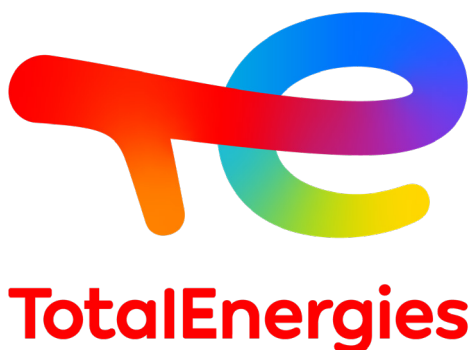




## Optimizing the Benefits of Solar with Smart Battery Storage

While solar energy systems are a popular way for organizations to mitigate escalating utility costs, implementing battery storage systems – either solar-tied or standalone – opens up the potential for even greater financial savings. Featuring intelligent controls, battery storage systems can automatically charge and discharge excess solar power at times when grid power is most expensive to save you money. Battery storage offers multiple benefits, including:



Save on annual electricity costs while driving down carbon footprint



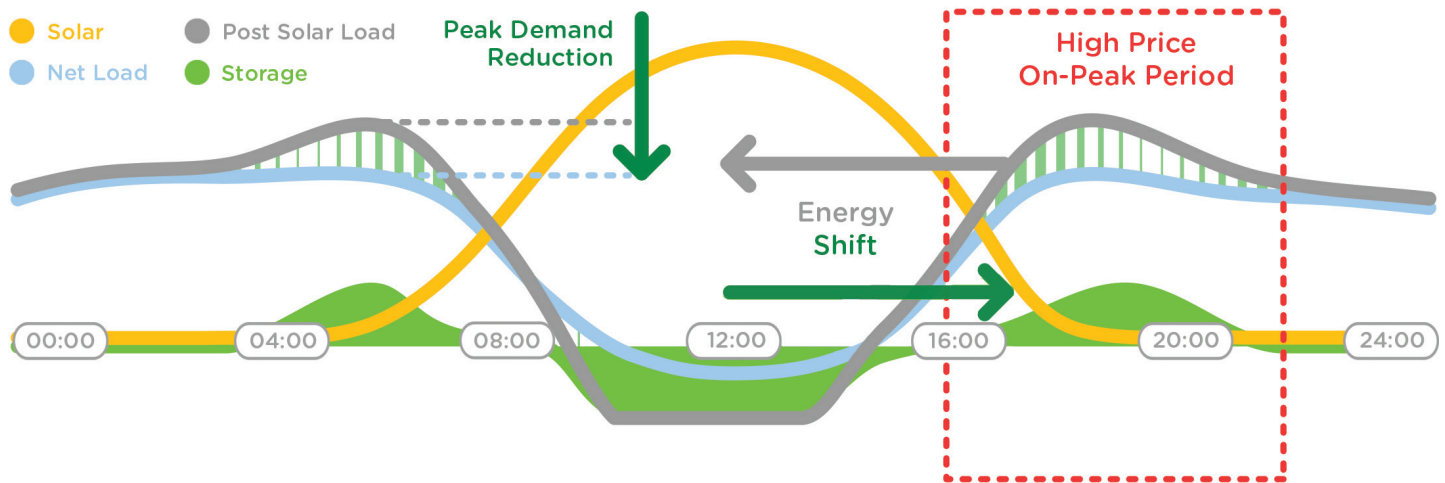
Maintain business continuity during power outages and grid disruptions



Offset fossil fuel-powered electricity to better align with imminent regulatory mandates

# How Tariff Optimization Works

Tariff optimization is a smart battery storage control mechanism for customers on time-of-use rate plans that allows you to save on both the standard energy portion of your electricity bill as well as demand charges. Both solar-tied and standalone storage systems can take advantage of tariff optimization to maximize electricity bill savings.



## Demand Charge Management

Demand Charge Management focuses on reducing demand-based electricity bill costs. These costs come from the highest kilowatt (kW) electricity used during a 15-minute interval in a given billing month.

Using a combination of forecasted site conditions and real-time information, smart battery storage controls identify a customer's 15-minute peak site load and dispatch energy from the battery to offset more costly energy coming from the utility.

### Example Scenario:

A customer's monthly maximum demand charge is \$25 per kW. Without storage, the customer's monthly maximum billing demand is 2,350 kW. With storage, the maximum demand is reduced to 2,150 kW - saving the customer \$5,000 in monthly demand charges.

## Energy Arbitrage

Energy Arbitrage focuses on reducing energy-based electricity bill costs. These costs come from the volumetric energy (kWh) drawn from the electric grid throughout a given billing month.

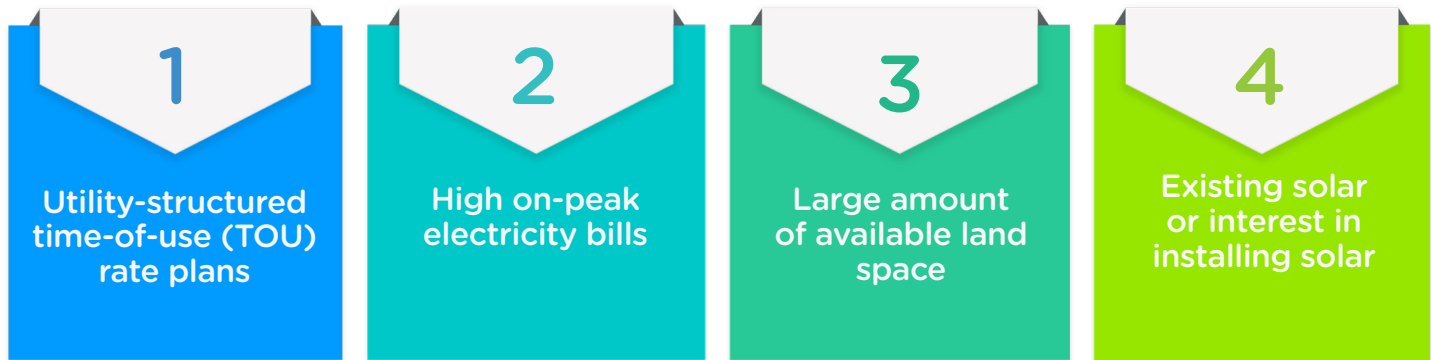
Through smart controls, the battery shifts the time at which energy is drawn from the utility to prioritize cheaper rates. This means the battery charges during off-peak hours when energy prices are lowest and dispatches during on-peak hours when utility prices are highest. (If tied to a solar system, the battery charges from excess solar energy.)

### Example Scenario:

A customer's monthly on-peak energy charge is \$0.25 per kWh, and their off-peak energy charge is \$0.05 per kWh. Without storage, the customer's monthly on-peak energy consumption is 300,000 kWh and their off-peak energy consumption is 500,000 kWh. With storage, monthly on-peak energy consumption is reduced to 250,000 kWh, and off-peak energy consumption is reduced to 550,000 kWh - saving the customer \$10,000 a month.

# Ideal Candidates for Battery Storage Tariff Optimization

Commercial & Industrial organizations with:



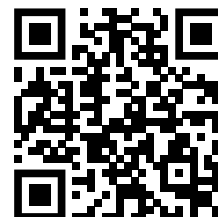
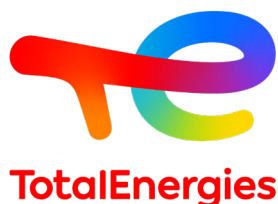
## TotalEnergies and electricity

As part of its ambition to get to net zero by 2050, TotalEnergies is building a world class cost-competitive portfolio combining renewables (solar, onshore and offshore wind) and flexible assets (CCGT, storage) to deliver clean firm power to its customers. At the end of 2023, TotalEnergies' gross renewable electricity generation installed capacity was 22 GW. TotalEnergies will continue to expand this business to reach 35 GW in 2025 and more than 100 TWh of net electricity production by 2030.

## Contact TotalEnergies

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