

# Sunsynk Connect Pro User Manual

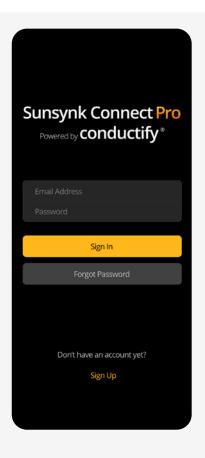
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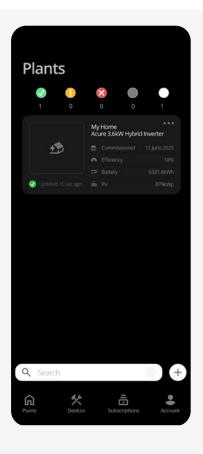
### Accessing Your Account if Pre-Populated

 If your system has been carried over automatically, your account will be available to Sign In via the Sunsynk Connect Pro App. You will need to reset your password for security purposes. To do this, tap 'Forget Password' and follow the process.

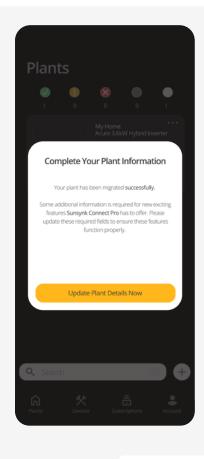


2. When you sign in, you will see the plants you had connected to your account.

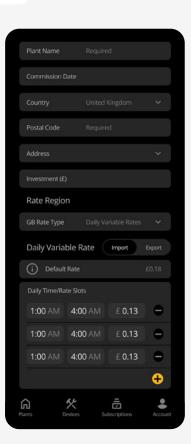
**Note:** Only the supported inverters connected to your account will have been migrated, for more information on this, please visit the FAQ section on *www.sunsynkconnectpro.info* 



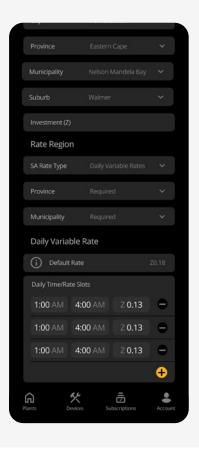
3. When you open your plant for the first time, it will ask you for some missing information. This missing information is essential for the new features to operate correctly.



United Kingdom



South Africa



4. Your Plant Overview will now open.

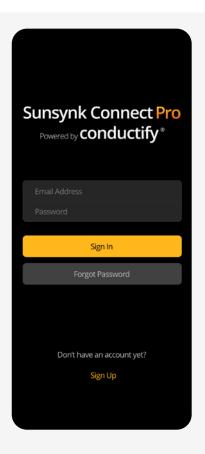


#### Accessing Your Account if Not Pre-Populated

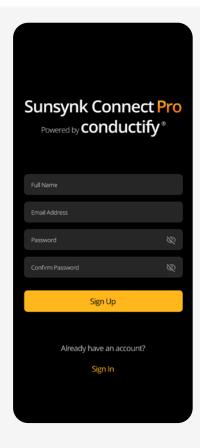
1. Create an account. To create an account, open the Sunsynk Connect Pro App. Upon launch, you will be greeted with the sign-in screen. At the bottom of this screen, tap **Sign Up**.

**Note:** If you have an account setup on Sunsynk Connect, please register using the same email address.

If your account has been automatically migrated, you should have an email with your new credentials. If you haven't receieved this, enter the same email address and select forgot password.

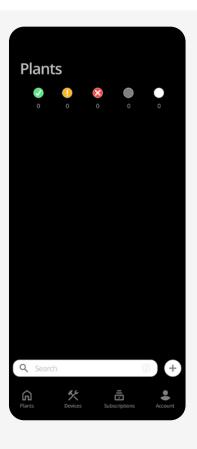


2. You will then be prompted to enter your details, including your name, email address, and a secure password. Once you have completed the form, tap **Sign Up** again.

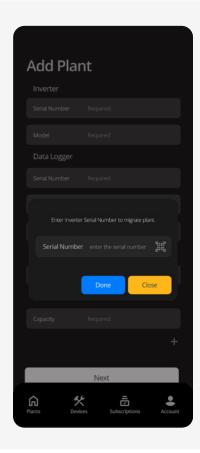


You will then be directed to your personal Plant
List, which will initially be empty. Tap the Add

 (+) button, which is located to the right of the search bar.



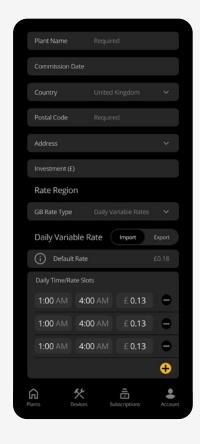
4. Enter your inverter serial number and select done. The system will now automatically fetch information from your inverter to populate most fields.



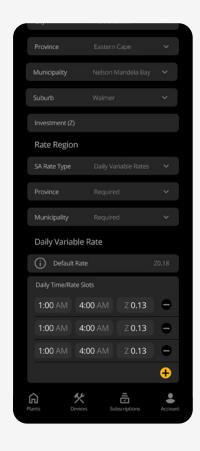
5. Complete any missing fields.

United Kingdom

**Note:** Time/Rate slot details must align with tariff details provided by your grid retailer.



South Africa

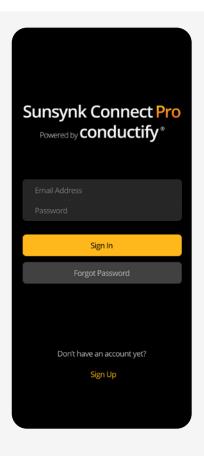


6. Your Plant Overview will now open.

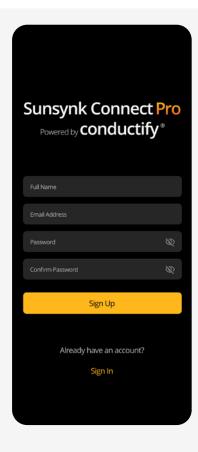


#### **Create an Account**

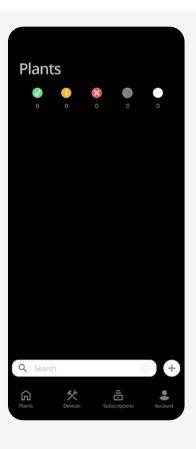
1. To create an account, open the Sunsynk Connect Pro App. Upon launch, you will be greeted with the sign-in screen. At the bottom of this screen, tap **Sign Up**.



2. You will then be prompted to enter your details, including your name, email address, and a secure password. Once you have completed the form, tap **Sign Up** again.



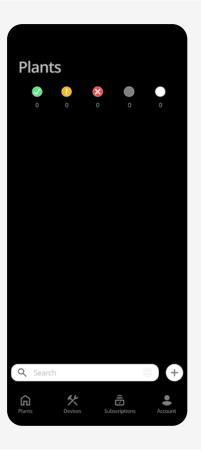
3. You will then be directed to your personal **Plant List,** which will initially be empty.



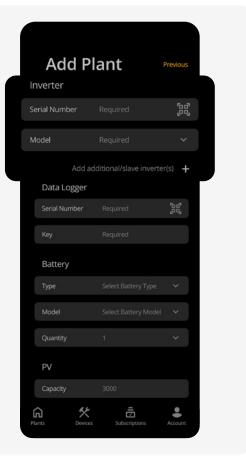
#### Create a Plant (United Kingdom)

**Note:** It is extremely important you ensure all your device and plant information is complete and accurate. If any information is missing and/or inaccurate, this will affect the accuracy of the AI-based predictions and associated management and financial performance.

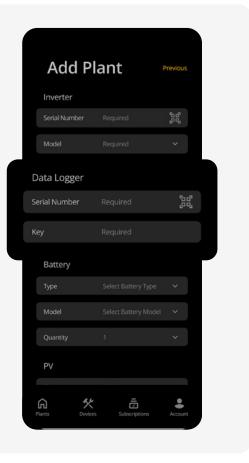
 After signing in, you will arrive at your Plant List. To add a new plant, tap the Add (+) button, which is located to the right of the search bar.



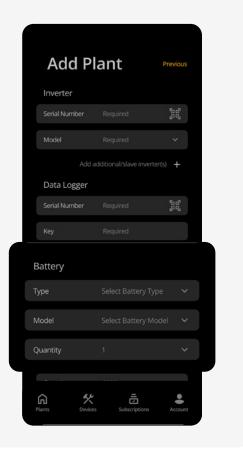
2. You will be prompted to enter your equipment details. Complete the inverter information section (Serial Number and Model). If you have multiple inverters in parallel, select **Add (+)** and enter the details of your secondary inverter.



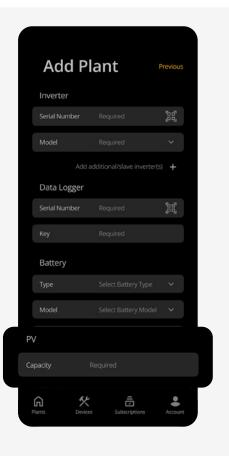
3. Complete the Data Logger information section (Serial Number, Key and Type).



4. Complete the battery information section (Type, Model, Quantity and Serial Number).

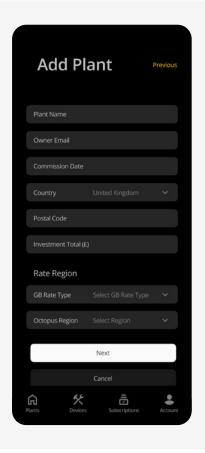


5. Complete the PV information section (Capacity). PV Capacity is the amount of PV/Solar you have installed in Watts (W).



6. Complete the plant information section (Plant Name, Commission Date, Country, Address, and Investment Amount).

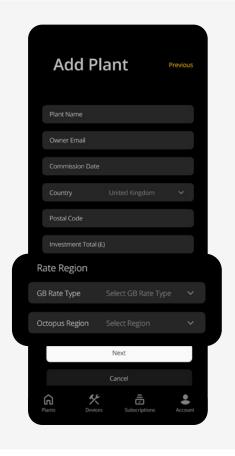
It is important to get the location information accurate. The AI reads data from your nearest weather station to be able to make a prediction on solar production based on your weather data. The most important key metric for the United Kingdom is "Postal Code".

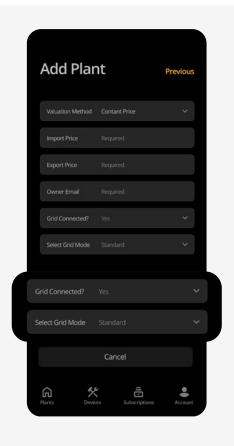


7. Complete the Rate Region information section (GB Rate Type and Octopus Region). For the United Kingdom, you will be asked to select your rate type. If you have a supported smart tariff such as Agile Octopus or Flux, select it and then select your region, the system will then automatically gather your import and export price information. If you do not have a supported smart tariff, then you will need to manually enter rates, using either the 'Constant' option (where your rates are not time variable) or as time-of-use rates.

Note: The above information is extremely important for proper functioning of the AI optimisation. Where available for your plant and configured to operate in this mode, the AI prepares daily charge plans which are sent to your inverter to automatically control charging from grid (buying) at the lowest rate available and discharging surplus energy to grid (selling) at the highest available price. It is the owners' responsibility to ensure this information is entered correctly. This data will also be used to calculate financial metrics, including your return on investment.

8. Complete the grid information section (Grid Connected and Grid Mode).

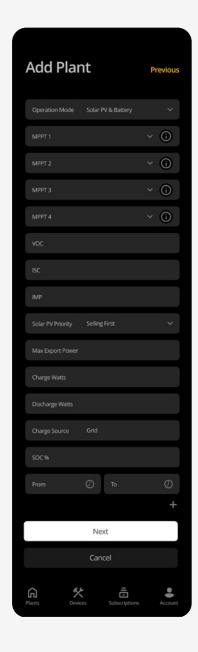




9. Complete the solar PV information section.

**MPPT** - Within the MPPT section, you should include the number of solar panels connected to each of the MPPT's.

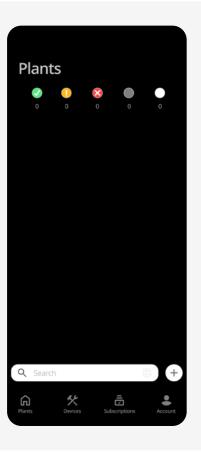
**VOC / ISC / IMP** – This data can be found on your solar panel datasheet.



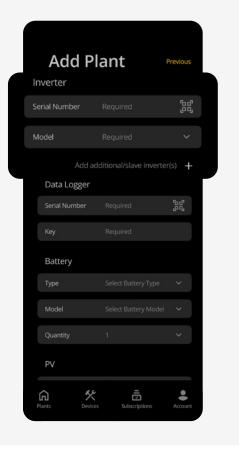
#### Create a Plant (South Africa)

**Note:** It is extremely important you ensure all your device and plant information is complete and accurate. If any information is missing and/or inaccurate, this will affect the accuracy of the Al-based predictions and associated management and financial performance.

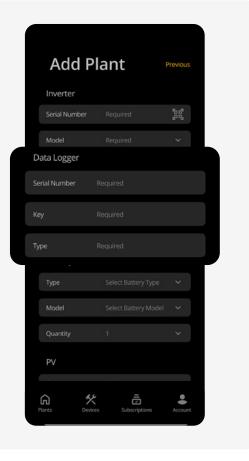
After signing in, you will arrive at your Plant
 List. To add a new plant, tap the Add (+) button,
 which is located to the right of the search bar.



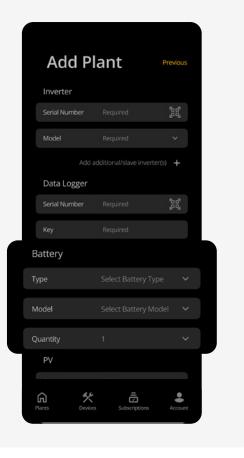
2. You will be prompted to enter your equipment details. Complete the inverter information section (Serial Number and Model). If you have multiple inverters in parallel, select **Add (+)** and enter the details of your secondary inverter.



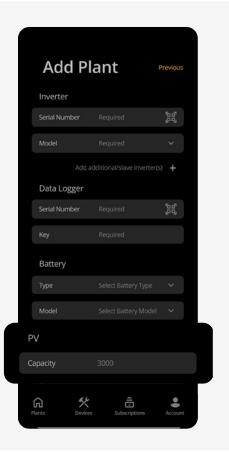
3. Complete the Data Logger information section (Serial Number, Key and Type).



4. Complete the battery information section (Type, Model, Quantity and Serial Number).

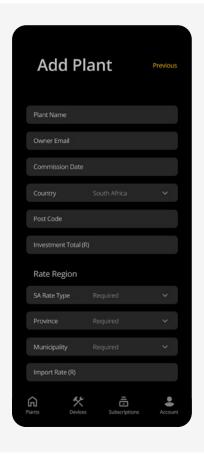


5. Complete the PV information section (Capacity). PV Capacity is the amount of PV/Solar you have installed in Watts (W).



6. Complete the plant information section (Plant Name, Commission Date, Country, Address, and Investment Amount).

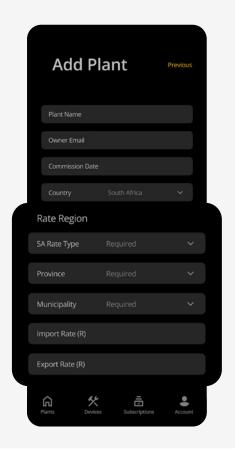
It is important to get the location information accurate. The AI reads data from your nearest weather station to be able to make a prediction on solar production based on your weather data. The most important key metric for South Africa is "City".

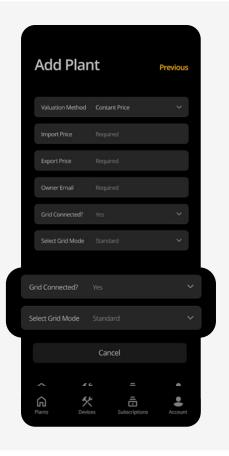


7. Complete the Rate Region information section For the South Africa, you will be asked to enter information necessary to associate you with an Eskom area for load shedding. In addition, you will need to manually enter rates using either the 'Constant' option (where your rates are not time variable) or as time-of-use rates, as applicable for your municipality and/or estate.

Note: The above information is extremely important for proper functioning of the Al optimisation. Where available for your plant and configured to operate in this mode, the Al prepares daily charge plans which are sent to your inverter to automatically control charging from grid (buying) at the lowest rate available and discharging surplus energy to grid (selling) at the highest available price. It is the owners' responsibility to ensure this information is entered correctly. This data will also be used to calculate financial metrics, including your return on investment.

8. Complete the grid information section (Grid Connected and Grid Mode).

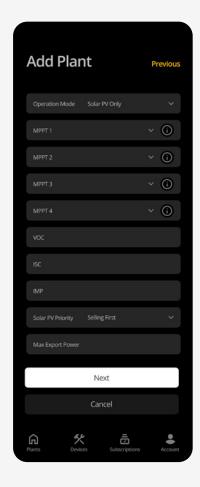




9. Complete the solar PV information section.

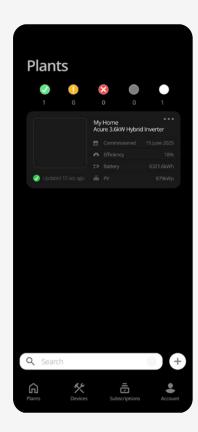
**MPPT** - Within the MPPT section, you should include the number of solar panels connected to each of the MPPT's.

**VOC / ISC / IMP** – This data can be found on your solar panel datasheet.



# **Accessing your Plant**

1. From the **Plant List** page, select your plant and this will open your plant overview.



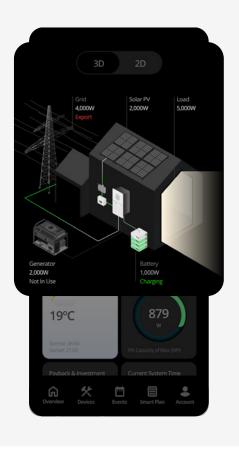


#### **Plant Overview Tiles**

#### **Power Flow**

The system power flow shows you exactly what is happening with your system at that moment in time.

It shows you if you are importing or exporting to the grid, how much solar PV you are generating, your property load, battery status and generator usage (if enabled).



#### Weather

The weather tile shows you the current weather information for your area. It also includes the estimated sunrise and sunset times for your location.



### Capacity

The capacity tile shows you how much you are currently generating. It includes a percentage figure highlighting the current generation amount against the capacity you have stated you have installed.



# Payback & Investment

The payback & investment tile shows you how much you have saved using your system. This is updated at the end of each day for the previous 24 hours. If you have taken out an AI optimisation subscription, it will include any associated additional gains.



## **Grid Import**

The grid import tile shows you how much you have imported from the grid that day.



## **Grid Export**

The grid export tile shows you how much you have exported to the grid that day.



#### **Battery Status**

The battery status tile shows you how much you have charged and discharged the battery that day. It also shows you live information such as your state of charge percentage, voltage, current and power.



### **System Operation**

The system operation overview tile shows you what has been happening with your system that day. You can tap and select parts of the graph that indicate what is happening at that point.

The graph covers your PV production, SOC, grid usage, battery usage and property load. Using the calendar at the bottom, you can go back and look at the previous days data.



# Al Contribution Widget (AICW)

#### Month - Year - Lifetime

Use the slider to select the data period you want to see. These numbers are calculated based on actual measured performance for your plant, as explained in more detail below. Currently, 'Lifetime' refers to the duration of the current active subscription only, not the cumulative total for any series of subscriptions cancelled/renewed.

#### **Metrics**

All the following relate to the selected period and reflect the additional benefit delivered by the predictive AI and automation:

#### **Cash Gains**

This is a running total of applicable Total Savings and Total Earnings delivered by our predictive AI. For modes 0-2, it does this whilst also making sure you have reliable energy 24/7 with minimal grid use and other AI benefits too. The white ring around the Cash Gains total illustrates the scale of the AI Productivity Gain driving these gains

#### **Subscription Cost**

This shows how much you have spent on your subscription over the period. The applicable monthly subscription price is apportioned equally across the number of days in the relevant month(s) and then shown as a cumulative total for the selected period.

#### **Productivity Gain**

This is a measure of how efficiently our AI has planned and managed use of your on-site battery



storage resources to store the maximum amount of forecast surplus solar whilst also meeting your forecast energy demands and automatically optimising grid buy and sell transactions for most user value.

#### Direct CO, Reduction

This shows the CO2 equivalent of the battery capacity preserved to store available solar production over the period. This energy source is directly verifiable as 'green energy' and does not rely on indirect 'carbon offset' arrangements. It is expressed in kg and calculated as follows, using the UK Government Greenhouse Gas Conversion Factors for electricity (2023) of 0.20705 kg CO2e per kWh.

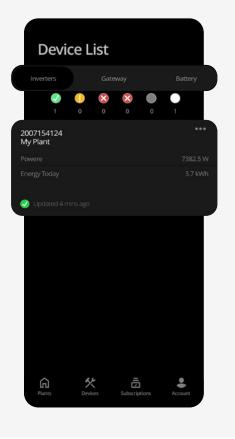
See www.sunsynkconnectpro.info/aicontribution for full details of calculation basis.

# **Accessing your Devices Page**

1. From your plant overview page, tap **Devices** in the menu.



2. Select the device you want to view on the tab bar and then select the equipment.



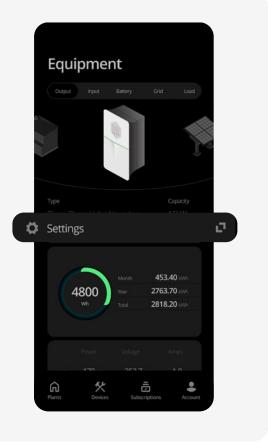
3. The equipment pages have been designed to show you your essential information in a user-friendly format. Each page also gives you easy access to your settings menu.



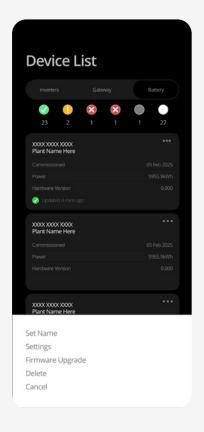
## **Accessing your Equipment Settings**

There are 2 ways to access your equipment settings.

1. From the equipment overview page, tap the **Settings** option which is available on each item page.

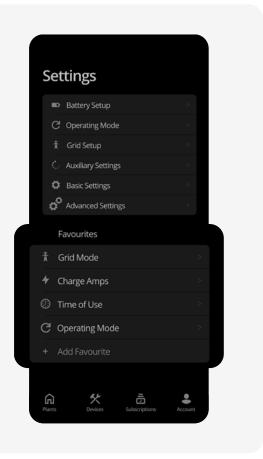


2. You can access the settings by tapping the **Devices** icon in the menu bar, selecting more (...), and then choosing **Settings**.



## **Settings Menu Layout**

The settings menu follows a similar layout as the original Sunsynk Connect app with the addition of a **Favourites** section for quick access to the most used settings options.



#### Start Free Trial / Subscription

1. On your plant overview page, you will see a green tile that is locked and includes a button showing **Active Now**. Tap this and it will take you to the **Subscriptions** page, also accessible via the Subscriptions tab at the bototm of the page.

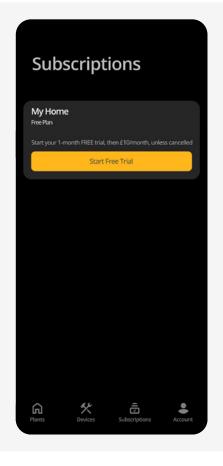
The following pages are UK examples, currency denominations and prices vary by country.

**Note:** Once you have completed the following process to upgrade, you will then need to configure certain settings relating to Al optimisation once the subscription has been activated (see following pages).

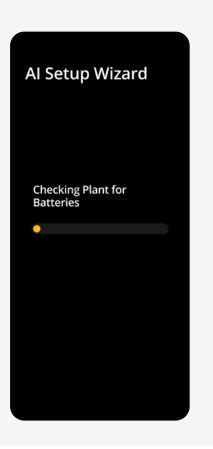


2. Tap **Start Free Trial** next the plant you would like to setup the subscription for.

**Note:** Only users with write access to the plant have permission to activate a trial / subscription. To activate, you must either be the owner or manager of the plant.



3. Follow the guided questions in the **AI Setup Wizard.** 



Al Setup Wizard

Progress

Al Setup Wizard

Progress

Are you aware of any prohibition on selling energy back to the grid?

Test No.

Al Setup Wizard

Progress

Are you aware of any prohibition on selling energy back to the grid?

All Setup Wizard

Progress

Based on what you've total us, we have applied the associated All mode. You can see or change the at any time in the All configuration settings for this plant.

Optional Survey

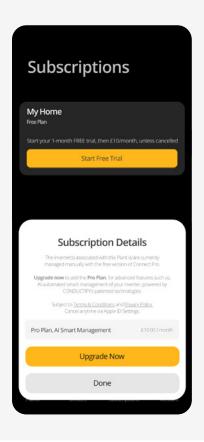
Would you be willing to take a 30 second survey?

Tell us how what problems you ware our All to soke for you and what you thought of the overall serup process:

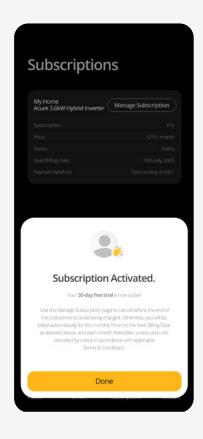
Close

Complete Survey

8. Once the Wizard has configured the suitable Al operation mode for you. Tap **Upgrade Now** for the free trial.



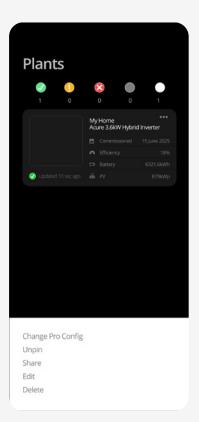
9.. Your subscription is now active.



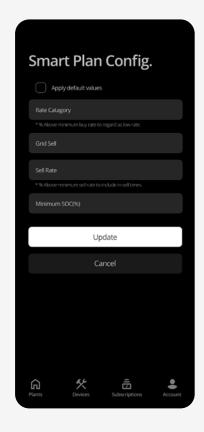
### Al Configuration and Setup

Note: In order for the AI to be able to function as designed, it is essential you ensure your inverter has "remote access" enabled at all times. The Sunsynk factory default setting has "remote access" enabled, but it could have been changed by you or your installer. This setting can be found and set via the Inverter LCD. Please double-check this setting to avoid associated problems with operation of the AI optimisation.

1. Tap more (...) next to the plant and then select **Change Pro Config**.



2. Complete the form and select **Update**.



#### **Alternative Al Work Modes**

**Note:** These settings affect the 'automation effects applied by an Al Mode. Each Mode is intended to apply maximum optimisation benefit and highest returns for you, subject to applicable plant and/or tariff constraints. At setup, the Al Setup Wizard guides you through selection and application of the optimal Al Mode for your plant context and personal preferences. Al Mode availability depends on your plant having a battery and, then, whether or not you are able to sell to grid and the available type of grid tariff. **For safety and compliance reasons, you must NOT select an Al Mode with selling if this capability is not supported by your plant and/or NOT authorised by your grid supplier. A site which can operate using Mode 2 will usually offer the biggest potential for Al optimisation and deliver higher associated gains.** 

#### Core Benefits of Predictive AI | Intelligent Self-Consumption

Modes 0-2 all deliver Intelligent Self-Consumption, which operates to deliver **reliable energy 24/7** using **minimal grid** and at the **lowest overall cost**, whilst also actively managing battery cycles/health and delivering direct CO2 reductions. Multiple benefits delivered all at once.

It learns, predicts, plans and automates highly-efficient use of tomorrow's solar and battery capacity prioritised to meet on-site demand first. It buys only the **minimum amount of grid** needed to balance on-site supply & demand and **only sells surplus energy** which cannot be used or stored. It generates accurate daily predictions of deficit or surplus taking into account observed data for your site and tomorrow's forecast conditions. This **quantity-controlled approach** to grid-trading ensures your on-site energy assets are used to benefit you the most; it is a key differentiator in addition to just leveraging time-of-use grid rates.

Then, the AI applies 'time-shifting' techniques so that planned grid-trading occurs at the best time(s) to ensure you have energy when needed, navigate ESKOM load-shedding and, if applicable for applied AI Mode, leverages available variable low/high grid rate periods.

Collectively, this puts the 'Intelligent' into Self-Consumption efficiently dealing with the challenges of 'solar intermittency' and excessive grid consumption to deliver all round value all and more energy security. It gets the most out of your Sunsynk system and tariffs without you having to lift a finger, performing better than traditional human optimized management approaches.

#### Mode 0 - Intelligent Self-Consumption - Without Selling

Delivers the AI core benefits and extends gains further with quantity-controlled grid-trading, but limited to grid buying only. This may or may not be time-shifted to a low rate period(s) depending on whether the plant is configured with constant or variable rate tariffs (see Modes 1 and 2 for further details on this technique). However, in this Mode 0, the inverter is prevented from selling to grid any surplus solar energy which cannot be used or stored. This is necessary where grid selling is prohibited, such as in some ESKOM regions in South Africa. This means it may generate lower returns than other Modes where selling can be leveraged too and contribute to increasing overall gains.

#### Mode 1 – Intelligent Self-Consumption & Grid Trading (Constant Rates)

Delivers the AI core benefits, selling to grid by default once the battery is fully charged – at whatever time(s) this occurs rather than at AI planned and managed times. Constant rates means there are no differential low and high grid rate periods to leverage, so there would be no benefit to be gained by applying AI grid-trading time-shifting capabilities.

#### Mode 2 - Intelligent Self-Consumption & Grid Trading (Variable Rates)

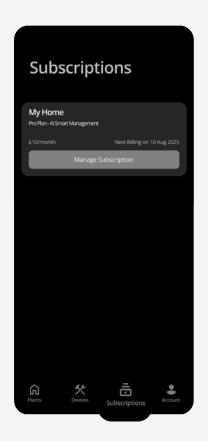
Delivers the AI core benefits and extends gains further with quantity-controlled grid-trading. The AI plans and manages the best time(s) to buy and sell specific amounts of grid energy based on its accurate predictions for tomorrow. This Mode works with fixed time-slot(s) variable rate tariffs and supported dynamic tariffs, like Octopus in the UK. Dynamic tariffs typically offer a wider spread of buy and sell rates and the biggest financial opportunity for users, and are automatically ingested and processed by the AI as they change daily. If you are not on a variable rate tariff and can access them, then consider switching tariffs and using Mode 2; AI automation makes accessing this additional value as easy as possible.

#### Mode 3 – Scheduled Grid Trading Only

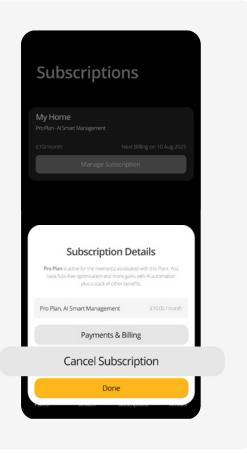
This Mode does not activate or deliver the AI core benefits. In particular it does not plan ahead to meet any local connected loads/demand with minimal grid consumption nor does it manage your energy security. Essentially, it automates grid trading aligned to tariff timeslots, so you do not have to spend time doing this. It charges battery to 100% SOC during low-rate buy periods and discharges it down to the applicable minimum SOC (as you have configured for the plant) during high-rate sell periods. This option is ideal for a 'no loads' installation. Otherwise, it should be used with caution as, typically, depending on demand and other conditions, grid energy would be purchased at various different times at the prevailing buy-rate at those times. In some grid energy markets, the difference between the rates in high-rate sell period(s) and buy-rates during other periods, is marginal, which can reduce the overall financial benefit of this approach. Typically, if users have loads connected and want to manage their energy security, they should consider using Mode 2 as this is a more sophisticated form of optimization addressing these aspects and providing more intelligent associated grid-trading too.

### Cancelling an Active Al Subscription

1. For the relevant plant, tap **Subscriptions** in the menu to view your active subscriptions. Select the subscription for the plant you would like to cancel.

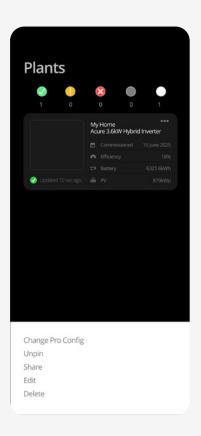


2. Tap Cancel Subscription.

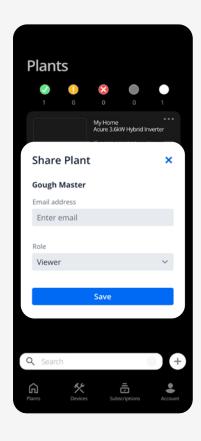


# **Sharing a Plant**

1. Tap more (...) next to the plant and then **Share**.



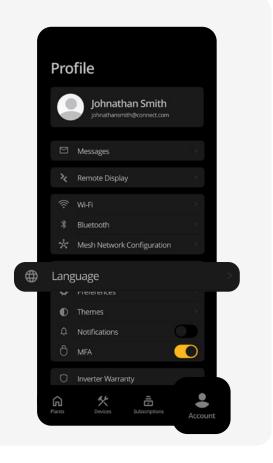
2. Enter the email address of the user you would like to give access to and choose their role.



### Settings

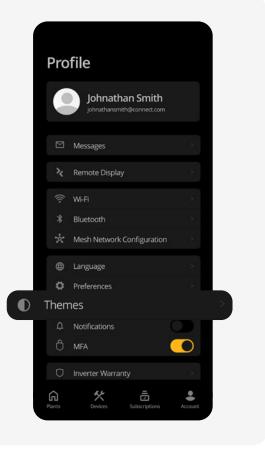
# Language Settings

Tap **Account** in the menu and select **Language**.



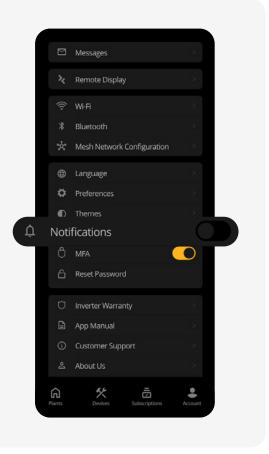
### **Theme Settings**

Tap **Account** in the menu and select **Themes**, you can then select light or dark theme.



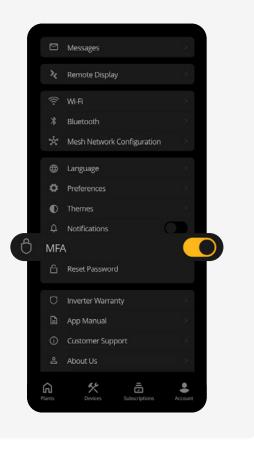
## **Manage Notifications**

Tap **Account** in the menu and select **Notifications**.



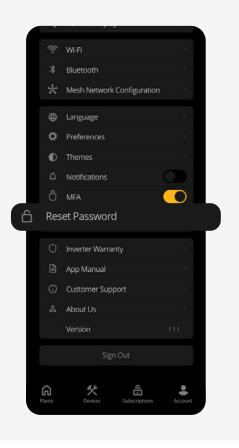
### Multi-Factor Authentication

Tap **Account** in the menu and select **MFA**, to toggle Multi-Factor Authentication on or off.



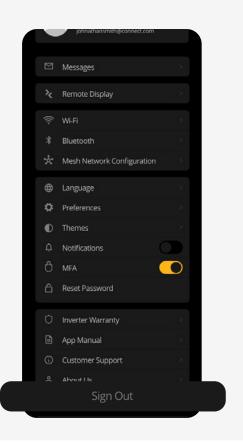
### **Password Reset**

1. Tap **Account** in the menu and select **Language**.



## Sign Out

1. Tap **Account** in the menu and select **Sign Out**.





#### **Contact Us**

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