



## Why is a stable grid important?

To prevent electricity outages, the grid needs to react quickly. If there are sudden changes like an increase in demand or a power station goes down, the grid needs to balance itself to keep power flowing.



If customers require more energy than the grid can supply, a negative imbalance can create an outage.



If too much energy is fed into the grid from traditional fossil fuel power plants with set production limits, a positive imbalance might also disconnect customers for safety.

## Why is a Virtual Power Plant (VPP) a better solution?

Since traditional power generation is not stored, it's slow to increase or decrease to match demand throughout the day, resulting in either too much or not enough electricity.

With a VPP, Powerwall can respond in real time by dispatching energy into the grid or storing excess energy from the grid, maximising the value of Powerwall. The combination of solar and Powerwall can also respond 100x faster than traditional power plants, reducing the risk of an outage.