Redx Power Mobile App

User Manual

Version: 2023-04-11

Supporting Redx Energy Product: RX-2505AC, RX-2505PU, RX-2505PW, RX-5000AC, RX-7000HY

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1 Download and Install the App

1.1 Redx Power Mobile App

Download and install the Redx Power Mobile App via Google Play Store or Apple App Store.
You can scan the QR code below to download the Redx Power Mobile App for Android or iOS.

QR code to download Redx Power Mobile App

1.2 Minimum system requirements

Redx Power app is developed and tested to work efficiently in all devices running Android and iOS irrespective of the device size or hardware specification.

However, due to fast-moving technological advancements and new generation optimized hardware and software designs, old mobile devices or devices with older mobile OS may not fully utilize some functionalities in the app.

Currently, Redx Power app is supported in all devices running:

- Android 6 and over
- iOS 11 and over

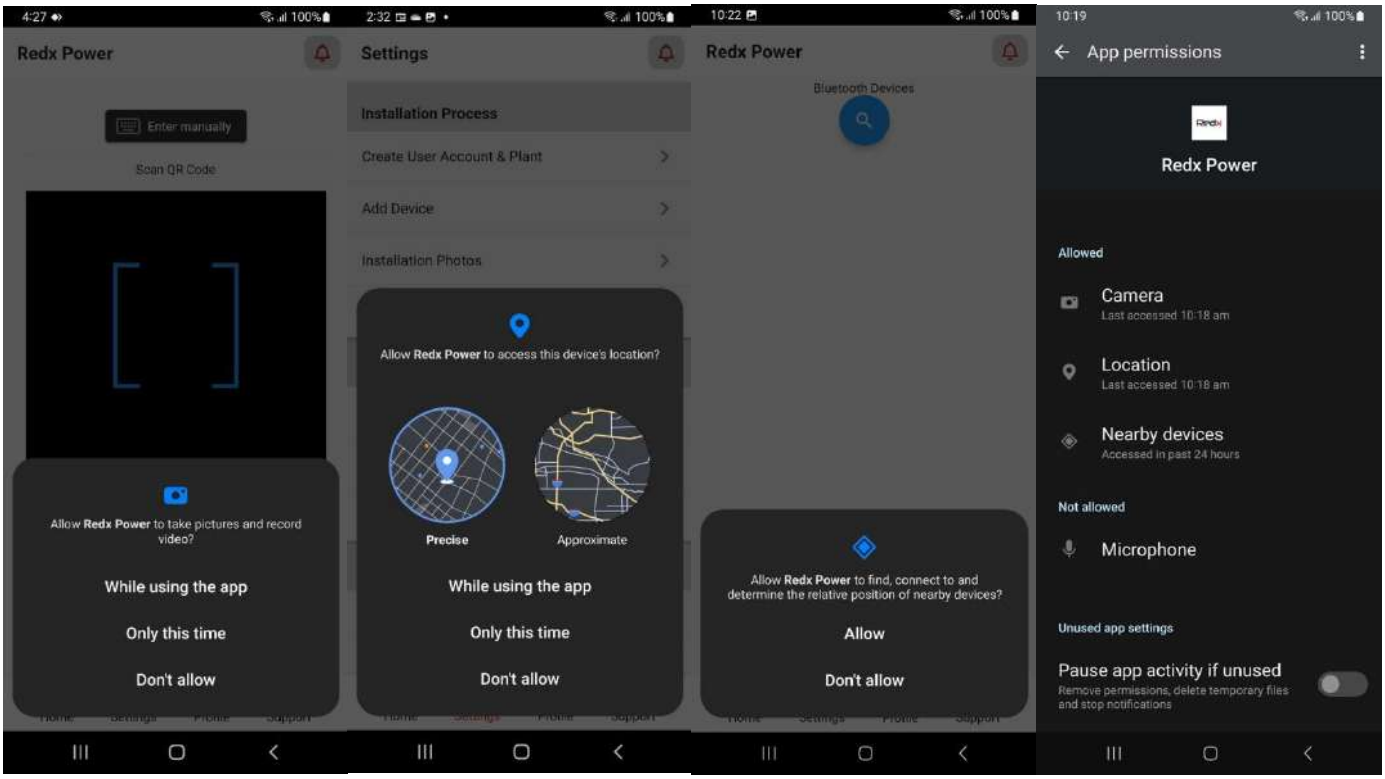
It is highly recommended to use newer mobile devices and to keep the mobile operating system up to date with the latest system software updates for better user experience.

1.3 Required App Permissions

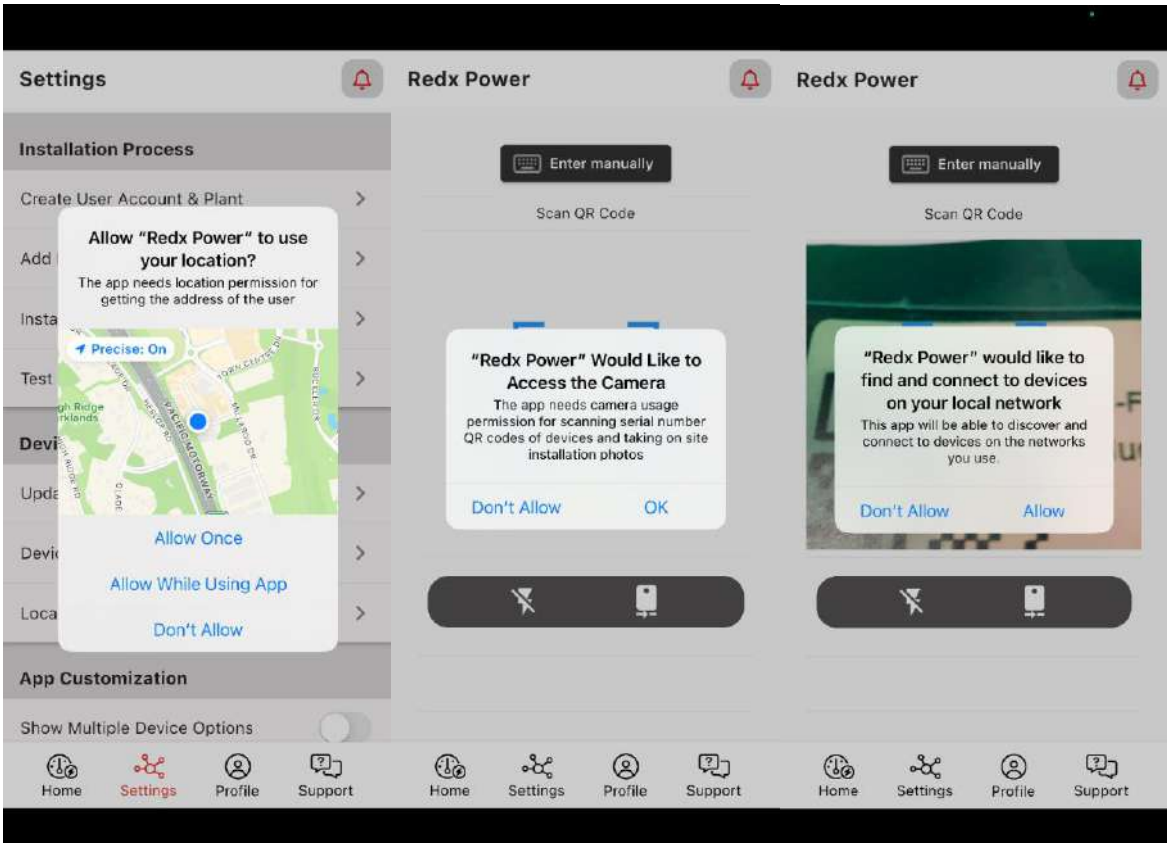
Please make sure you allow the app to have all the required permissions. When first starting the app, the permission requests will appear. In the Android app please choose '**While using the app'** when prompted. In the iOS app, choose **'OK'**. Denying any permission may cause incorrect app behavior. Denied permissions need to be manually changed from the phone's Settings section. Alternatively, it will be easier to uninstall and reinstall the Redx Power Mobile App again.

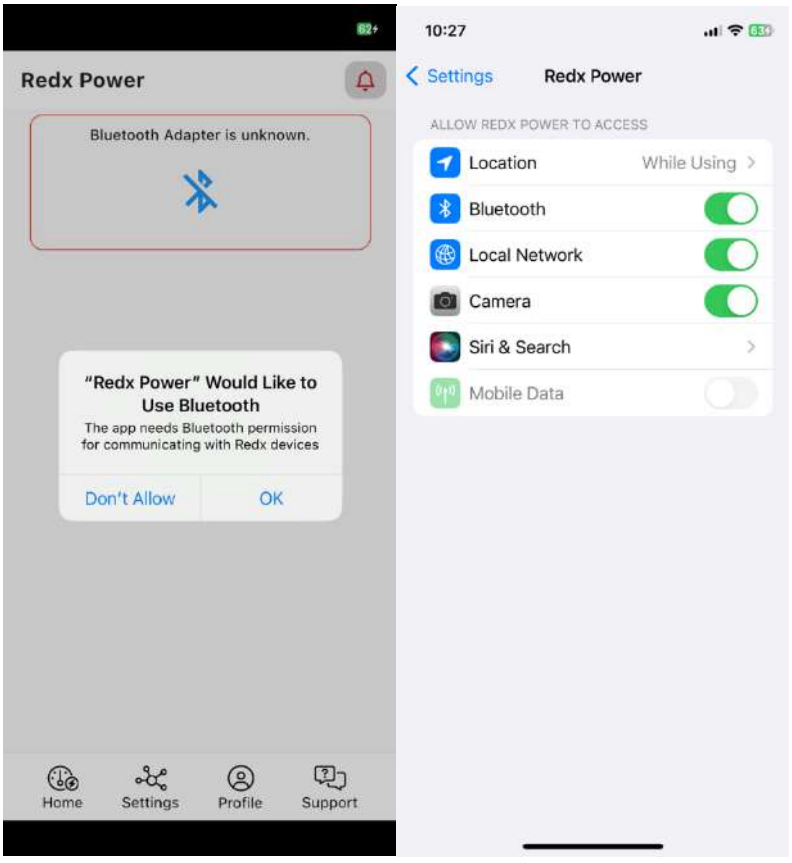
Note: All permissions are progressively requested when relevant functions are being used. The screenshots below reflecting all the granted permissions of the app in Android & iOS are taken after all App functionalities used and for demonstration / troubleshooting purposes only. Users may not see all of them listed as an approved permission till they use the respective functionalities first time.

Android Permissions: Location, Camera, Nearby Devices



iOS Permissions: Location, Camera, Local Network, Bluetooth





2 Redx Power Mobile App User Interface

2.1 Understanding the User Interface Structure

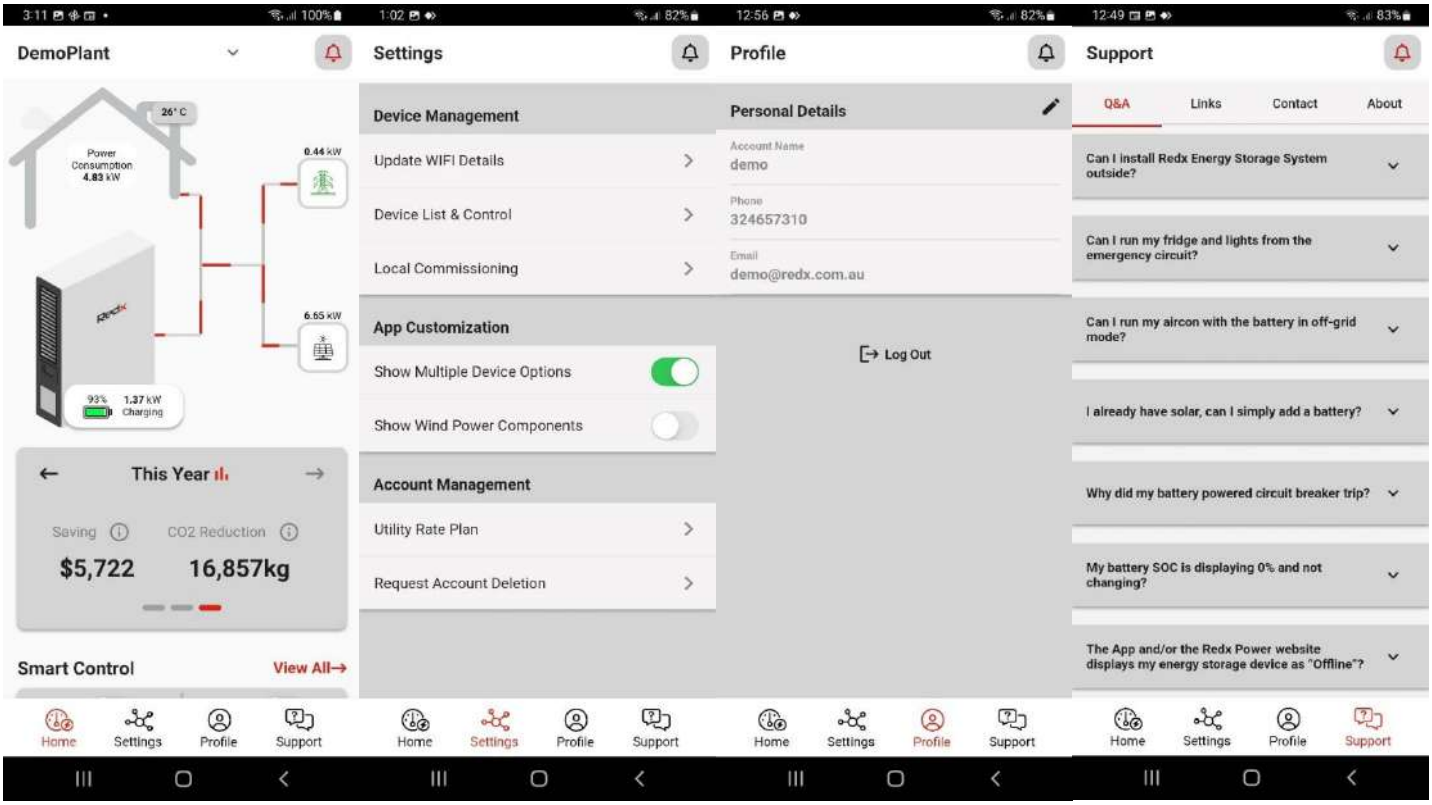
The Redx Power Mobile App provides all necessary information clearly in an easy understandable way. The user doesn't need to be an expert in electricity or solar. The user can control the Redx Energy unit via the Redx Power Mobile App in real time. When opening the App, you will find the following sections:

Home section: Shows the power flows between Grid, Solar/Wind and Redx Energy unit with power generation data, consumption data and feed-in data. Expense savings and CO2 reduction are calculated for different time periods. This section also shows historical information of overall energy trends and battery capacity levels.

Settings section: Allows the user to control and configure the Redx Energy unit locally via Bluetooth / Wi-Fi or remotely via Internet connection.

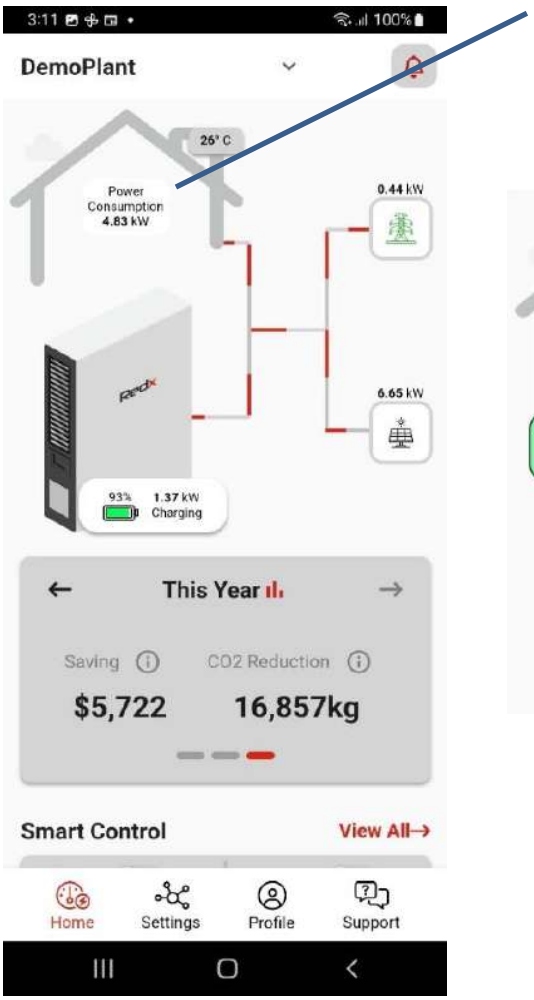
Profile section: Shows the user account information and allows updating the account information.

Support section: Shows frequently asked questions and answers for product information. It also displays links to the Redx website for more information regarding Redx products and company information.

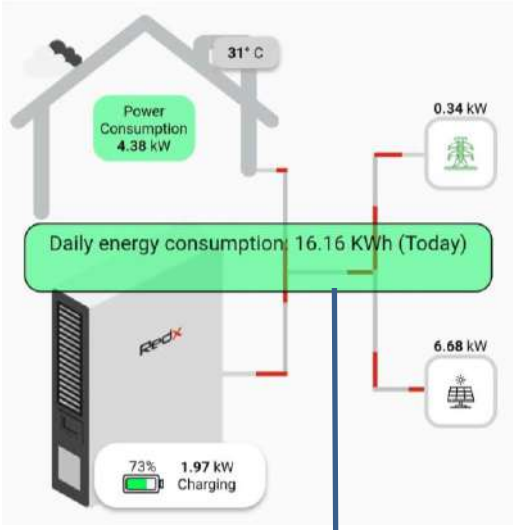


2.2 Redx Energy Unit Dashboard

2.2.1 Premises Power Overview

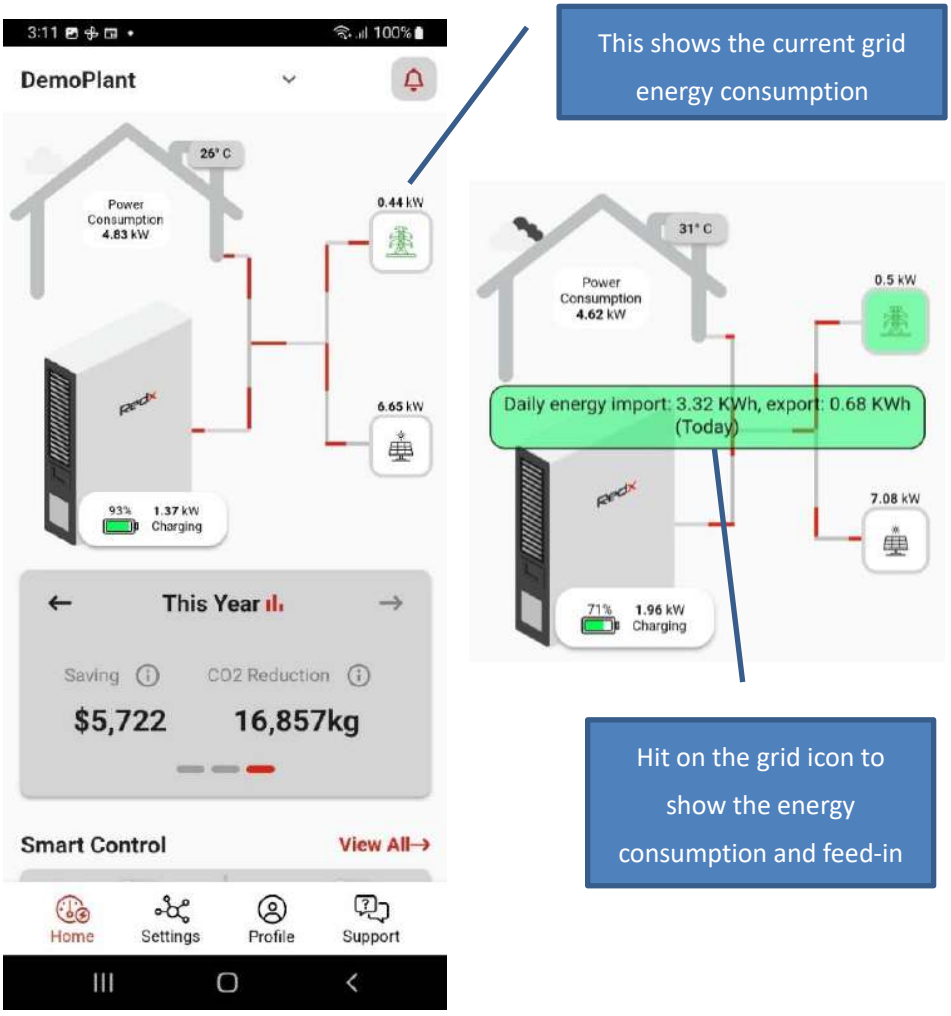


This shows the current premises power consumption

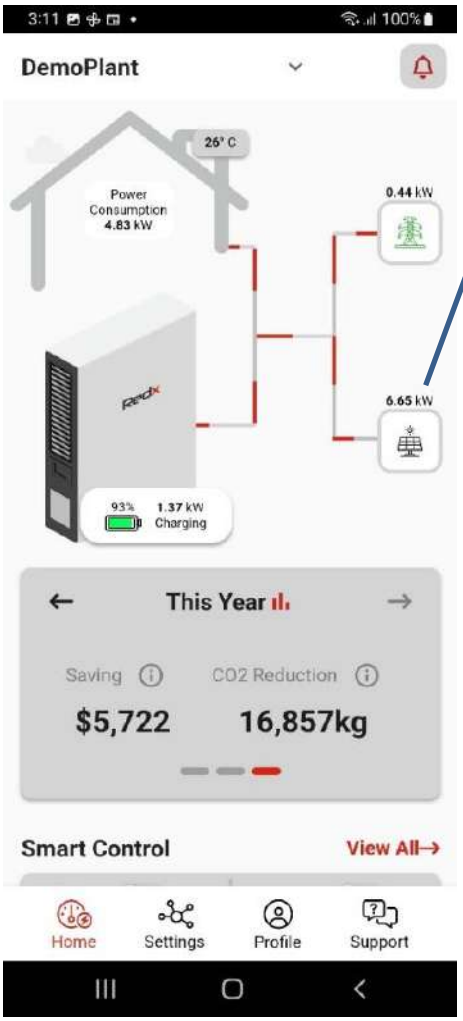


Hit on premises power consumption label to show the energy consumption detail of a day

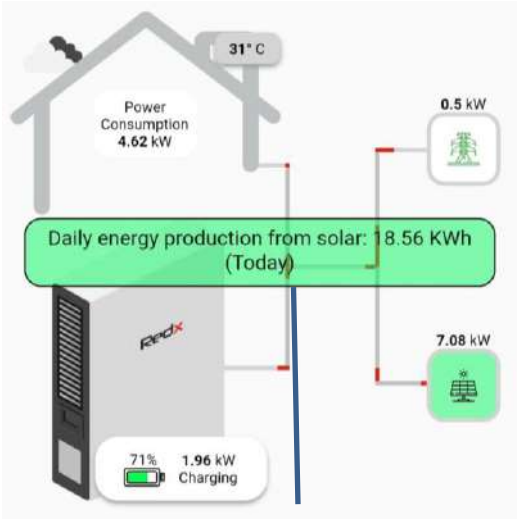
2.2.2 Grid Energy Consumption



2.2.3 Solar Power Generation

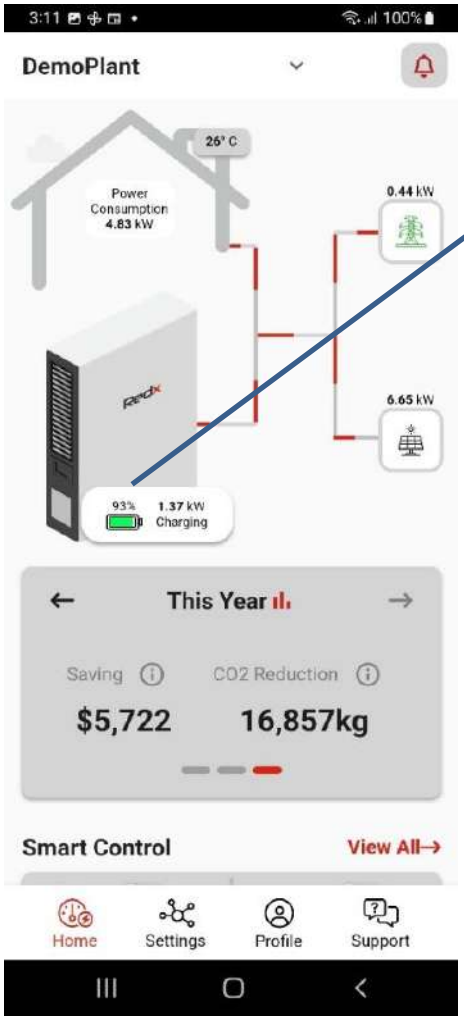


This shows the current Solar Power Generation

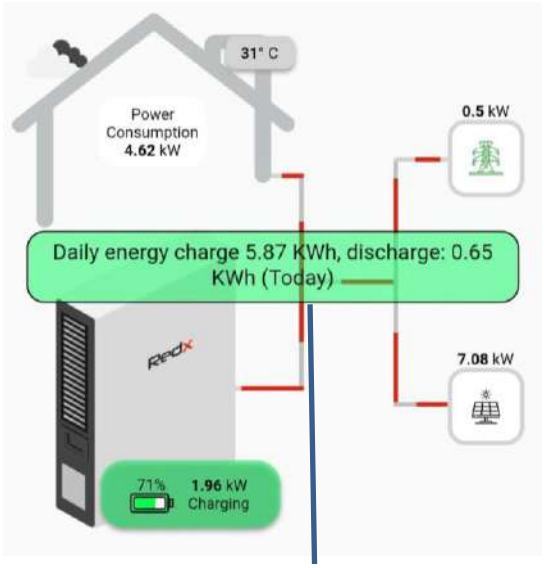


Hit on the grid icon to show the solar power generation of a day

2.2.4 Redx Energy Unit



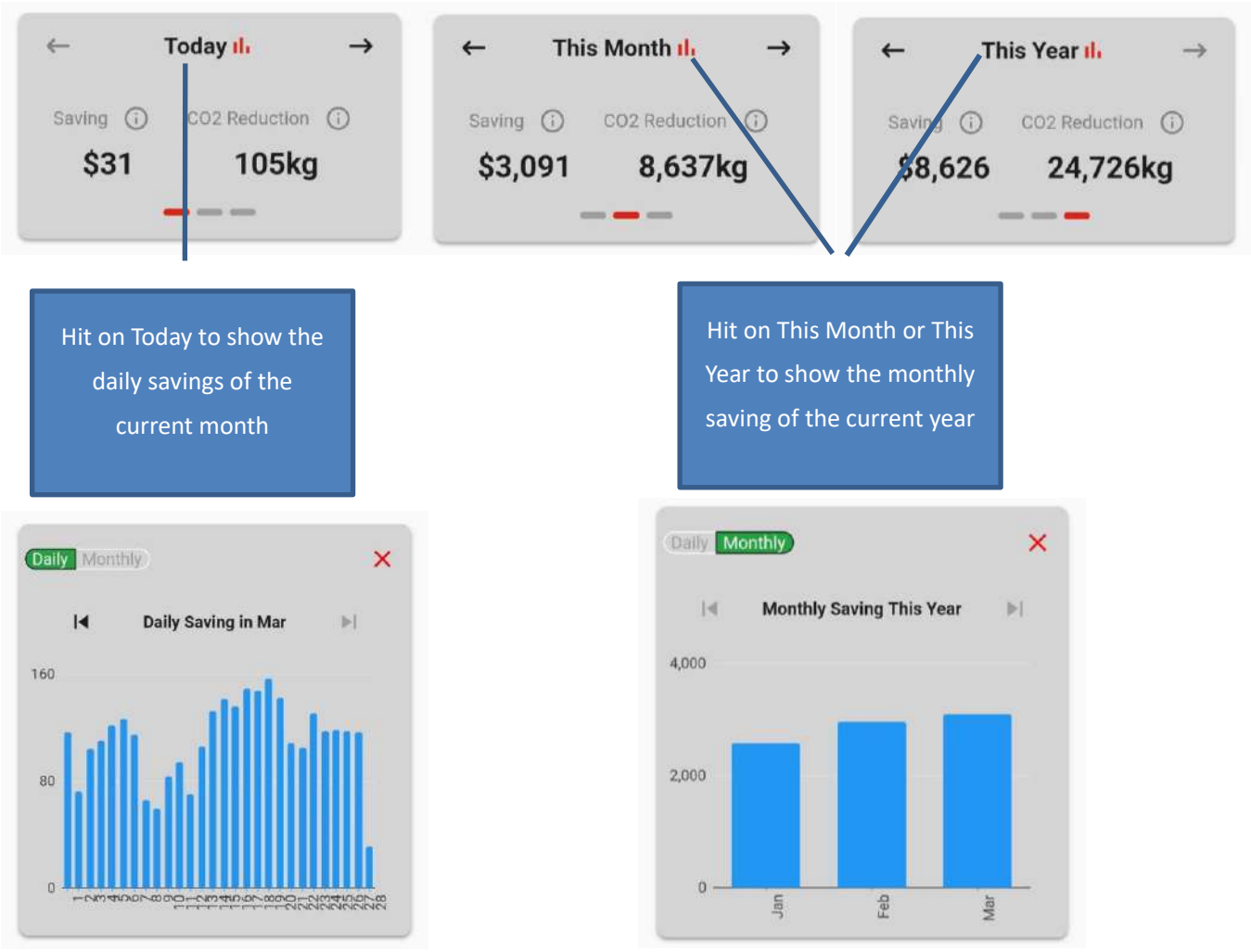
This shows the Redx Battery charge status and detail



Hit on the Redx charging data label to show Redx Battery charge and discharge detail of a day

2.2.5 Saving Dashboard

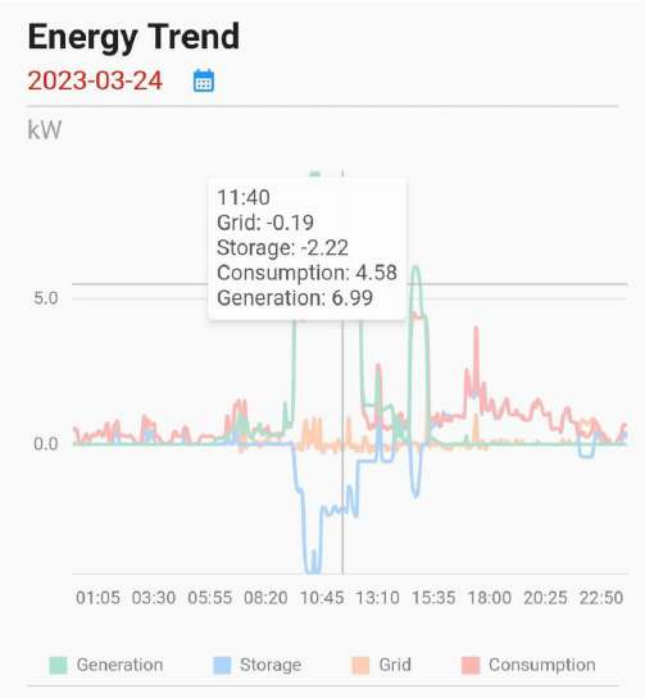
In the Home dashboard, there is a Savings section. The user can review the dollar saving and CO2 reduction of today, current month and current year.



2.2.6 Energy Trend

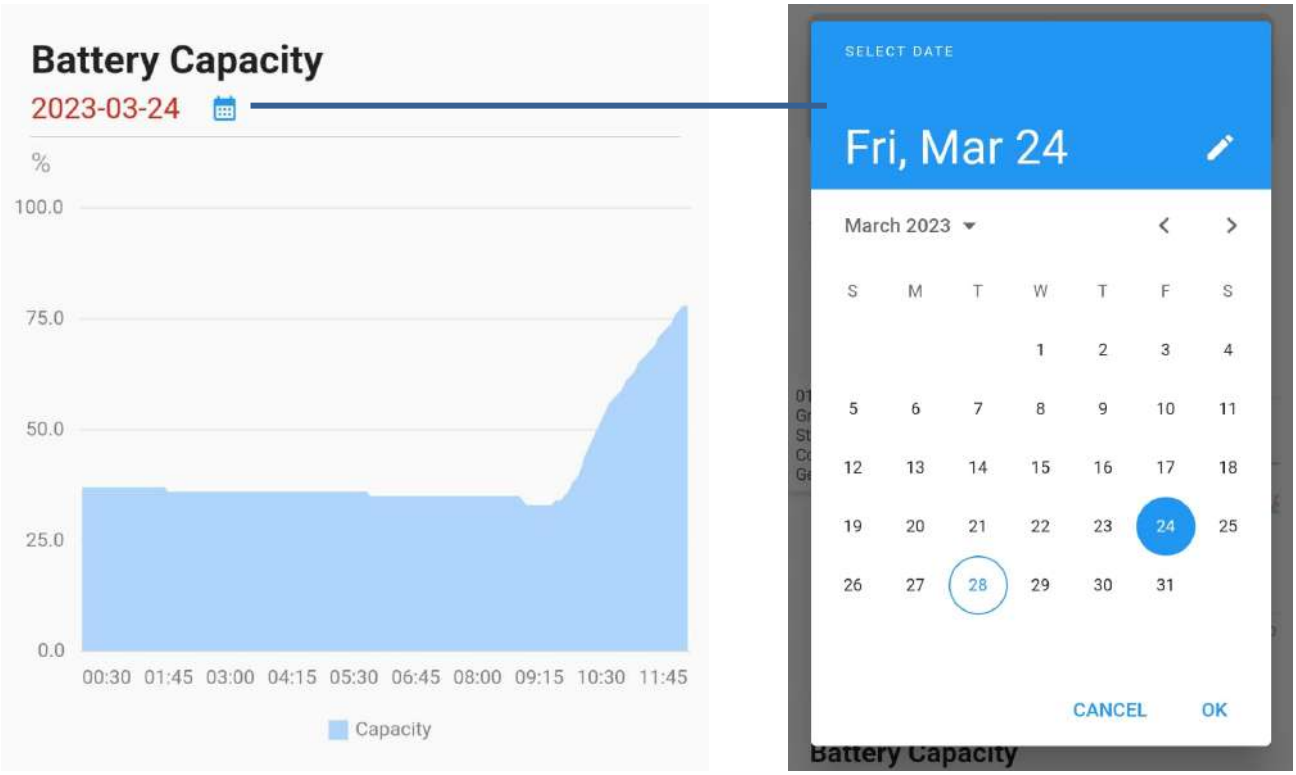
On the Home dashboard, there is an Energy Trend section. The user can review their overall energy consumption, generation and storage of today or a specific day.

The user can pick a specific day to review energy consumption, generation and storage. By tapping on the timeline, user can review energy trends from a specific time.

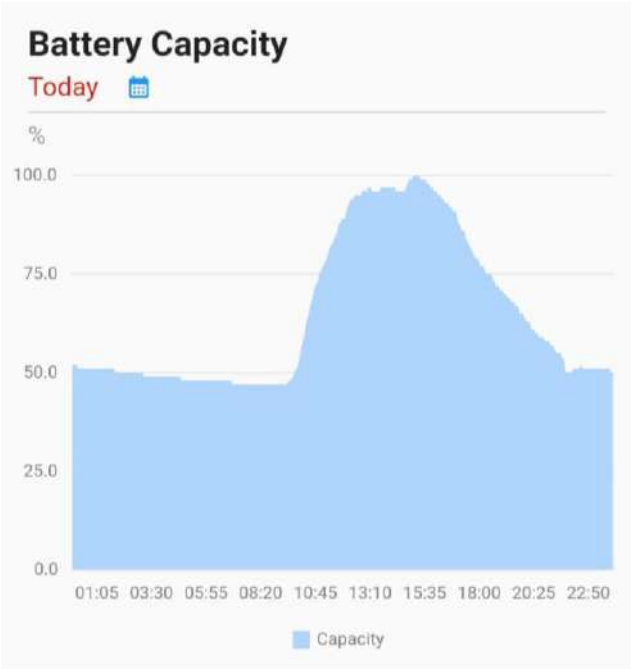


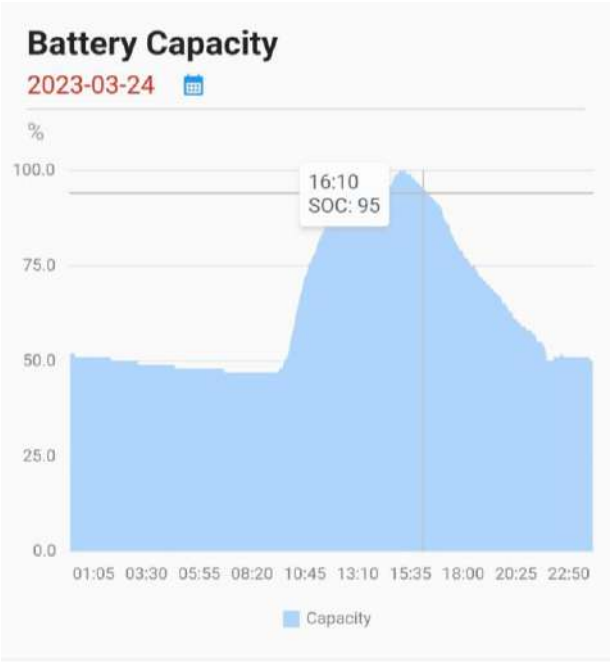
2.2.7 Battery Capacity

On the Home dashboard, there is a Battery Capacity section. The user can review Redx Battery overall capacity from today or a specific day.



The user can pick a specific day to review battery capacity. By tapping on the timeline, the user can review battery capacity from a specific time



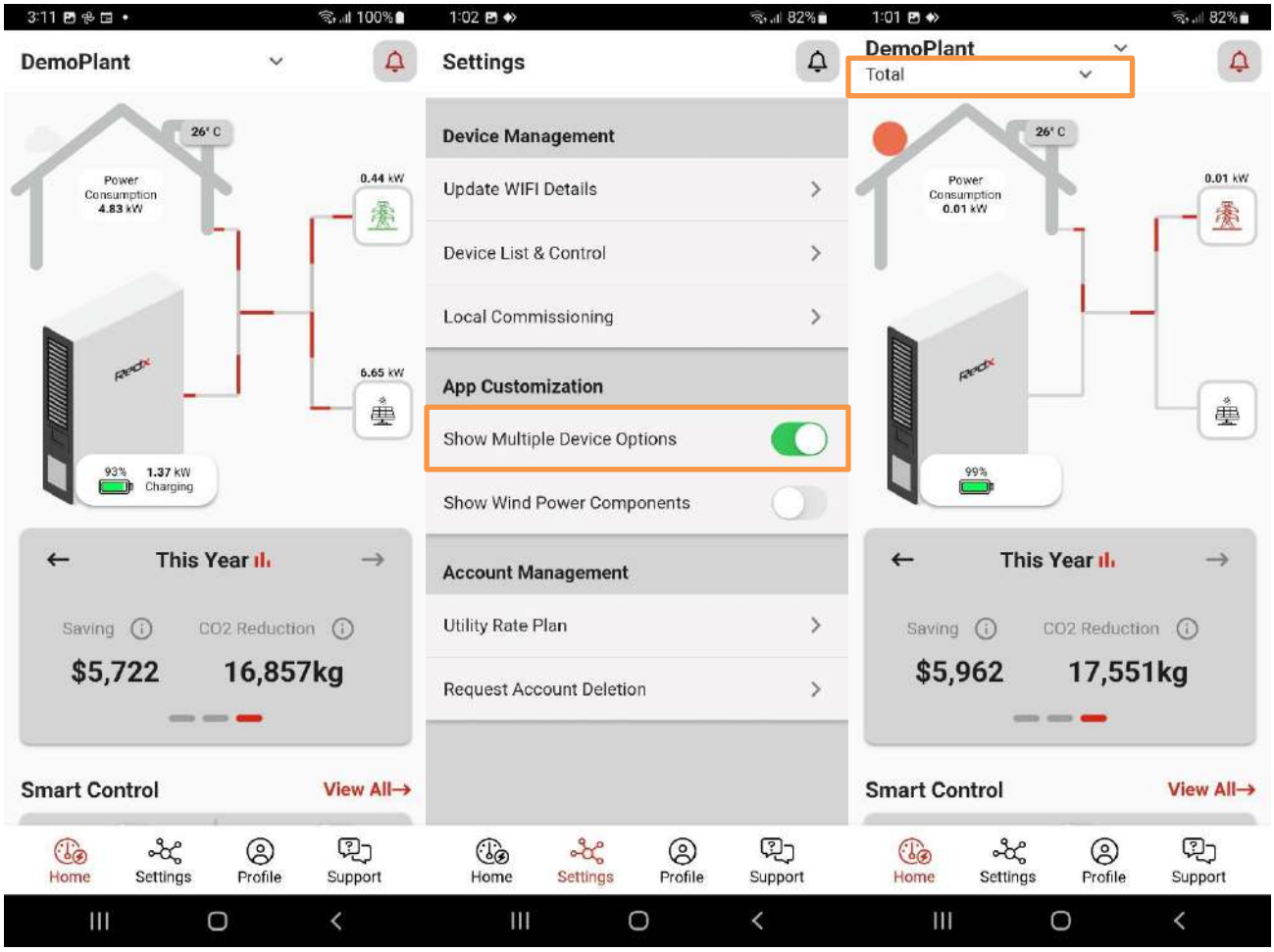


2.3 Redx Energy Dashboard Option

If you have more than one Redx Energy unit installed at your premises, you may want to view the details of each individual unit. Please follow the below steps:

1. Navigate to “Settings” section from the bottom menu
2. Toggle “ON” for the “Show Multiple Device Options”
3. Go back to “Home” section

Now, the user can choose to view information on individual unit level.



2.4 Savings Calculation

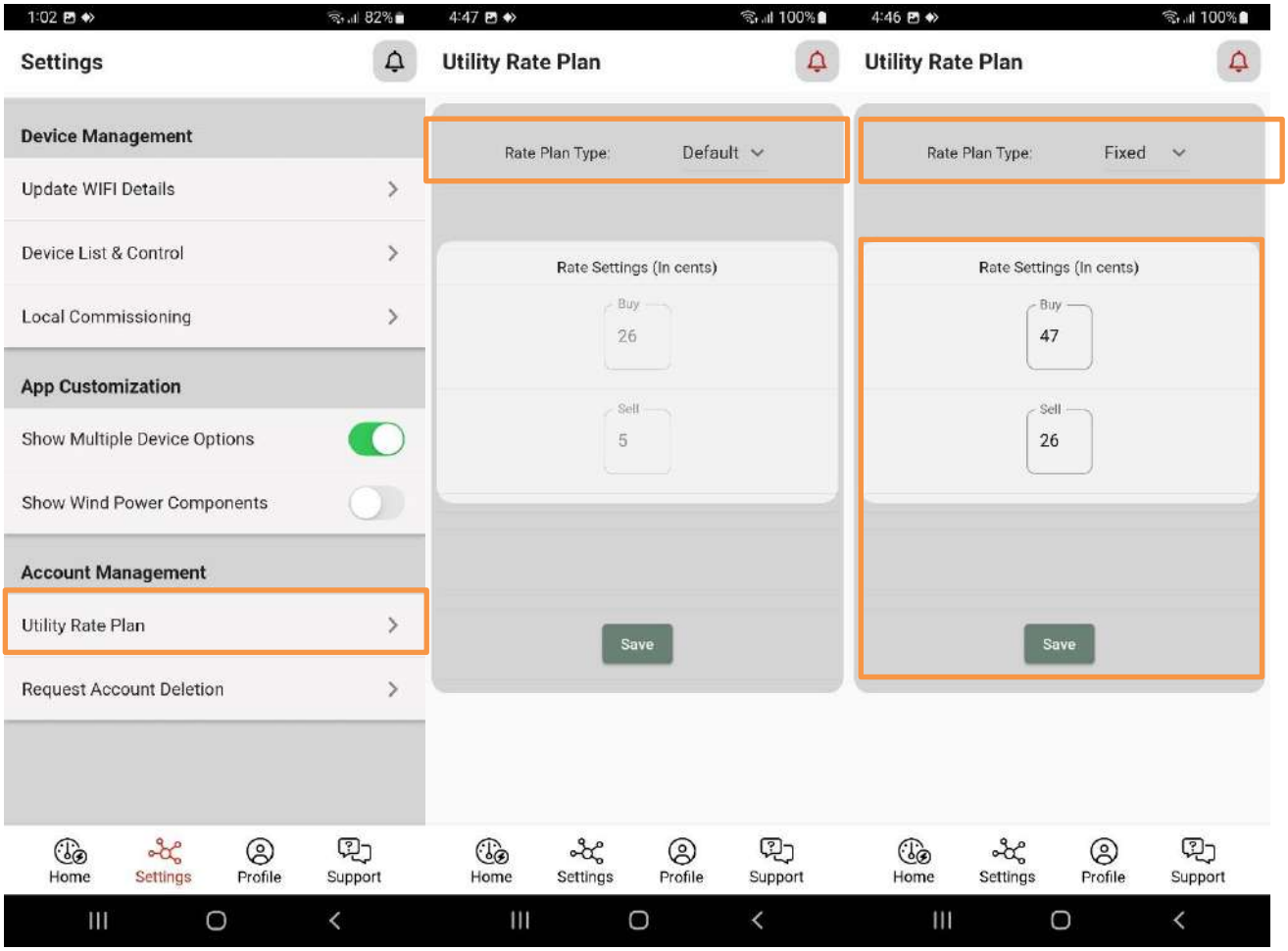
The Redx Power Mobile App provides daily, monthly, yearly savings and CO2 reduction information. By default, the savings information is calculated with the default reference values. In order to calculate user's savings correctly, it is recommended to fill in the utility rate information into Redx Power Mobile App. There are three available rate plan types available – Default, Fixed or Custom.

Utility plan types:

- Default rate plan is the default reference values which are not editable
- Fixed rate plan is suitable for user with electricity bill on a flat rate
- Custom rate plan is suitable for user with electricity bill in multiple tiers

To update the utility rate plan to Fixed rate plan, please follow the below steps:

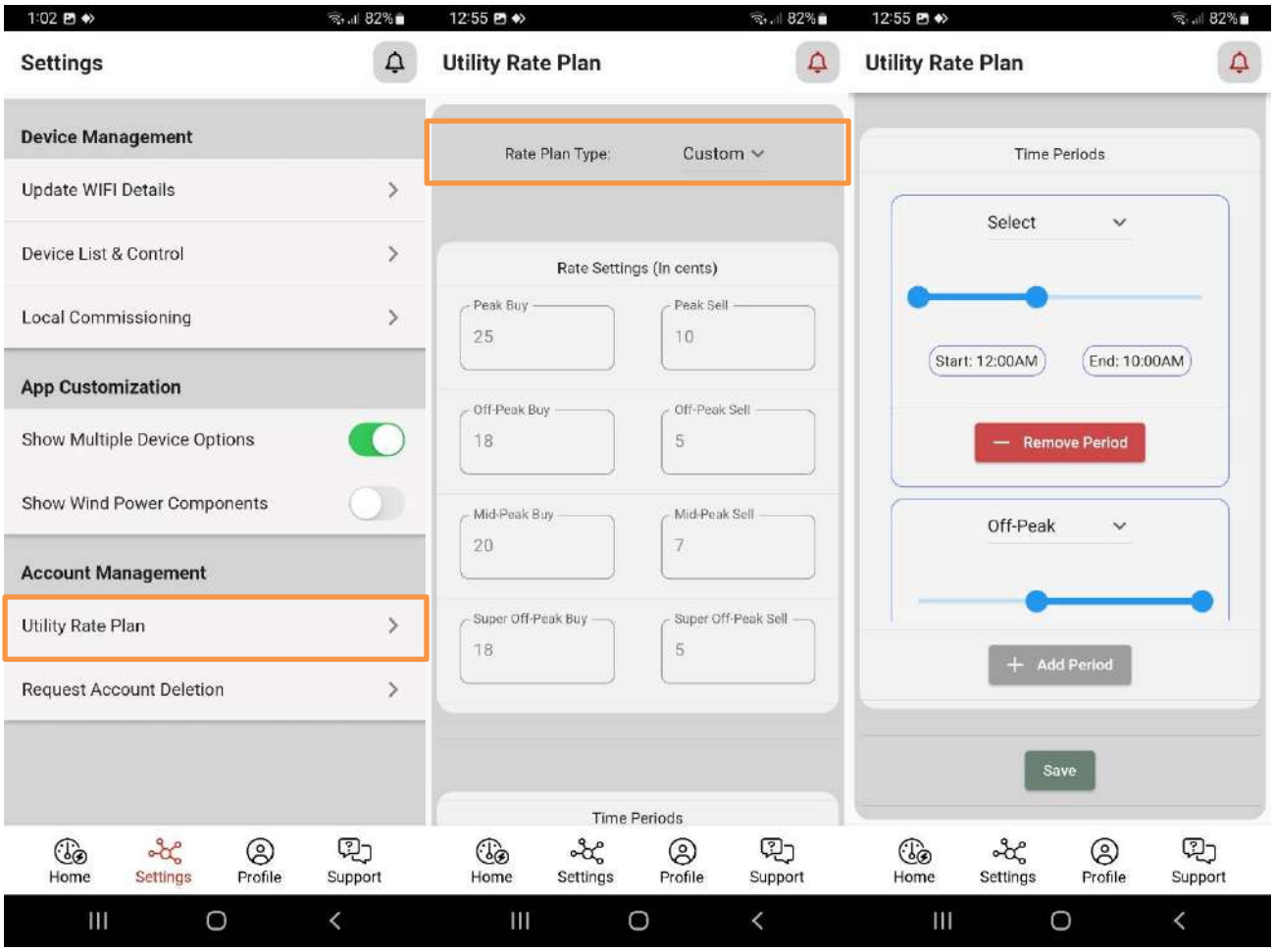
1. Navigate to "Settings" section from the bottom menu
2. Select "Utility Rate Plan"
3. Select "Fixed", input your electricity rates in "Buy" and feed-in tariff in "Sell"
4. Hit "Save"



To update the utility rate plan to Custom rate plan, please follow the below steps:

1. Navigate to “Settings” section from the bottom menu
2. Select “Utility Rate Plan”
3. Select “Custom”, input electricity tiered rate in “Peak Buy”, “Mid-Peak Buy”, “Off-peak Buy” and “Super Off-peak Buy”. For the feed-in tariff, please fill in “Peak Sell”, “Off-peak Sell”, “Mid-peak Sell” and “Super Off-peak Sell”.
4. Then, scroll down to the Time Period section.
5. Select the rate and pick the start / end time by moving the 2-end slider.
6. If you have multiple rates, hit on “Add Period” and repeat step 6 until all rates have been entered.
7. Hit “Save”

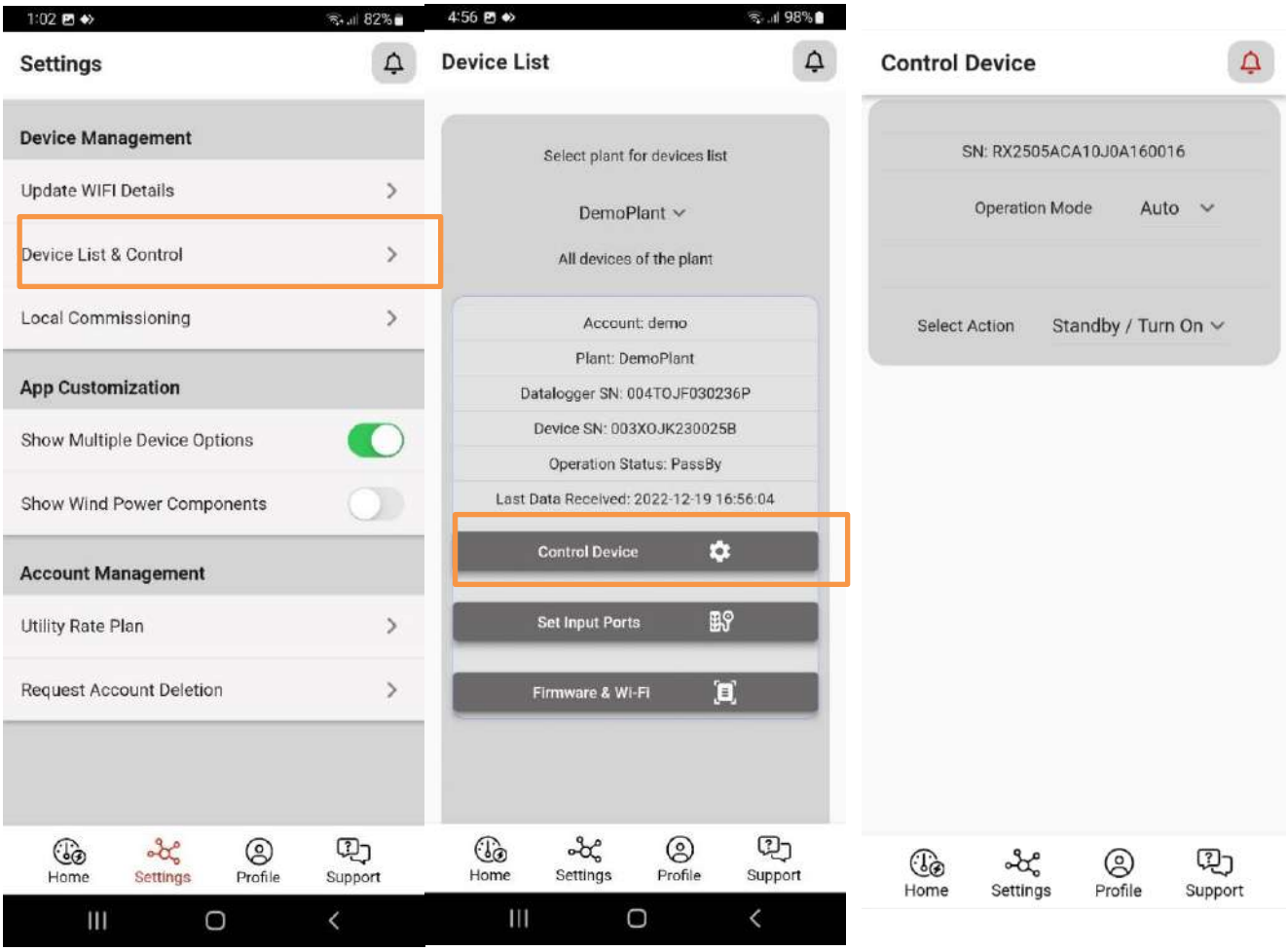
If you have a 3-tiered rate (peak, shoulder and off peak) and 1 flat feed-in tariff, fill in “Peak Buy”, “Mid-Peak Buy”, “Off-peak Buy” and leave “Super Off-peak Buy” blank. Fill in “Peak Sell”, “Mid-peak Sell”, “Off-peak Sell” the same tariff and leave “Super Off-peak Sell” blank.



Note: Changes in the utility rate plan are not backdated and will affect future saving calculations.

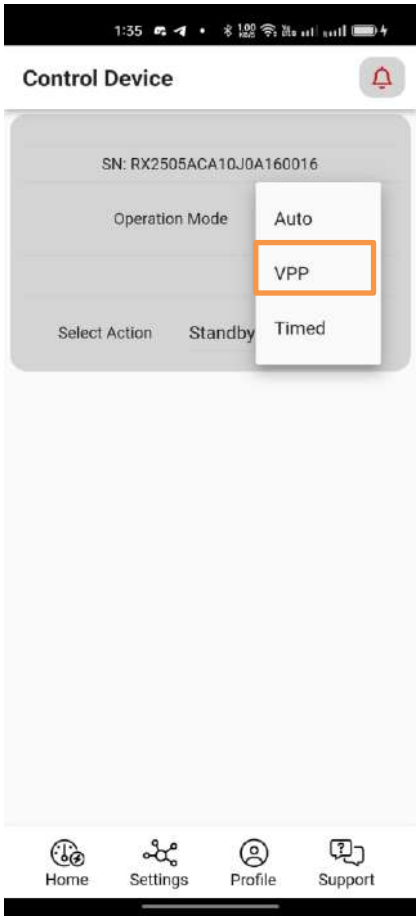
3 Control the Redx Energy Unit from Anywhere

With the Redx Power Mobile App, the user can remotely control the Redx Energy unit(s) by going to Setting section – Device Management. From “Device Management”, hit on “Device List & Control” which will show all unit(s) under your account. Select the Redx Energy unit that you want to control and hit on “Control Device”, the “Control Device” page will be shown.



3.1 Control Device – Auto Mode

Auto mode – this mode allows Redx Energy unit to run on its own without any manual setting. Most of the users can use this mode. This mode is “Set and forget!” Let the Redx Energy unit work for you.



3.2 Control Device – Timed Mode

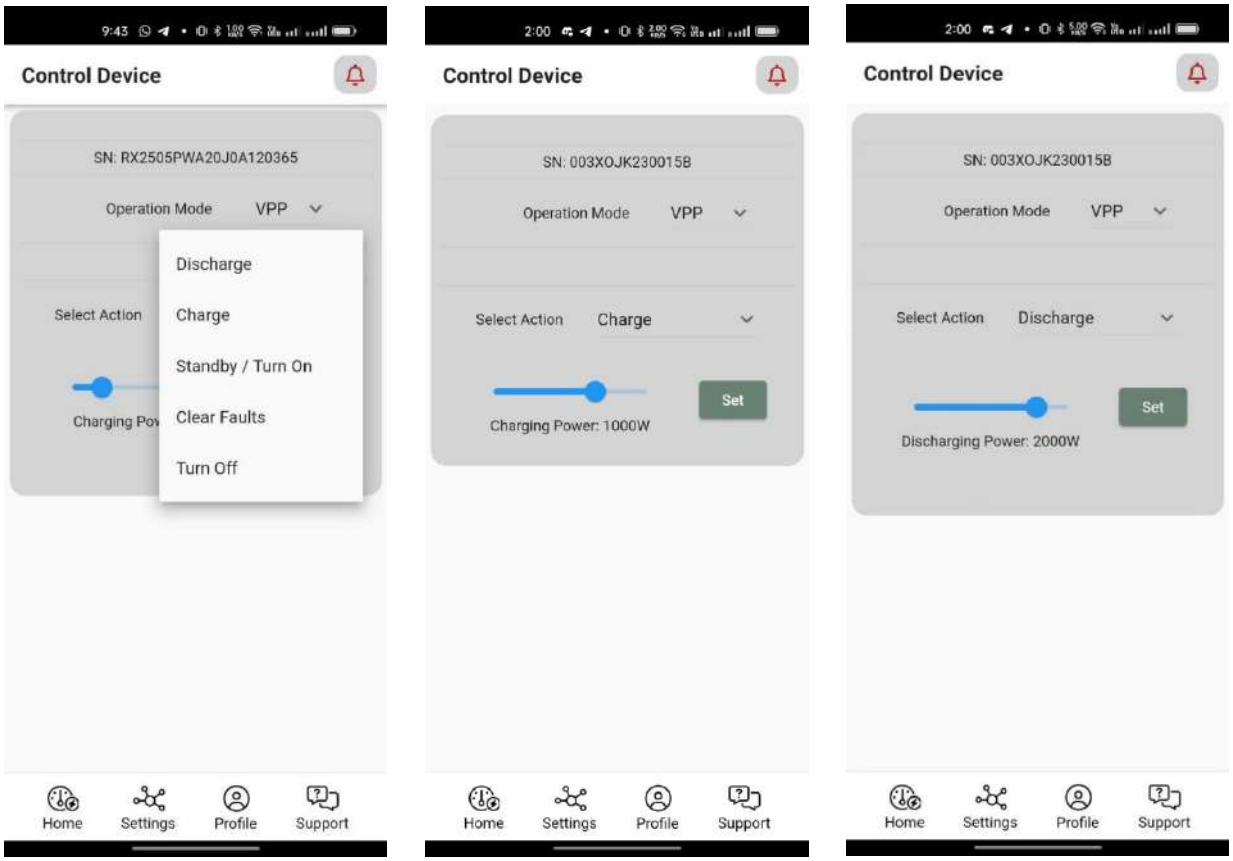
Timed mode – this mode allows user to schedule battery charging and discharging.

Set up Charging Time: hit on “Charge”, then select power level. Set the “Start”, “Stop” time of Timer 1. For example, if your area has good sunshine from 9am to 3pm, you can set the charging power to 900W to charge 6 hours which can charge up a 5kWh battery. If there is a need to charge twice a day, the user can setup “Timer 2”.

Set up Discharging Time: hit on “Discharge”, then select power level. Set the “Start”, “Stop” time of Timer 1. For example, if there is intensive load during 6pm – 9:00pm, you can set the discharging power to 2000kW to discharge battery in 3 hours. If there is a need to discharge twice a day, user can setup “Timer 2”. If the customer does not want to discharge to grid, then “enable anti-backflow” must be ticked.

3.3 Control Device – VPP Mode

VPP mode – this mode allows the user to send commands to the Redx Energy unit. Caution is advised when using this mode, because this is a 100% manual mode. User has to send command to Redx Energy unit every time to charge and discharge battery. That means, this mode meant for manually sending charge and discharge command continuously from day to day. It is recommended to reset the mode to “Auto Mode” or “Timed Mode” after manual control. This mode can also be used by Redx approved Energy Retailers or VPP solutions providers to remotely control your device with remote commands according to your VPP contract with the electricity retailer.



Send Charge Command: select “Charge” and set charging power. Hit on “Set” button

Send Discharge Command: select “Discharge” and set discharging power. Hit on “Set” button

Send Turn On Command: select “Standby / Turn On”.

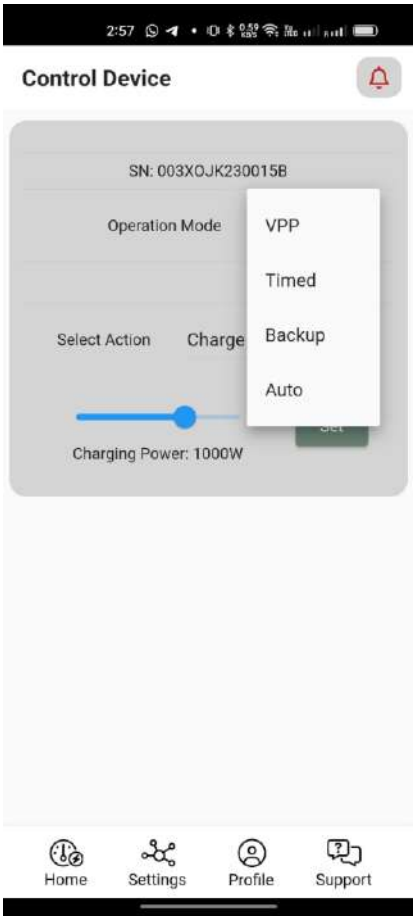
Send Turn Off Command: select “Turn Off”

Send Clear Faults Command: select “Clear Faults”

If the device has a temporary fault, the user can send a “Clear faults” command, then turn off and turn on the Redx Energy unit. If this doesn’t work, please review “Help and Support” section of this manual.

3.4 Control Device – Backup Mode

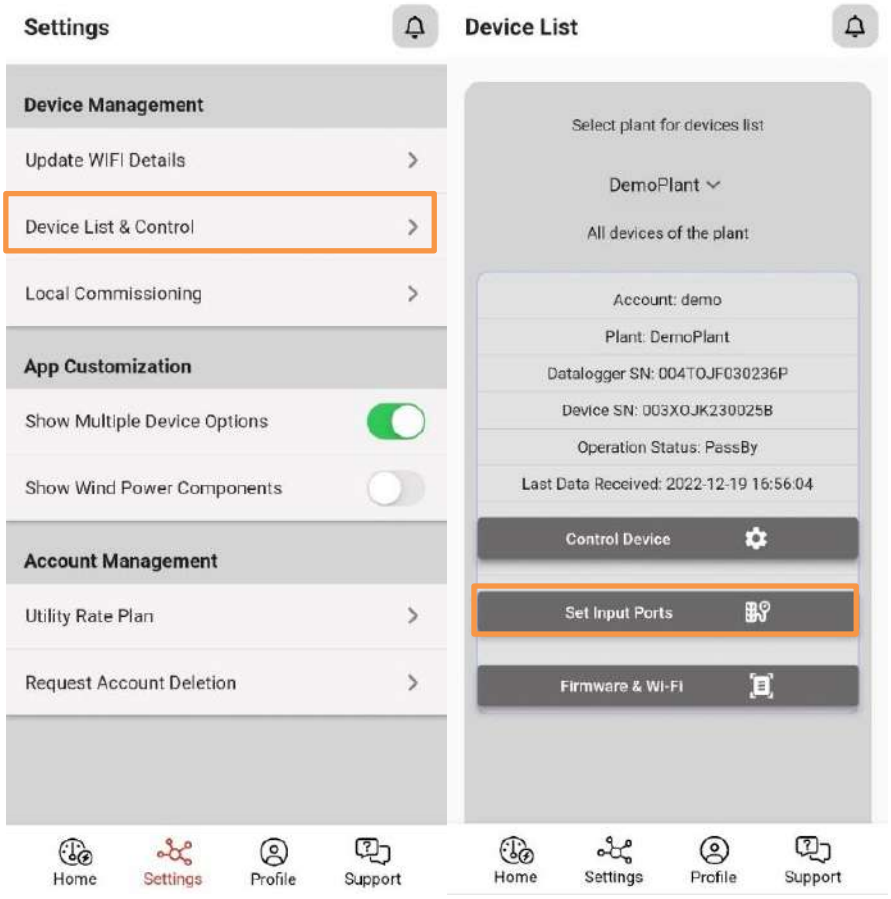
Backup mode – this mode is only applicable to Redx PU series. It allows the Redx Energy unit to run as backup power supply to installed premises. It is the same as Auto Mode, but allows to set up a few parameters: Backup Charge Level in percentage, Discharge Level in percentage and Charge Power in kW.



3.5 Set Input Ports

This function isn't for end user. It is recommended that only approved Installer to use this function. Installer can select the input combination for DC input on ports on the Redx PU, PW, HY series. For detail, Installer can refer to Redx Power Mobile App – Installer Manual.

Note: The Redx AC series have no DC input Ports.



4 Control Redx Energy Unit Locally

4.1 Control Redx Energy Unit Locally

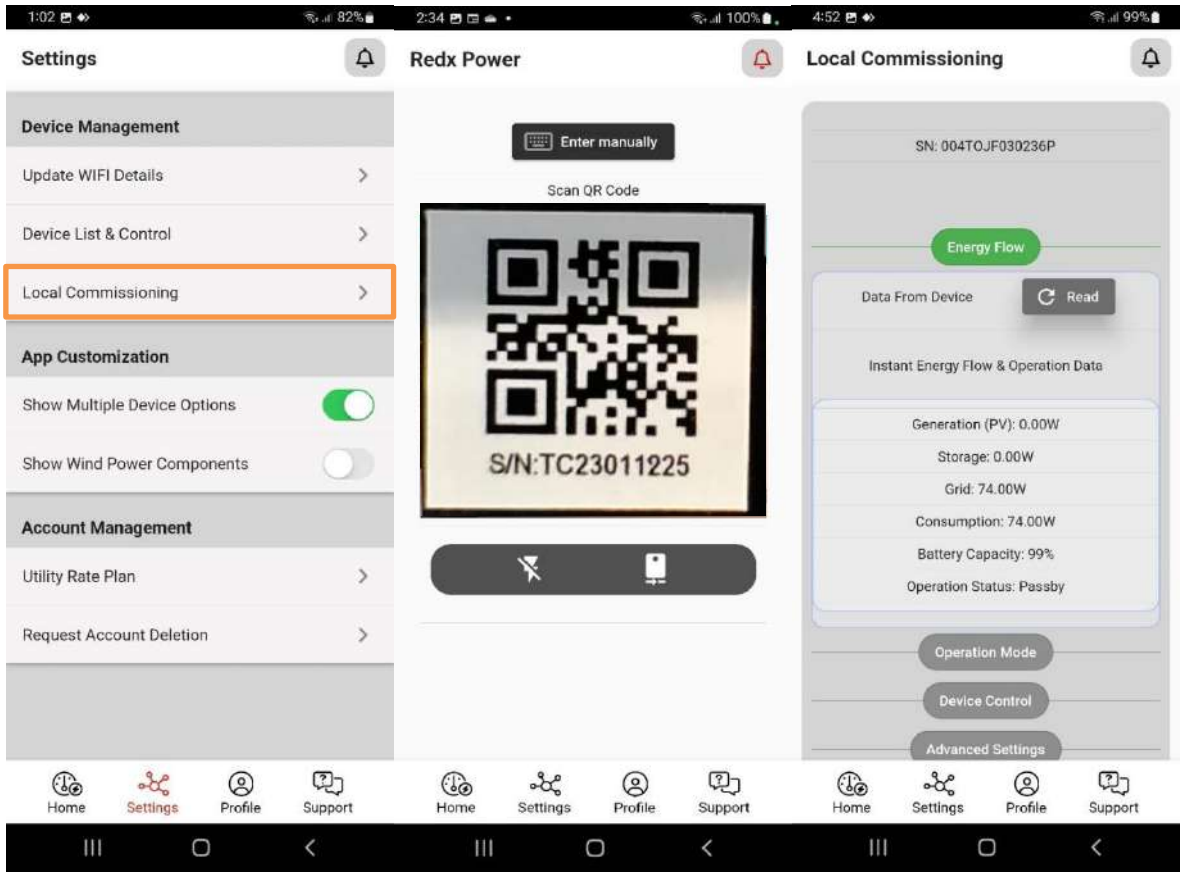
In the unlikely event that there is no internet connectivity via Wi-Fi or 4G/5G, users can control the Redx Energy unit via “Local Commissioning”. The Redx Power Mobile App is equipped with powerful local control functions. By using Local Commissioning, you can view the real-time energy flow data and the device operating status. You can also control the device and change its operating parameters with the Local Commissioning function.

4.2 Review Energy Data Locally

Here are the steps using Local Commissioning and reviewing energy data:

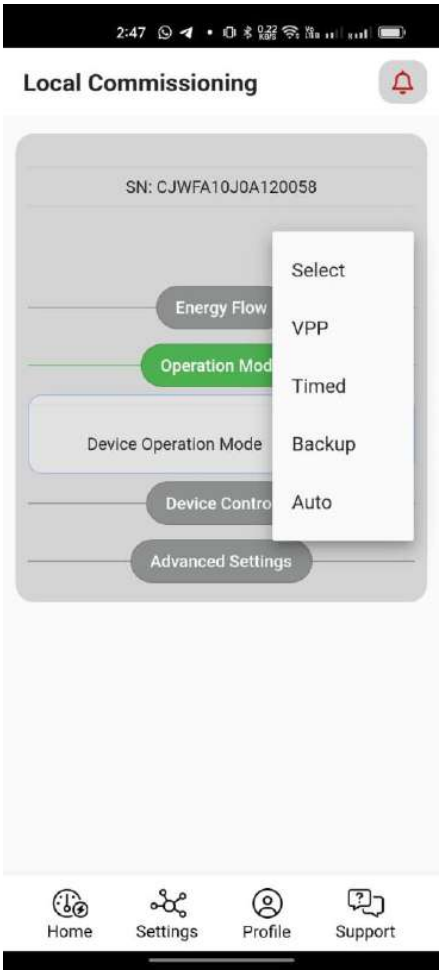
1. Navigate to “Settings” section from the bottom menu.
2. Hit on “Local Commissioning” from “Device Management” section.
3. Scan the QR code on the side or at the bottom of Redx Energy unit.
4. Hit on “Read” button to view the live energy data of Redx Energy unit.

Note: You may need to connect to Wi-Fi of Redx Energy unit from the Settings section of the mobile phone. Default Wi-Fi password is: “12345678”.



4.3 Control Device Locally – Auto Mode

Auto mode – this mode allows Redx Energy unit to run on its own without any manual setting. Most of the beginner user who can apply this mode. Set and forget! Let Redx Energy unit works for you.

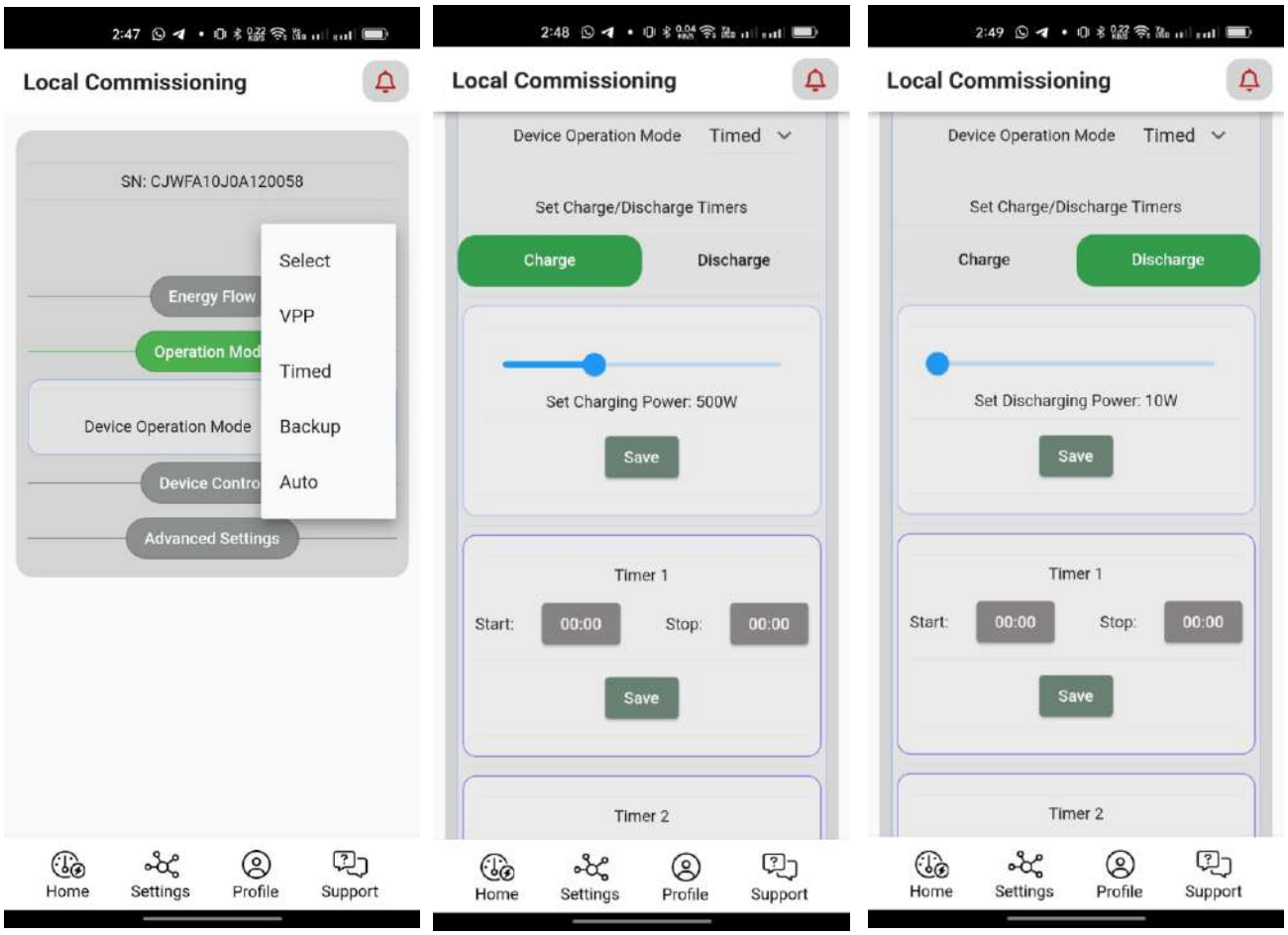


4.4 Control Device Locally – Timed Mode

Timed mode – this mode allows user to schedule battery charging and discharging.

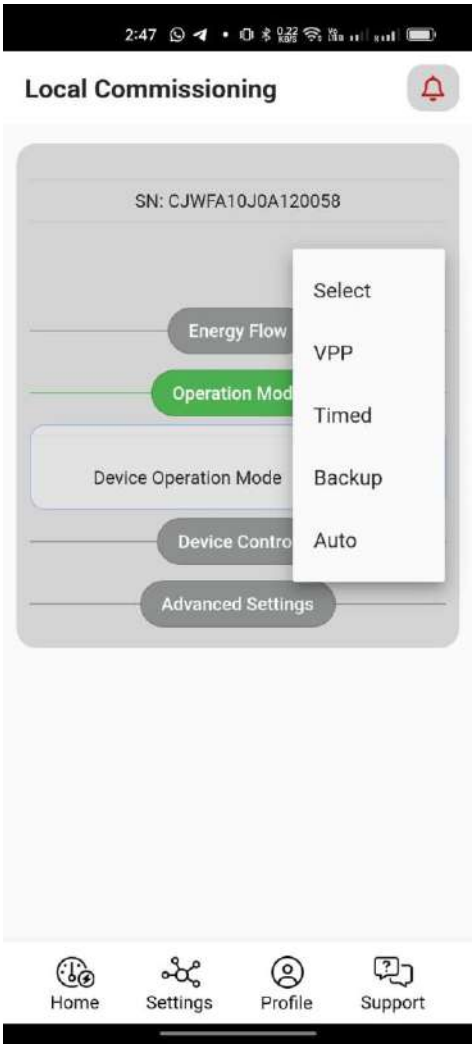
Set up Charging Time: hit on “Charge”, then select power level. Set the “Start”, “Stop” time of Timer 1. For example, if your area has good sunshine from 9am to 3pm, you can set the charging power to 900W to charge 6 hours which can charge up a 5kWh battery. If there is a need to charge twice a day, the user can setup “Timer 2”.

Set up Discharging Time: hit on “Discharge”, then select power level. Set the “Start”, “Stop” time of Timer 1. For example, if there is intensive load during 6pm – 9:00pm, you can set the discharging power to 2000kW to discharge battery in 3 hours. If there is a need to discharge twice a day, user can setup “Timer 2”. If the customer does not want to discharge to grid, then “enable anti-backflow” must be ticked.



4.5 Control Device Locally – VPP Mode

VPP mode – this mode allows the user to send commands to the Redx Energy unit. Caution is advised when using this mode, because this is a 100% manual mode. User has to send command to Redx Energy unit every time to charge and discharge battery. That means, this mode meant for manually sending charge and discharge command continuously from day to day. It is recommended to reset the mode to “Auto Mode” or “Timed Mode” after manual control.



Under VPP mode, user can send direct command as below:

Send Charge Command: select “Charge” and set charging power. Hit on “Set” button

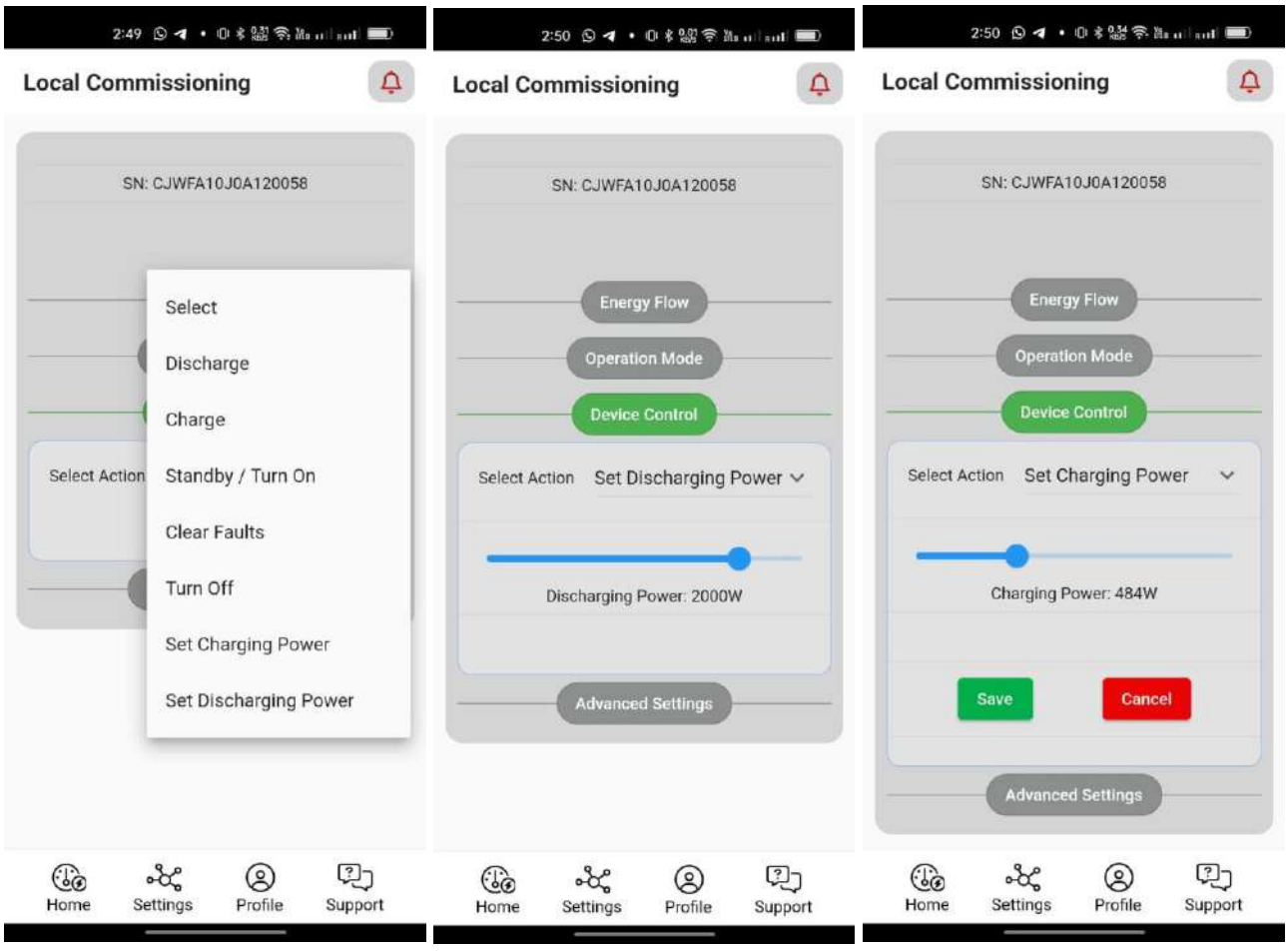
Send Discharge Command: select “Discharge” and set discharging power. Hit on “Set” button

Send Turn On Command: select “Standby / Turn On”.

Send Turn Off Command: select “Turn Off”

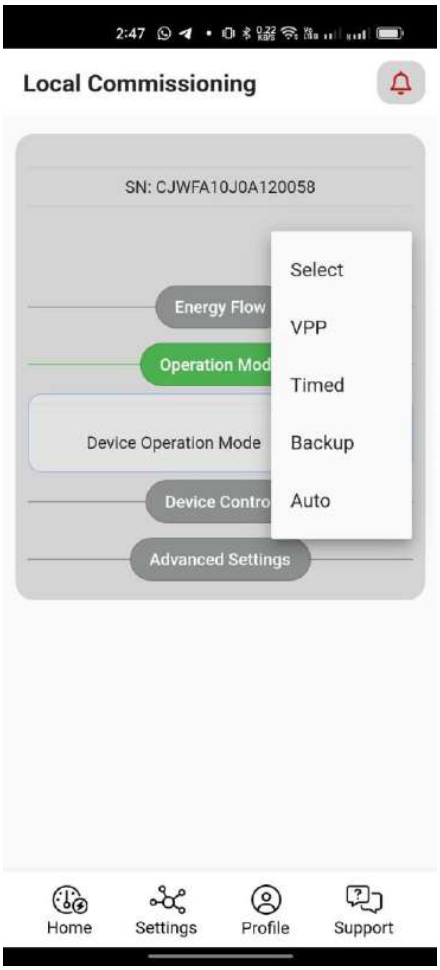
Send Clear Faults Command: select “Clear Faults”

If the device has a temporary fault, the user can send a “Clear faults” command, then turn off and turn on the Redx Energy unit. If this doesn’t work, please review “Help and Support” section of this manual.



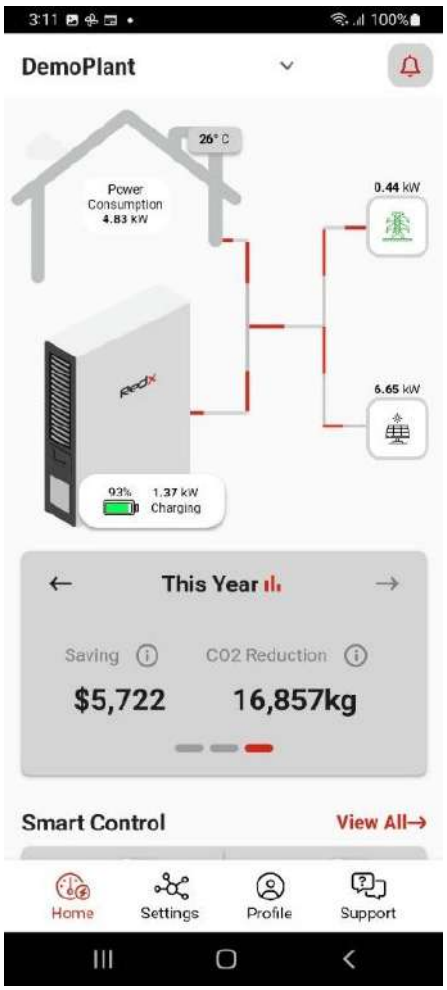
4.6 Control Device Locally – Backup Mode

Back mode – this mode is only applicable to Redx PU series. It allows the Redx Energy unit to run as backup power supply to installed premises. It is the same as Auto Mode but allows to set up a few parameters: Backup Charge Level in percentage, Discharge Level in percentage and Charge Power in kW.



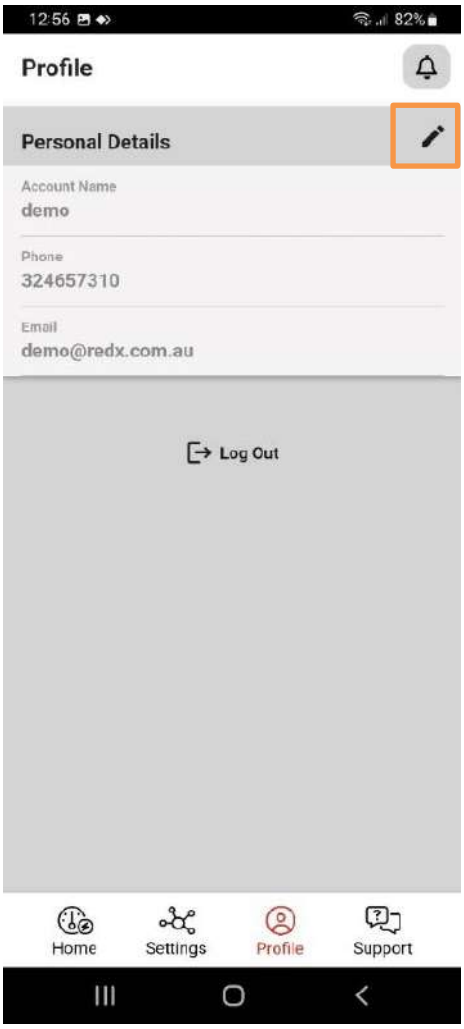
5 Notification Center

Redx Power Mobile App has a dedicated notification center – a bell icon at top right position of App. This icon turns red when there are an operational warnings or errors. The notification provides all the necessary information and possible solution options when applicable.



6 Edit Profile

Users are allowed to update the profile information of their account. Simply navigate to “Profile” from the menu bar at the bottom. Hit on the pen icon for editing.



7 Update Wi-Fi

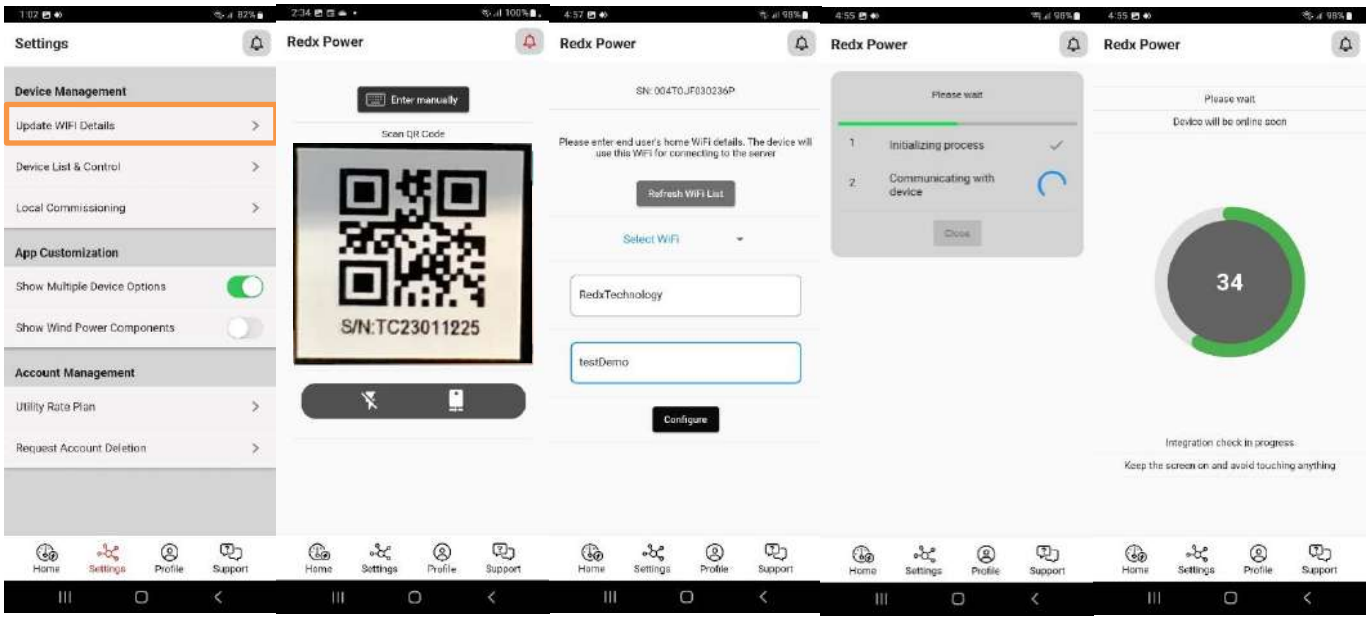
The Redx Energy unit connects to Internet via your premises Wi-Fi (excluding devices equipped with 4G/5G hardware modules). This Internet connection allows the Redx Energy unit connect to the Redx Cloud Servers. If the premises Wi-Fi SSID (name) or password has changed, the user is recommended to update the Wi-Fi settings in the Redx Energy unit. Otherwise, the Redx Energy unit will be offline and the Home dashboard will not update any data. Here are the steps to update Wi-Fi on the Redx Energy unit:

1. Navigate to “Settings” section
2. Hit on “Update Wi-Fi Details”
3. Scan the QR code of the Redx Energy unit using the mobile phone camera. The QR code is located on the side of unit or under the inverter.
4. Type in Wi-Fi SSID or select the Wi-Fi name from the “Select Wi-Fi” drop down
5. Enter password of the Wi-Fi
6. Hit on “Configure”

Note 1: You may need to connect Redx device Wi-Fi from the Settings section of the mobile phone. Default Wi-Fi password is: “12345678”.

Note 2: Select or enter a SSID and password combination. Incorrect Wi-Fi SSID, incorrect password or Wi-Fi without active internet connection will cause the process to fail.

Note 3: The user is allowed to update to a new Wi-Fi name or updating the password for the existing Wi-Fi name. However, the app does not allow to reinsert the same Wi-Fi name and password combination that was previously saved to the device.



8 Troubleshooting

8.1 Mobile Phone Is Offline

When your mobile phone which has the Redx Power Mobile App installed is unable to access the Internet, the App will not show any energy data on Home Dashboard as below.

Resolution:

Please check that there are no issues with the telco data consumption limits or any restrictions with the on premises Wi-Fi in regards to accessibility to the Internet. When the Internet connection of mobile phone is resolved, the Home dashboard data will be updated automatically.

8.2 Redx Energy Unit Is Offline

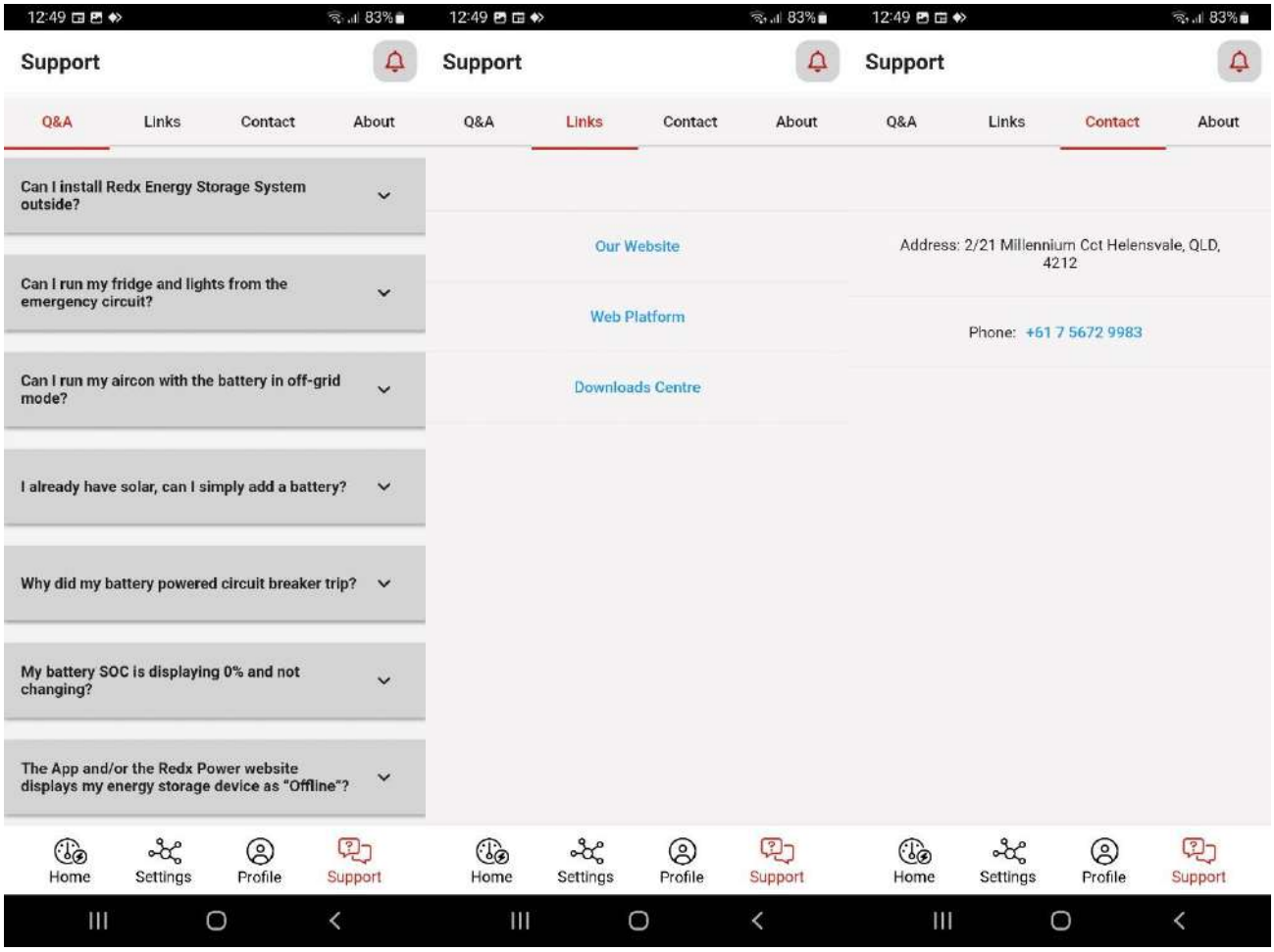
The Redx Energy unit connects to Internet via on premises Wi-Fi or 4G/5G. If the unit is offline, it will not show any energy data on the Home Dashboard as below.

Resolution:

Please check if the premises Wi-Fi is available and accessible to the Internet. If this is the Wi-Fi hardware problem or Internet access interruption, please consult to your Internet service provider Please note that the ports 8090 and 8091 must be accessible via Internet service provider. If the Internet connection can resume from your Internet service provider, then Redx Energy unit will resume connection and publish latest energy data automatically. If the problem is on the hardware like router which is needed to be replaced or reconfigured. Please ensure to setup the Wi-Fi SSID and password the same as before. If it is necessary to change Wi-Fi SSID or password, please update Redx Energy unit's Wi-Fi settings. Please refer to the section "Update Wi-Fi" for details.

9 Help and Support

If you need any assistance you can navigate to the “Support” section in the Redx Power Mobile App. The Q&A section provides answers to some frequently asked questions. In the Links tab you can easily jump to our website or web portal to get more of the latest information and documentation. If you still have any questions, you can tap on the Contact tab, and you may contact us accordingly.



10 Contact

If you have any questions about the Redx products, please provide your Redx dealers with the following information:

1. System serial number
2. System model
3. Fault name and code
4. Brief description of the fault symptom

If your questions related to the Redx Power Mobile App, please contact Redx with the following information:

1. Brief description of the issue
2. Make and model of the mobile phone
3. Mobile phone operating system and its version number
4. Error text info or error code, if available
5. Screenshot or screen video recording, if available

For more information of Redx Products, you can visit to www.redx.com.au or scan the QR code below to review latest Redx Products.

QR code to Redx website

Redx Contact Information:

Email: info@redx.com.au
Phone: +61 7 5672 9983
Website: www.redx.com.au
Address: Unit 2/21 Millennium Circuit, Helensvale, QLD Australia 4212

*Specifications are subject to changes without advance notice.