



EV Charging

with CATCH Control and Delta

This document provides an overview of the features available in the EV Charging features of the CATCH Control platform. This document also outlines the hardware and installation requirements.

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For CATCH Power to be able to properly manage your EV Charging system three things are required:

1) An Electric Vehicle

We don't really care what the Electric Vehicle is; But be careful.. People say you can tell a lot about a person from their choice of EV.



2) An EV Charger



The technical term for an EV Charger is **Electric Vehicle Supply Equipment** (or EVSE for short).

You can't just get any old EVSE. The EVSE needs to be OCPP compliant and support the *Smart Charging* profile.

You can go to our website for a list of EV Chargers that we have tested and know will give you trouble free charging.

<http://catchpower.com.au/evse>

3) A CATCH Control Unit

You will more than likely have a CATCH Control unit installed if you have a good quality solar installation. This device is at the heart of your homes solar control system. This device is what enables CATCH Power to provide a high-quality EV charging experience.

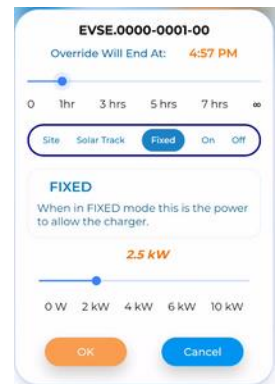




The monocle comes with the CATCH Control device. It offers way more than EV Charging, but we won't get into that here. What follows are a list of the features you get with the CATCH EV Charging control.

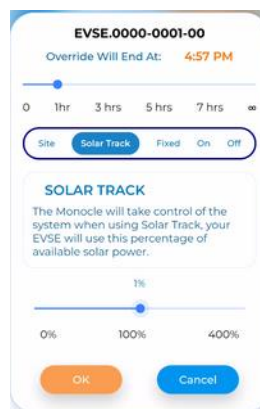
Set Point Control:

Turn your EV Charger on or off, at the press of a button. Or alternatively decide how fast you want the charging rate to be.

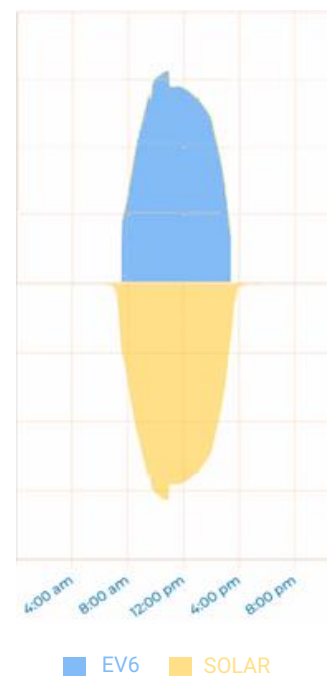


Advanced Solar Tracking:

With Advanced Solar Tracking you get to decide how much of your solar will be used to charge your car. You can choose all of it, some of it. Or even to use more than what is available.



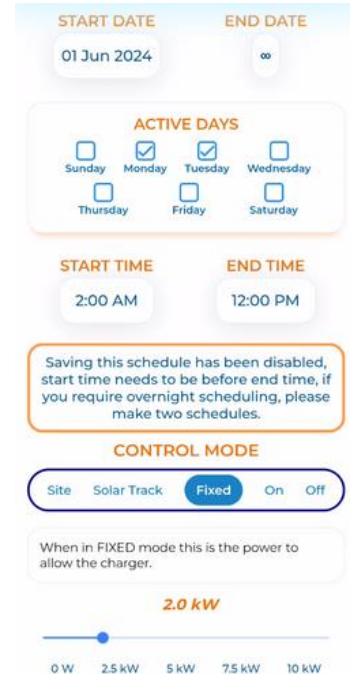
You can even choose to just use solar that would have otherwise been exported to the grid.



Scheduling:

The scheduling system gives you full control of your EV charging. You decide when, and how the EVE gets changed.

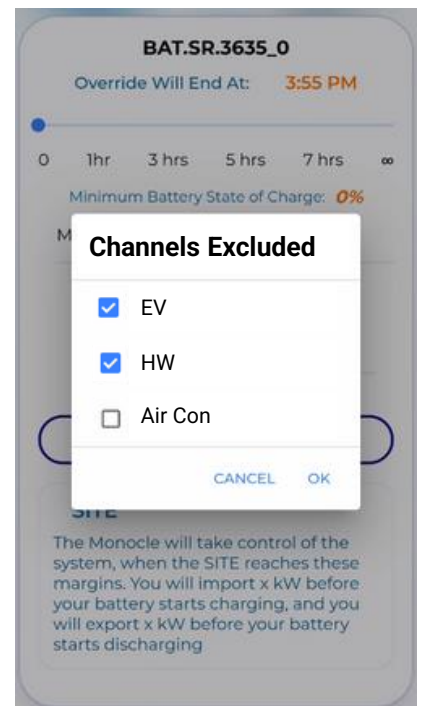
Plan as far out into the future as you like. And don't worry you can override the scheduling at the press of a button and resume the scheduled program any time.



Battery Lockout:

The real power of the CATCH EV Charging solution is in the way it works with the rest of your home. If you have batteries installed, you don't need to worry about the batteries ever discharging into the EV...that would be silly.

With the CATCH Battery Lockout technology, we ensure the batteries are used for their intended purpose. To keep your electricity bill low.

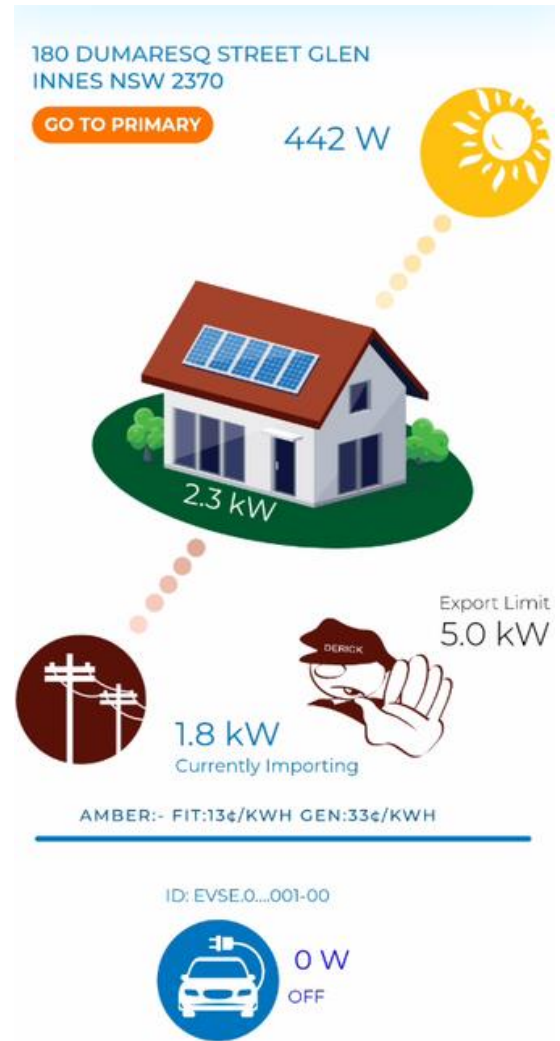


Access to faster charging rates

The CATCH EV Charging system is connected to your Electricity Supplier and knows when the GRID is being overloaded; we will slow your charging down when this happens. As a result, your electricity supplier allows faster charging rates because they know we will slow it down when needed.

Energy Market Control

Did you know you can make money when charging your EV? If you are with a Wholesale market energy retailer like Amber we can turn your EV on when wholesale prices are low or negative, and turn it off when it is expensive to charge.

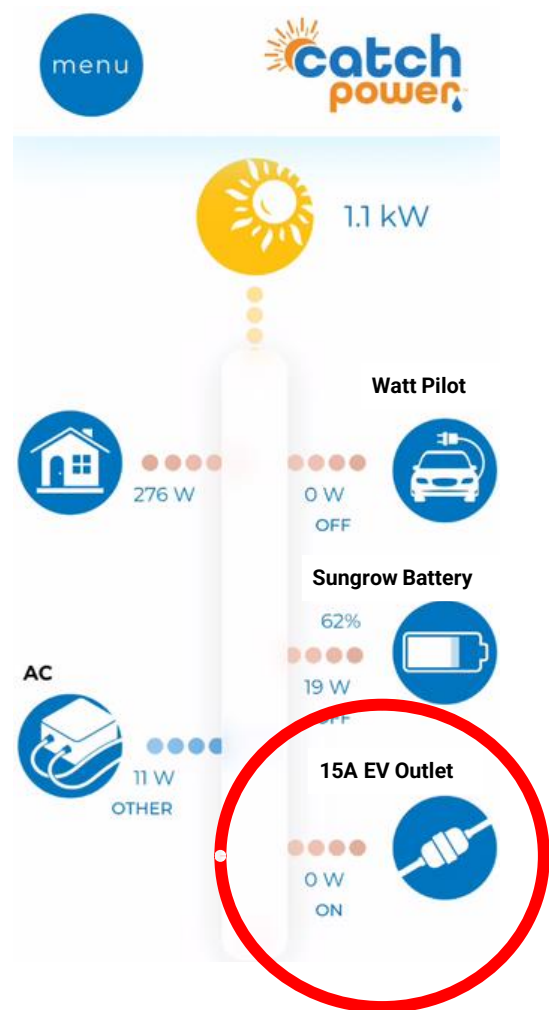


Secondary EV Plug Control

Many premises now have two EV's to charge. Most homes do not have the power supply to cope with two EV Chargers. A 15A EV outlet is a good way to charge your second car while waiting for the primary charger.

With CATCH Control that 15A outlet can be controlled in many of the same ways as your primary EV Charger can.

- Turn your charging ON/OFF
- Battery Lockout
- Scheduling
- Energy Market Control
- A reduced version of Solar Tracking



Bill Optimisation

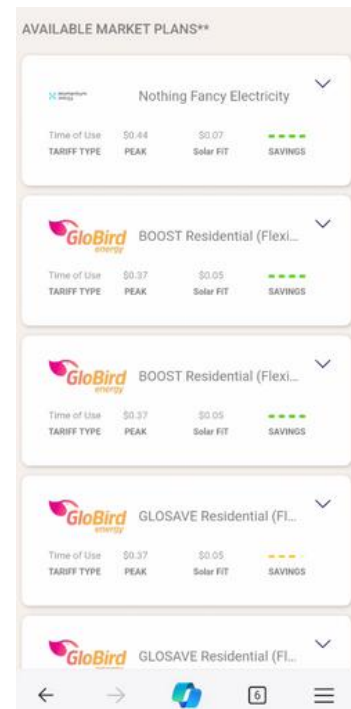
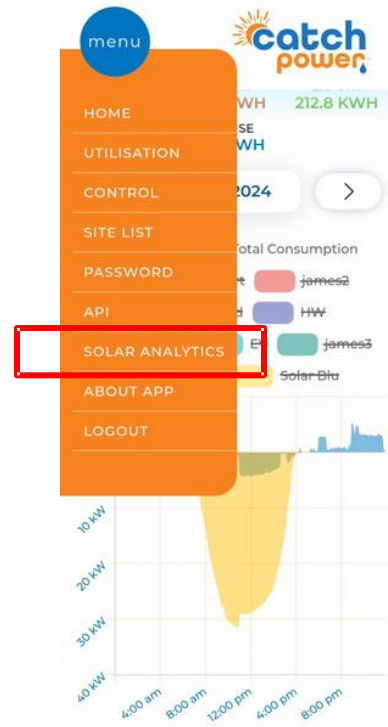
One of the most overlooked aspects of coordinating your EV Charging is choosing the right Electricity Plan. This can be complicated when you have Solar and Batteries.

When you use CATCH Control for your EV Charging you automatically get access to our Plan Optimiser technology. We will tell you which plan best suits your needs.

How does it work?

1. We get all the electricity plans available to you.
1. We give that to our AI algorithms that use your consumption data.
1. We show you the list of energy plans that give you the cheapest bill.

Then all you need to do is make a phone call and you know you are on the best plan.



The screenshot shows the 'AVAILABLE MARKET PLANS**' section in the app. It lists several energy plans with their respective details:

Plan Name	Time of Use	Tariff Type	Peak	Solar FIT	Savings
Nothing Fancy Electricity	\$0.44	PEAK	\$0.07	Solar FIT	SAVINGS
BOOST Residential (Flexi...)	\$0.37	PEAK	\$0.05	Solar FIT	SAVINGS
BOOST Residential (Flexi...)	\$0.37	PEAK	\$0.05	Solar FIT	SAVINGS
GLOSAVE Residential (FL...)	\$0.37	PEAK	\$0.05	Solar FIT	SAVINGS
GLOSAVE Residential (FL...)	\$0.37	PEAK	\$0.05	Solar FIT	SAVINGS

Tech Specs:

CSIP-AUS	Compliant
Communications	WiFi
Control Technique	OCPP 1.6J
Multiple EV Control	Yes



READ THE CATCH Control Electricians Guide

CATCH Control must be installed by a licensed electrician. This guide assumes the CATCH Control has already been installed.

The Electricians Guide found at <https://www.catchpower.com.au/tech-docs-1>

1 - Getting the right software on your phone.

Download it from your phone's app store.



CATCH Power Configurator
CATCH Power

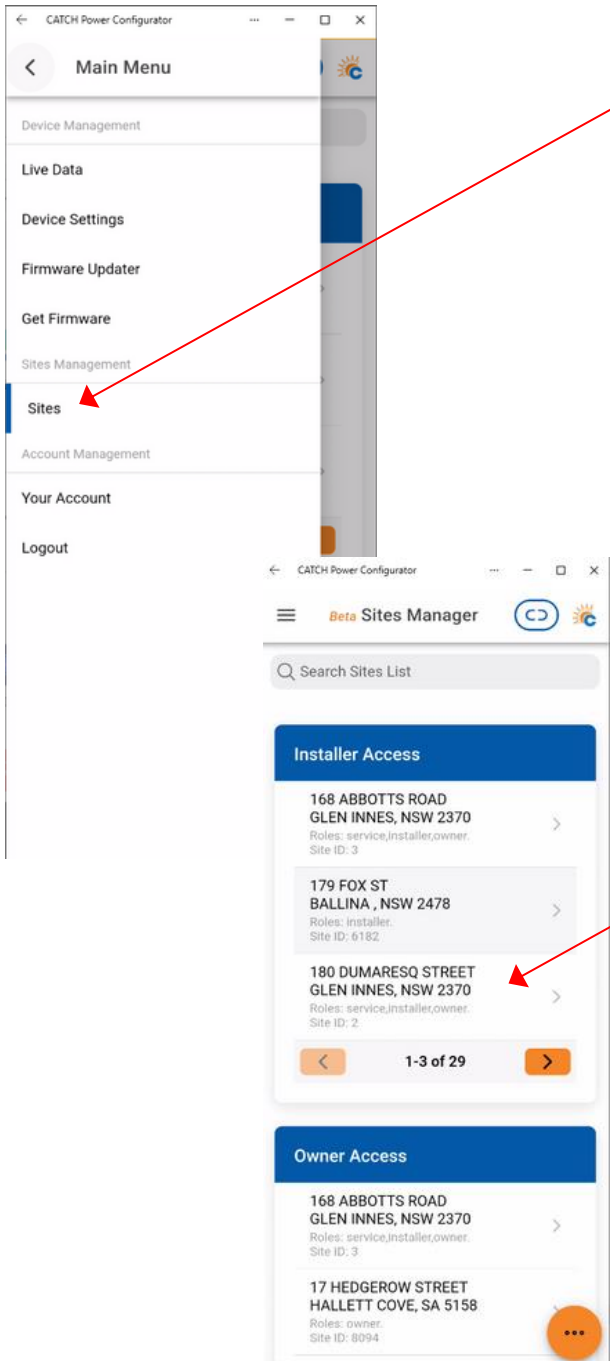
The “**CATCH Power Configurator**” is used for setting up the hardware while you are on site

The installation process involves three steps:

1. Adding the EV Charger to the CATCH Site.
 1. Telling the EV Charger Where to get its commands from.
-

1 – Adding the EV Charger to the CATCH Site

- Open the “CATCH Power Configurator”, Log in with your installer account.

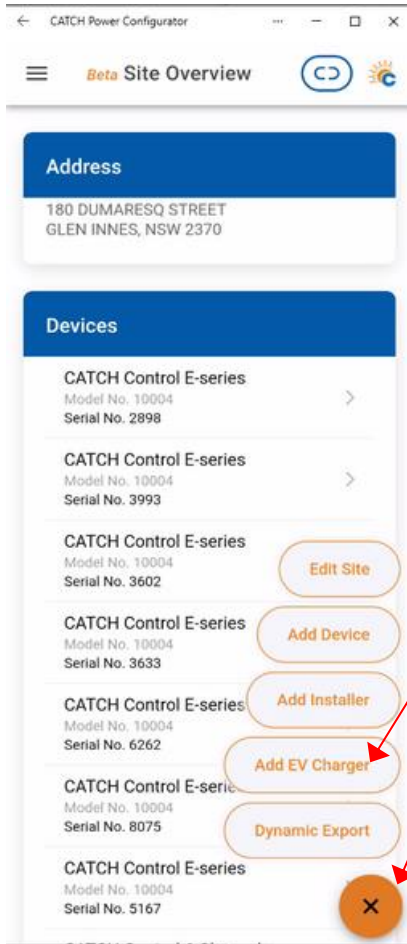


Open the menu and click on the **Sites** menu Option

Click on the Site you wish to register the EV Charger against.

Note: This is a new Site you will need to create it by pressing the orange button in the bottom right.

1 – Adding the EV Charger... continued



Click on the orange circle in the bottom right. Then click on **Add EV Charger**

1 – Adding the EV Charger... continued

CATCH Power Configurator

Add EV Charger

Select Device

Fronius WattPilot

Choose the inverter Brand. If your brand is not there Choose Generic OCPP.

Settings

Name *

My WPilot

Give it a name

Phases *

1

Is it single or 3 phase

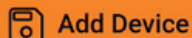
Connectors *

1

Current Limit (A) *

32

This will limit the per phase charging current to this value.

 Add Device

Add the Device

2 - Configuring the EV Charger

< EV Device

Device Details

Name: WattPilot

ID: 0000-0001-00

Settings

Name *

WattPilot

Phases *

1

Connectors *

1

Current Limit (A) *

32

Scroll
down

Setup Information

Full URL:

wss://ocpp0.edde.world/ocpp16/0000-C1-00



Base URL: wss://ocpp0.edde.world/ocpp16



OCPP ID: 0000-0001-00



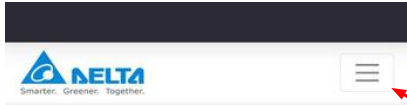
The Delta AC Max needs these values.

Other Actions

Remove Device >

 Update Device

2 - Configuring the EV Charger... continued

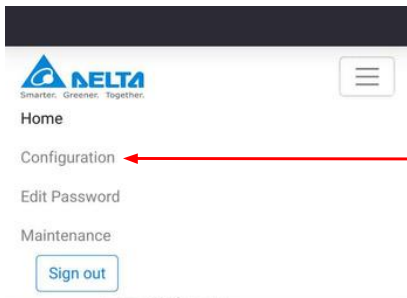


Log into the Delta AC Max.

Information



Tap on the hamburger button.



Tap on **Configuration**.

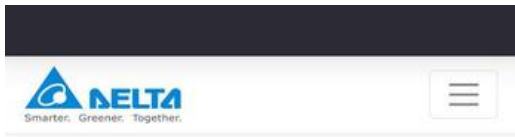


Model Name : EIAW-E22KTSE5A04

Serial Number : JVE222802179WE

Ethernet MAC address : 94:a9:a8:8f:f7:65

2 - Configuring the EV Charger... continued



Configuration



- Operating without OCPP Central System
- Operating with OCPP Central System
- One-Touch Setting with OCPP Central System

Charge Box ID
0000-0001-01

Server URL
wss://ocpp0.edde.world/ocpp16

OCPP Version
OCPP 1.6J-Security

HTTPBasicAuthEnable
Disable

Online Policy
Plug and Charge

Offline Policy
Plug and Charge

Cold Load Pickup
Enable

Max Charging Current(A)
20

System Time
2024/08/12-05:43:08

Communication Ethernet Wifi
 Cellular

SSID

Select **Operating with OCPP Central System**

Set **Charge Box ID** to the OCPP ID you copied from the Configurator

Set **Server URL** to the Base URL you copied from the Configurator

Set **OCPP Version** to **OCPP 1.6J-Security**

Set **HTTPBasicAuthEnable** to **Disable**

Set **Online Policy** and **Offline Policy** to **Plug and Charge**

2 - Configuring the EV Charger... continued



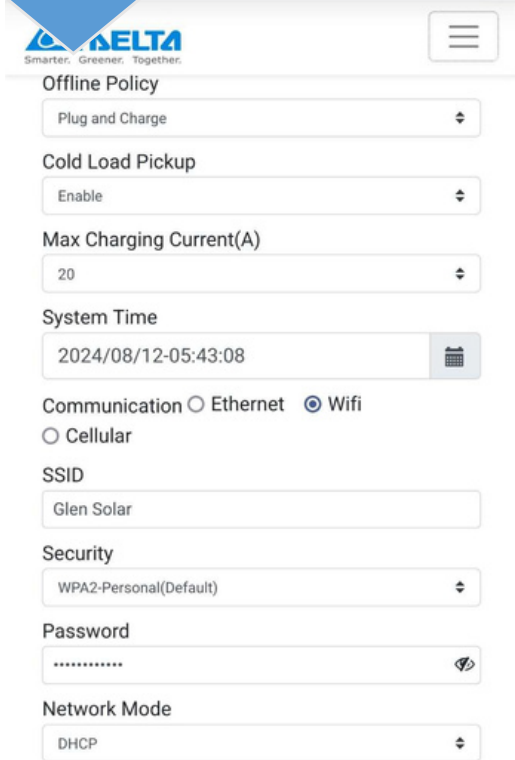
DELTA
Smarter. Greener. Together.

Operating without OCPP Central System
 Operating with OCPP Central System
 One-Touch Setting with OCPP Central System

Charge Box ID
0000-0001-01

Server URL
wss://c...dde.world/ocpp16

Security



DELTA
Smarter. Greener. Together.

Offline Policy
Plug and Charge

Cold Load Pickup
Enable

Max Charging Current(A)
20

System Time
2024/08/12-05:43:08

Communication Ethernet Wifi
 Cellular

SSID
Glen Solar

Security
WPA2-Personal(Default)

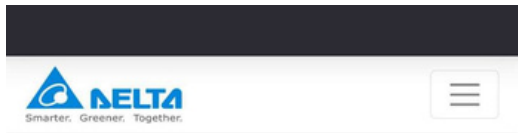
Password
.....

Network Mode
DHCP

Save

Tap **Save**

2 - Configuring the EV Charger... continued



OCPP:

Charge Box ID:0000-0001-01
OCPP Version:3
Server URL:wss://ocpp0.edde.world/ocpp16
Communication:WIFI
OCPP mode:1
Online Policy:1
Offline Policy:1
HTTPBasicAuthEnable:0
AuthorizationKey:1234

Charging Function:

Max Charging Current(A):20
Cold Load Pickup:1

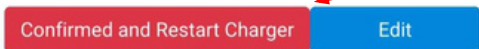
System Time:

System Time:2024/08/12-05:43:08

WiFi:

SSID:Glen Solar
Security:0
Password:calmonion648
Network Mode:0

Tap Confirmed and Restart Charger



The EV charger will take about a minute to connect to **EDDEworld** after it restarts.