



EPISODE 53

How to use Peak Shaving to Save on Electricity Costs

Bankable. Reliable. Local.

How to use Peak Shaving to Save on Electricity Costs

>> Background

A "capacity tariff" is going to be introduced on residential properties where you will have to pay for the electrical capacity that you need. This tariff is expected in many European countries, such as Belgium and Italy, and may increase electricity bills for many families.

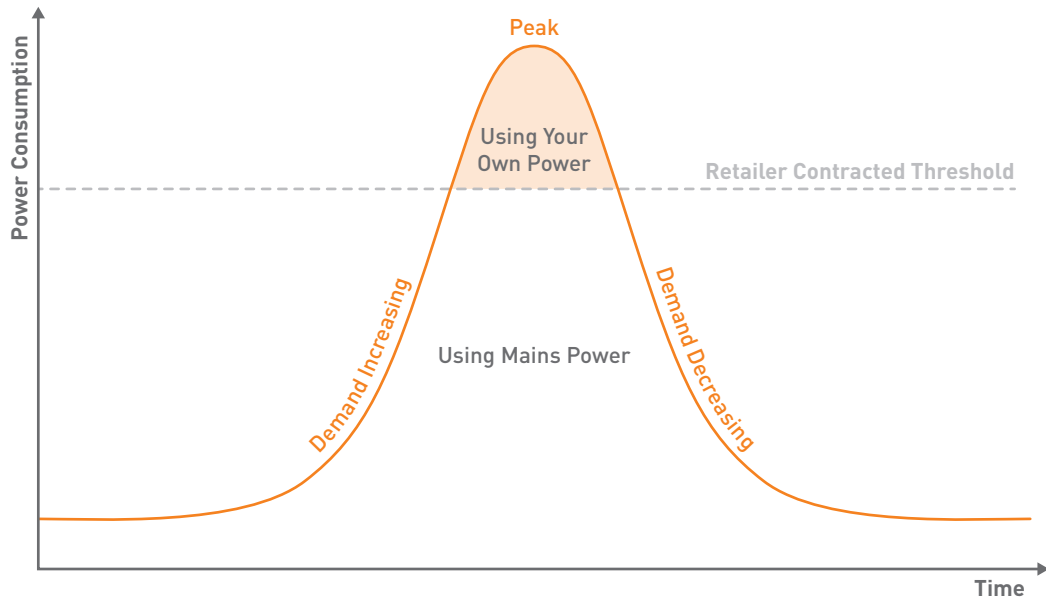
1. What is a "Capacity Tariff"?

For consumers, including businesses and homes, electricity consumption varies throughout the day depending on whether there is a high or low demand. To manage such fluctuations, electricity suppliers can change their rates throughout the day; therefore, you need to pay more for electricity during peak demand hours. The traditional "peak power" pricing is only the amount of energy consumed during that period. The new "capacity tariff" is to calculate the "peak power" during the full cycle. For example, if you have a peak of more than 12kW for 15 minutes per month, you need to pay the electricity bill for the whole time according to the unit price of 12kW.

2. "Peak Shaving" Strategy to Reduce Electricity Bills

What is "Peak Shaving"?

This pertains to any household that consumes more than the utility provider's power limits at a certain time as seen below on the electricity curve in Figure 1. Peak shaving is when you use your own power to avoid the new tariff on your electricity bills during the biggest energy consumption times.

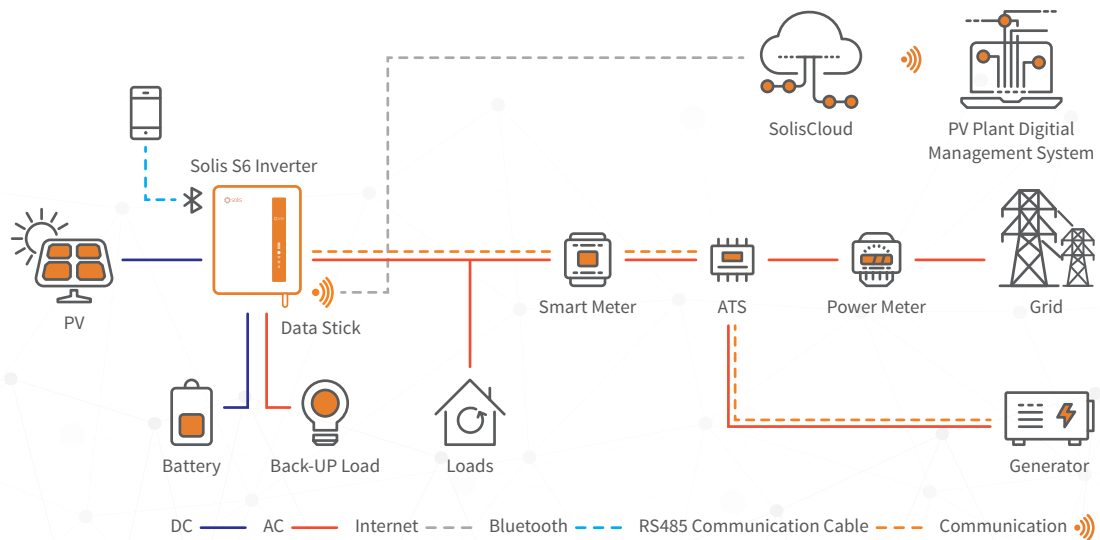


Strategies for Implementing Peak Shaving

- Use local sources to replace grid power, such as generators, photovoltaic power, wind power, etc.
- Control your power consumption by using power settings to prevent any overconsumption problems. You can control things by using less indoor lighting, fans instead of air conditioners, or lowering the maximum temperature of your water heater.
- Use an energy storage system to achieve power transfer. This can solve the peak power problem, especially if you combine battery storage with strategy A.

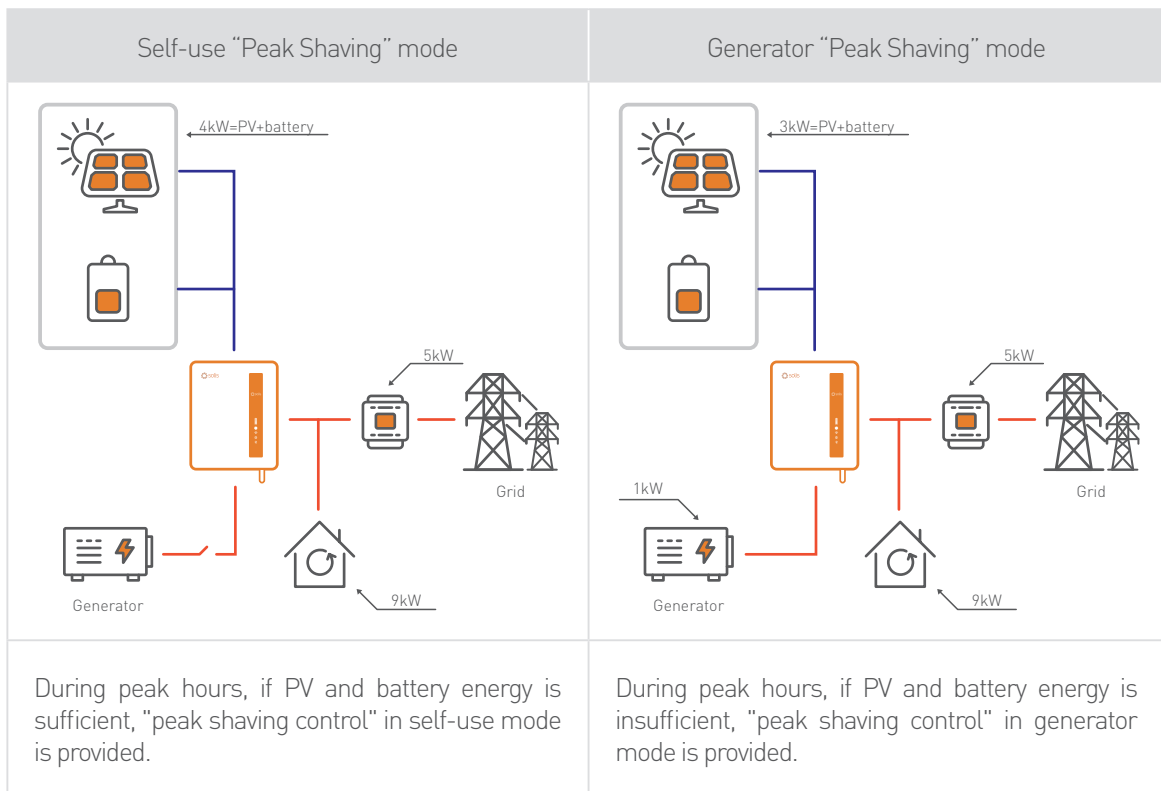
Use the Solis S6 hybrid inverter to cut costs

For areas where peak power consumption limits exist, the use of a photovoltaic (PV) system and energy storage power is necessary. The Solis hybrid inverter is a perfect match for this scenario. With Solis' residential solutions, you can achieve 100% green electricity use, electricity independence, all while reducing your electricity bills.



During the day, a PV system generates more electricity than the load needs. It first supplies power to the local load while also charging the battery. If there is any excess power, it can be sold to the main grid. At night, the battery banks discharge to supply the load required by the household. If the grid is interrupted, the system can operate independently to provide continuous power for residential applications.

In addition, the Solis S6 energy storage inverter supports peak shaving control in both "self-use" and "generator" modes. It allows users to set the maximum grid power consumed by the loads, and the surplus power can be supplemented by PV, battery banks, or diesel generators. The S6 was designed with reducing the grid electricity price and saving electricity costs in mind.



Solis is helping to redefine the energy future with multiple solutions for your energy issues.

For more information please go to www.solisinverters.com