



# SolarEdge ONE



## The AI-Driven Energy Optimization System for SolarEdge Home



**Maximizing homeowner savings** by optimizing energy consumption, storage, and grid import/export, leveraging SolarEdge's inherent DC architecture.



**Providing unified, simple user experience** for all home energy management needs, from a trusted global leader in energy solutions.



**Supporting various use cases** and rate plans including Time of Use, Dynamic Tariffs and Negative Rates.

## Introducing SolarEdge ONE

SolarEdge ONE is the AI-driven energy optimization system powering the SolarEdge Home ecosystem, designed for today's and tomorrow's dynamic energy landscape. It seamlessly optimizes the way homeowners use, store and sell their solar power to maximize savings, accelerate ROI, and manage energy to fit their lifestyle choices.

To further increase customer revenue opportunities, SolarEdge ONE supports various demand-based rate plans including Time of Use and Dynamic Tariffs\*, ensuring the home's energy is exported at higher rates and imported at lower rates. And, SolarEdge ONE can facilitate participation in Virtual Power Plants (VPPs) and Grid Services plans to leverage grid events\*.

With SolarEdge ONE, storage and back up are optimized according to the homeowner's needs and lifestyle. For example, homeowners can select their optimal battery management mode, choosing from "Maximum Self Consumption" for maximum grid independence and minimum emissions, "Time of Use" for maximum savings, or "Manual Control" \*.

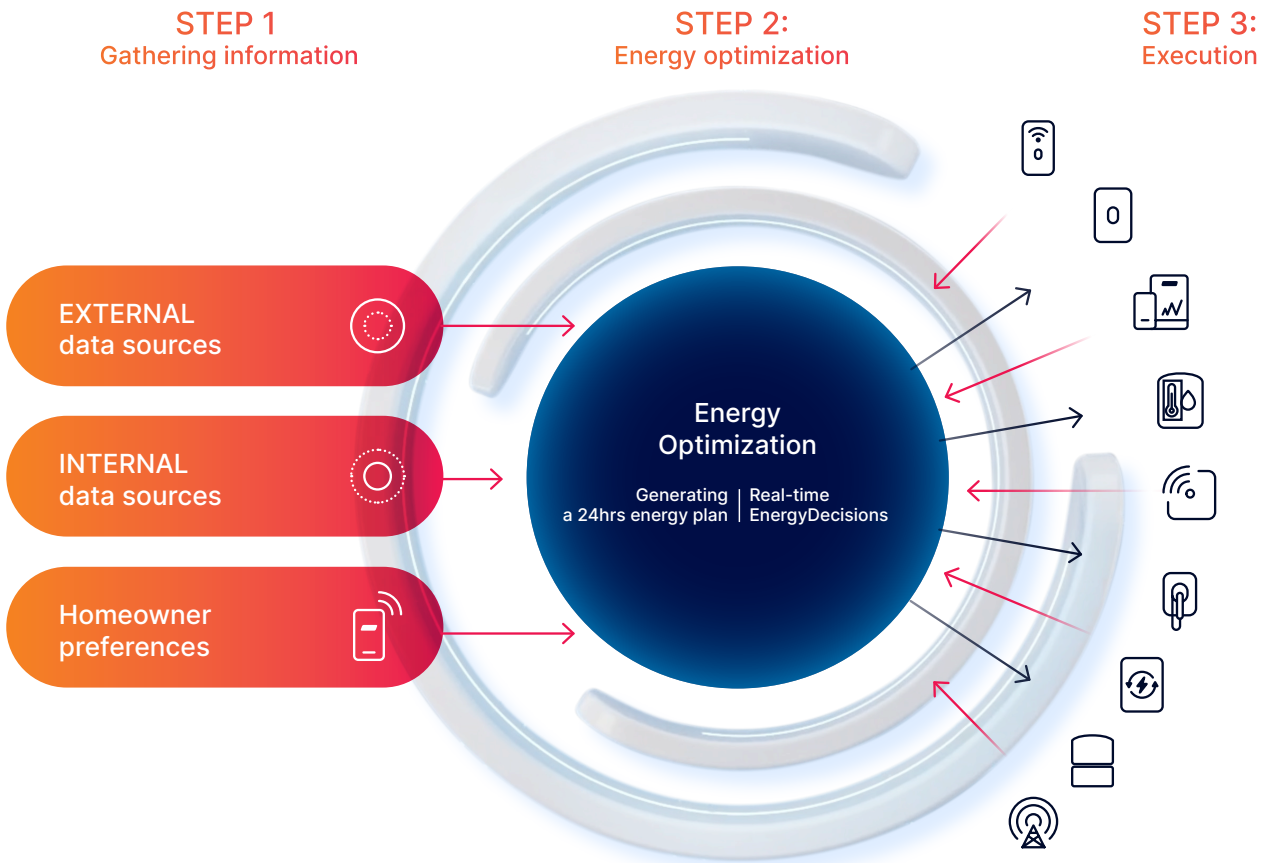
SolarEdge ONE manages energy during outages as well, to extend back up duration by shutting down loads the homeowner has defined as non-essential, such as EV chargers, boilers or non-essential heating systems. .

\* Coming soon to select regions. Please check availability with your local installer.

# How It Works

SolarEdge ONE operates as the homeowner's personal energy assistant. It is based on AI algorithms that gather and process data from three sources: External (weather forecasts, utility rates, etc.), internal (homeowner usage patterns and system parameters), and homeowner preferences.

Using this data, SolarEdge ONE generates and deploys a personalized and optimized -24hour energy plan for the home that adapts to real time changes. This ensures that homeowners can make the most out of their SolarEdge investment, while avoiding the complexity of manually planning and managing their home's energy.



SolarEdge ONE is seamlessly integrated with the SolarEdge Home product portfolio. In addition, it supports loads controlled by SolarEdge Home Smart Switches and Sockets\*, and can also communicate with selected third party appliances, including EV chargers and heat pumps through the SolarEdge Home Local Controller\*.

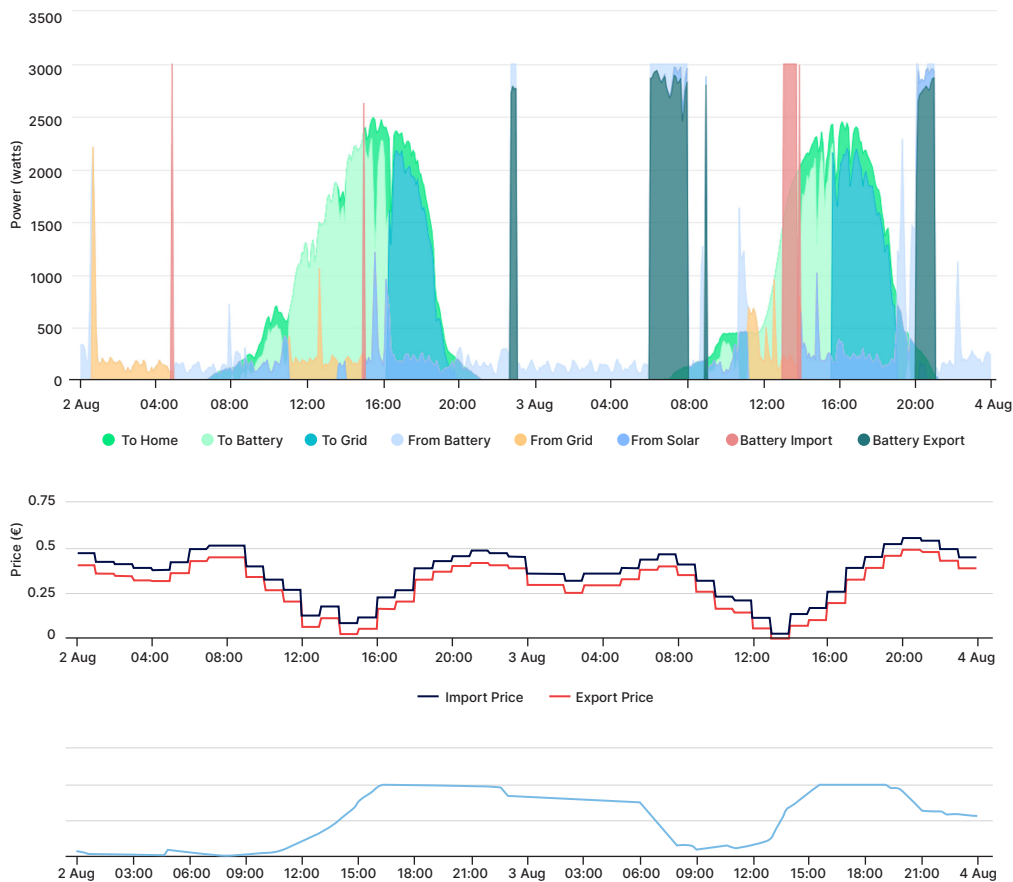
Homeowners can configure SolarEdge ONE through the MySolarEdge app, providing visibility and control of PV production, smart devices, EV and storage, all from a single app.



<sup>1</sup> Supported for all SolarEdge Home inverters with SetApp (SolarEdge Home Wave, Home HUB both 3 phase and 1 phase inverters)

\* Coming soon to select regions. Please check availability with your local installer.

# A "day in a Life" of SolarEdge ONE



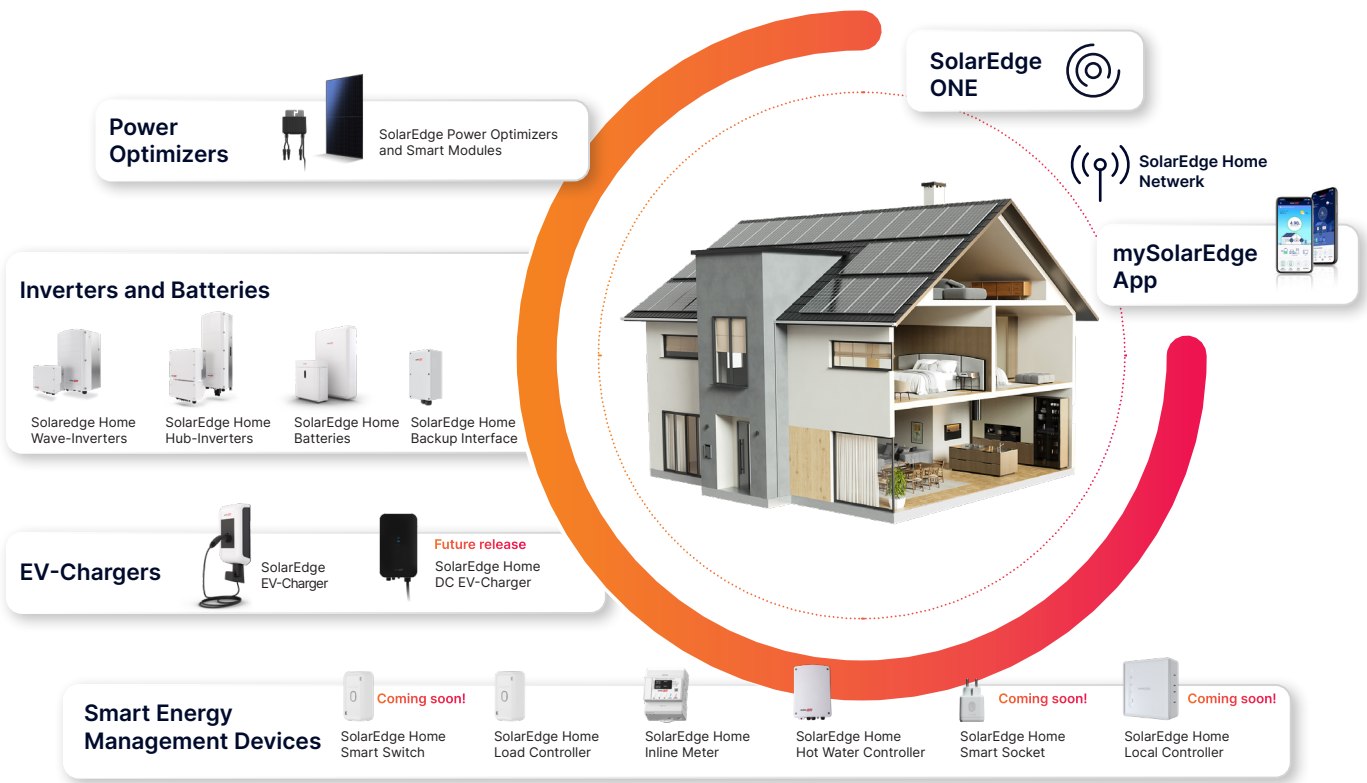
SolarEdge ONE battery optimization in a residential site in the Netherlands, demonstrating a dynamic rate.

	Day 1 Scenario	Day 2 Scenario
<b>Night (00:00-06:00)</b>	The home relies on grid electricity for most of the night, possibly due to the battery being depleted as a result of high import prices.	A battery powers the home throughout the night. The grid is not charging the battery due to higher tariff hours.
<b>Morning (06:00-12:00)</b>	<b>Import energy prices peak.</b> The PV system turns on as the sun comes up and powers the home directly. The battery is charged with excess PV energy.	Energy is exported from the battery to the grid between 06:00 and 08:00 to take advantage of <b>peak pricing hours</b> . The home continues to consume stored energy from the battery.
<b>Peak Solar (12:00-15:00)</b>	<b>Import energy prices drop.</b> All PV energy is directed to charge the battery, while the home is powered entirely by the grid.	<b>Import prices are close to zero.</b> The home can fully run on solar energy while the grid and excess PV charge the battery.
<b>Afternoon (15:00-18:00)</b>	<b>Import energy prices increase towards the evening peak.</b> All PV energy is exported. SolarEdge ONE leverages this site's <b>west orientation</b> – providing a later solar peak – to maximize revenues from direct PV export.	
<b>Evening (18:00-00:00)</b>	<b>Import energy prices are at their peak.</b> The home is powered by the battery. For a short period of time, battery energy is exported to take advantage of the peak export tariff.	The home is powered entirely by PV and battery. Between 20:00 and 21:00, energy is exported from the battery to enjoy peak pricing while reserving enough energy to power the home.

# SolarEdge Home Smart Energy Ecosystem

The SolarEdge Home smart energy ecosystem is comprised of the SolarEdge Home product portfolio powered by the SolarEdge ONE energy optimization system – all from a single vendor.

This DC optimized, ecosystem is designed to maximize homeowner savings and support their evolving energy needs. It creates long-term earning opportunities for installers, offering their customers more energy, extended back up power, leading safety features and a superior user experience.



SolarEdge Home is a smart energy ecosystem that enables PV professionals to differentiate and grow their business, offering more energy, extended back up power, leading safety and top-notch user experience. It's comprised of the SolarEdge Home DC-optimized product portfolio including PV, storage, backup, EV charger and other smart energy devices. They're powered by the SolarEdge ONE energy optimization system which operates as the homeowner's personal energy assistant - seamlessly optimizing and managing energy production, consumption, storage and backup for maximized savings and accelerated ROI. By offering homeowners a single-vendor, scalable solution that can grow with evolving energy needs, installers enjoy more earning opportunities and maximize customer lifetime value.



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