

# User's Manual of Web monitor HMI-901



Afore New Energy Technology (Shanghai) Co., Ltd.

# 1. Wiring

Colour

1.1 Definition of different wire (picture 1-1):





- 1.2 Start wiring
  - 1.2.1 Disconnect the inverter with DC PV source and AC grid source
  - Open the waterproof cover, and loosen the screws and waterproof connectors. 1.2.2 (picture 1-2 and 1-3)



- 1-2
- 1.2.3 Put the communication wire and electric wire pass through the waterproof connector. (picture 1-4)
- 1.2.4 Connect the wires one by one according to the wire colors and the definition chart, and tighten the screws. (picture 1-4)
- 1.2.5 Plug in the wire socket into the positions (picture 1-5)



1-4

1-5

1.2.6 Close the waterproof cover, tighten the screws and the waterproof connector. (Picture 1-6)



1-6

1.3 Notice

Please do not mistakenly connect the red and black wire in the communication port, otherwise the monitoring module might be damaged.

# 2 Wireless portal configuration

- 2.1 Make sure the inverter is properly working
- 2.2 Use laptop, cell phones or tablet PC to search WIFI signal of the monitor, the SSID name will be
  - like "Afore\_xxxxxx", and no the password for this WIFI signal.( Picture 2-1)

|  | Choose a wireless petwork  |                     |   |
|--|--|---------------------|---|
| Network Tasks                            |  |                     |   |
| 🛃 Refresh network list                   | Click an item in the list below to connect to a wireless network in rainformation. | ange or to get more |   |
| Set up a wireless network                | ((O)) 2A406  | ^                   |   |
| for a home or small office               | Security-enabled wireless network (WPA2)   | 0008e               |   |
| Related Tasks                            | ((Q)) ChinaNet   |                     |   |
| <ul> <li>Learn about wireless</li> </ul> | Unsecured wireless network   | 0000                |   |
| networking                               | ((O)) TP-LINK_78C270   |                     |   |
| Change the order of preferred networks   | Security-enabled wireless network (WPA2)   |                     |   |
| Change advanced                          | ((O)) 2B316  |                     |   |
| settings                                 | Security-enabled wireless network (WPA2)   | 0000                |   |
|  | ((Q)) Afore_100A6F   |                     |   |
|  | Unsecured wireless network   | Ulter               | W |
|  | ((Q)) 2B301  |                     |   |
|  | Security-enabled wireless network (WPA2)   | Obse.               |   |
|  |  |                     |   |

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2.3 Connect the Afore\_xxxxxx WIFI signal

Visit the site 11.11.11.1 with your PC's web browser, below interface displays (Picture2-2), both the user's name and password are "admin"

| Connect to 11     | .11.11.1 🔹 🛛 🖓 🔀     |
|-------------------|----------------------|
|                   | G                    |
| Afore WiFi Device | e                    |
| User name:        | 📓 admin 🔛            |
| Password:         | •••••                |
|                   | Remember my password |
|                   | OK Cancel            |
|                   | 2_2                  |

Click "confirm " and move into next interface, copy the SN number "54......e4" and save it in a file, this number will be useful when register in the monitoring website. (Picture 2-3)

| Afore Professional Soloar P | V Inverter Manufacture           |
|-----------------------------|----------------------------------|
| Basic <u>System</u>         |                                  |
| SN:                         | 54616dd6523c4be8bf475d0d9bb873e4 |
| MAC:                        | C8-93-46-10-0C-3E                |
| SSID:                       | Afore_wireless Find AP           |
| Security mode:              | AUTO                             |
| Key:                        |                                  |
|                             | Save                             |



2.4 Click Find AP, choose your home/office WIFI signal in the interface displays in this step (Picture 2-3), and input the password in the Key column (Picture 2-3). Please make sure the signal strength is at least 30% (Picture 2-4), otherwise the communication will affected.

| Afore Professional Soloar PV Inverter Manufacture |        |
|---|--------|
| Return Available Wireless Network                 |        |
| SSID  | Signal |
| IECT3012  | 58%    |
| Rafiesh   |        |

2-4

- 2.5 Click "Save" to save this configuration and then click "Return".
- 2.6 Click "Reset" to reset the wireless module
- 2.7 Wait for 5 seconds to complete the process.

# **3** Account register

3.1 Use laptop or PC to connect onto internet.

Visit http://www.aforenergy.com/, Click "Register" button in the Monitoring System User Login in the right side,

3.2 Then come up with "Afore Energy Remote Monitoring" log in interface (Picture 3-1), select

language in the bottom right corner, click "Sign up", then interface like Picture 3-2 shows. Input user's name, password, register email address and the SN number which had been saved in Chapter 2.3, click "sure to Register" to confirm and complete the register.



3.3 After register completes, login with user's name and password, select your own language in the upper right corner if necessary. This setting will be saved to this account number, when log in next time, no need to set up again.

## 4 User's instructions

#### 4.1 Log in

Log into the monitoring system with registered user's name and password, the system will automatically generate PV system monitoring site, called "my sites" (Picture 4-1)

| Afore / Afo     | ore New   | Energy Re | mote Monito    | ring Systen  | n        | Afore New    | Energy O Logout | Select Language 👻 |
|-----------------|-----------|-----------|----------------|--------------|----------|--------------|-----------------|-------------------|
| 🗮 My Sites      | My Sites  | New Site  |                |              |          |              |                 |                   |
| AforeTest       | Name      | Power Now | Today's Energy | Total Energy | Income   | Position     | Operation       |                   |
| + New Site      |           |           |                |              |          |              |                 |                   |
| 📕 My Sites      | AforeTest | 2414W     | 20.16KWH       | 4123.88KWH   | ¥4123.88 | 中国上海联航路1588号 | QView CEdit     | 🛍 Delete          |
| Inverters       |           |           |                |              |          |              |                 |                   |
| Settings        |           |           |                |              |          |              |                 |                   |
| Change Password |           |           |                |              |          |              |                 |                   |

4-1

Click "view", the PV system's operational data could be viewed and displayed now. (Picture 4-2)



4-2

#### 4.2 Edit, add sites and add inverters by users

In Afore Energy Remote Monitoring System, users not only can view their own sites, but can also edit. Click "Edit", move to the interface shown as Picture 4-3, users could edit content such as PV system name, location, local feed-in tariff, PV system introduction, and can also select PV system location on the map.

| I My Sites  | My Sites        | Edit Site        |
|---|-----------------|------------------|
| AforeTest<br>+ New Site                               | Name            | Afore Test       |
| 🖬 My Sites  | Country         | China            |
| Inverters   | Province        |                  |
| <ul> <li>Settings</li> <li>Change Password</li> </ul> | City            | Shanghai         |
| <del></del>   | Address         | 1588 Lianhang Rd |
|   | Power<br>Tariff | 1.00 RMB ¥ 💌     |
|   | Remark          |                  |
|   | Location        | Map Satellite    |
|   | Sort No.        |                  |
|   |                 |                  |
|   |                 | Save Cancel      |

4-3

The "Sort No" in the bottom shows the current PV systems position sequence, the smaller number rank higher position of the list. Input the relevant information and save the settings to complete the PV system new site adding.

If users need to monitor more than one PV system, click "+New site" the similar interface of editing site shows, also type in name, location information etc. The only difference is users need to input the SN number of the inverter installed in this PV system (Picture 4-4)

|    | Add N | ew Inverter |  |
|----|-------|-------------|--|
| SN |       |             |  |
|    | Save  | Cancel      |  |
|    |       |             |  |

If users need to add more than one inverter in the monitoring system, click "Inverters" in the left column, interface shown as Picture 4-5. Users could edit current inverter or add new inverters with similar steps. Here we will introduce "Add New Inverter" as an example

| Inverters Add New Inverter       |                 |             |               |               |                 |                    |  |
|----------------------------------|-----------------|-------------|---------------|---------------|-----------------|--------------------|--|
| Site Name:AforeTest              |                 |             |               |               |                 |                    |  |
| SN                               | Name            | Rated Power | Rated Current | Rated Voltage | Rated Frequency | Operation          |  |
| 33643e0bf0ef42dfbde66a9a98885e15 | Afore-Inverter1 | 3.6KW       | 16A           | 230V          | 50HZ            | Le Edit 🗑 Delete   |  |
| c6084b9b085b4a0e91b03aa8d12a7df3 | test2-Inverter2 | 2KW         | 9A            | 230V          | 50HZ            | Ceredit 🗎 🖻 Delete |  |

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Click "Add New Inverter", type in relevant information and click "save to" complete the adding. (Picture 4-6)

| 😑 My Sites              | Inverters          | Add New Inverter |
|-------------------------|--------------------|------------------|
| AforeTest<br>+ New Site | Inverter<br>Name   | Afore Test 💌     |
| A Inverters             | SN                 |                  |
| Settings                | Name               |                  |
| 🕼 Change Password       | Rated<br>Power     | KW               |
|                         | Rated<br>Current   | A                |
|                         | Rated<br>Voltage   | v                |
|                         | Rated<br>Frequency | HZ               |
|                         | Remark             |                  |
|                         | Sort No.           |                  |
|                         |                    | Save Cancel      |

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#### 4.3 User's information setting

Users can edit own account information, click "Settings" in the left column (Picture 4-7).

| 🖽 My Sites              | Settings  |                  |
|-------------------------|-----------|------------------|
| AforeTest<br>+ New Site | Username  | afore            |
| 🖬 My Sites              | Fullname  | Afore New Energy |
| 🏟 Inverters             | Telephone |                  |
| Settings                | Email     |                  |
| Change Password         | Address   |                  |
|                         | Remark    |                  |
|                         |           | Save Reset       |
|                         |           |                  |

#### 4.4 PV system management

Afore Energy Remote Monitoring System provides abundant functions of PV system monitoring and management.

4.4.1 Real-time Display

Real-time display provides users with basic real-time working data information of the PV system, and enable the users quickly view his own PV system working status. Select a site, click "view", and choose "Real-time display" (Picture 4-8)

| 🖽 My Sites                                      | Overview F  | verview Real-time Display |                      | cord History R |  |  |  |
|---|---|---------------------------|----------------------|----------------|--|--|--|
| AforeTest     New Site     My Sites             | Afore-Inverter1<br>(33643e0bf0ef42dfbde66a9a98885e15) |                           |                      |                |  |  |  |
| <ul> <li>My sites</li> <li>Inverters</li> </ul> | PV1 Current   | 0A                        | PV2 Current          | 0A             |  |  |  |
| Settings  | PV1 Voltage   | 125V                      | PV2 Voltage          | 0V.            |  |  |  |
| 🕼 Change Password                               | Inverse<br>Current                                    | 0.3A                      | Grid Voltage         | 225V           |  |  |  |
|   | Busbar<br>Voltage                                     | 316V                      | Power Now            | 49W            |  |  |  |
|   | Radiator<br>Temperature                               | 17°C                      | Inner<br>Temperature | 25℃            |  |  |  |
|   | Today's<br>Energy                                     | 15.37KWH                  | Total Energy         | 2286.34KWH     |  |  |  |
|   | Today's<br>Running                                    | 612min                    | Total<br>Running     | 1703hour       |  |  |  |
|   | Last  | Updated:20                | 13/11/25 17          | :13:00         |  |  |  |

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#### 4.4.2 Alarm Record

In the Alarm Record page, users could check the relevant Alarm Record under different inverters and the fault happening time (Picture 4-9)

| Overview Real-time Displa | y Alarm Record History R | ecord Report Analysis Auto-Sending | Settings           |             |
|---------------------------|--------------------------|------------------------------------|--------------------|-------------|
| Select Inverter           | Afore-Inverter1 💌        | Today                              | 2012-11 2013-11-   | View        |
| Error Code                | Error Type               | Error Message                      | Rtc Time           | Operation   |
| 01                        | Type23                   | AC Over Current                    | 2013/8/12 11:08:55 | View Detail |

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#### 4.4.3 History Record

In History Record page, users could check the curves of historical data and could also check specified time period of certain operation parameters, such as "Power now" (Picture 4-10)



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### 4.4.4 Report Analysis

In the Report Analysis page, users could check the PV system daily, monthly, and yearly report.

| Overview       | Real-time Display Alarm Record History Record Report | Analysis Auto-Sending | ) Settings |             |  |  |
|----------------|--|-----------------------|------------|-------------|--|--|
| Report<br>Type | Daily Report  Monthly Report  Yearly Report          | Select Time           | 2013-:     | View Export |  |  |
|                | Date   |                       |            | Energy      |  |  |
|                | 2013-11-01   | 22.33KWH              |            |             |  |  |
| 2013-11-02     |  |                       | 9.14KWH    |             |  |  |
|                | 2013-11-03   |                       |            | 9.69KWH     |  |  |
|                | 2013-11-04   |                       |            | 27.22KWH    |  |  |
|                | 2013-11-05   |                       | 25.55KWH   |             |  |  |
|                |  |                       |            |             |  |  |

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#### 4.4.5 Auto-sending Settings

In this page, users could set faulty report automatic sending by day, week and month. See Picture 4-12, select the "on" option of the specific report, and type in the email address need to receive this report, then Save the setting, then users could receive the report regularly.

| ⊞ My Sites      | Overview Real-time I                               | Display Alarm Record History Record Report Analysis Auto-Sending Settings |  |  |  |  |
|-----------------|--|---|--|--|--|--|
| AforeTest       |  | Afore-Inverter1 (33643e0bf0ef42dfbde66a9a98885e15)                        |  |  |  |  |
| + New Site      |  |   |  |  |  |  |
| 🗃 My Sites      | Alarm Notification                                 | Ø On  |  |  |  |  |
| 🏤 Inverters     |  | user@email.com  |  |  |  |  |
| Settings        |  |   |  |  |  |  |
| Change Password | Daily Report                                       | On  |  |  |  |  |
|                 | Weekly Report                                      | On  |  |  |  |  |
|                 | Monthly Report                                     | On  |  |  |  |  |
|                 | test2-Inverter2 (c6084b9b085b4a0e91b03aa8d12a7df3) |   |  |  |  |  |
|                 | Alarm Notification                                 | On  |  |  |  |  |
|                 | Daily Report                                       | On  |  |  |  |  |
|                 | Weekly Report                                      | n on  |  |  |  |  |
|                 | Monthly Report                                     | C ON  |  |  |  |  |
|                 |  | Save  |  |  |  |  |

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Afore New Energy Technology Co., Ltd. www.aforenergy.com ADD: BLD 2B, No 1588, Lianhang Rd. Minhang District, Shanghai, China. 201112 TEL: +86-21-54326230 FAX: +86-21-54326136 E-MAIL: Service@aforenergy.com