

Powerwall 2 AC Compatibility								
Region	Mainland USA		Hawaii		US & Puerto Rico		Puerto Rico	
Gateway Type	Backup Gateway 1		Backup Gateway 1		Backup Gateway 1		Backup Gateway 1	
Service Type								
Site type	Residential		Residential		Residential		Residential	
Service type	Split Phase - 240 V / 120 V		Split Phase - 240 V / 120 V		Off-Grid		Split Phase - 240 V / 120 V	
Available Grid Codes (additional regional variations)	IEEE1547, UL1741SA		HI14H		Special Grid Settings		IEEE1547	
Network Type	TN-C-S (no neutral break)		TN-C-S (no neutral break)		TN-C-S (no neutral break)		TN-C-S (no neutral break)	
Site Configuration								
Maximum number of Gateways	Unlimited		Unlimited		Unlimited		Unlimited	
Maximum Powerwalls per Gateway	10		10		10		10	
Maximum non-backup loads supported	Unlimited (local utility limits may apply)		Unlimited (local utility limits may apply)		N/A		Unlimited (local utility limits may apply)	
Maximum continuous power	5 kW per Powerwall		5 kW per Powerwall		5 kW per Powerwall		5 kW per Powerwall	
Max grid impedance (L-N)								
Formula	0.8 Ω / Number of Powerwalls per Site <u>When installing 5 or more Powerwall units, measure line impedance per the requirements in the Multi-Powerwall Installation application note</u>		0.8 Ω / Number of Powerwalls per Site <u>When installing 5 or more Powerwall units, measure line impedance per the requirements in the Multi-Powerwall Installation application note</u>		N/A		0.8 Ω / Number of Powerwalls per Site <u>When installing 5 or more Powerwall units, measure line impedance per the requirements in the Multi-Powerwall Installation application note</u>	
Load Limits								
Maximum loads connected to backup circuit (or through Gateway)	200 A		200 A		200 A		200 A	
Maximum current through Neuro CTs	800 A ¹		800 A ¹		800 A ¹		800 A ¹	
Largest single load in backup circuit	30 A per Powerwall		30 A per Powerwall		30 A per Powerwall		30 A per Powerwall	
Backup Large motor loads supported (HVAC, heat pump, well or pool pump)	Requires min 2 Powerwalls to support (depending on equipment)		Requires min 2 Powerwalls to support (depending on equipment)		Requires min 2 Powerwalls to support (depending on equipment)		Requires min 2 Powerwalls to support (depending on equipment)	
Single/split phase/three phase backup loads supported	120 / 240 V loads (Single / Split Phase)		120 / 240 V loads (Single / Split Phase)		120 / 240 V loads (Single / Split Phase)		120 / 240 V loads (Single / Split Phase)	
Backup generator compatibility								
Asynchronous backup with Generator with Downstream ATS / MTS	Yes		Yes		Yes		Yes	
Generator charging of Powerwall	No		No		Yes, with compatible generator		No	
Upstream Generator and Upstream Utility	No		No		Upstream generator only		No	
Automatic generator control	Not yet available		Not yet available		Yes, with compatible generator		Not yet available	
Solar compatibility								
Recommended solar inverters	SMA, SolarEdge, Fronius, Enphase, Delta, ABB		SolarEdge		Delta, SMA (Sunny Boy SB Series), Enphase (IQ+ Series)		Enphase, SMA	
Maximum solar size outside of backup circuit	Unlimited (local utility limits may apply)		Unlimited (local utility limits may apply)		N/A		Unlimited (local utility limits may apply)	
Maximum solar size within backup circuit	7.6 kW AC of solar per Powerwall		7.6 kW AC of solar per Powerwall		5 kW AC of solar per Powerwall ²		5 kW AC of solar per Powerwall ²	
Modes of operation	With Solar	Without Solar	With Solar	Without Solar	With Solar	Without Solar	With Solar	Without Solar
Home Energy monitoring	Powerwall, Solar, Grid, Home	Powerwall, Grid, Home	Powerwall, Solar, Grid, Home	Powerwall, Grid, Home	Powerwall, Solar, Generator, Home	N/A	Powerwall, Solar, Grid, Home	Powerwall, Grid, Home
Self-Powered mode	Yes ³	N/A	Yes ³	N/A	Yes	N/A	Yes ³	N/A
Backup-Only mode	Yes ³	Yes ³	Yes ³	Yes ³	N/A	N/A	Yes ³	Yes ³
Configurable backup reserve while in other modes	Yes (0% - 100%) ³	Yes (0% - 100%) ³	Yes (0% - 100%) ³	Yes (0% - 100%) ³	N/A	N/A	Yes (0% - 100%) ³	Yes (0% - 100%) ³
Grid charging for backup	N/A	Yes	N/A	N/A	N/A	N/A	Yes	Yes
Solar charging during outage	Yes ⁴	N/A	Yes ⁴	N/A	N/A	N/A	Yes ⁴	N/A
Time-Based Control mode	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A
Powerwall grid charging	N/A	Yes	N/A	Yes	N/A	N/A	N/A	Yes
Powerwall grid export	N/A ³	N/A ³	N/A ³	N/A ³	N/A	N/A	N/A ³	N/A ³
Special modes of operation	With Solar	Without Solar	With Solar	Without Solar	With Solar	Without Solar	With Solar	Without Solar
Preconditioning	Yes	Yes	Yes	Yes	No	N/A	Yes	Yes
Preventative maintenance on thermal control system	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Storm watch	Yes	Yes	Yes	Yes	N/A	N/A	Yes	Yes
Compatibility with other energy systems								
Hydro power	Yes ⁵		Yes ⁵		Not yet compatible		Yes ⁵	
Wind power	Yes ⁵		Yes ⁵		Not yet compatible		Yes ⁵	
Powerwall 1	Not yet compatible		Not yet compatible		Not yet compatible		Not yet compatible	
Existing battery storage systems	Not yet compatible		Not yet compatible		Not yet compatible		Not yet compatible	
Combined heat and power systems	Yes ⁵		Yes ⁵		Not yet compatible		Yes ⁵	
Solar booster (controlled load to increase solar self consumption)	Not yet compatible		Not yet compatible		Not yet compatible		Not yet compatible	

¹200A Neuro CTs are included in the Backup Gateway enclosure. 800A CTs are available for larger service sizes.

²A limit of 5kW of solar per Powerwall is recommended for off-grid sites or sites that frequently operate off-grid, as larger PV systems are more likely to overload the charge capacity when off-grid.

³Some aggregation programs and restricted use applications do not conform exactly to the configuration described here.

⁴Solar charging during an outage is unavailable for any site with a solar inverter configured for zero export.

⁵Must be installed outside the backup circuit. Will be displayed in the customer app as solar generation. Powerwall warranty will be subject to "any other application or combination of applications" when paired with other non-solar renewables.