

Tesla Powerwall 2

Tesla App Guide

Tesla Powerwall 2	1
Setting up your Powerwall 2	1
Downloading the Tesla App	1
Customizing your Powerwall 2	2
Backup Only	2
Self-Powered	2
Time Based Control	3
Independent Storage	5
How to Check which Mode You are Using:	6
Quick Guide Recommended Setup:	6
How to Turn On Storm Watch:	6
Monitoring Energy Consumption	6
Powerwall 2 Modes:	7

Setting up your Powerwall 2

Downloading the Tesla App

Once PTO has been granted, customers must download the Tesla app to customize and monitor their Powerwall and home energy use.

1. Log in using the same email account you used to order Powerwall
2. Select Notification Preferences
 - a. By selecting “Allow”, you will be notified in instances such as a power outage when Powerwall starts backing up your home.
3. You are now logged into the Tesla Mobile app and can begin customizing your system.



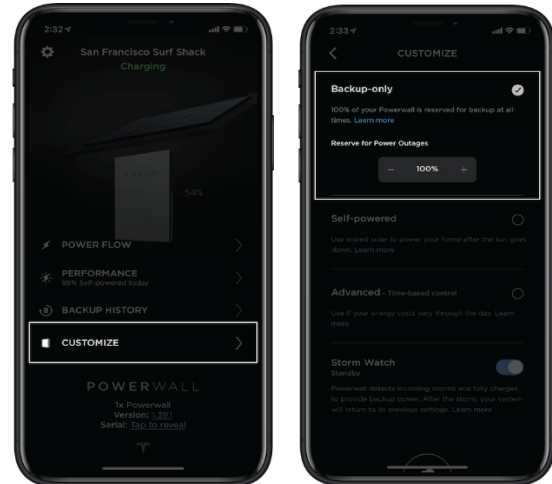
Customizing your Powerwall 2

Backup Only

Self-Powered
Time Based Control
Independent Storage

Backup Only

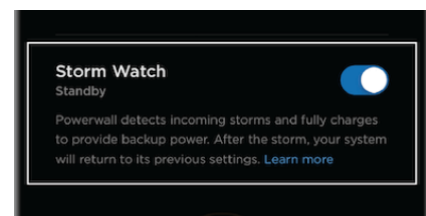
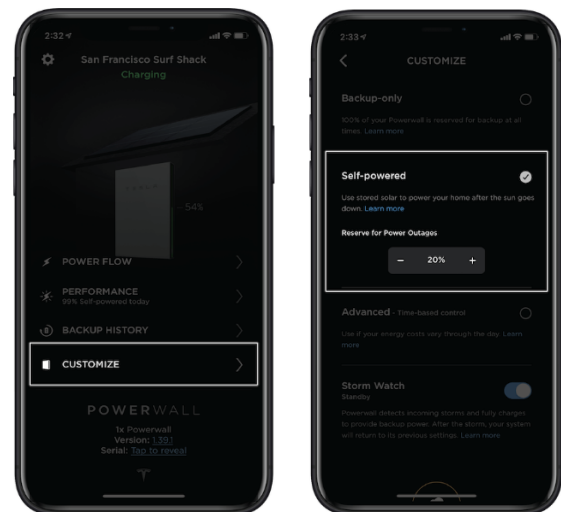
1. From the home screen select 'Customize' to change how your Powerwall is charged and discharged.
2. From the 'Customize' screen, you will see 4 modes: Back-up Only, Self-Powered, Time-Based Control, and Storm-Watch
3. Select Backup- Only mode on the Customize screen.



In this mode, your Powerwall reserves 100% of your energy to provide seamless power to your home in the event of an outage. Powerwall will charge from your solar system and only discharge during a grid outage.

Self-Powered

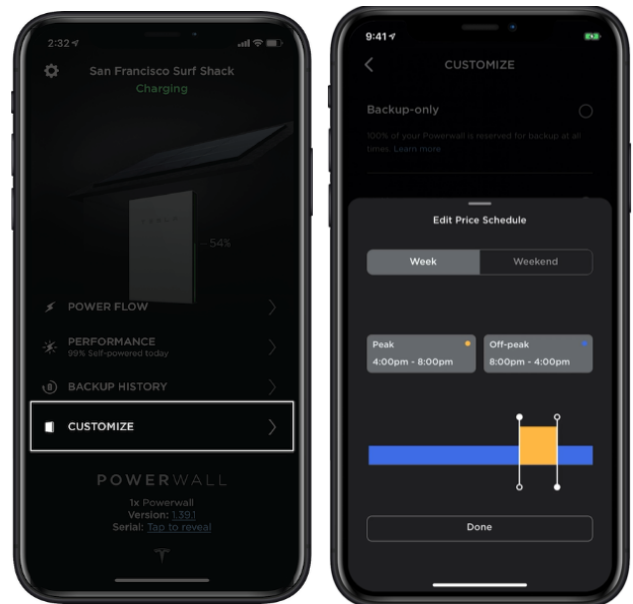
1. From the home screen select 'Customize' to change how your Powerwall is charged and discharged.
2. From the 'Customize' screen, you will see 4 modes: Back-up Only, Self-Powered, Time-Based Control, and Storm Watch
3. Select **Self-Powered mode**. Use the plus or minus symbols to adjust the percentage reserved for power outages. Sunrun recommends customers in Self-Powered regions set their reserve to 0%.
4. Opt in for **Storm Watch** mode by adjusting the slider next to "Storm Watch" on the customize page. Storm Watch mode allows you to maximize savings by keeping a low reserve percentage (0%), while still having peace of mind that Powerwall will protect you during a severe weather event.



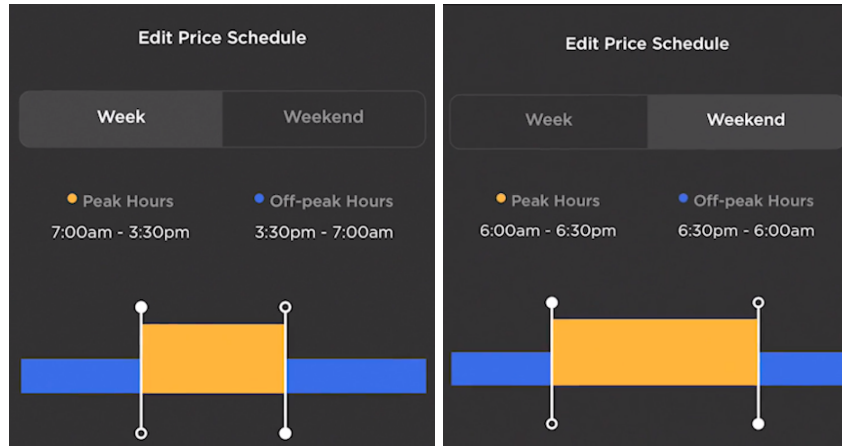
In this mode, your Powerwall will store any solar energy not used during the day. When you have enough solar energy to offset all consumption and your Powerwall is fully charged, the excess energy will be exported to the grid. Similarly, if you are consuming more than is available from your solar and Powerwall, you will import energy from the grid. This stored energy will then be used when your home needs more power than solar can provide. A customer with Self-Powered should set their reserve to 0% to maximize the value of their battery each day. It is also important to sign up for Storm Watch when set to Self Powered Mode. When Storm Watch is activated, Powerwall communicates with the National weather service. When severe weather is on the horizon, Storm watch will set in and will charge the Powerwall to maximum capacity (overriding the 0% reserve) so it can provide backup power during a severe weather event.

Time Based Control

1. From the home screen select 'Customize' to change how your Powerwall is charged and discharged.
2. From the 'Customize' screen, you will see 4 modes: Back-up Only, Self-Powered, Time-Based Control, and Storm Watch
3. Select **Advanced - Time based control**. There will be two setting options- Balanced Mode and Cost Savings Mode.
4. Select Cost Saving
5. Tap 'Edit Price Schedule'
6. Adjust the scale to reflect times of day that are considered peak and off-peak by sliding the scale to adjust the hours. And Click "Done" when complete.



Blue represents off-peak and **orange represents peak**. If your schedule is different on weekends and weekdays, make sure to do this in both the 'Week' and 'Weekend' tab.

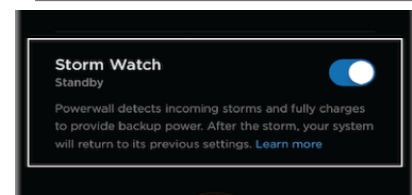
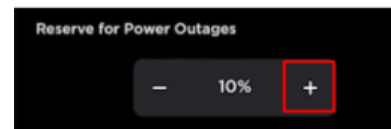


7. Follow the [TOU discharge schedule](#) and use the following Rate Schedule for each Utility:

Utility	Rate
PG&E	EVA-2
SCE	TOU Prime
SDG&E	DR-TOU-SES
SMUD	Time of Day
LADWP	R-1-B
APS	TOU-E

8. Set Reserve for Power Outages to 20%.

9. Opt in for **Storm Watch** mode by adjusting the slider next to “Storm Watch” on the customize page. Storm Watch mode allows you to maximize savings by keeping a low reserve percentage (20%), while still having peace of mind that Powerwall will protect you during a severe weather event.

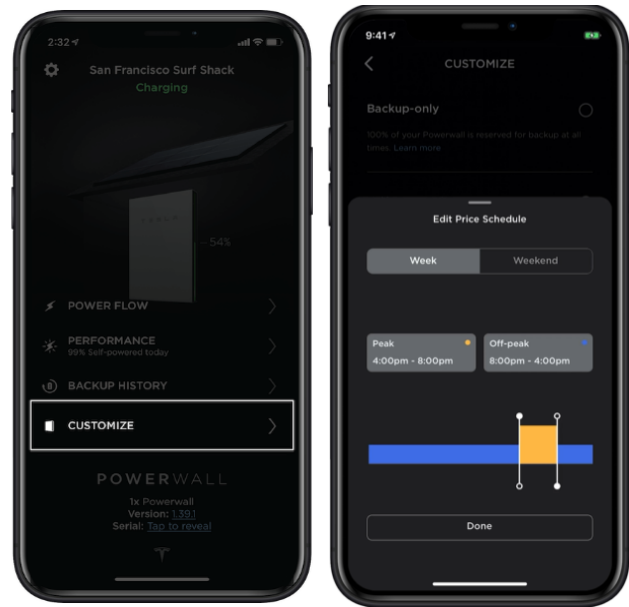


Summary:

In this mode, your Powerwall will charge during off-peak energy times when energy is least expensive and discharge during On-Peak hours when energy is most expensive. A customer with Advances- Time Based Control should set their reserve to 20% to maximize the value of their battery each day. It is also important to sign up for Storm Watch when set to Advanced-Time Based Control. When Storm Watch is activated, Powerwall communicates with the National weather service. When severe weather is on the horizon, Storm watch will set in and will charge the Powerwall to maximum capacity (overriding the 20% reserve) so it can provide backup power during a severe weather event.

Independent Storage

1. From the home screen, select “Customize” to change how your Powerwall is charged and discharged.
2. From the ‘Customize’ screen, you will see 3 modes: Back-up Only, Time-Based Control, and Storm Watch (There will not be an option for Self-Powered)
3. Select **Advanced - Time based control**.
4. Select Cost Saving (there will not be an option for Balanced)
5. Tap ‘Edit Price Schedule’
6. Set reserve percentage to 20%. This is the amount of energy your Powerwall will keep stored in case of an outage. We recommend you set it to 20%, but you can adjust the reserve percentage by using the ‘+/-’ icons.
7. Adjust the scale to reflect times of day that are considered peak. **Orange represents peak, Blue represents off-peak**. During these expensive Orange peak times, you will be drawing energy from your battery instead of the grid and offset the utility costs. During these inexpensive blue off-peak times, your battery will be charging from the grid at the most optimal rate.
8. Tap ‘Done’
9. Opt in for **Storm Watch** mode by adjusting the slider next to “Storm Watch” on the customize page. Storm Watch mode allows you to maximize savings by keeping a low reserve percentage (20%), while still having peace of mind that Powerwall will protect you during a severe weather event.



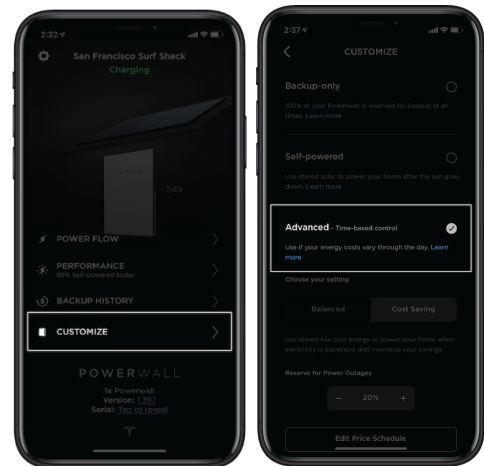
Summary:

We recommend **Advanced-Time based control** for you to make optimized savings. In this mode, your Powerwall will charge during off-peak energy times when energy is least expensive and discharge during On-Peak hours when energy is most expensive. A customer with Advanced- Time Based Control should set their reserve to 20% to maximize the value of their battery each day. It is also important to sign up for Storm Watch when set to Advanced-Time Based Control. When Storm Watch is activated, Powerwall communicates with the National weather service. When severe weather is on the horizon, Storm watch will set in and will charge the Powerwall to maximum capacity (overriding the 20% reserve) so it can provide backup power during a severe weather event.

We also understand that you may have different needs. **If your need is to optimize back-up availability**, we recommend that you select [Back-up Only Mode](#). If you select other modes please expect to receive different outcomes than what was initially discussed during your consultation. You can also change modes as often as you like, but keep in mind that changes can take up to an hour to take effect.

How to Check which Mode You are Using:

1. From the home screen select 'Customize' to change how your Powerwall is charged and discharged.
2. From the 'Customize' screen, you will see 4 modes: Back-up Only, Self-Powered, Time-Based Control, and Storm Watch
3. Whichever one you choose will have a checkmark next to it.
4. Under the selected mode, you will see "Reserve for Power Outages"
5. To change your reserve, tap the screen and select the + or - to adjust.
6. If Storm Watch is enabled, the slider will be blue.

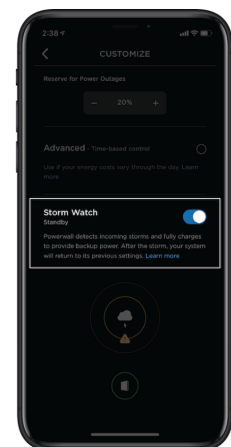


Quick Guide Recommended Setup:

Market	Mode	% Backup	Storm Watch?
HI	Self-Powered	0% Reserve	Yes
CA, CO,	Advance- Time Based Control	20% Reserve	Yes
MA	Backup Only	100% Reserve	Yes

How to Turn On Storm Watch:

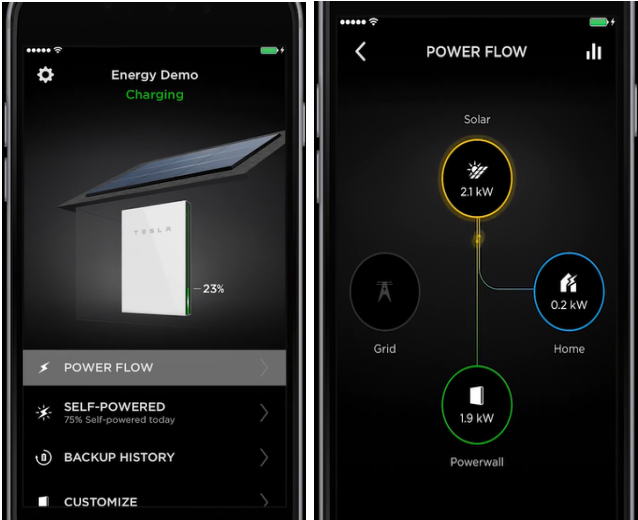
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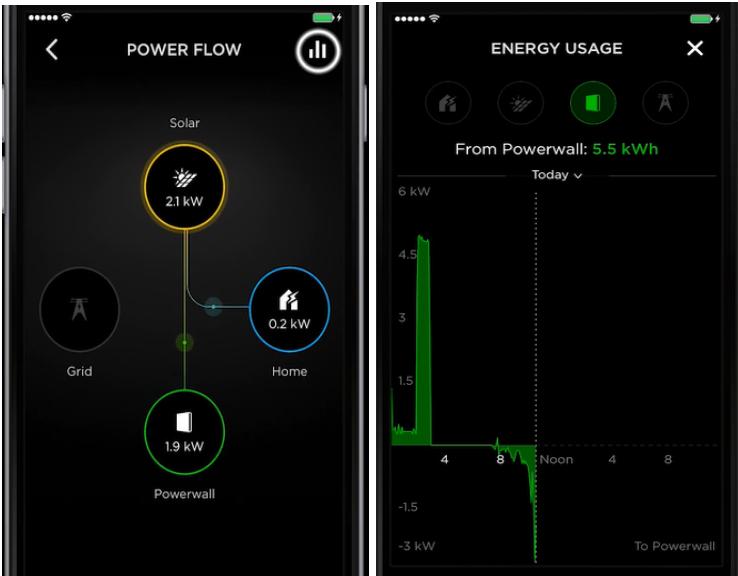
Monitoring Energy Consumption

You can monitor your home energy system in real time using your Tesla app.

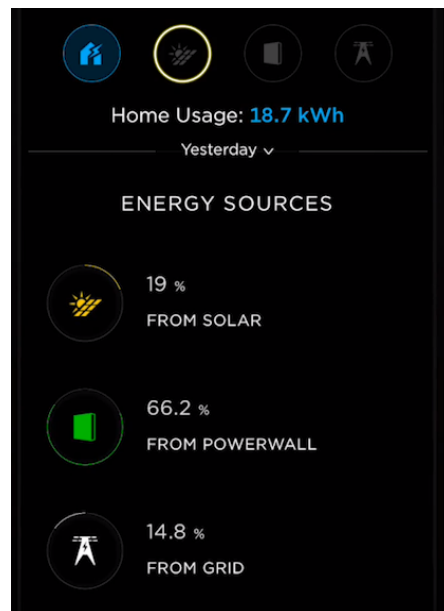
1. From the home screen select 'Power Flow,' to see how Powerwall is interacting with your home, the grid and your solar system.



2. From the 'Power Flow' screen, you can also select the bar chart icon to access a graph view and see more details and historical usage.



3. You can click on any of the four icons to see more details about energy consumption.



Powerwall 2 Modes:

Backup-Only	<p>This mode reserves 100% of your Powerwall energy to provide power to your home in the event of an outage. Powerwall will charge from your solar system and ONLY discharge during a grid outage.</p>
Self-Powered	<p>Self powered mode stores any solar energy not used during the day to power your home at night. Powerwall will charge when excess solar power is produced. The stored energy will then be used when your home needs more power than solar can provide.</p> <p>When you have enough solar energy to offset all consumption and your Powerwall is fully charged, the excess energy will be exported to the grid. Similarly, if you are consuming more than is available from your solar and Powerwall, you will import energy from the grid.</p> <p>This mode approximately doubles the amount of solar energy that powers your home and is the best way to reduce your carbon footprint and be more energy independent.</p>
Time-Based Control (TOU)	<p>If your electricity prices vary during the day, you are likely on a time-of-use plan. Time-of-use plans are utility rate structures where electricity prices vary depending on time of day, the day itself and the season.</p> <p>There are two different versions of Time-Based Control- Balanced and Cost-Savings.</p> <p>The Balance mode prioritizes both sustainability and cost savings. In this mode, Powerwall will charge from excess solar during off-peak times. Powerwall will discharge during all periods, minimizing exports during off-peak times.</p>

	<p>The Cost-Savings mode is used to maximize savings Powerwall will charge from excess solar during off-peak times and will discharge during peak hours and other periods to ‘make room’ for solar based on energy forecast.</p> <p>Sunrun has a TOU discharge schedule that we recommend Tesla Powerwall 2 customers follow when setting up their system: TOU Schedule</p> <p>The Tesla Powerwall continuously runs an energy forecast on the Tesla App. The system learns the patterns of your energy use and seasonal solar production. This energy forecast allows your Powerwall to optimize your energy usage. If the forecast shows that you are likely to use energy at a high-cost time, Powerwall prioritizes charging during low-cost times and discharging during high-cost periods. This smart forecast is why Time-Based Control does not show within the first 24 hours after you download the Tesla app. Time is needed to learn about your energy usage.</p>
Storm Watch	<p>Severe weather is the leading cause of power outages. Storm Watch mode allows the customer to maximize savings by keeping a low reserve percentage in Self- Powered (0%) and Time-Based Control (20%) mode, while still having peace of mind that Powerwall will protect you during a severe weather event.</p> <p>Powerwall communicates with the National Weather Service to know when severe weather is on the horizon and triggers Storm Watch. This mode charges Powerwall to maximum capacity and overrides the reserve setting in Self Powered or Time Based Control Mode to provide backup in case of an outage during a storm.</p>