GOODWE



User Manual

SEMS Portal

V1.0-2022-01-17

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Notice

The information in this user manual is subject to change due to product updates or other reasons. This manual cannot replace the product labels or the safety precautions unless otherwise specified. All descriptions in the manual are for guidance only.

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1 About This Manual

This manual introduces how to manage organizations/users, add plants, and monitor plant status via the SEMS Portal web.

1.1 Target Audience

This manual applies to trained and knowledgeable technical professionals. The technical personnel has to be familiar with the product, local standards, and electric systems.

1.2 Symbol Definition

Different levels of warning messages in this manual are defined as follows:

Indicates a high-level hazard that, if not avoided, will result in death or serious injury.				
Indicates a medium-level hazard that, if not avoided, could result in death or serious injury.				
Indicates a low-level hazard that, if not avoided, could result in minor or moderate injury.				
NOTICE				
Highlight and supplement the texts. Or some skills and methods to solve product-related problems to save time.				

1.3 Updates

The latest document contains all the updates made in earlier issues.

V1.0 2022-01-17

• First Issue

2 Safety Precaution

Introduction about how to log in/log out of SEMS Portal web and how to change the password.

2.1 Obtain an Account

Contact the supplier to obtain an organization account and password. Or contact the after-sales service to obtain the account and password if you purchased directly from the manufacturer.

2.2 Log In SEMS Portal

You have already obtained the account and password for logging in.Network between local devices and SEMS Portal is normal.

Step 1 Enter https://www.semsportal.com/Home/Login in the browser address bar. You will see the SEMS Portal web login page.



Step 2 Follow the instructions to complete the authorization if it's your first login.

website and other platforms (hereinafter referred to as "Platform") are subject to the following product, service and data usage terms (hereinafter referred to as "service"). For example, the data collection, management and presentation of energy technology equipment and systems (hereinafter referred to as "system"). The user of this service may be the operator of the system, or it may be a third party who conducts transactions on his behalf, especially the installer of the system. Introduction • You should read carefully (minors should read with a guardian) and fully understand the terms of this User Registration Agreement, including exemptions from or limitations of GoodWe's liability and restrictions on users' rights. • Unless you accept this agreement, the user has no right or need to continue to accept GoodWe's services, you can withdraw from this registration. The user agrees to accept and continue to use GoodWe's services and assumes that the user has fully accepted this agreement. Once **GOODWE Portal Data Protection Statement** GOCDWE values the user's privacy. Refers to any information that points to a recognized or identifiable person ("Data Subject"). Examples of personal data include email address, name, and address. We will use and process your personal data within the applicable scope in accordance with relevant data protection and data security laws. In the following statement below, you will learn how we collect, use, store and share this information when you use our services, and how we provide you with access, update, control and protection of this information. All personal data collected by GOODWE about you is treated as strictly confidential. Without your explicit ision, this data will not be passed on to third parties. GOODWE uses personal data for inte rnal purposes such as: data analysis, research or product imp If you use GOODWE's services, the service will record and stores the following data: • User data: name, company, email, password, and other data • PV plant data: PV plant name, PV plant identifier, access date, company, street, building number, city, federal state, country, time zone, latitude and longitude, Photovoltaic plant rated power, manufacturer, model type, system descrip tion, system image · Customer data: name, company, email, password, and other data . Connection data: data. time, IP address, browser, operating system, device data collected by GOODWE is not only used to provide the services you need, to process your contacts, but also for internal purposes such as data analysis I am an adult, I have read and agreed to the following terms. *GOODWE Terms of Use* *GOODWE Portal Data Protection Statement*

Step 3 Enter the Plants page, which means the login is successful. To ensure the security of your account, please change your password at your first login.

2.3 Change the Account Password

To ensure the security of your account, you are recommended to change the account password periodically.

Step 1 Enter https://www.semsportal.com/Home/Login in the browser address bar.

Step 2 Click Settings > My Settings > My Account to change the password.

E-mail	you.zong@goodwe.com	<u>Change</u>	Change Password	
Password	*****	1 Change	Current Please enter the log	in password
Distributor code	G10014687		New Please enter the new Confirm Please confirm the p	
Secondary Account After the primary and seconda	iry accounts are bound, the primary accou	Add Int will have all the	Should be 8-16 characters, include at least one let	

Step 3 Click Okay on the prompt-up box to complete the process.

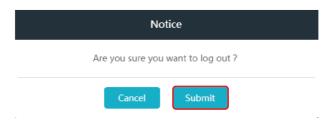
Please login again to verify the password after changing it.

2.4 Log Out SEMS Portal

To protect information and account security, you are recommended to log out when the account is not in use.

Click **Logout** on the logged-in page.

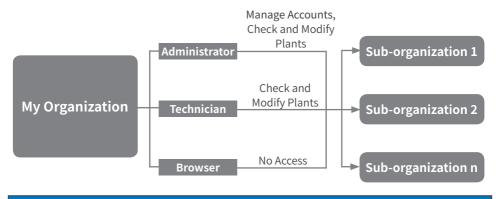
Click **Submit** as shown below to log out.



3 Organization and User Management

SEMS Portal is a platform used to monitor power plants and devices. Organizations and account roles are adopted to manage and check the power plants more conveniently.

User relationships between different organizations are shown below.



NOTICE

- The organizational relations are created when the administrator initiates a new suborganization.
- Manage Accounts: Administrator in an organization can create and delete accounts in his own and subordinate organizations and also modify account info.
- Check Plants: User can view basic info and running info of the plant.
- Modify Plants: User can add and delete the plant and any device in it. User can modify the info of the plant and any device in it.

3.1 Organization Management

Power plants and distributors can be managed and monitored in the organization.

3.1.1 Parts

Step 1 Log in SEMS Portal web using the administrator account.

Step 2 Click Management > Organizations > Organization Info to check Organization Info, Account List, Role Permissions, and PV Plant Ownership.

Organization In	fo Account List	Role Permissions	PV Plant Ownership
Organization	SEMS_Doc		
Distributor code	G10014687	Change	
Representative	test / 1	L	
Email	test.1@goodwe.co	m	

3.1.2 Create a Sub-organization

Step 1 Log in SEMS Portal web using the administrator account.

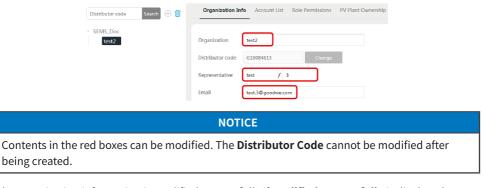
Step 2 Click Management > Organizations to add a subordinate organization.

Distributor code Search	Organization Info	Account List	Role Permissions	PV Plant Ownership	
- SEMS_Doc Add organization	Ů Š	est2	3 Change	1	Notice
	Representative Email	est / 2 est.2@goodwe.co		New account will be address. The initial password i	registered with the E-mail s Goodwe2018 Okay
		NOTICE			
The account test.2@goo password is Goodwe201				0	ation. The default

3.1.3 Modify a Subordinate Organization

Step 1 Log in SEMS Portal web using the administrator account.

Step 2 Click **Management > Organizations** to select the organization to be modified. Modify the subordinate organization as shown below.



The organization information is modified successfully if **Modified successfully** is displayed.



 \times

3.1.4 Delete a Subordinate Organization

Information of the deleted organization will be lost. Please think carefully before deleting any organization.	/

Step 1 Log in SEMS Portal web using the administrator account.

Step 2 Click Management > Organizations to delete a subordinate organization.

Distributor code	Search	Organization In	fo Account List	Role Permissions
- SEMS_Doc		Organization	test2	
		Distributor code	G10077741	Change
			Notice	
		Are you sure you wa	nt to delete this orga	inization?
		Cancel	3 Submit	

3.2 User Management

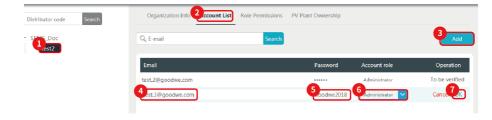
As administrator, you can create accounts of different roles in your own or subordinate organizations. Different accounts are granted with different permissions, as illustrated in below table.

Organizational	PV	Plant	Organiz	ation Man	agement		lain nboard	System	n Layout	Alarms	Messa	ge Center
Roles	View	Modify	Create	Delete	Manage Use	View	Modify	Logo Setting	Personal Setting	View	View	Manage
Administrator	0	0	0	0	0	\bigcirc	0	\bigcirc	0	0	\bigcirc	0
Technician	0	0				0			0	0	0	0
Browser	\circ					0			0			

3.2.1 Create an Account

Step 1 Log in SEMS Portal web using the administrator account.

Step 2 Click **Management > Organizations** to select the organization name of the user to be created.



4 Plant Management

Add devices in the plant to the SEMS Portal system, then you can check the power generation information and plant status in real-time.

4.1 Create a Plant

Step 1 Log in to SEMS Portal web using the administrator/technician account.

Step 2 Click Management > Plants. Click Create.

Plant1	
🐱 Owner :	Add
Email	Operation
test1@goodwe.com	Cancel
Visitor :	Add
Email	Operation
test2@goodwe.com	Cancel
V Plant Info :	
+	
*Plant Name Plant1	"Capacity 25 kW
Classification Residential V	Distributor code G10014687 Keep it empty if you don't know the installer's code
*Profit Ratio 0.22 USD/kWh 🗸	Amount of solar panels 0
*Location Suzhou, Jiangsu, China Map	
Detailed Address Detailed Address	
Enable Profile Enable Disable	Creation Date 📄 04.22.2021
Plant Profile Implementation of "self-use, excess power to grid, nearby consumption in the distribution network system, the characteristics of photovoltalc po- Distributed photovoltaic power generation follows the principle of adap decentralized layout, and proximity utilization, making full use of local is energy consumption. Without the use of fuel, the operating cost is very damage, maintenance is simple, especially suitable for use in unatende pollution, noise and other public hazards, no adverse impact on the env benefits. Distributed photovoltaic power generation is a new type of pow utilization mode with broad development prospects. It can realize nearb and avoid the loss of long-distance transmission lines.	ower generation facilities are balanced and adjusted. ting to local conditions, clean and highly efficient, olar energy resources to replace and reduce fosal low; there are no moving parts, it is not easy to d conditions; it will not produce any waste, no ironment, Outstanding environmental wer generation and energy comprehensive

Step 3 You can put description of the plant in Plant Profile and click Enable after Enable profile option if you want to make the plant description public. Otherwise, you can select Disable after Enable Profile option. Then click **Register**.

	Not	tice			
Plant is created successfully. Please add devices to your plant!					
	Cancel	Add			

Click **Okay** on the prompt-up box to complete the process.

Click **Add** if you need to add a device, otherwise click **Cancel**.

Step 4 Click **Add** to add device in this plant. You may skip this step if you don't want add any device at the moment. You can turn to device management later.

New	/ Device
Name	Please enter the device name
SN	Please enter the S/N number
CheckCode	Please enter the Checkcode
Cancel	2 Submit

Enter device name, SN and CheckCode, then click **Submit**.

4.2 Add a Device

When a plant is created successfully, you or any user with proper permissions can monitor this plant and the devices in it. More devices can be added in the plant, such as inverter, data logger, smart communication box, HomeKit, etc.

There three ways to add device or devices in a plant.

Option 1:

Refer to Step 4 in 3.1 Create a Plant.

Option 2:

Step 1 Login SEMS Portal by administrator or technician account in your organization.

Step 2 Click Management > Plants, select the corresponding PV plant and click Device Management.



Option 3:

Step 1 Login SEMS Portal by administrator or technician account in your organization.

Step 2 Click Management > Devices	, select the corresponding PV plant.
-----------------------------------	--------------------------------------



4.3 Monitor Plant

From Plants page, you can view the performance and status of all plants in your organization. From single Plant page, you can view the performance and status of the plant.

Step 1 Login SEMS Portal by administrator or technician account in your organization.

Step 2 From **Plants** page, you can view the performance and status of all plants available to your account.

ocation : Q, Global		Organization :	Distributor code	~	Q, P	lease enter plant / SN / E	imall Search
Statistics of Status		New Plants in Thi	s Month	Today Generatio	n & Income	Total Generation	n & Income
Ē	○0 ○1 ○0 ●0	Ð	1(Plants) 1.00(kW)	G	0.00(kwh) 0.00(USD)	ŧ	0.00(kwh) 0.00(USD)
Fault O	fline 😐 Waiting	Working					R.

Step 3 Click the target name of plant if you want to check the performance and status of specific plant.

	E					ow			F Generation D kWh	Today Income 0.54 USD	Total Generation 25634.30 kWh	Total In 4614.17	come
reated :							eration&Income				 € 04.22.2 	021) D
lassification :	Residential												
V Capacity : 5	5.00 kW												28
ocation : 0											~		
Today	Friday	Seturday	Sunday	Monday						/			
										/			
	-	-		-									
	-	•	•				12:00	04:00	06:0	08.00	10	.00 • PV(W):0
•	•	•	•	•		0	12:00	04:00	. 06:0	08-00	0 10	:00 PV(W) : 0
1	- -	2	2	2	500 - Q -	0	12:10	04:00	06:0	08.00	0 10	00 PV(W) : 0
 1nve	rter	•	2	•	500 - 0 -		12:00	04.00	06:0	08-00	0 10	.00 P V(W):0 Curve >
Inve	rter	- 	-	•	500 - 0 -		12.00	24.00	, 06:0	D DEJC	3 30	.00 PV(
Inver 950		- 	ew et al.	2	500 - 0 -	0			06:0	D CB.OC	33.8	-00 PV(
Inver 950		 2 BW2968	GW	•	.500 - 0 -	-	Today Ger		06.0				
1000		- 18W2968	GW	•	.500 - 0 -	-	Today Get	neration	06.0	Inner Temperature	33.8	rc	
Inve 950		- 78W2968	GW 5		500- 0-	-		neration	060	Inner Temperature DC voltage/current 1	33.8 321.6/0.0	*C V/A	
2 Inver 950 M 5/7 G G		- 18W2968	-		0-	-	Today Ger	neration)	Enner Temperature DC voltage/current 1 DC voltage/current 2	33.8 321.6/0.0 385.7/0.0	r AV AV	
950 MM 5/7 Ca		- *BW2968	-		0-	- - - -	Today Get	neration		Enner Temperature DC voltage/current 1 DC voltage/current 2 DC voltage/current 3	33.8 321.6/0.0 385.7/0.0	°С V/А V/А V/А	
Inve 950 M S C C C C C C C			5			- Total Generation	Today Get	neration	O Total Hours	Enner Temperature DC voltage/current 1 DC voltage/current 2 DC voltage/current 3 DC voltage/current 4	33.8 321.6/0.0 385.7/0.0 	т V/A V/A V/A V/A	
Inver 950 50 6 6 6 7 7			5		EW E		Today Ger	neration	Q	Enner Temperature DC voltage/current 1 DC voltage/current 2 DC voltage/current 3 DC voltage/current 4 String current 1	33.8 321.470.0 385.770.0 	т V/A V/A V/A V/A A	

4.4 Setup Main Dashboard

Main Dashboard feature allows you to demonstrate your plant or plants in big screen view. As administrator, you can decide what and how to demonstrate your plant or plants in main dashboard mode.

Step 1 Login SEMS Portal as administrator in your organization.

Step 2 Click Settings > System Setting > Dashboard to customize the Main Dashboard feature.

Basic Setting:	0					
Default map of Main dashboard (Drag or zo	om the map) : C	nina				
Main Dashboard Carousel Form	 Nine-square 	egrid 🔿 I	.ist			
Main Dashboard Carousel List	Generating	Plants 💿	All plants			
Main Dashboard Carousel Frequency	4 5	Sec.				
Construction&Plan:						
Construction&Plan	Connected	0	Plants,	Capacity	0	MW
	Automatic s	system calculat	tion			
	Constructing	100	Plants,	Capacity	100	MW
	Planning	100	Plants,	Capacity	100	MW

Main Dashboard Module Customization:



Reset Save Change

Step 3 Click System to set Profit Ratio and Coefficient of Environmental Contribution.

Profit Ratio for Plant Setting:



Coefficient of Environmental Contribution: Settings are only valid for your organization



Step 4 Click **Logo** to set system Logo. Check the new Logo on the top of the Main Dashboard and top of the system.

Dashboard Logo S	etting:		
Main Dashboard Lo	ogo +		Please upload a picture with minimum size of 430*48
System Logo Setti	ng:		
System Logo	+	Ple	ase upload a picture with minimum size of 210°46
		Reset	Save Changes

Check Main Dashboard (All Plants)

Step 1 Login SEMS Portal as administrator, technician or browser.

Step 2 Click Main Dashboard button at menu bar of Plants or Single Plant page.

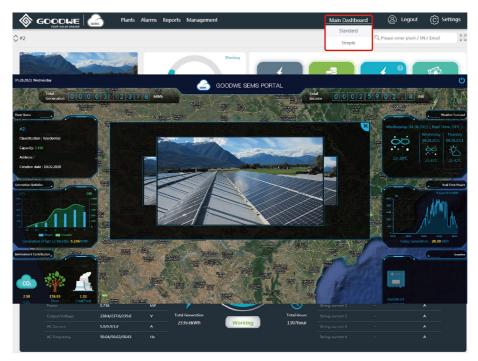


Check Main Dashboard (Single Plant)

There are two options available for Main Dashboard view of single plant, Standard and Simple.

Step 1 Login SEMS Portal as administrator, technician or browser.

Step 2 Click the name of plant to enter single plant view and then select Standard or Simple.



5 Maintenance

For maintenance assist purpose, user with proper permissions can check plant and device's info, status and statistics, running data, and alarms. Proper actions are recommended to take based on the SEMS Portal monitoring data.

5.1 View Alarms

Administrator and technician accounts can check alarms for troubleshooting and maintenance purposes.

Step 1 Login SEMS Portal as administrator or technician.

Step 2 Click Alarms at top menu bar to enter Alarms page.

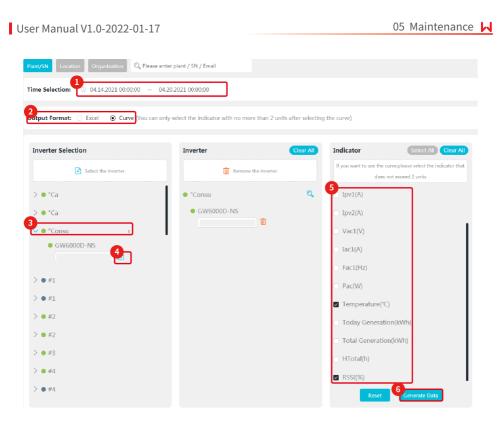
Status: All 🗸								
Plant	SN	Inverter		Alarm	Status	Time	Details	*
G			7W0077	Vac Failure	Recovered	04.22.2021 15:26:38	E.	
kc		(08W0021	Vac Failure	Recovered	04.22.2021 12:26:36	F6.	
lê			08W0107	Utility Loss	Happening	04.22.2021 15:26:30	E.	
Gr)	7W0093	Vac Fallure	Recovered	04.22.2021 15:26:21	E.	
hć		1	AW0051	Vac Failure	Happening	04.22.2021 15:26:18	R	
LC				Gournd I Fallure	Recovered	04.22.2021 15:26:16	E.	
LC				Gournd I Failure	Recovered	04.22.2021 15:26:16	EQ.	

5.2 Check Historical Data

There are two ways to check and export historical data of a device or devices in the plant. Option 1.

Step 1 Login SEMS Portal as administrator or technician.

Step 2 Click **Reports > Historical Data > Data Selection** to select the corresponding device and generate a report.



Step 3: Export the report.

More Cho	lices						
	Vpv1(V) Pac(W)	 □ Vpv2(V) ☑ Temperature(°C) 	 Ipv1(A) Today Generat 	Ipv2(A) tion(kWh) Total G	Vac1(V) Generation(kWh)	□ Iac1(A) otal(h)	Fac1(Hz) I(%)
Time:	@ 04.14.2021 00:00	0:00 04.20.2021 (00:00:00			Sa	ve Template Export
"Consul	ltorio" Pedro Chaco	n					
	000D-NS 00DSN19AW0019	— Те	mperature —	— RSSI			
(* 60 - 10 20 - 70 - 10 - 0 - 06	m	0757 1241	1724 09:04 13:2	M 1004	1647 1937 11.0	8 15.51 07.19	(%) 50 40 10 70 1203 1648

Button	Function
More Choices	Click More Choices to turn back to Generate Data page, users can select Inverter, Time Selection, and Output Format again to generate a new report.
Save Template	Save the generated report as a template for fast export next time.
Export	Export data report in table format to the local PC.

Option 2.

If you have save template of exported historical data previously, you can export such data without selecting target device names and parameters once again.

Step 1 Login SEMS Portal as administrator or technician.

Step 2 Click **Reports > Historical Data > My Template** to export the data.

Numbe	er Template Name	Template Description	Save Time	Operator	Operation
792	Volt	voit	03.26.2021 17:40:20	@goodwe.com	Delete
789	zxcvbnm	sfghj	03.25.2021 12:26:50	podwe.com	Delete
783	Teste	Teste	03.24.2021 21:51:46	lla@goodwe.co	m <u>Delete</u>
779	hhf	fhf	03.22.2021 09:29:45	igoodwe.com	Delete
756	1	11	03.08.2021 11:03:00	k@goodwe.con	Delete
447	Template02	Testing	07.23.2020 19:37:25	goodwe.com	Delete
More Choi	_	Inv1(A)	A) 🔽 Vac100	Jac1(A)	Fac1(Hz)
Target:	Vpv1(V) Vpv2(V)	Ipv1(A) Ipv2(A) Vac1(V)	✓ Iac1(A)	Fac1(Hz)
	Temperature(°C) HTotal(h)	🗌 PV Generation(kWh) 🛛 🗹 Pr	meter(W) 🛛 Pbackup(W)	Vbackup(V)	
	Vbat(V)	Ibat(A) SOC	%) SOH(%)	BMS Temperature(°C)	
	BMS_Charge_I_Max(A) BMS_Disc	harge_I_Max(A) 🗌 Daily Output(kW	/h) 🗌 Total Output(kWh)		-
Time:	© 02.01.2020 00:00:00 02.08.202	0 00:00:00		Save Temp	late Expor
		I Form data has been genera	ated, please export to view		

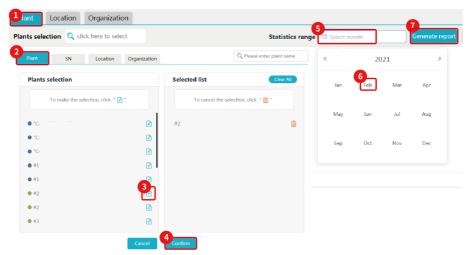
5.3 Export Generation Reports

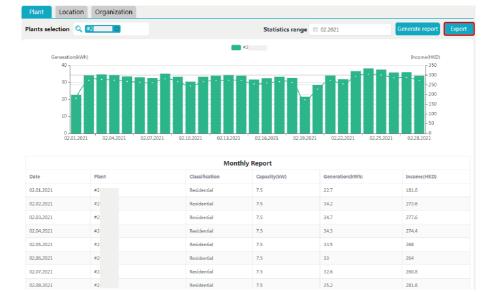
In reports section, there are annual, monthly and daily (optional) reports of plant performance. Here is an example to download monthly report.

NOTICE Daily report is available only when there is Load Monitoring function added in the target plant.

Step 1 Login SEMS Portal as administrator, technician or browser.

Step 2 Click Reports > Generation Reports > Monthly Report to generate a report.





Step 3 Click Export to download the report as presented below.

Simulation report contains comparison between actual generation and expected generation of the target plant or plants. The expected generation can be modified accordingly.

Step 1 Login SEMS Portal as administrator or technician.

Step 2 Click Reports > Generation Reports > Simulation Report.

nt/SN/Email	Q,]	Statistics rang	2021					3 enerate report Ex
					PV	Expected Gener	ation	
		kWh						
		700 600		-				
		500-			-			
		400 -						
		300 - 200 -						
		100-						
		0	.2021	03.2021	05.2021	07.2021	09.2021	11.2021
		v.		05.2021	00.2021	07.2021	05.2021	11.2021
					Sim	ulation Report		
		Date	Plant		Classification	Capacity(kW)	Generation(kWh)	Appected Generation(kWh)
		01.2021	#2		Residential	5	511.7	600
		02.2021	#2		Residential	5	521.3	0
		03.2021	#2		Residential	5	658.4	0
		04.2021	#2		Residential	5	528.8	0
		04.2021	#2		Residential	2	528.8	U
	ž.							0
	i E	05.2021	#2		Residential	5	0	· · · · · · · · · · · · · · · · · · ·
		05.2021 06.2021	#2		Residential	5	0	0
	E							
	E	06.2021	#2		Residential	5	0	0

5.4 Export Generation Reports

There annual and monthly statistics reports avaialble. Here is example of how to download monthly statistics report.

Step 1 Login SEMS Portal as administrator or technician.

Step 2 Click Reports > Statistics > Monthly.

		04.2	021 Generation S	tatistics		
otal Plants: 115						
Owner Info		Plant Info			Power (kWh)	
E-mail	Name	Capacity (kW)	Location	Monthly Total	Daily Average	Total
	1/128	3.3	Во	0	0.0	0
	839	3.3	Nijl	0	0.0	4780.3
	016a	1.65	Nijk	0	0.0	0
	D66	2.75	Niji	0	0.0	0
	: 100	1.65	Netherla	137.8	5.3	5183.2
	·E94	1.65	Netherla	104.2	4.0	5491
	>G7	2.75		252.6	9.7	10095
	B 47	3.3	0	0	0.0	0



GoodWe Website

GoodWe Technologies Co., Ltd.

No. 90 Zijin Rd., New District, Suzhou, 215011, China

www.goodwe.com

🖂 service@goodwe.com

