Images courtesy of Tesla inc.

HOLY CROSS ENERGY
• EST. 1939 •

Power+

Tesla Powerwall 2 Installation Guide

PRE-INSTALLATION

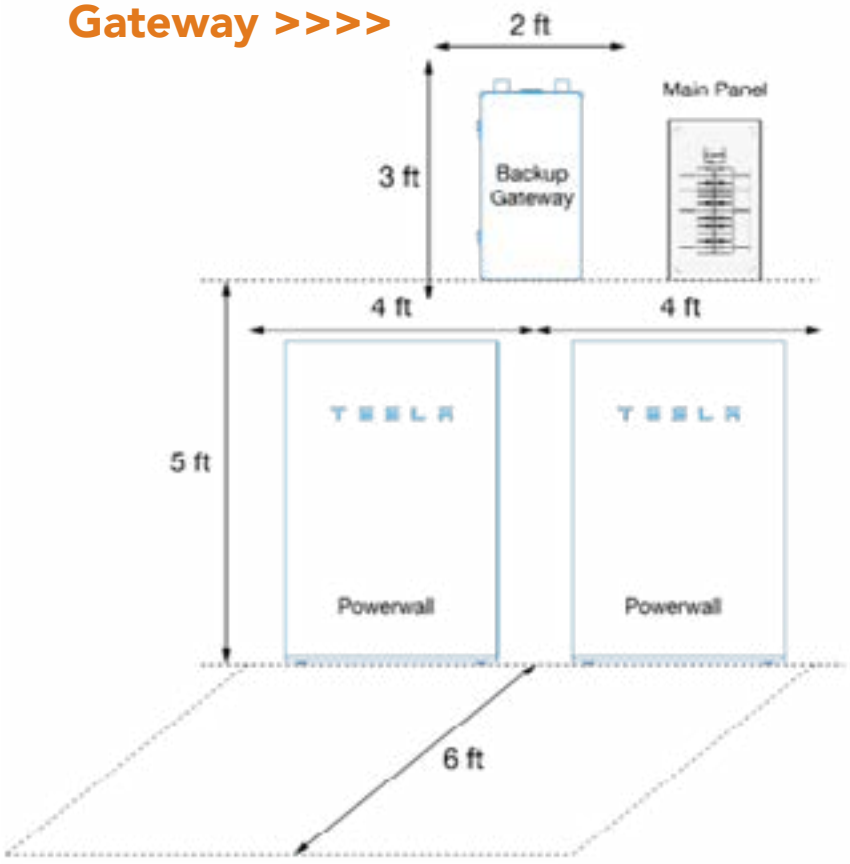
Prepare your home

To ensure quick and efficient installation, clear the ground, wall space and any key access points for installers to work.

Some installers may use a small dolly to move Tesla Powerwall 2 around. Minimum clearances required for installation of Tesla Powerwall 2 and the Backup Gateway are shown below.

Images courtesy of Tesla inc.

Backup Gateway >>>>



Internet access

Tesla Powerwall 2 requires an active home Internet connection (wired or wireless), which allows you to monitor your Tesla Powerwall 2 system with the Tesla app. Identify where your home router is located and have login information available.

While a wired or wireless home network is preferred for best performance and redundancy, if one is not available, Tesla Powerwall 2 can use an internal cellular connection to the internet.

Images courtesy of Tesla inc.
More installation iformation can be found at
tesla.com/support/energy/powerwall/install/pre-installation

INSTALLATION DAY

Plan ahead

You will need to be at home and available throughout the day of your installation. You will be without power for approximately four hours.

Images courtesy of Tesla inc.

> **A Powerwall 2 installation team,** made up of two to three installers, will arrive in the morning. If you are installing solar, the solar installation team will be scheduled on a different day and will include a team of up to four people. HCE expects the teams to be friendly, professional, and dressed in clothing representing the installation company and/or Tesla.

> **Installation time** will depend on the size of your system and the complexity of the electrical work required. A typical Powerwall installation will take a full day to complete.

> **Plan for the power to be out for roughly four to six hours.** If additional electrical work is required, the power could be out for up to eight hours or more. This includes refrigerators, heating and cooling systems and your home Internet connection. The team will take care to provide the least amount of interruption to the homeowners as possible.

> **The team will walk through the site,** including exterior and interior of the home to assess possible locations for the battery installation.

> **The location will be discussed** and agreed upon by the homeowner and the installation team.

AFTER INSTALLATION *The installation team can assist you with next steps.*

> **Download the Tesla Powerwall 2 mobile app:** Set up the controls for your battery. You can view this video for instructions: Tesla.com/support/energy/powerwall/mobile-app/mobile-app-overview

> **Connect to the Tesla Gateway**: Tesla.com/support/energy/powerwall/own/monitoring-from-home-network

After completing these steps, the system will then be virtually commissioned and tested. This process typically takes 72 hours. You will be notified by HCE staff when the battery is fully operational.

The Tesla Powerwall 2 owner's manual can be found at: Tesla.com/sites/default/files/pdfs/powerwall/powerwall_2_ac_owners_manual.pdf

TESLA POWERWALL 2 OPERATING MODES

SELF-POWERED

In this mode, the Tesla Powerwall 2 will maximize the self-consumption of an onsite solar system by the home. It does this by storing up power generated by the rooftop solar system during the day and using the stored power as needed to power the home. Tesla estimates that the ability to store daytime solar generation and use it back from the battery at night roughly doubles the amount of solar energy that directly powers your home. In this mode, the homeowner is also able to select the minimum amount of power saved as a reserve in the event of a power outage as a percentage from 0–100%.
Tesla.com/support/energy/powerwall/mobile-app/self-powered-mode

BACKUP-ONLY

As a residential battery, one of the primary functions of the Tesla Powerwall 2 is to provide backup power in the event of an HCE power outage. In the event the outage lasts for an extended period, the Tesla Powerwall 2 can actually recharge itself from a rooftop solar power system. This capability means that while your neighbors might be without grid power for hours, days, or even weeks, a solar-connected Tesla Powerwall 2 system can effectively keep your home powered indefinitely, within the constraints of the size of the solar system and the number of Tesla Powerwall 2s installed, of course. In this mode, the amount of stored energy reserved for backup power can be set as a percentage from 0-100%.
Tesla.com/support/energy/powerwall/mobile-app/backup-only-mode

ADVANCED TIME-BASED CONTROL

The Tesla Powerwall 2 is connected to the internet and has brains to match, which works to optimize the cost of energy for customers with electricity rates that vary depending on the time of day or the season. With Advanced Time-Based Control, the Tesla Powerwall 2 actively works to maximize the value of the solar generation and the energy usage of the home from the grid to intelligently charge and discharge based on the time and price of energy.
Tesla.com/support/energy/powerwall/mobile-app/time-based-control

GRID SERVICES

Tesla Powerwall 2 customers participating in Distribution Flexibility programs now know when their systems are benefiting the grid and can track Grid Services energy and power usage. Grid Services are only available in areas, like HCE, where the utility offers a program so it will not show up as an option in the app for all Powerwall 2 owners. As an HCE Power+ participant, Grid Services will be enabled and optimized by HCE.

STORM WATCH

Storm Watch automatically detects incoming storms and prepares for them by keeping energy stored in the Tesla Powerwall 2. For Tesla Powerwall 2 customers with backup and in selected regions such as ours, HCE will automatically detect incoming storms and charge the Powerwall 2 completely to ensure power is available in the event of a weather-related grid outage. Owners can manually turn this off from the app.
Tesla.com/support/energy/powerwall/mobile-app/additional-modes

Images courtesy of Tesla inc.

ADDITIONAL INFORMATION ABOUT TESLA

> **Tesla's Powerwall 2 can be installed as a ground-mount installation or mounted to a wall,** depending on what is best for the location where it is being installed. It is touch safe, meaning it does not need any special clearances nor does it come with any specific safety setbacks.

> **Tesla Powerwall 2 and Backup Gateway units are rated for installation indoors or outdoors,** and can operate within a wide range of temperatures, from -4°F to 122°F (-20°C to 50°C), though the optimum temperatures for Tesla Powerwall 2 operation are between 32°F to 86°F (0°C and 30°C). Because our daily average temperature is outside of the optimum zone, HCE cannot allow outdoor installation until our winter 2020/2021 testing period has ended. At this time HCE will determine the path forward on outdoor installations.

FOR MORE INFORMATION CONTACT

Holy Cross Energy
970-947-5473
HolyCross.com

HOLY CROSS ENERGY • EST. 1939 •

Your Community.
Your Co-op.
Your Choice.