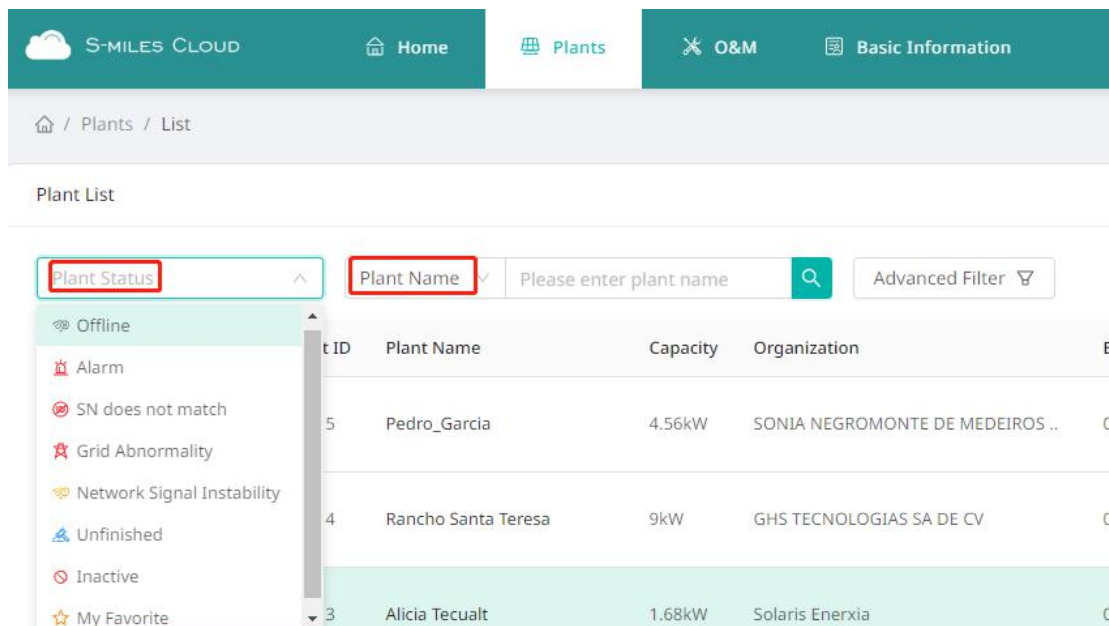
Power station plants: Display all the power stations of the login user, also you can view or operate the power station, click "Star🌟" to mark the power station.



Status	Plant ID	Plant Name	Capacity	Organization	Energy Today	Power Ratio	Data Update	Action
	50508	201230	1.5kW	HZGYA	0Wh	-	-	
	12729	SHOW_Export Management_1.2kW	1.2kW	HZGYA	0Wh	-	2021-01-11 10:31:18 (UTC+08)	
	3952	DEMO_3kW	3.0kW	HZGYA	0Wh	-	2020-11-30 11:01:12 (UTC+08)	

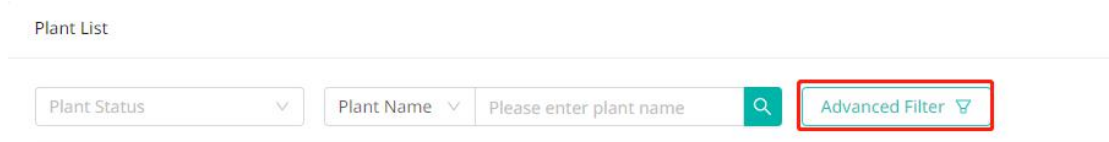
2.2.1 Filter

You can find the power stations according to the plant status, plant name or plant id,etc.



Plant ID	Plant Name	Capacity	Organization	Energy Today
5	Pedro_Garcia	4.56kW	SONIA NEGROMONTE DE MEDEIROS ..	0
4	Rancho Santa Teresa	9kW	GHS TECNOLOGIAS SA DE CV	0
3	Alicia Tecualt	1.68kW	Solaris Enerxia	0

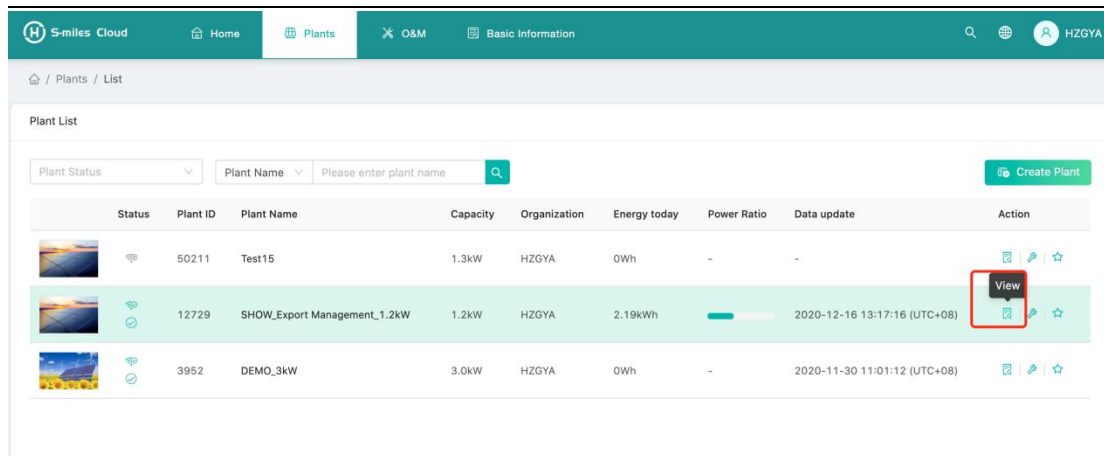
An advanced filter will be added to find plants later.



Plant Status	Plant Name	Capacity	Organization	Energy Today

2.2.2 View

Click the "View" button to enter the power station details page (there are general power station and zero export power station details page).



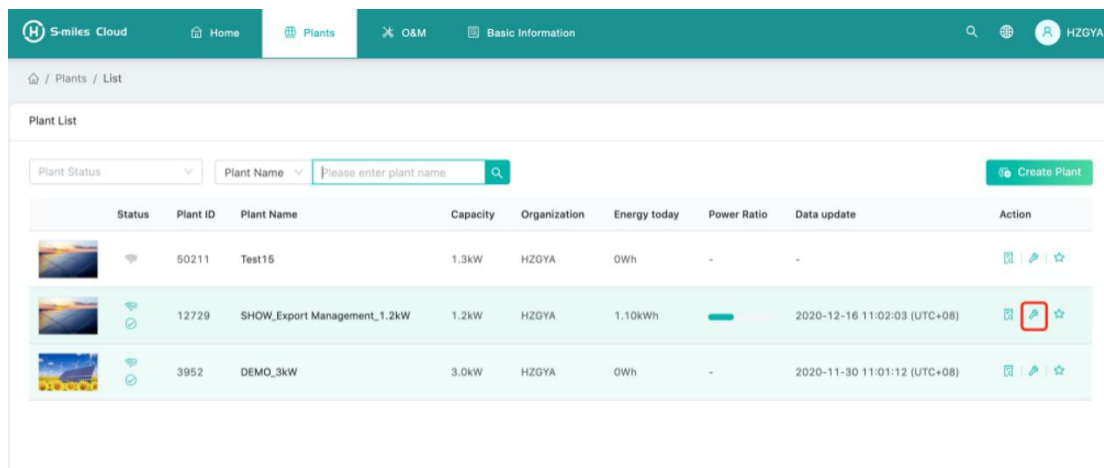
Plant List

Plant Status: [v] Plant Name: [v] Please enter plant name [Q] [Create Plant]

Status	Plant ID	Plant Name	Capacity	Organization	Energy today	Power Ratio	Data update	Action
	50211	Test15	1.3kW	HZGYA	0Wh	-	-	
	12729	SHOW_Export Management_1.2kW	1.2kW	HZGYA	2.19kWh		2020-12-16 13:17:16 (UTC+08)	
	3952	DEMO_3kW	3.0kW	HZGYA	0Wh	-	2020-11-30 11:01:12 (UTC+08)	

2.2.3 Edit

Click the "Edit" button to edit the power station.

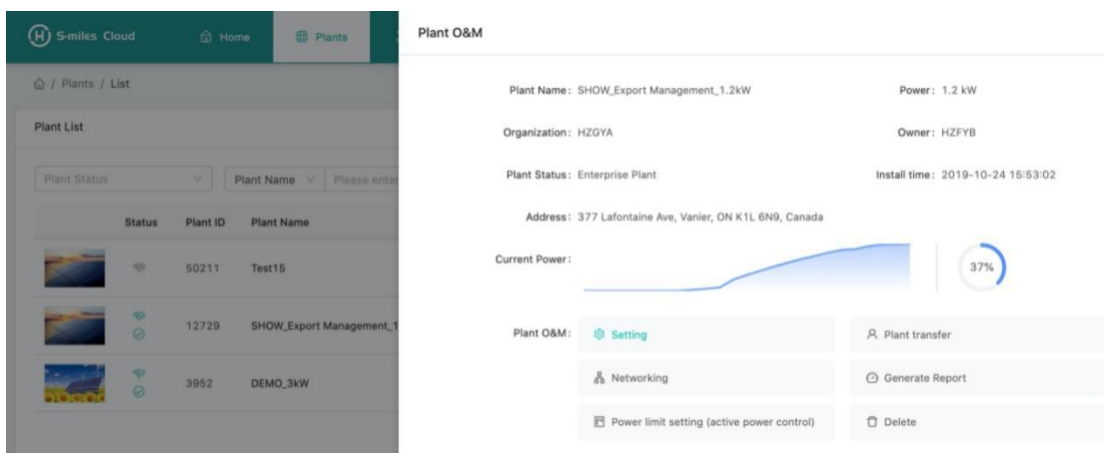


Plant List

Plant Status: [v] Plant Name: [v] Please enter plant name [Q] [Create Plant]

Status	Plant ID	Plant Name	Capacity	Organization	Energy today	Power Ratio	Data update	Action
	50211	Test15	1.3kW	HZGYA	0Wh	-	-	
	12729	SHOW_Export Management_1.2kW	1.2kW	HZGYA	1.10kWh		2020-12-16 11:02:03 (UTC+08)	
	3952	DEMO_3kW	3.0kW	HZGYA	0Wh	-	2020-11-30 11:01:12 (UTC+08)	

You would see below page,



Plant O&M

Plant Name: SHOW_Export Management_1.2kW Power: 1.2 kW

Organization: HZGYA Owner: HZFYB

Plant Status: Enterprise Plant Install time: 2019-10-24 16:53:02

Address: 377 Lafontaine Ave, Vanier, ON K1L 6N9, Canada

Current Power:

Plant O&M: Setting Plant transfer

Networking Generate Report

Power limit setting (active power control) Delete

- Transfer power station (Plant transfer): Click the "Transfer Power Station" button to pop up the organization selection box, and choose to transfer the



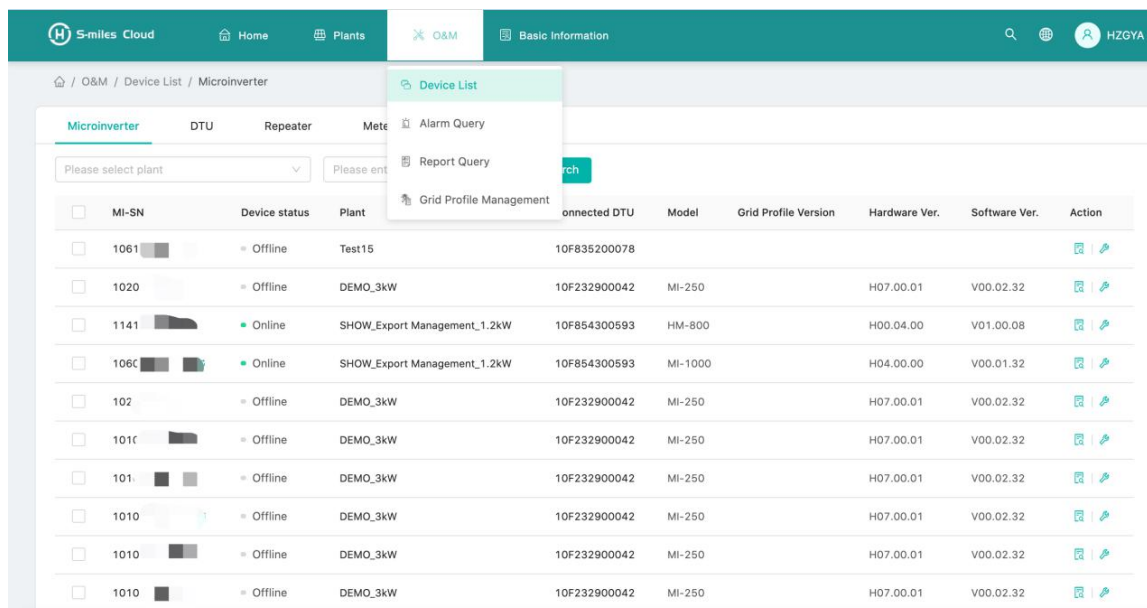
power station to a certain organization

- Networking: Click the "Networking", DTU would give the network connecting command to microinverter.
- Generate report: Generate report of the power station data.
- Delete: Click the "Delete" button to delete the power station (cannot be deleted if there are devices under the power station)
- Power limit setting: For DTU-Pro users only. According to your needs to set the value limit with generation power.

2.3 O&M (Operation and Maintenance)

2.3.1 Device List

In this page, you will be able to manage the microinverters, DTU, repeater and meter devices which bound to the stations under your login account.

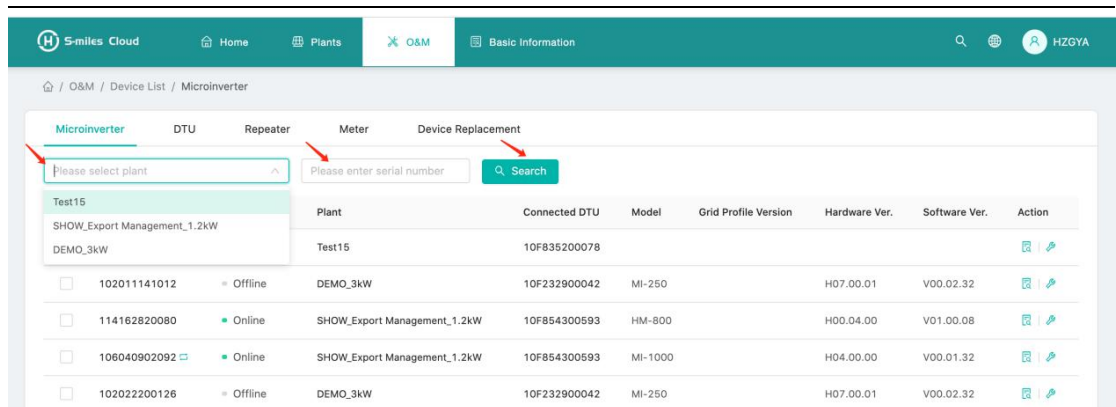


MI-SN	Device status	Plant	connected DTU	Model	Grid Profile Version	Hardware Ver.	Software Ver.	Action
1061	Offline	Test15	10F835200078					 
1020	Offline	DEMO_3kW	10F232900042	MI-250		H07.00.01	V00.02.32	 
1141	Online	SHOW_Export Management_1.2kW	10F854300593	HM-800		H00.04.00	V01.00.08	 
1060	Online	SHOW_Export Management_1.2kW	10F854300593	MI-1000		H04.00.00	V00.01.32	 
102	Offline	DEMO_3kW	10F232900042	MI-250		H07.00.01	V00.02.32	 
1010	Offline	DEMO_3kW	10F232900042	MI-250		H07.00.01	V00.02.32	 
1010	Offline	DEMO_3kW	10F232900042	MI-250		H07.00.01	V00.02.32	 
1010	Offline	DEMO_3kW	10F232900042	MI-250		H07.00.01	V00.02.32	 
1010	Offline	DEMO_3kW	10F232900042	MI-250		H07.00.01	V00.02.32	 

➤ Microinverter management

1. Query: Select the power station or input microinverter serial number, click the "Search" button to quickly filter out the qualified microinverter.

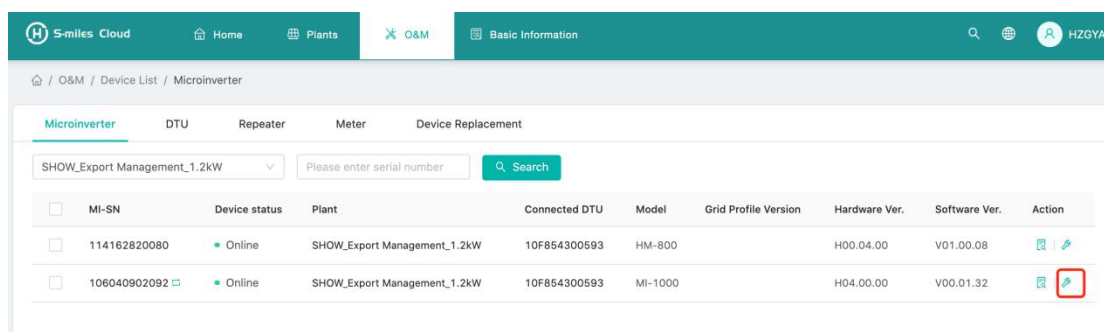




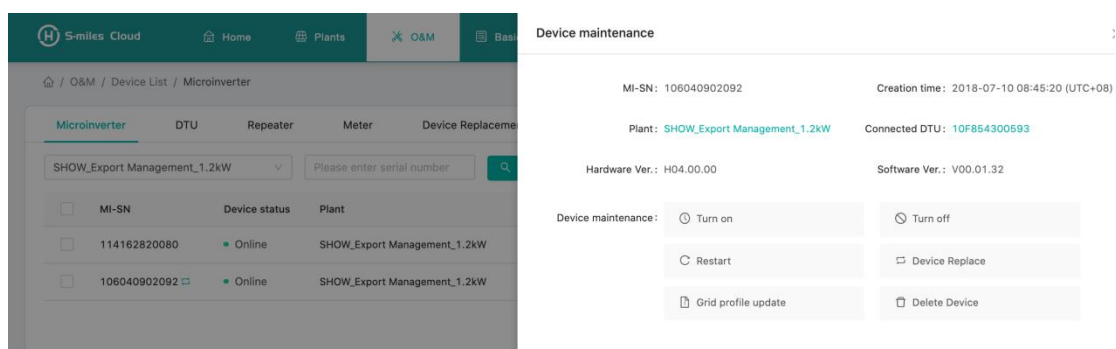
Plant	Connected DTU	Model	Grid Profile Version	Hardware Ver.	Software Ver.	Action	
Test15	10F835200078					 	
102011141012	Offline	DEMO_3kW	10F232900042	MI-250	H07.00.01	V00.02.32	 
114162820080	Online	SHOW_Export Management_1.2kW	10F854300593	HM-800	H00.04.00	V01.00.08	 
106040902092	Online	SHOW_Export Management_1.2kW	10F854300593	MI-1000	H04.00.00	V00.01.32	 
102022200126	Offline	DEMO_3kW	10F232900042	MI-250	H07.00.01	V00.02.32	 

2. View: click the "view" button to enter the microinverter details page, which displays the basic information, real-time parameters, equipment status and other information.

3. Equipment maintenance: Displays the basic information of the microinverter. And remote-control function like turn off, turn on or restart the microinverter, replace or delete device, grid profile update etc., as shown below.



MI-SN	Device status	Plant	Connected DTU	Model	Grid Profile Version	Hardware Ver.	Software Ver.	Action
114162820080	Online	SHOW_Export Management_1.2kW	10F854300593	HM-800		H00.04.00	V01.00.08	 
106040902092	Online	SHOW_Export Management_1.2kW	10F854300593	MI-1000		H04.00.00	V00.01.32	 



Device maintenance

MI-SN: 106040902092 Creation time: 2018-07-10 08:45:20 (UTC+08)

Plant: SHOW_Export Management_1.2kW Connected DTU: 10F854300593

Hardware Ver.: H04.00.00 Software Ver.: V00.01.32

Device maintenance:

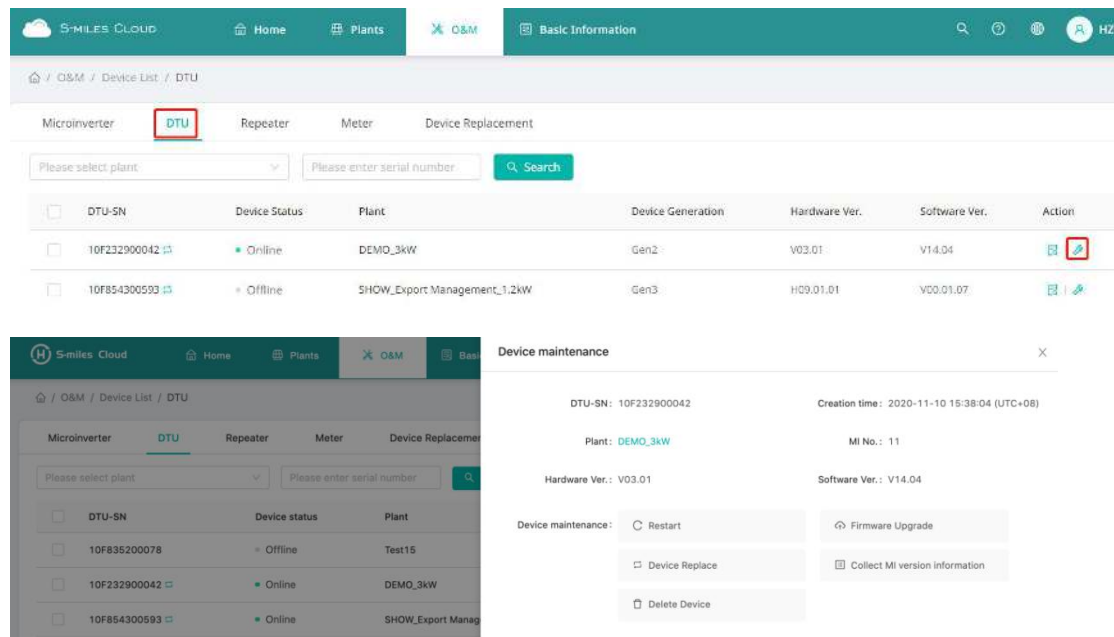
- Turn on
- Turn off
- Restart
- Device Replace
- Grid profile update
- Delete Device

➤ For DTU management

Select DTU and click the "Maintenance" button, you will be able to restart, replace, upgrade firmware, collect the software information's, delete DTU (DTU



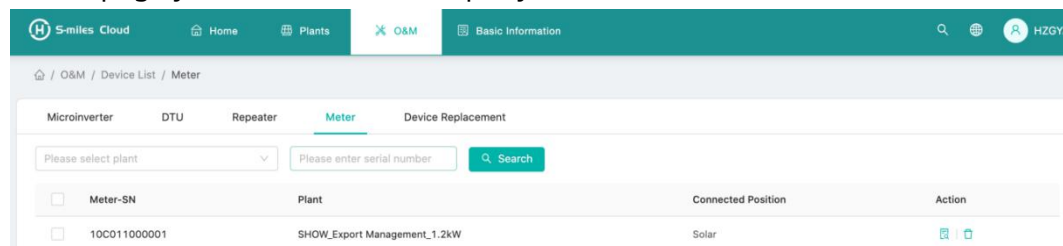
cannot be deleted if there is MI binding, you need to delete the MI first), as shown below.



The screenshot shows the S-miles Cloud O&M interface. The top navigation bar includes Home, Plants, O&M, and Basic Information. The O&M section is active, and the 'Device List / DTU' page is displayed. The 'DTU' tab is selected, showing a table of DTU devices. The table has columns for DTU-SN, Device Status, Plant, Device Generation, Hardware Ver., Software Ver., and Action. Two devices are listed: 10F232900042 (Online, DEMO_3kW) and 10F854300593 (Offline, SHOW_Export Management_1.2kW). The 'Action' column for the first device shows a delete icon (trash can) which is highlighted with a red box. Below the table, a 'Device maintenance' modal is open for the selected device (10F232900042). It displays details like Creation time, Plant, MI No., Hardware Ver., and Software Ver. The 'Device maintenance' section includes buttons for Restart, Firmware Upgrade, Device Replace, Collect MI version information, and Delete Device.

➤ Meter management

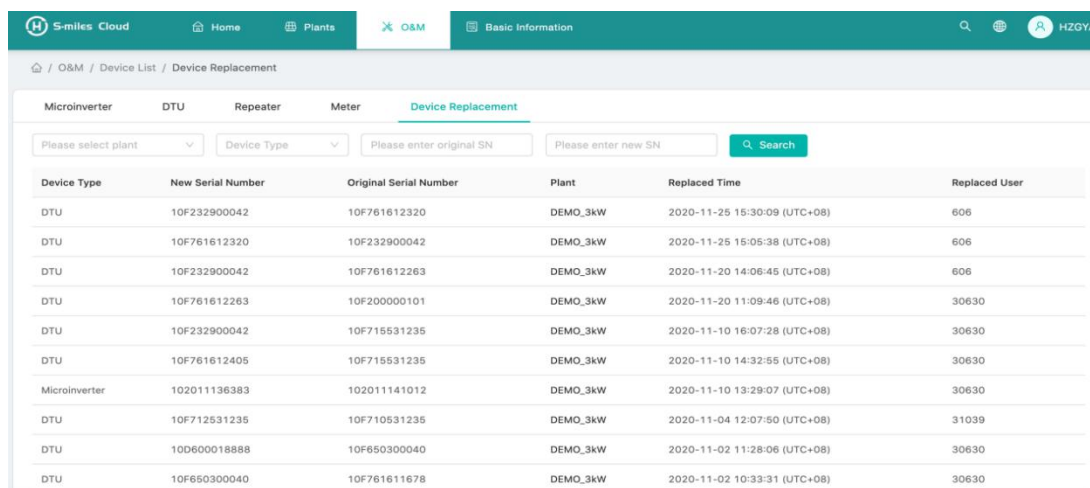
At this page you would be able to query and delete the meter device.



The screenshot shows the S-miles Cloud O&M interface. The top navigation bar includes Home, Plants, O&M, and Basic Information. The O&M section is active, and the 'Device List / Meter' page is displayed. The 'Meter' tab is selected, showing a table of Meter devices. The table has columns for Meter-SN, Plant, Connected Position, and Action. One device is listed: 10C011000001 (SHOW_Export Management_1.2kW, Solar). The 'Action' column shows a delete icon (trash can).

➤ Device Replacement

At this page you would be able to see the device replacement record.

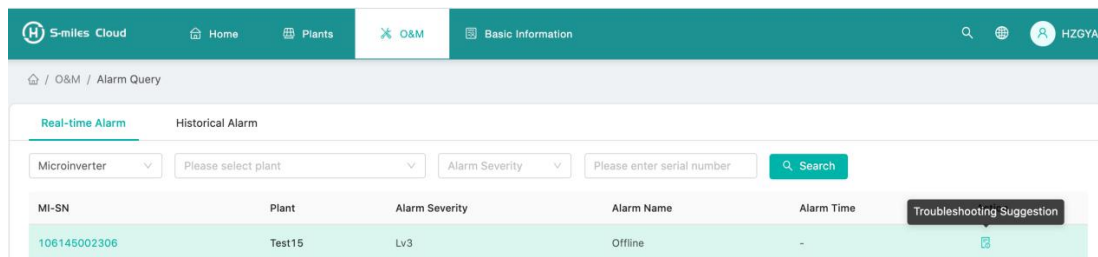


The screenshot shows the S-miles Cloud O&M interface. The top navigation bar includes Home, Plants, O&M, and Basic Information. The O&M section is active, and the 'Device List / Device Replacement' page is displayed. The 'Device Replacement' tab is selected, showing a table of device replacement records. The table has columns for Device Type, New Serial Number, Original Serial Number, Plant, Replaced Time, and Replaced User. The table contains 10 rows of replacement records for DTU and Microinverter devices.

Device Type	New Serial Number	Original Serial Number	Plant	Replaced Time	Replaced User
DTU	10F232900042	10F761612320	DEMO_3kW	2020-11-25 15:30:09 (UTC+08)	606
DTU	10F761612320	10F232900042	DEMO_3kW	2020-11-25 15:05:38 (UTC+08)	606
DTU	10F232900042	10F761612263	DEMO_3kW	2020-11-20 14:06:45 (UTC+08)	606
DTU	10F761612263	10F200000101	DEMO_3kW	2020-11-20 11:09:46 (UTC+08)	30630
DTU	10F232900042	10F715531235	DEMO_3kW	2020-11-10 16:07:28 (UTC+08)	30630
DTU	10F761612405	10F715531235	DEMO_3kW	2020-11-10 14:32:55 (UTC+08)	30630
Microinverter	102011136383	102011141012	DEMO_3kW	2020-11-10 13:29:07 (UTC+08)	30630
DTU	10F712531235	10F710531235	DEMO_3kW	2020-11-04 12:07:50 (UTC+08)	31039
DTU	10D600018888	10F650300040	DEMO_3kW	2020-11-02 11:28:06 (UTC+08)	30630
DTU	10F650300040	10F761611678	DEMO_3kW	2020-11-02 10:33:31 (UTC+08)	30630

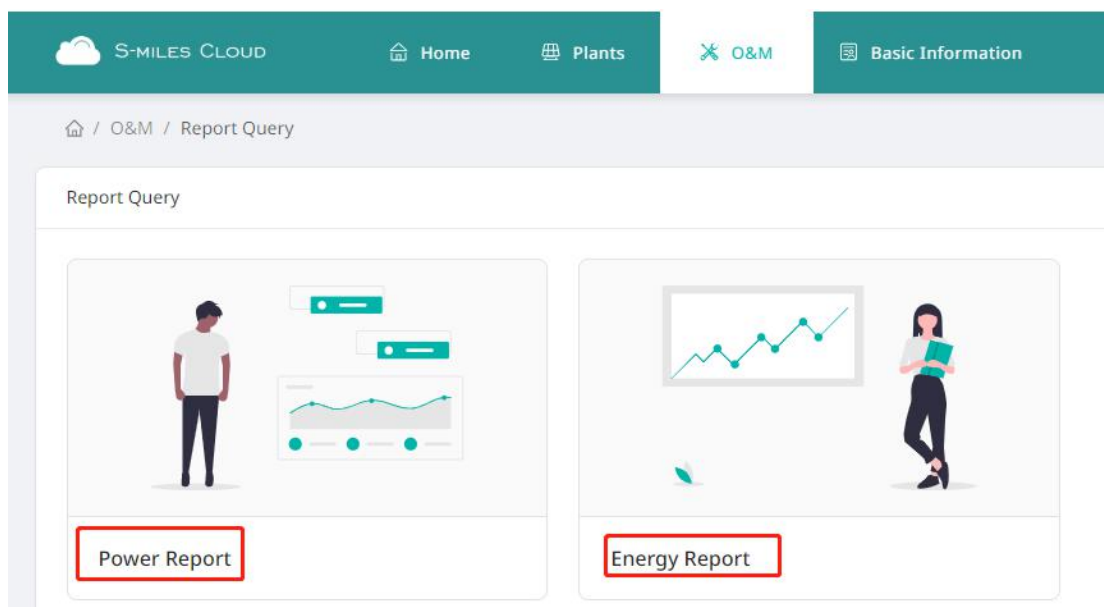
2.3.2 Alarm query

- **Real-time alarm:** The alarm query page can view all the alarms under the login account. Click "Real-time alarm" to view all the current alarms, including the alarm device, the power station, the alarm level, the name of the alarm. Click "troubleshooting suggested", the system will show the suggested ways to deal with the alarm.
- **Historical alarms:** Click "Historical Alarms" to view the information of historical alarms.



2.3.4 Report Query

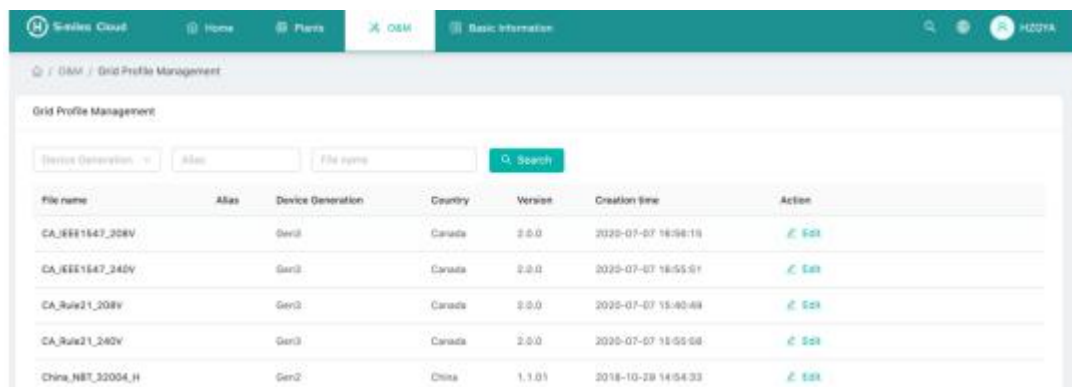
At this page you would be able to download the power and energy report of the whole system.



2.3.5 Grid profile management

At this page you would be able to edit the grid profile.





File name	Alias	Device Generation	Country	Version	Creation time	Action
CA_KEE1647_208V		Gen2	Canada	2.0.0	2020-07-07 16:56:19	Edit
CA_KEE1647_240V		Gen2	Canada	2.0.0	2020-07-07 16:55:51	Edit
CA_Rule21_208V		Gen2	Canada	2.0.0	2020-07-07 15:40:49	Edit
CA_Rule21_240V		Gen2	Canada	2.0.0	2020-07-07 15:55:58	Edit
China_NBT_32004_H		Gen2	China	1.1.0.1	2018-10-29 14:54:33	Edit

2.4 Basic information

2.4.1 Organization management

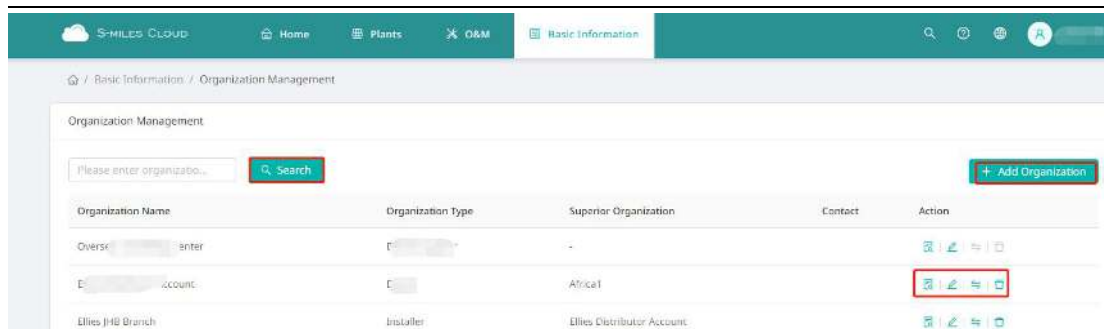
The organization list displays all the organizations under the login account. According to the type of organization, you can filter out eligible organizations, add new organizations, edit existing organizations, view and delete the organization users.

There are **four types** of organizations: device supplier, dealer, installer, and regular. Regular organization type have two user defined role, sub installer and normal installer. Sub installer only can create, edit plant and issue networking command.

User-defined Role: ☒ Sub-Installer ☐ Normal Installer

- **Definition:** Organization means a group name, like distributor, installer company.
- **Edit:** Click the "Edit" button to edit organization information.
- **Add organization:** Click the "Add Organization" button to add sub organization.
- **View :** Click the "View" button to jump to the organization information page, where you can view organization name, superior organization , Org.User Quantity, Plant Quantity and etc.
- **Delete:** Click the "Delete" button, and confirm whether to the deletion (if the organization has a power station, it cannot be deleted)
- **Search:** Click the "Search" button according to the selected institution type to quickly filter out the institutions that meet the conditions.
- **Organization transfer :** Click the "Organization transfer" button to jump to the transfer page, Choose the new superior organization name.

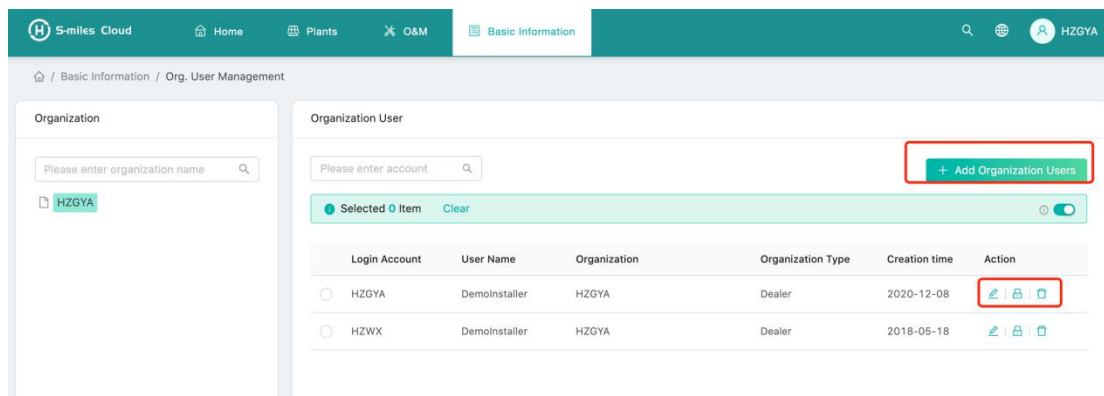




2.4.2 Org. User Management

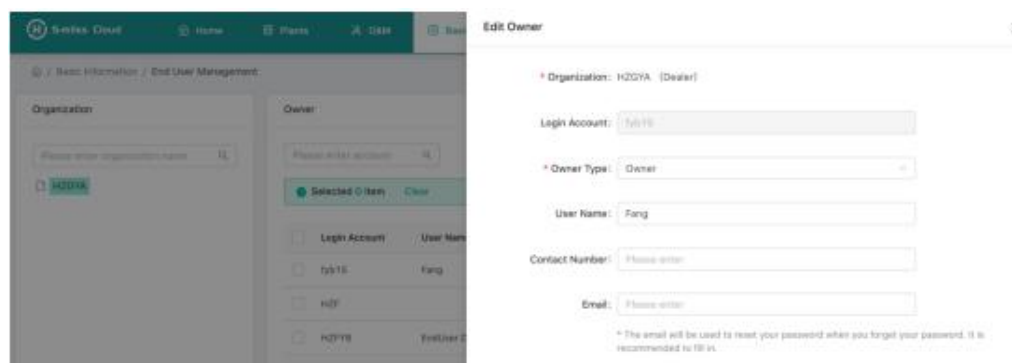
Definition: login account for installers or cooperative partner.

This page displays the current users and subordinate users. And you can add, edit, view users' authority, reset passwords, delete, and set as Org. administrators for users.

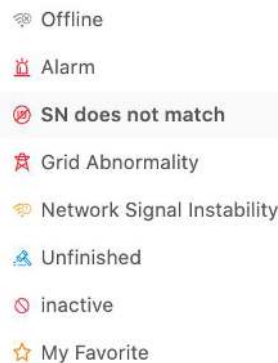


2.4.3 End User Management

At this page will be able to edit the end user's information and reset the password.



3. Alarm Definition



- **Offline:** DTU is not connecting to internet. It would need to make sure DTU is install and network configure is done.
- **Alarm :** The whole station status alarm. If there are more than half of the microinverter in the power station have grid-related alarms, and the entire power station reports abnormal grid alarms. To know what the alarm is, you can refer to the station home page, click to the alarm icon you will find the solution.
- **SN does not match:** Microinverter Serial Number is not correct, or SN exist in the other station. Please check if everything is correct.
- **Grid Abnormality:** Grid over voltage/grid lower voltage/grid voltage fluctuation etc.
- **Network signal instability:** DTU detected the home network is not stable.
- **Unfinished:** Incomplete power station.
- **Inactive:** the station has not uploaded any data for more than half a year. Once the DTU is connected to internet again, the station will be back to normal.
- **My favorite:** the stations you mark as favorite.



Appendix - Quick Installation Guide (Web)

-For Installer

STEP 1 - Login

Note:

1. Apply an account

For distributors - please contact Hoymiles team (service@hoymiles.com) for the account creation.

For installers - please contact your direct distributor for the account creation.

For end-users - please contact your installer for the account creation.

2. System requirements

(1) Browser: Google Chrome is recommended.

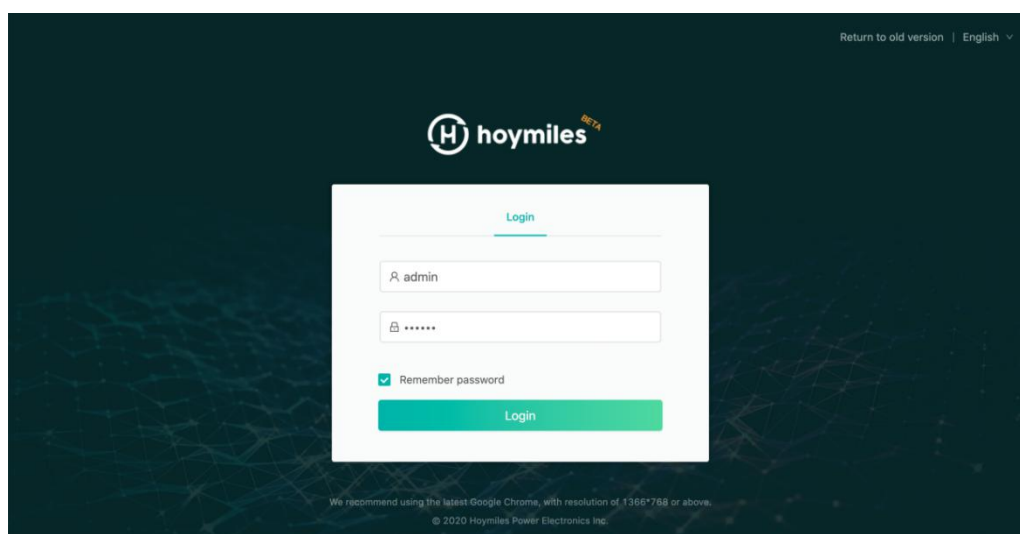
(2) Screen resolution: 1920*1080 recommended, 1366*768 supported.

3. System Login address: <https://world.hoymiles.com>

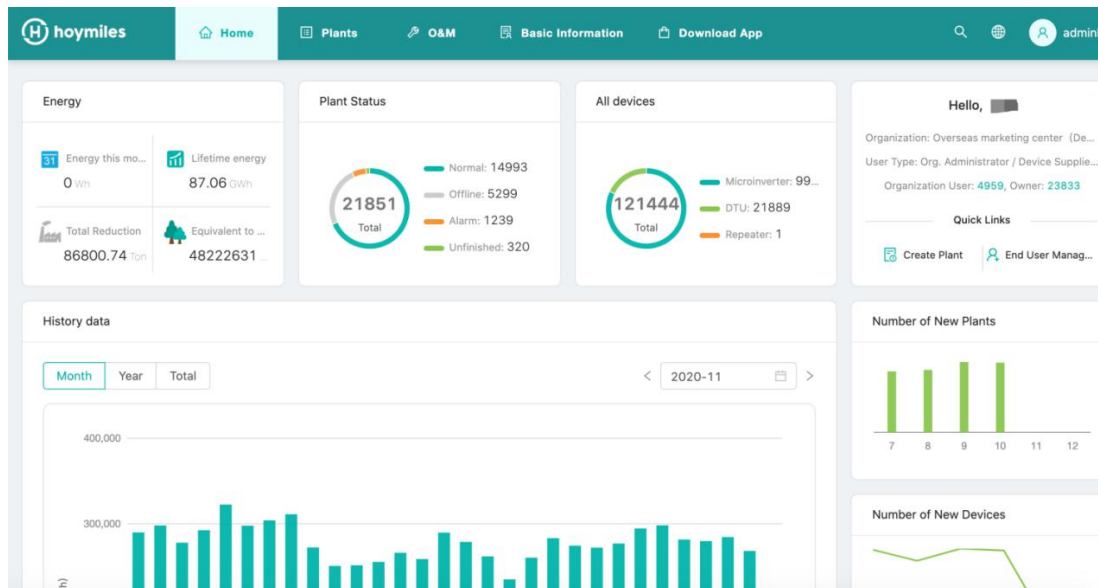
4. Login steps

(1) Open the browser, enter the system address in the address bar.

(2) Enter the correct username and password in the input box, as shown below.

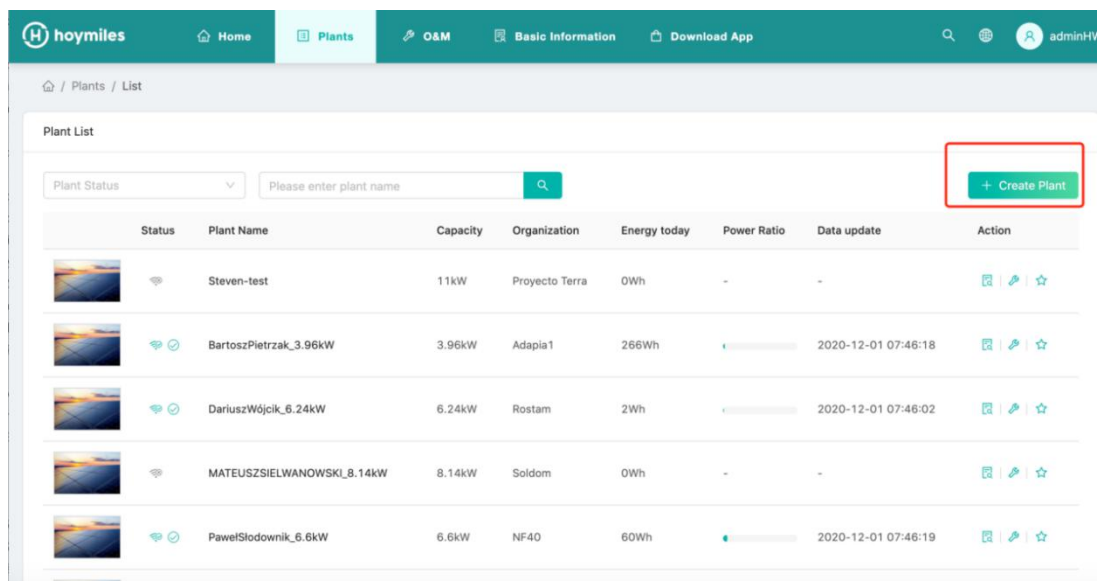


(3) Click login, the system will automatically jump to the system homepage.



STEP 2 - Create a plant

Click 'Plants' - 'Create plant' as shown below,



The screenshot shows the 'Plants' page in the Hoymiles system. The top navigation bar includes 'Home', 'Plants', 'O&M', 'Basic Information', and 'Download App'. The main content area is titled 'Plant List' and includes a search bar and a '+ Create Plant' button (highlighted with a red box). Below the search bar is a table listing plants:

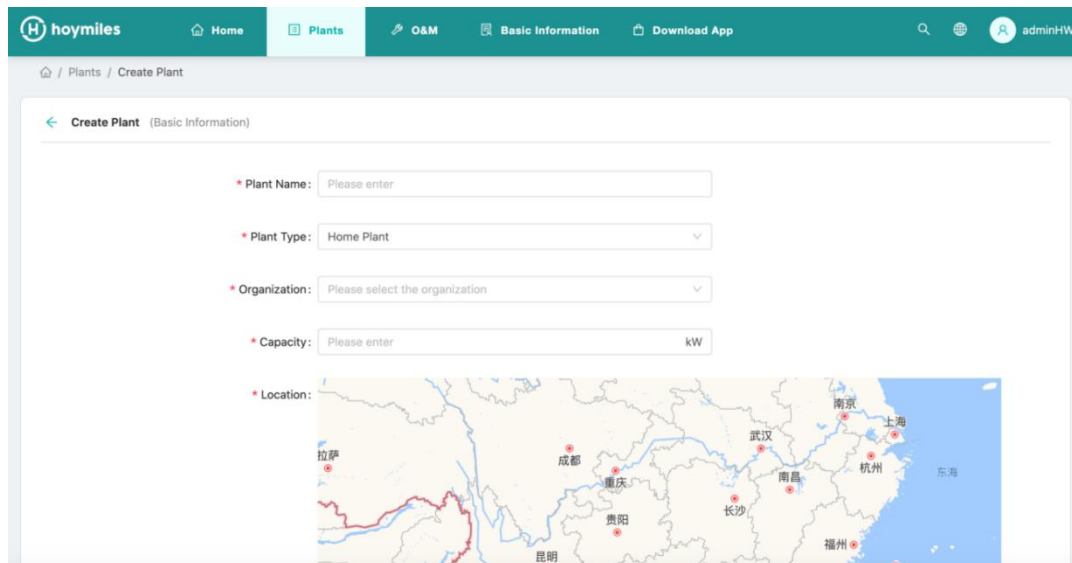
Status	Plant Name	Capacity	Organization	Energy today	Power Ratio	Data update	Action
	Steven-test	11kW	Proyecto Terra	0Wh	-	-	
	BartoszPietrzak_3.96kW	3.96kW	Adapia1	266Wh		2020-12-01 07:46:18	
	DariuszWojcik_6.24kW	6.24kW	Rostam	2Wh		2020-12-01 07:46:02	
	MATEUSZSIELWANOWSKI_8.14kW	8.14kW	Soldom	0Wh	-	-	
	PawelSlodownik_6.6kW	6.6kW	NF40	60Wh		2020-12-01 07:46:19	

Please fill up below information then click 'Next'.

Note:

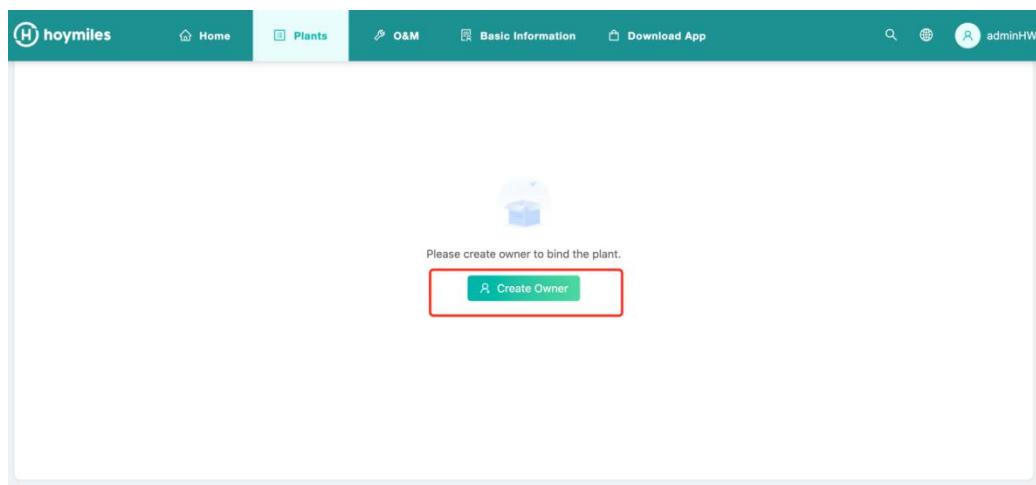
- **Plant name:** the name of the station.
- **Plant Type:** home plant/enterprise plant/large professional plant, please select the plant type according to the scenario.
- **Organization:** Select your installer or distributor.

- **Capacity:** Capacity of the whole system.
- **Location:** Drag the map icon to select your approximate area, then fill in your address manually.



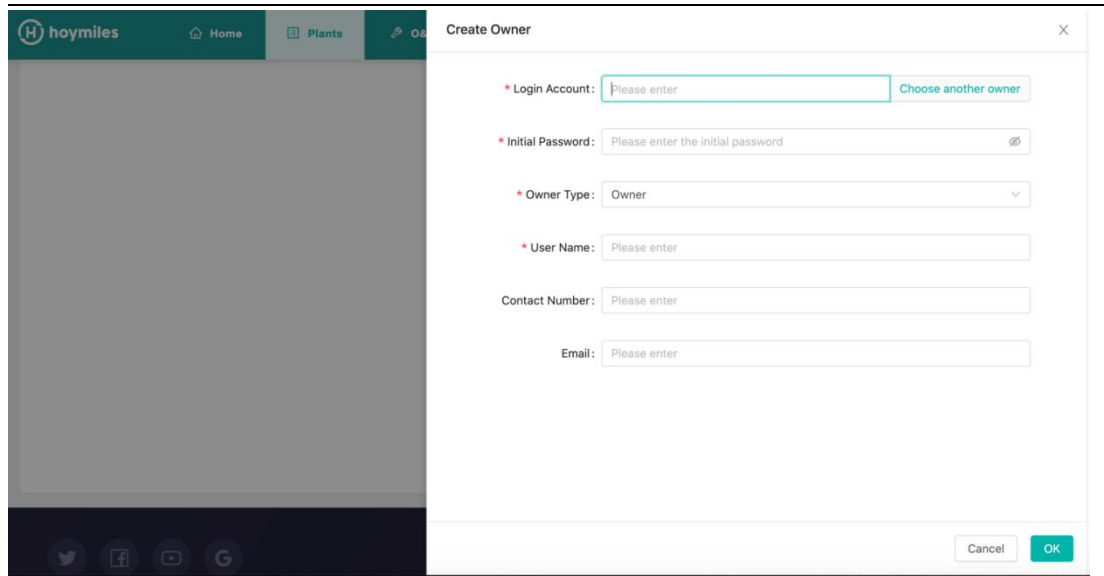
STEP 3 - Create an owner account

1. Click 'Create Owner'.



2. Fill up owner's information as below
 - Click "Choose another owner" to select the exist owner.
Or enter the information to create a new owner account and enter the corresponding information.
 - Click 'OK' to finish the Login account creation.





Create Owner

* Login Account: [Choose another owner](#)

* Initial Password: [Show/Hide](#)

* Owner Type:

* User Name:

Contact Number:

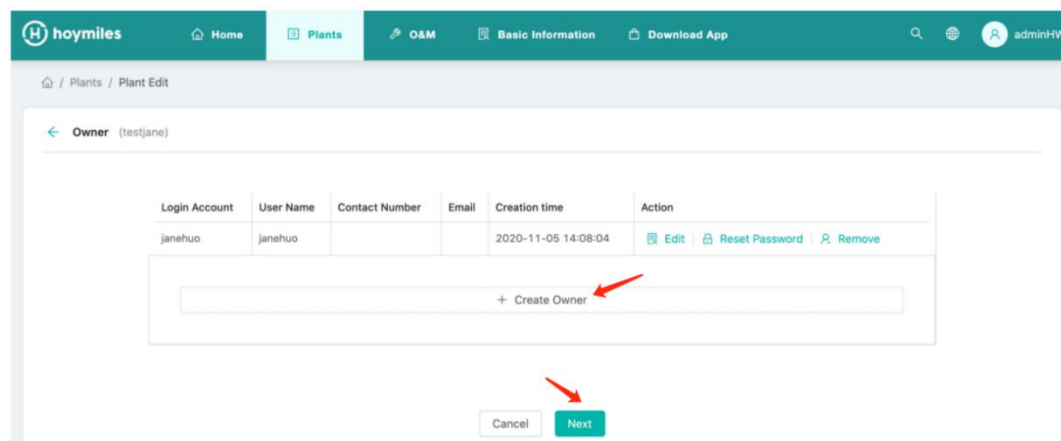
Email:

[Cancel](#) [OK](#)

STEP 4 - Add device & Layout

1. Add device

In this page, you can click 'Create owner' to create more owner accounts which can also login to this plant, or just click 'Next' to go to next page.



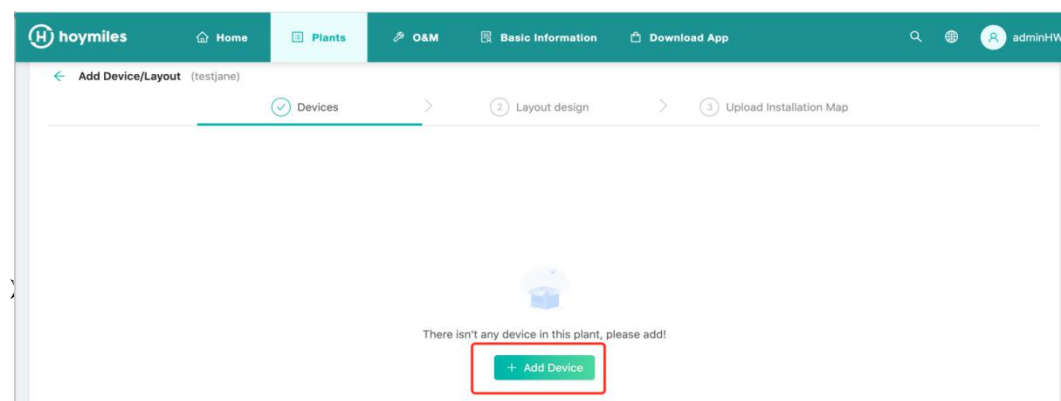
Owner (testjane)

Login Account	User Name	Contact Number	Email	Creation time	Action
janehuo	janehuo			2020-11-05 14:08:04	Edit Reset Password Remove

[+ Create Owner](#)

[Cancel](#) [Next](#)

➤ Click 'Add device',



Add Device/Layout (testjane)

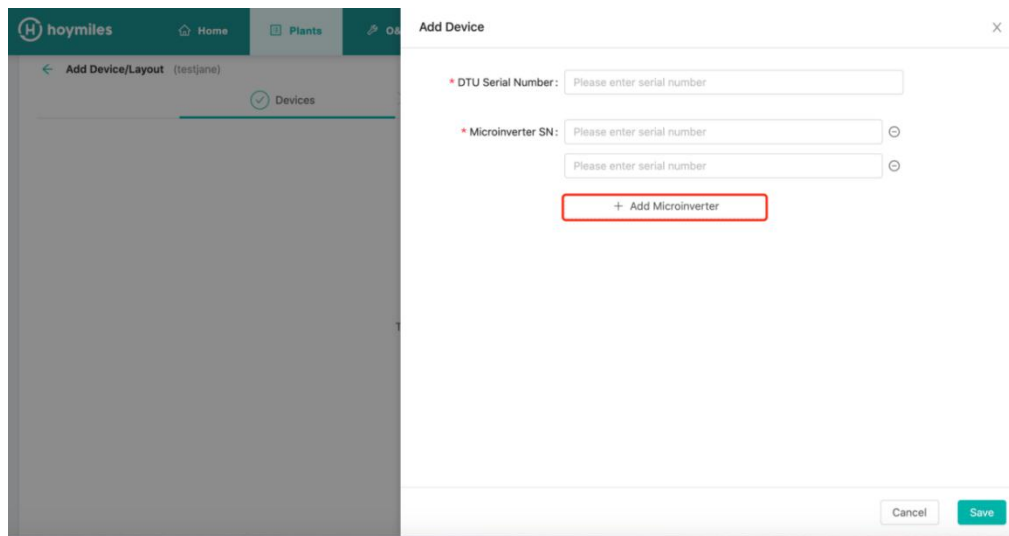
1 ☒ Devices > 2 Layout design > 3 Upload Installation Map

There isn't any device in this plant, please add!

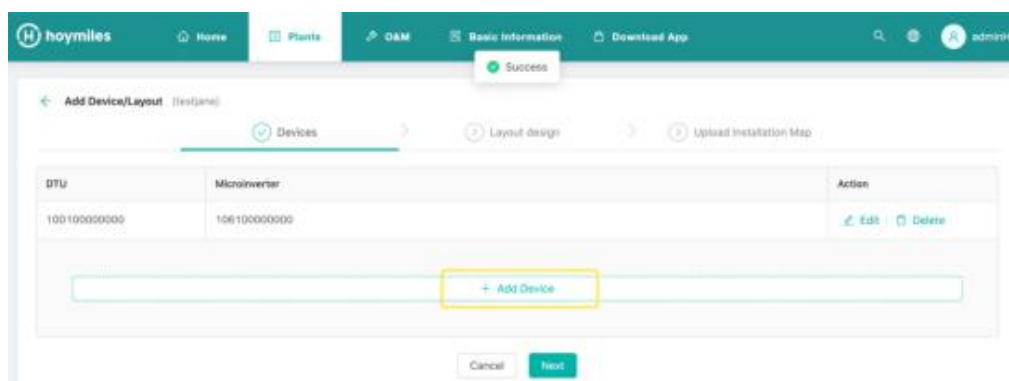
[+ Add Device](#)



- To add more Microinverters, please click 'Add Microinverter' and input the serial number.

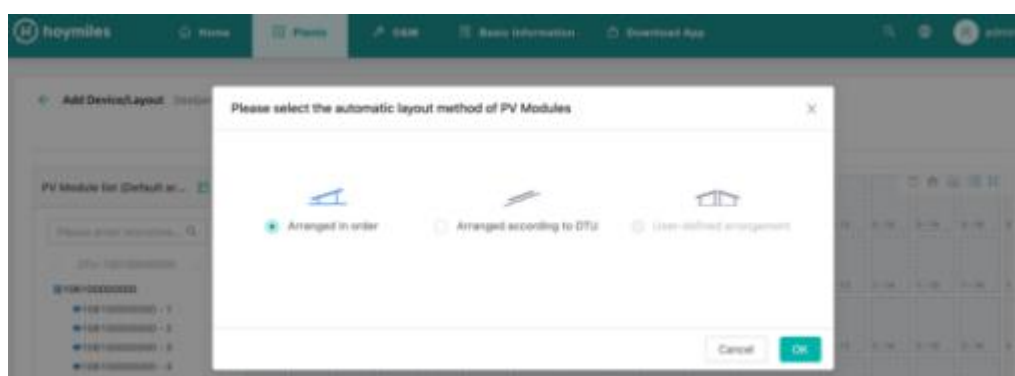


- To add more DTU, please click 'Add Device', after filling up all the information please click '**Next**'.

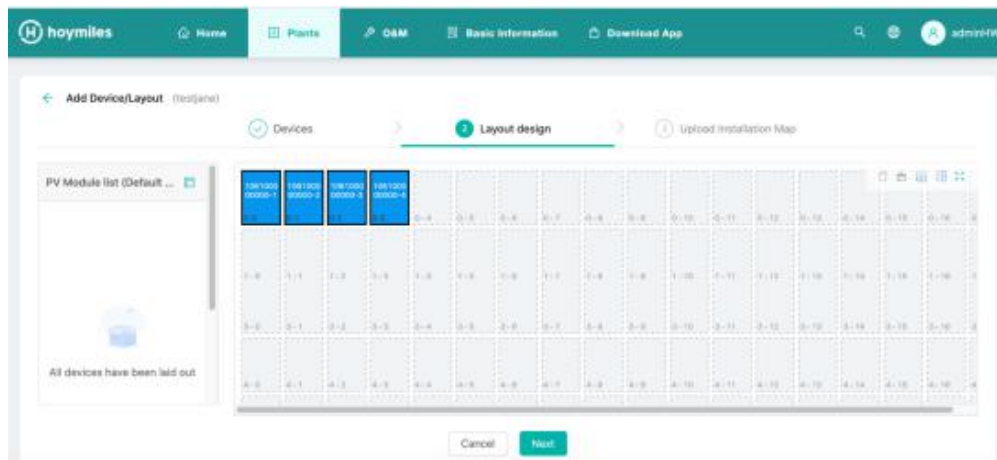


2. Layout design

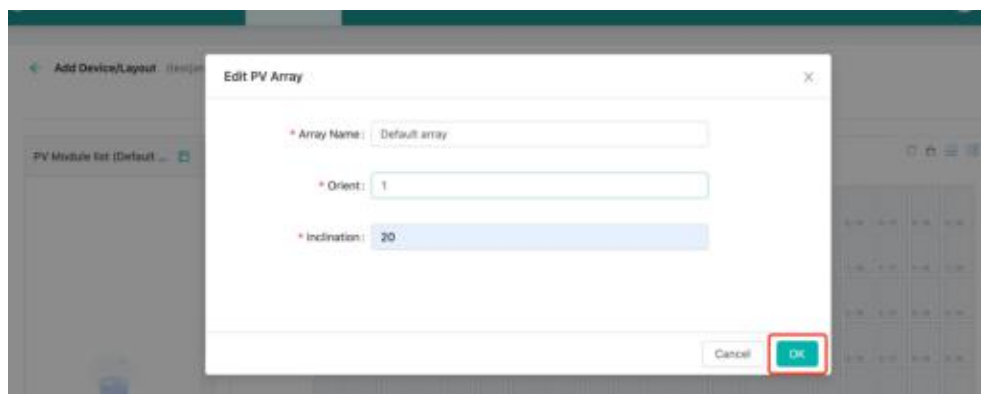
Select the Module layout or drag the panels to the map as you want, then click 'OK'.



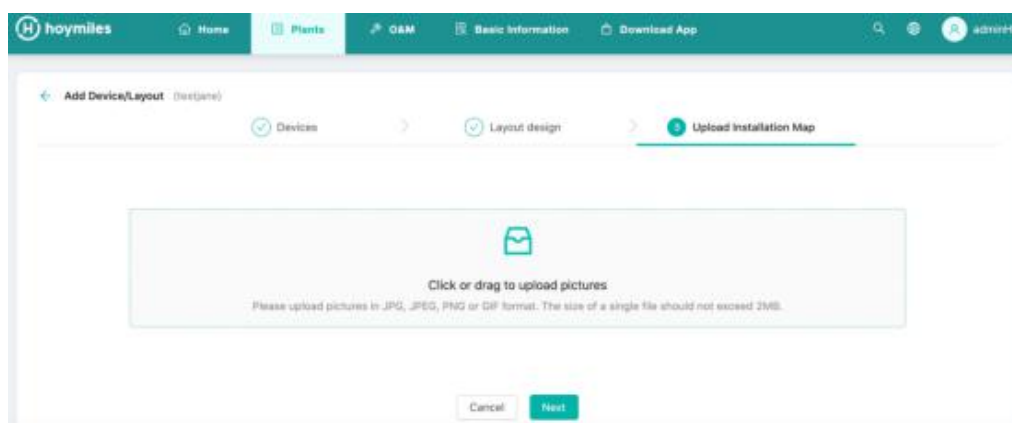
After click 'OK', you will see below page, if there is nothing you want to change then please click 'Next'.



3. Fill up the PV array information then click 'OK'.



4. Upload the picture of the station or click 'Next'.



5. Fill in the subsidy information, click 'Save'.

Then wait for few second for the networking command issued, the whole setting will be completed.

[Home](#) / [Plants](#) / [Information](#)

[←](#) **Setting** (id不匹配2)

Plant Name: id不匹配2

Currency Unit:

Unit Electricity Price:

Network select: ☐ Networking Automatically



Success

Congratulations, the operation is successful, the networking command has been issued, please wait!