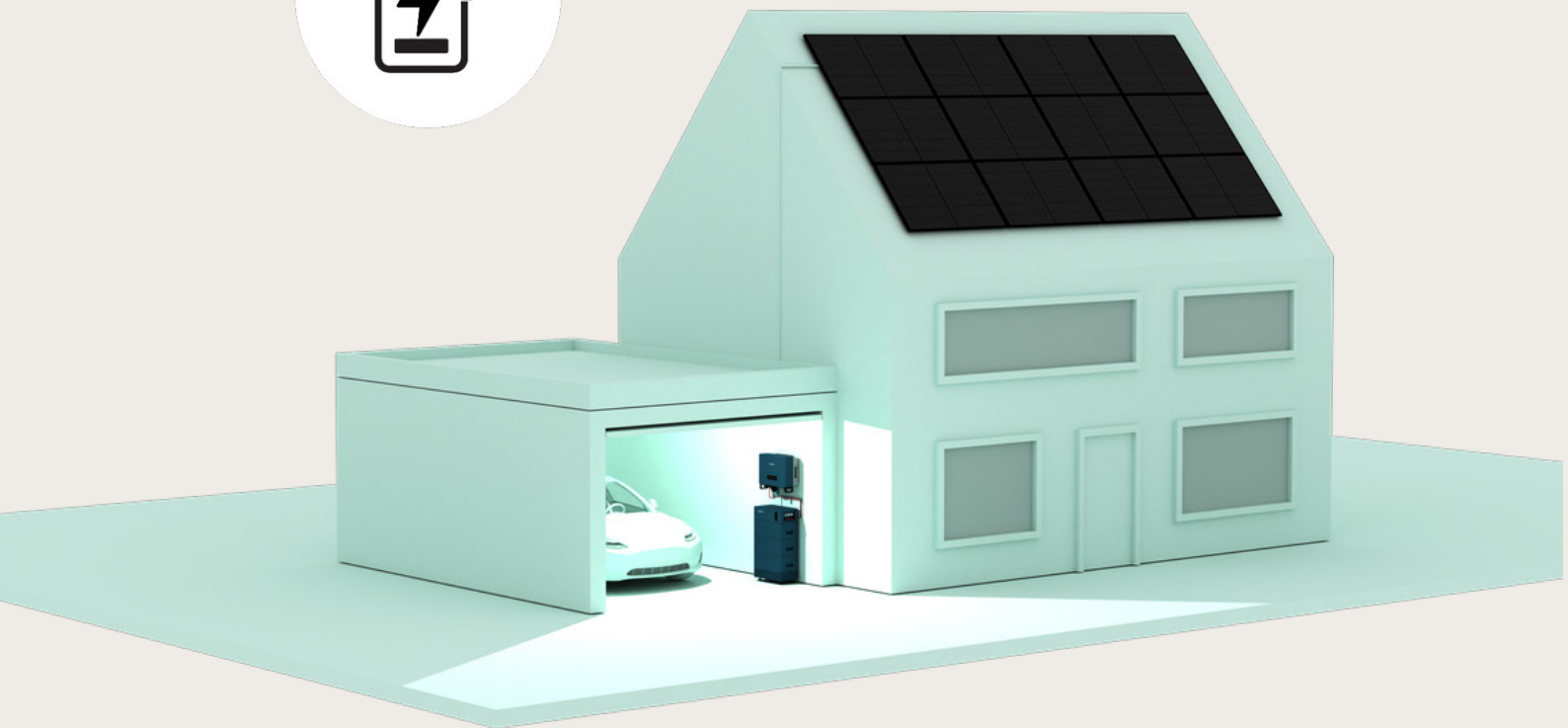


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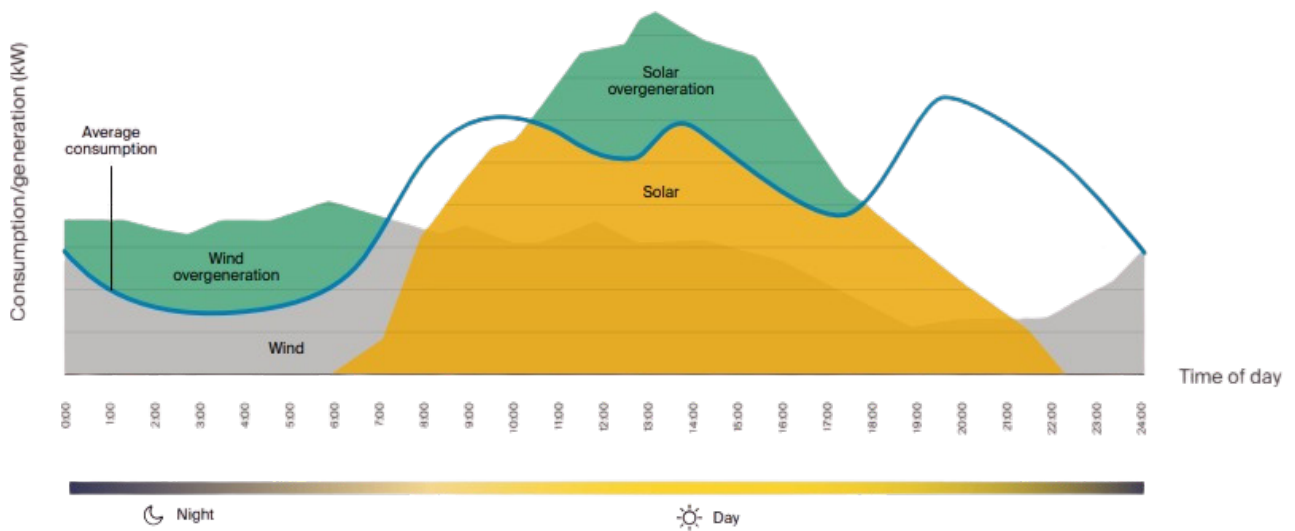
Smart Charging: take control of energy costs

Intelligent energy optimization with Autarco Cloud EMS



Intelligent optimization with Autarco Cloud Energy Management

- + Dynamic energy prices create continuous value differences for every kWh.
- + Smart charging automatically shifts storage, self-consumption and export to the most profitable moments.
- + This active control allows system owners to capture the full financial value of their solar energy.



Smart charging addresses this risk

The grid must balance supply and demand at every moment.

It cannot store excess energy. When generation exceeds demand:

- + Prices decrease
- + Export revenues shrink
- + Negative pricing can occur

Without automated control, solar installations are exposed to market volatility.

Business impact

- + Export can generate lower returns
- + Negative prices can turn export into a cost
- + Price volatility affects financial planning
- + Manual switching is unrealistic

Smart charging transforms market exposure into structured control.

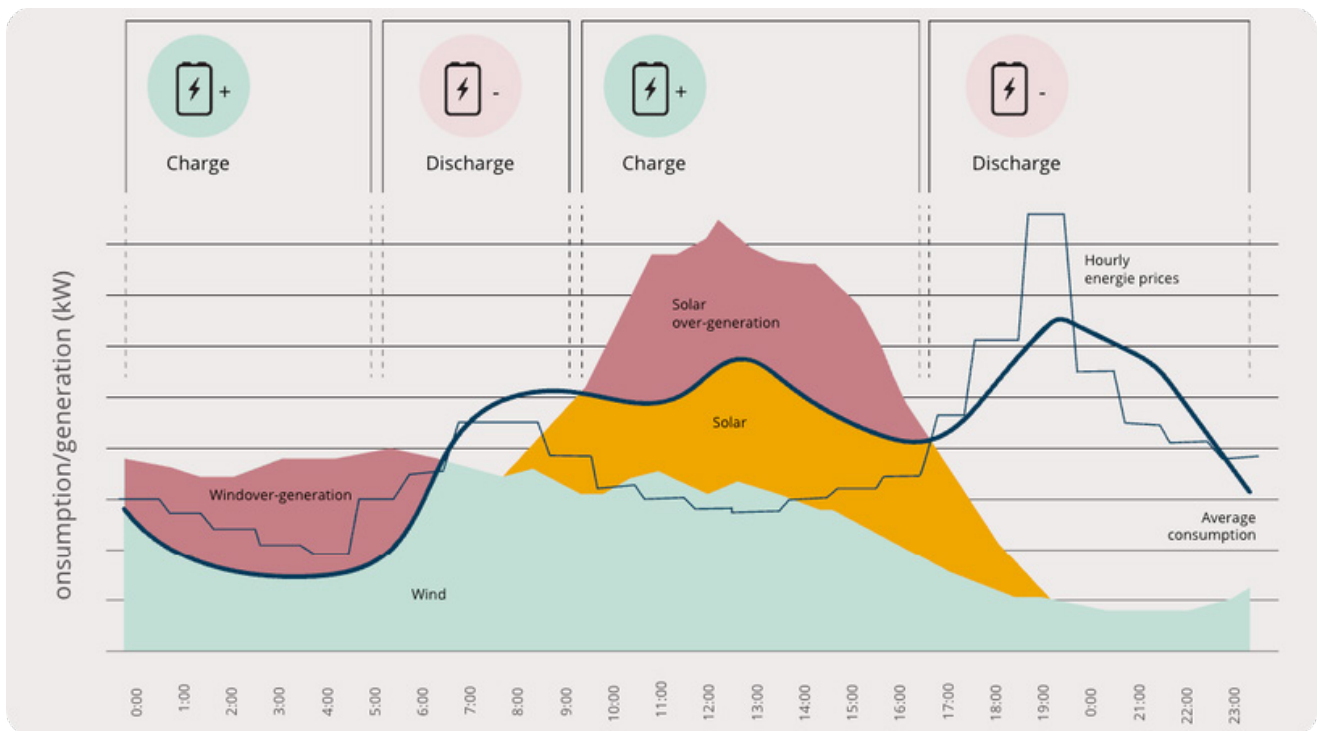


Automatic optimization with smart charging

Smart charging is powered by Autarco's Cloud Energy Management System (EMS). It coordinates:

- + Solar production
- + Battery storage
- + Local consumption
- + Real-time electricity prices

The system continuously evaluates when energy should be stored, used locally, exported or limited. No manual intervention required.



What smart charging does

- + Detects low and negative price periods
- + Charges the battery when prices are low
- + Discharges when prices are high
- + Limits export when it becomes unprofitable
- + Optimizes self-consumption

During negative pricing moments, the system avoids exporting energy at a loss. Instead, it stores or curtails intelligently.

Smart charging turns dynamic tariffs into opportunity instead of risk.

From risk to opportunity

Smart charging converts price volatility into managed performance.



Beyond smart charging: full energy optimization

Smart charging is part of a complete solar solution combining PV, battery storage and EMS.

Seasonal Intelligence

Energy markets behave differently across seasons.

Summer:

- + High solar generation
- + Low midday prices
- + High morning and evening peaks

Winter:

- + Higher daytime consumption
- + Lower solar output
- + Price volatility driven by demand

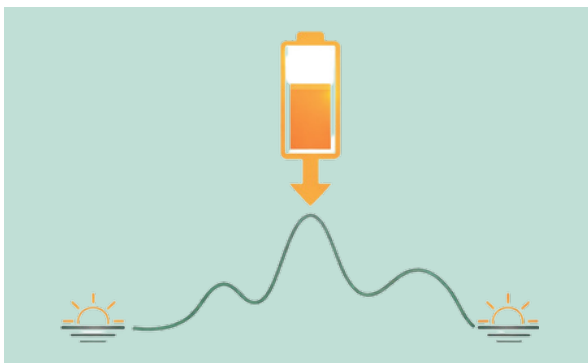
The EMS adapts automatically to these changes and optimizes daily operation year-round.

Getting full value from a battery, all year round

Summer



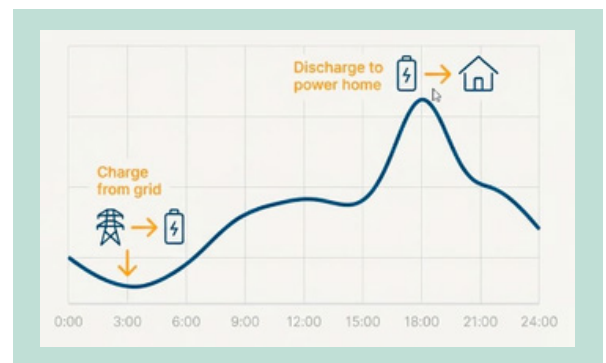
In summer, batteries often don't discharge fully overnight, leading to unused storage potential. The Energy Management System (EMS) identifies the highest market price between sunset and sunrise and automatically exports any excess energy. This ensures the battery is emptied and ready for a full charge the next day.



Winter



During winter, low solar generation often results in the battery sitting idle, which can hurt the overall investment. The EMS identifies any gaps in stored capacity and charges the battery during the most affordable times. This allows you to capitalize on low-cost energy, which can then be used during peak price hours.



Turn intelligence into financial impact

Business Value

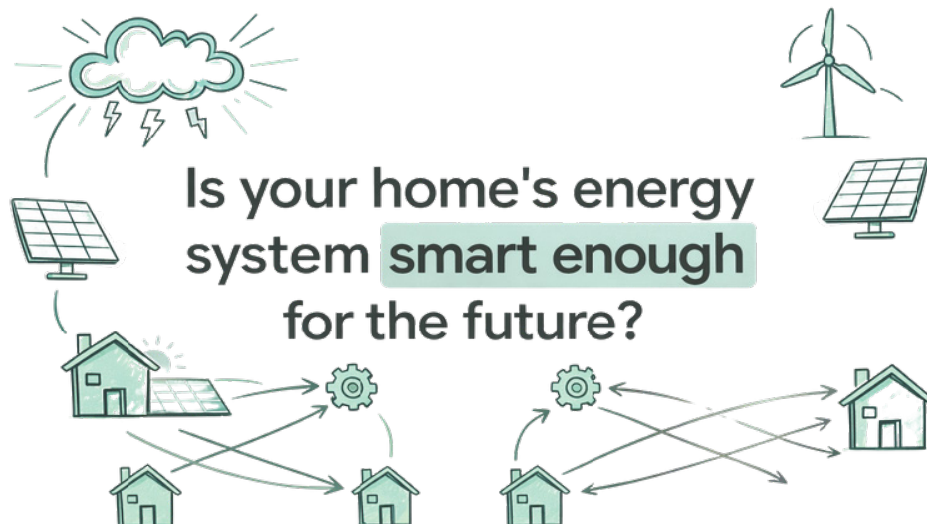
For End-Users:

- + Greater control over energy bills
- + Protection against negative pricing
- + Improved self-consumption
- + Automatic background operation

For Dealers:

- + Clear positioning in dynamic markets
- + Strong financial argument
- + Differentiation beyond hardware
- + Future-ready solution

Smart charging shifts solar from passive generation to active energy management.



Can't wait to learn more? Get in contact with our sales colleagues via sales@autarco.com

Start optimizing at no additional cost

Autarco Smart Charging is available free of charge for both new and existing compatible systems.

Activate advanced energy optimisation instantly and start benefiting from dynamic energy markets without additional investment.