From fragmentation to scale:

How PV inverter and battery manufacturers can unlock growth across Europe

Enode

Executive Summary

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Home energy management (HEM) apps are becoming a decisive factor when consumers buy residential solar and storage. Yet, delivering a compelling HEM offering remains difficult in Europe's fragmented market. Manufacturers aiming for leadership must rethink their HEM app strategies to stay ahead.

After years of rapid expansion, Europe's residential solar and storage market has slowed. Yet the outlook to 2030 remains positive, with steady growth ahead.

Continued growth is essential. To accelerate the energy transition, Europe needs more solar and storage, both to deliver clean electricity and provide the flexibility to balance intermittent renewables. These technologies are increasingly interlinked: the number of combined solar and battery systems is expected to double from about 5 million in 2025 to more than 10 million in 2028.

The next growth phase will look different. Instead of being driven by a few leading markets such as Germany, Italy, Spain, and the UK, it will come from a fragmented mix of countries across Europe. The manufacturers that win will be those able to offer relevant solutions to end-consumers in many markets.

Another shift is that hardware alone will no longer secure success. The differentiator will be software: specifically Home Energy Management apps that help consumers cut costs, increase energy autonomy, and provide the flexibility needed for a greener system.

In a recent Enode survey, 90% of PV inverter and storage manufacturers agreed that strong HEM offerings are key to driving sales in Europe. But fragmented country markets create challenges: each has its own tariffs, regulations, and consumer expectations.

Consumers also expect to optimize all their devices together – not just solar and storage, but EVs, HVACs and other household devices. With hundreds of brands and thousands of models, delivering this in one app is a massive task.

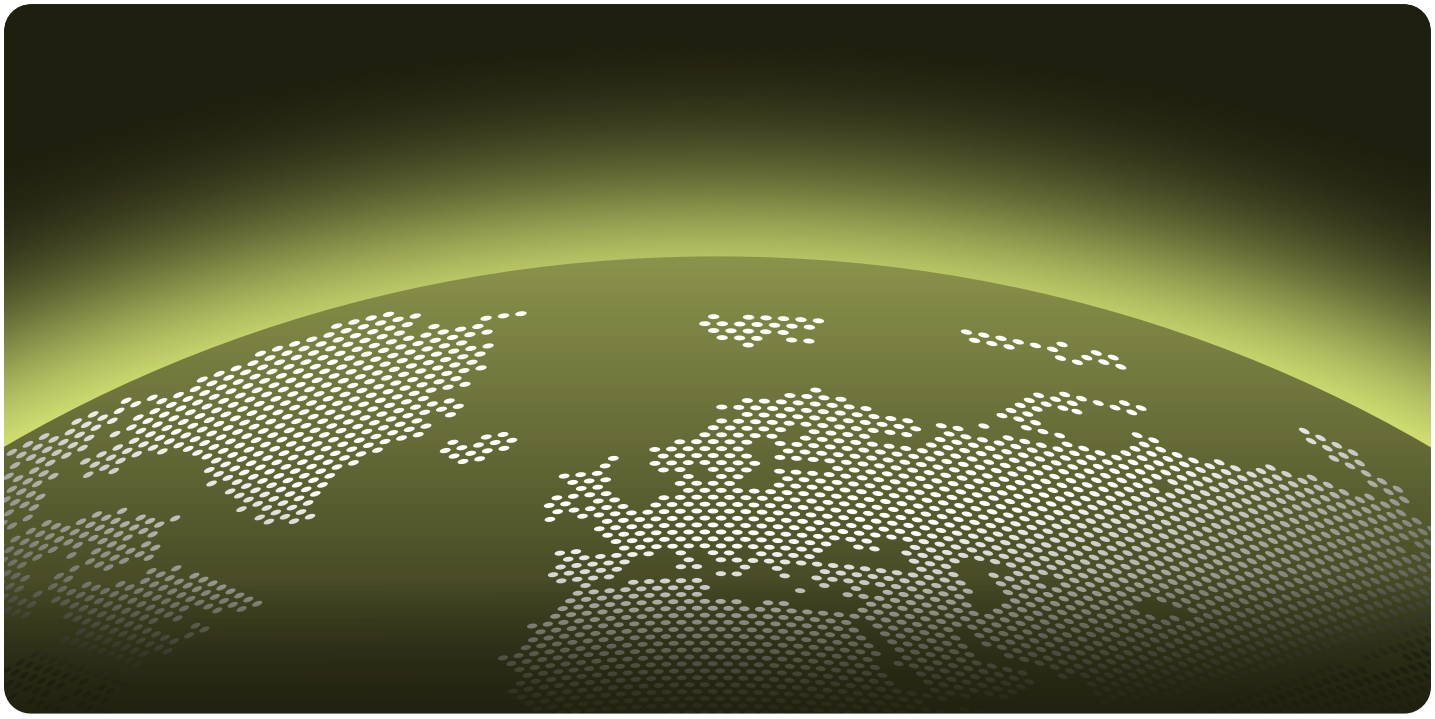
Despite the clear demand, few succeed. Manufacturer-built apps often rate poorly, and many manufacturers admit that usability and functionality fall short of expectations.

As one respondent put it: "It's impossible to meet the diverse and ever-changing needs of consumers."

This whitepaper explores how manufacturers can deliver valuable HEM offerings in this fragmented European environment. The central question: should they build their own app, integrate with third-party solutions, or adopt a hybrid approach?

The insights in this whitepaper draw on survey responses from leading PV inverter and battery manufacturers, gathered by Enode in August 2025, as well as Enode's experience helping energy companies develop and scale the world's leading HEM apps.

Survey results underline the shift: 90% of manufacturers see third-party apps as a complement to their own, enriching the consumer value proposition. In addition, 70% want to integrate with more third-party apps than they do today, with several aiming to connect with over 30 different apps across Europe.



Growth across Europe requires an ecosystem approach

The data points to an ecosystem strategy. Open, API-based integration enables manufacturers to expand faster, reach more customers, and stay focused on building best-in-class energy devices. Leading players like Solis are already pursuing this path—balancing product control with broad market reach.

Survey results confirm the shift: 90% of manufacturers believe an ecosystem approach enhances consumer value, and 70% want to integrate with more HEM apps. Yet integration is costly and time-consuming when done alone. In Europe alone, there are hundreds of potential HEM apps to integrate with, making it very time-consuming and resource-intensive for OEMs to build integrations at large scale.

From prioritizing who to integrate with, to ensuring compatibility with different communication protocols, to developing each integration and finally to maintaining a large number of integrations - they all add up, resulting in a long time to value for the end-user, taking up capacity of scarce technical resources and making it highly complex to scale outside a handful of third-party HEM apps.

Enode enables OEMs to overcome these ecosystem barriers. By connecting to Enode's API platform, manufacturers are immediately available to an ecosystem of 150+ energy apps across Europe, North America and Oceania, making it easier to meet customer expectations, scale offerings across fragmented market needs and remain focused on core product development.

This is part of a broader shift toward Open Energy: an ecosystem where devices, apps and services connect seamlessly to create more value for consumers, manufacturers and the grid.

In this context, the message is clear: in Europe's fragmented market, growth will come from openness, scalability, and consumer-first thinking. HEM apps are no longer optional—they are central to the next generation energy experience.

Chapter 1

Growth is challenged short-term, but long-term outlook remains positive

01

The European residential solar and storage systems market has slowed down the last 2 years. After the post-2020 boom – fueled by falling hardware costs, volatile electricity prices, and government incentives – momentum slowed in 2024 as countries reduced the most attractive subsidies and policies. But the market is expected to recover, and the outlook towards 2030 is positive, with steadier and more distributed growth.

For Original Equipment Manufacturers (OEMs), the key shift is this: growth is no longer concentrated in a handful of markets. Previously driven by front-runners Germany, Italy, Spain and the UK, the next phase of growth will come from a fragmented mix of countries.

But each has its own incentives, tariffs, and consumer expectations, making scaling more complex – and more important to get right.

The market at a glance:

Battery sales grew 10x between 2020 and 2023; solar 3x

10x

Sales dipped in 2024 (–15% for batteries, -30% for solar) as subsidies fell and energy prices stabilised

2024

Growth is rebounding: forecast annual growth through 2030 is ~10% for batteries and ~7% for solar

10% & 7%

Expansion is diversifying: while Germany, Italy and the UK led early adoption, new growth is expected in the Netherlands, France, Romania, Sweden, Greece and others

Expansion

Batteries and solar are combined: installed base of HEMS combining solar and battery storage in Europe is expected to double from about 5 million systems in 2025 to over 10 million in 2028

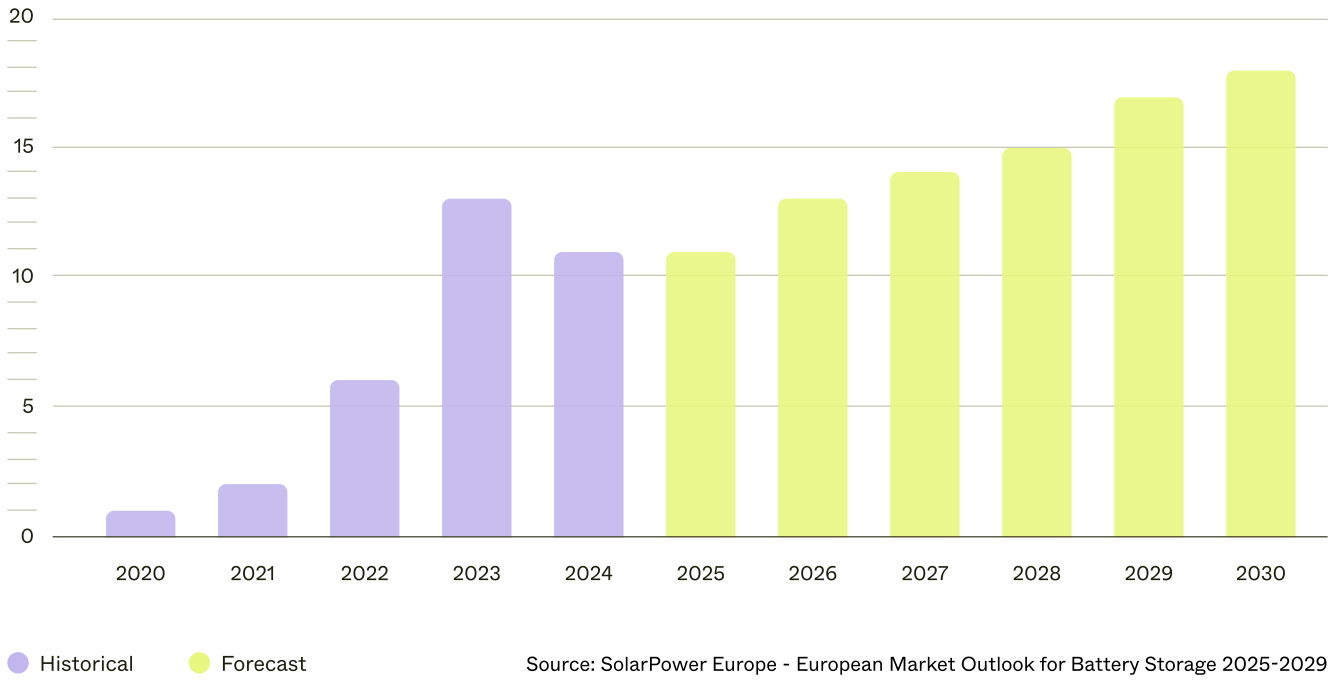
10 million

Batteries: expanding beyond early leaders

Battery adoption is still nascent in most of Europe – only Germany has reached mainstream levels, with 1.8 million residential systems installed. But this is changing fast:

- Annual residential battery installations in Europe rose from 1 GWh (2020) to 13 GWh (2023)
- Installed capacity will grow by ~10% each year, and is expected to reach 18 GWh/year by 2030

Fig.1 Residential batteries in Europe, annual additions [GWh]



Source: SolarPower Europe - European Market Outlook for Battery Storage 2025-2029

Historically, Germany, Italy and the UK led residential battery adoption. But growth is now shifting to a broader range of countries – including the Netherlands, Sweden, Greece, Romania and France – as consumers seek greater control over rising and volatile energy costs.

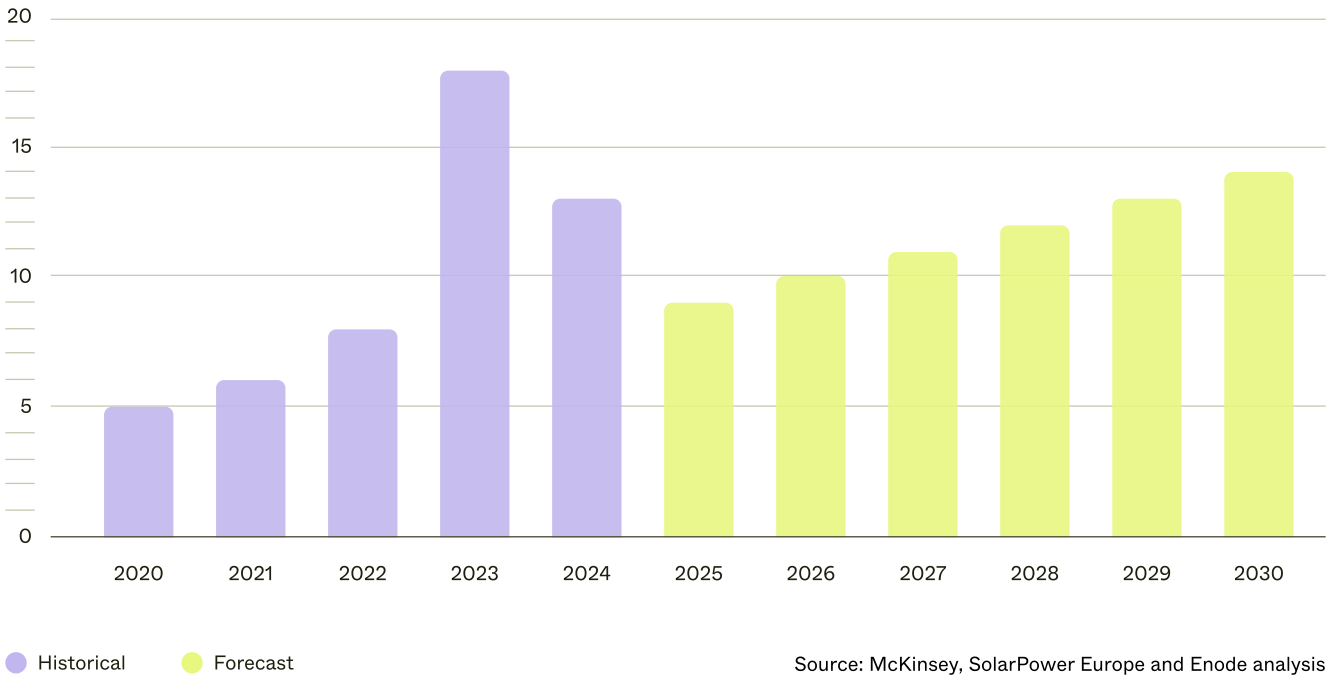
In the Netherlands, for example, the combination of a leading rooftop solar fleet and new pricing schemes is expected to drive some of the region's highest battery growth. Across Europe, the phasing out of some of the most attractive incentives, and the increasing need for grid flexibility, means that combined solar and battery solutions are more important than ever before to get the full value of residential solar - enabling flexibility to consume solar power when it is most valuable, be it for self-consumption or feeding into the grid.

Solar: Significant headwinds, but expected to recover

Residential solar saw similar trends, with a boom in 2020 followed by subsequent market decline to 2024. Growth is expected to stabilize, albeit at a slower rate than battery storage.

- Rapid growth 2020–2023, followed by a dip in 2024–25
- Recovery expected from 2026, with 7% annual growth projected to 2030

Fig.2 Residential solar in Europe, annual additions [GW]

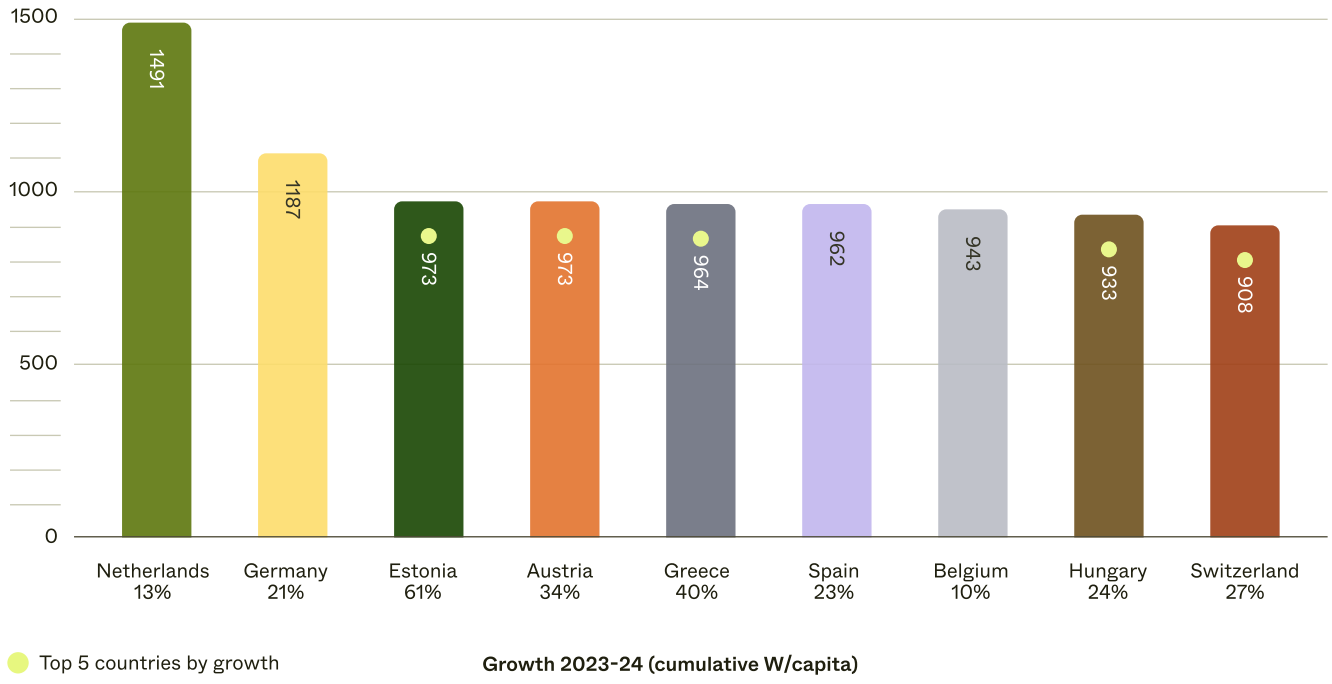


Source: McKinsey, SolarPower Europe and Enode analysis

Despite the recent market decline, overall policies and ambitions remain supportive: the UK's newly announced Solar Roadmap, for example, plans to more than double solar capacity from 18 GW to 45-47 GW by 2035, with 20% on residential rooftops.

As with batteries, the market for solar is becoming more distributed across Europe.
The top five countries represented 78% of the market in 2019 but just 61% by 2025, and there are strong indications that new markets are maturing. This is evident in sales numbers for 2024 – even countries with a small amount of solar installed are starting to catch up to the leaders.

Fig.3 Top 10 European countries – total installed solar capacity (W/capita)



What this means for OEMs

The residential solar and battery market will continue growing – but the playbook has changed. OEMs can no longer focus on a few high-growth countries or offer siloed solutions. Success now depends on the ability to adapt to diverse market needs across Europe.

Fig.3

Source: Solar Power Europe - Global Market Outlook for Solar Power 2025-2029

Chapter 2

HEM apps are now core to OEM's value offering

02

European consumers care about one thing when it comes to residential solar and storage: reducing energy cost. And unlocking those savings depends on software.

A Home Energy Management (HEM) app that integrates across devices (including electrical vehicles, chargers, HVAC, battery and solar) and energy tariffs is fast becoming a must-have for PV inverter and battery manufacturers. Consumers want to control their whole home's energy flow from a single app – and they expect that app to maximize savings across all major energy devices, not just a small subset of their energy devices.

The growing consumer appetite for HEM apps to support batteries and solar PV is evidenced by Enode data. PV inverters and batteries were the fastest growing device categories on our platform last year, growing by 88% across integrations with HEM apps from energy retailers, OEMs and specialized HEMS providers.

In short, HEM apps are now a critical part of the value proposition. If your devices don't support it, they won't make the shortlist. This is supported in a recent survey conducted by Enode with leading PV inverter and battery OEMs, where 90% of the OEMs state that offering a HEM application is important or very important for driving device sales in Europe. This is now top of mind for everyone from end-users to installers to distributors to OEMs.

There are four key drivers behind this shift:

1. Consumer demand for cost savings
2. The rise of multi-device households
3. The need for seamless user experiences
4. The energy transition's dependency on consumer flexibility

Fig.4 Growth in number of connected devices, July 2025 vs July 2024

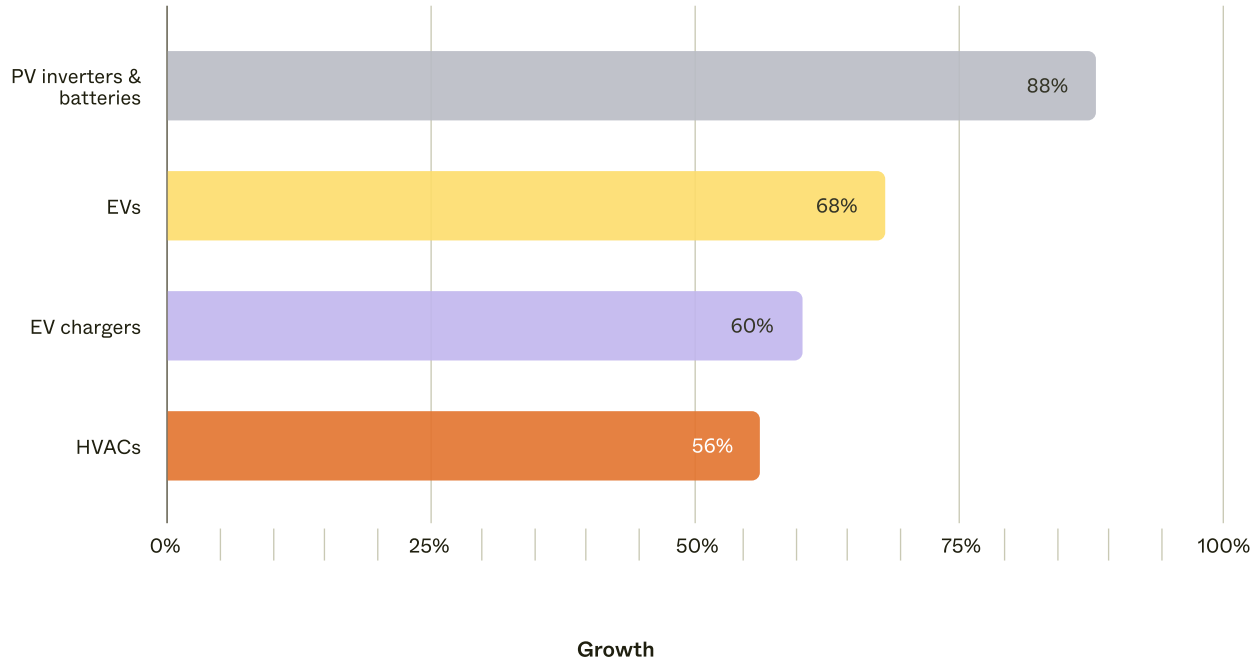


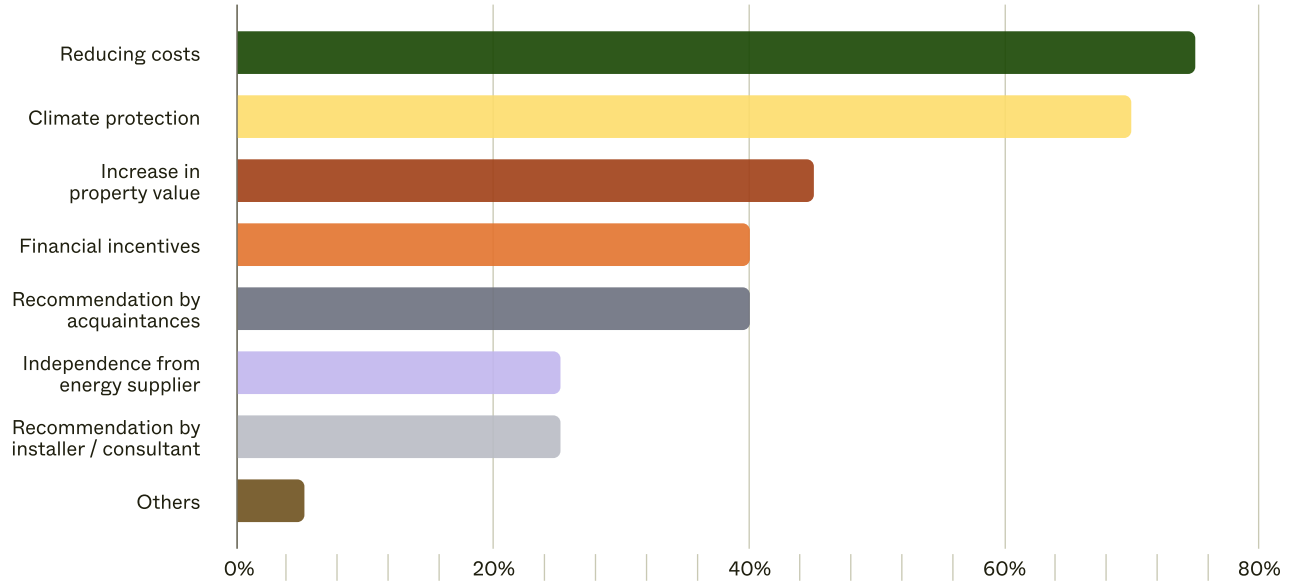
Fig.4 Source: Enode internal data

Key Driver for HEM apps

Consumer demand for cost savings

Reducing energy costs is the primary driver behind residential solar and battery adoption in Europe. According to the Spring 2025 Eurobarometer, cost of living is the top national concern across European countries, with energy a major contributor to household expenses. A KfW survey in Germany found that among those buying or considering energy technologies – like EVs, solar or batteries – cost savings were the leading motivation, ahead of climate impact or energy independence.

Fig.5 Perceived advantages of energy transition technologies



This aligns with what we see at Enode through our work with energy retailers and other HEM app providers. Whether it's spot-price hedging in Spain, self-consumption optimization in Germany, or capacity-based fee avoidance in Sweden and Austria, the pattern is clear: consumers want to lower their bills.

For OEMs, that means every feature that improves cost savings – such as dynamic optimisation, tariff integration or participation in flexibility programs – adds real value to the overall consumer offering. Solar and batteries are long-term, high-cost investments. The clearer and more reliable the savings, the more likely consumers are to buy.

We see the same pattern when asking leading PV inverter and battery OEMs - they list reducing costs as the main value proposition they promote to customers, along with energy autonomy.

Fig.5 Source: KfW Energy Transition Barometer 2024

Key Driver for HEM apps

The rise of multi-device households

European homes are becoming multi-device energy hubs. It's no longer just solar and a battery – consumers are adding EVs, chargers, heat pumps and more, often from different manufacturers. They expect to control all of them through a single app.

In Germany and Italy, **70%** of solar systems are paired with batteries

20% of new cars in Europe are EVs, expected to be 40% in 2030

By 2028, **10 million** households will own more than one major energy device

On average, **25%** of new residential solar installs in Europe include a battery

70% of OEMs surveyed by Enode already support optimization of 3 or more different device types

Source: LCP Delta, BNEF, IEA, Berg Insights, Enode manufacturer survey

The leading HEM apps are those that can optimise across these devices – regardless of brand – to deliver better experiences and more value.

Key Driver for HEM apps

The need for seamless user experiences

As solar and batteries reach mainstream adoption, user experience matters more than ever. Most customers aren't energy experts – they want intuitive, reliable apps that just work.

But the market still falls short. Enode's review of 25 OEM HEM apps found:

- **Median app rating: 3.0 / 5**
- **25% of apps rated below 2.8**

That's a clear signal. As more HEM apps hit the market, only those with great user experience will stand out. For OEMs, this means investing not just in functionality – but in usability, reliability, and trust. And the OEMs themselves see the challenge - in Enode´s survey, OEMs on average score their own app at 3.5 / 5 in terms of consumer value delivered.

Fig.7

OEM application user ratings

Average of ratings on Google Play store and Apple App store

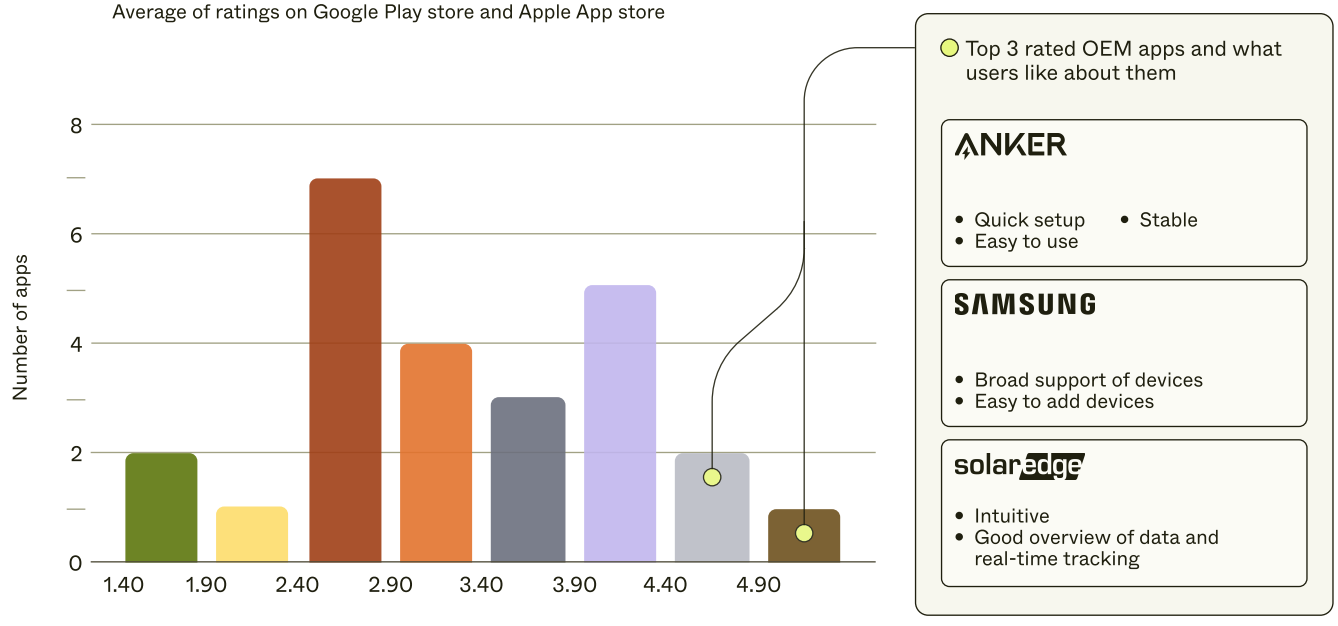


Fig.7

Source: Enode analysis of app ratings in Google Play Store and Apple App Store. Includes the following apps: Enphase, FusionSolar, mySolarEdge, iSolarCloud, sonnen, FoxCloud 2.0, AlphaCloud, SolaXCloud, SMA Energy App, ShinePhone, SolisCloud, Fronius Solar.web, GivEnergy, AEG Home Manager, Aton Storage, Generac PWRview, blueplanet web, LG ThinQ, elekeeper, SmartThings Energy, Sunsynk, RCT Power Hub, Anker Home, EcoFlow, FranklinWH

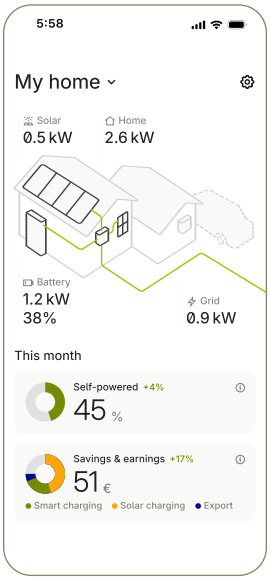
Key Driver for HEM apps

The energy transition's dependency on consumer flexibility

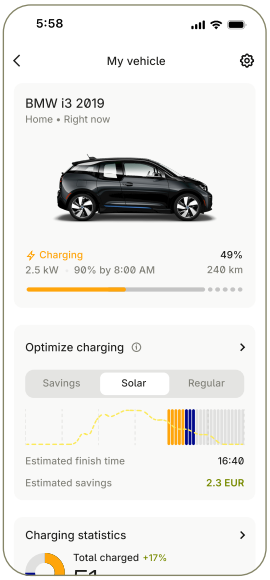
As Europe's green energy transition accelerates and the share of intermittent renewables grows, the need for energy flexibility is rising fast. By 2025, Europe will require between 531 and 782 TWh of flexible capacity – and up to half of that could come from households. It's a huge opportunity to build a more sustainable energy system – but only if HEM apps can optimize all major devices in real time.

To enable true consumer flexibility, energy-producing and energy-consuming devices must work together to control how and when a household imports and exports electricity. For example, at times when there is overcapacity in the grid, residential solar should reduce exports to the grid. But residential solar shouldn't simply stop producing – instead, a smart HEM app can redirect excess generation to charge an EV or residential battery.

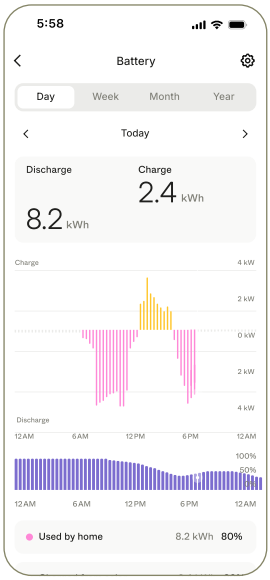
Energy retailers across Europe are increasingly launching demand response and flexibility programs that reward consumers for adapting their energy use to grid conditions. Consumers are eager to participate – not just for cost savings, but to support the energy transition. It's up to OEMs to make that participation simple and seamless.



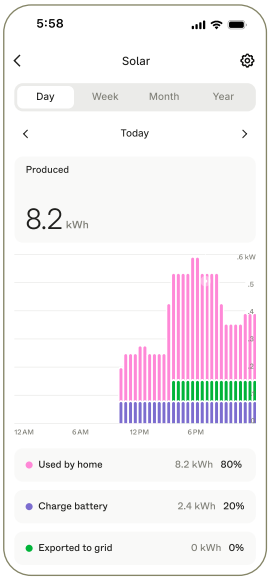
Household overview



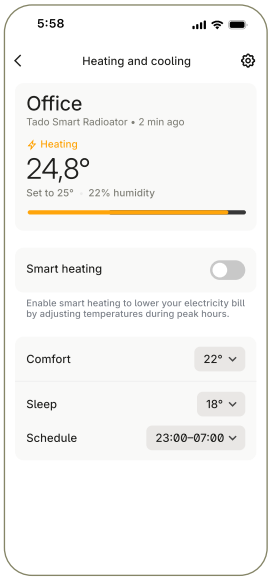
Smart EV charging



Battery management



Solar production



Heating and cooling

What this means for OEMs: Consumers now expect their hardware to be part of a broader energy management experience – one that maximizes cost savings by being compatible with the best energy tariffs, and optimizes seamlessly across all devices. For OEMs, that means enabling great HEM app experiences is a must – either by building them or integrating with others. The winners will be those who go beyond functionality and offer software that delivers real consumer value.

Chapter 3

OEMs face a strategic choice – build, integrate, or do both

03

For PV inverter and battery manufacturers, the strategic question is no longer whether to support HEM apps but how.

There are two core paths – and a third, increasingly popular hybrid approach:

- Build your own HEM apps to control the full experience
- Integrate your hardware into the broader app ecosystem
- Do both: own the app while enabling broader compatibility

Let's break them down.

Option 1: Build and own the HEM app experience

Building a proprietary HEM app gives OEMs complete control of the user experience and a direct relationship with the end consumer. Many OEMs are taking this path to:

- Differentiate on software, not just hardware
- Reinforce brand loyalty through seamless user experience
- Offer smart features like AI-powered optimisation and integration to select tariffs

But the costs are high. Building and maintaining a full-featured HEM app demands:

- Continuous investment in software, design and support
- Country-by-country adaptation to meet individual user needs and local regulations
- Ongoing resources to meet evolving consumer expectations

In fragmented markets like Europe, this complexity adds up fast.

Option 2: Integrate into the ecosystem

Many OEMs are opening their APIs to third-party HEM app providers – such as energy retailers and dedicated HEM app providers. This lets them plug into platforms that already offer strong, locally adapted experiences and tailored value offering.

There are three main ways to do this:

1. **Direct partnerships** – Work with key third-party apps in each country. This ensures compatibility but creates a growing burden as the number of integrations increases.

2. **Industry standards** – Adopt open protocols like S2 or OpenADR. But no single standard has won out in Europe yet, so OEMs often need to support multiple – an especially complex challenge as the standards continue to evolve.

3. **API aggregators** – Integrate once with a partner that connects to many HEM apps across markets. This offers fast, scalable access without managing dozens of one-off integrations.

The hybrid approach: best of both worlds

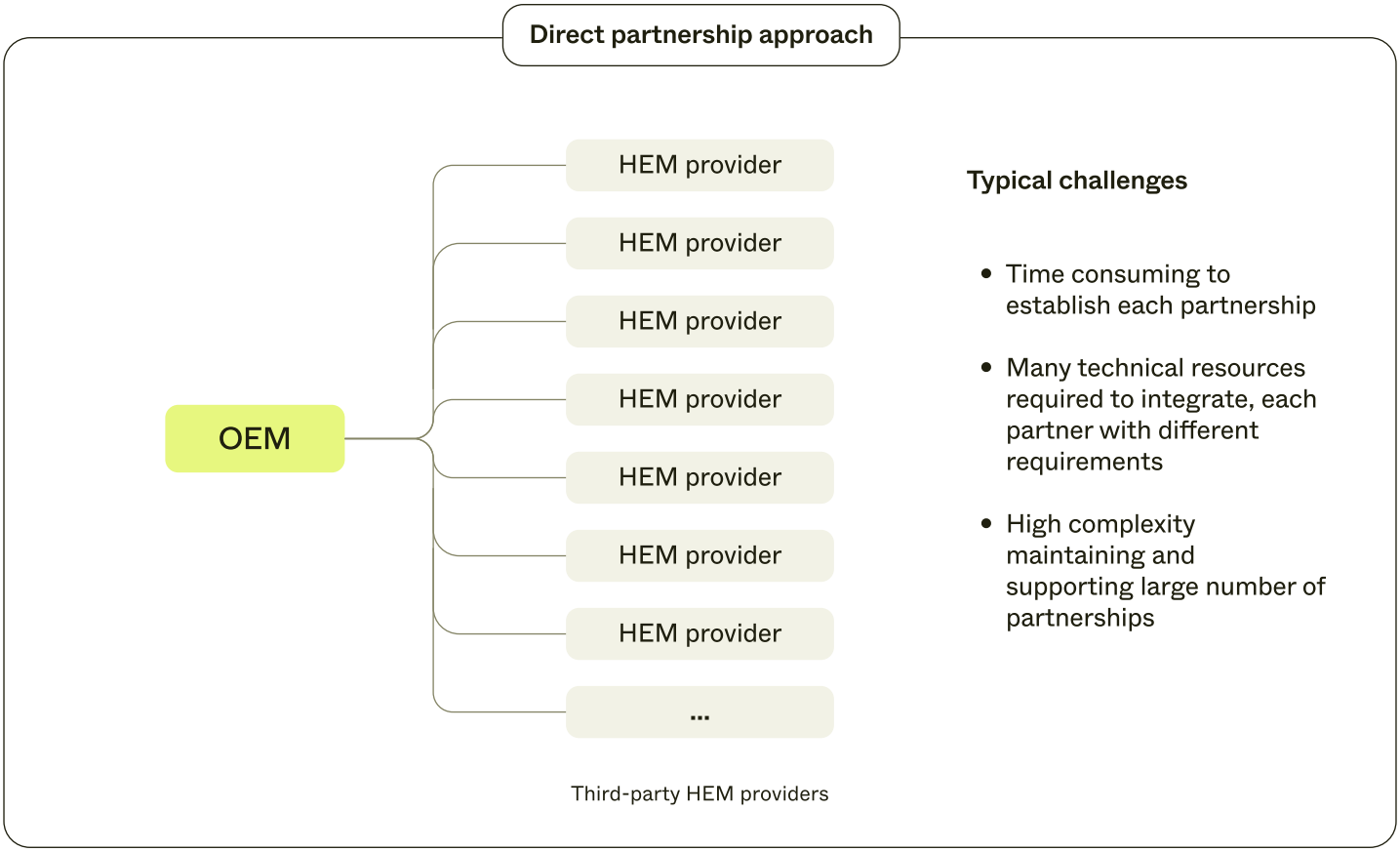
In practice, the most consumer-centric OEMs are doing both. They're building their own HEM app to retain brand control and offer differentiated experiences – while also opening their APIs to integrate with the wider ecosystem. This hybrid model expands their total addressable market and gives consumers more choice and flexibility.

The regulatory push for openness

European regulation is also tilting toward an open ecosystem. The EU Data Act secures consumers the right to access and share all data from their energy devices with third parties, and the EU's Renewable Energy Directive requires real-time battery data to be accessible not just to consumers, but to authorised third parties. That means openness is not just a strategic advantage – it's becoming a compliance requirement.

What this means for OEMs

You don't have to choose between control and reach. The most competitive OEMs are combining both strategies – owning the experience where it matters, and enabling openness to drive scale. In a fragmented, fast-moving market, that balance is the key to long-term growth.



Chapter 4

Scaling proprietary HEM apps in Europe

04

Europe is a growth opportunity – but it's not one market. For OEMs wanting to scale their own HEM apps across Europe, that means tackling not just rising demand, but a long list of technical, regulatory, and commercial complexities:

1. **30+** regulatory frameworks, each with evolving grid rules
2. Over **4000** energy retailers and dozens of HEM app providers
3. Diverse and dynamic local **tariff structures**
4. High device brand **fragmentation**
5. Vastly different **consumer expectations** across countries

#1

Fragmented regulation

Every country has its own rules for how residential devices connect to the grid. In Germany, for example, §14a of the EnWG requires devices to support remote control by DSOs to manage power consumption – unlike in Spain, where regulations focus on automatic inverter disconnection during voltage or frequency anomalies, but don't require remote control.

Smart meter requirements also vary widely. Rollout is mandatory in countries like Italy, Spain, and the Nordics, while penetration remains below 10% in Germany, Austria, and Switzerland. This affects both how consumers can optimize their energy and what systems OEM devices must interface with.

These are just a few examples of the regulatory fragmentation OEMs face. Each country also has unique technical certifications and registration processes. Navigating this complexity demands significant ongoing investment in market-specific compliance and adaptation.

30+ regulatory frameworks, each with evolving grid rules

#2

Multiple integration points

Europe has more than 4000 energy retailers, each with different systems, tariffs, and user bases. Many offer their own HEM apps. For OEMs wanting their customers to have the best tariffs through these companies, this means:

- Hundreds of one-off technical integrations
- Local HEMS providers that rarely scale beyond one region
- Long timelines to get devices live in each country

The fragmentation is a big challenge for OEMs - survey data from Enode shows that the two biggest challenges in integrating with third-party HEM apps are prioritizing the right HEM app to work with, and lacking standard APIs and, protocols, and data models across apps. And each integration takes time - 80% of OEMs spend at least 3 months just getting one integration in place, and some taking more than 5 months.

“It’s hard to justify sinking 5 months of engineering work into one integration. We’d rather spend that time on core product development.”
— Leading battery and inverter OEM

Over 4000 energy retailers and dozens of HEM app providers

#3

Different tariff models

Tariff models vary not just by country, but within regions and retailers. They vary among several dimensions, some examples being:

- Fixed price or variable price (time-of-use, type-of-use or dynamic rates)
- Different prices for consumption vs. grid export
- Varying settlement intervals (15, 30, or 60 minutes)
- Localised fees and peak-time penalties

This complexity makes optimisation hard to standardise.
To deliver savings HEM apps need flexible algorithms that adapt to local tariff rules—and keep up as those rules change.

Diverse and dynamic local tariff structures

#4

Multiplying brands and devices

Europe's device landscape is crowded:

- 30+ inverter brands
- 20+ battery brands
- 40+ EV brands
- 30+ EV charger manufacturers

Creating a HEM app that works seamlessly across all these devices is a major technical undertaking—especially for OEMs whose core strength is hardware, not software.

High device brand fragmentation

#5

Varying consumer expectations

What consumers want from a HEM app depends heavily on local context. HEM applications cover complex topics, and the depth of consumer knowledge of these topics vary between countries. To illustrate this, one can compare, for example, Norway vs France:

- In Norway, where EVs dominate and smart meters are widespread, users expect real-time pricing and smart charging
- In France, with fixed-price tariffs and lower EV adoption, simplicity matters more

Some consumers demand deep data insights. Others value minimal effort. In short: building one experience that works for everyone won't work.

Vastly different consumer expectations across countries

What this means for OEMs

Europe’s growth opportunity comes with complexity. Regulatory barriers, integration overload, tariff variation, brand diversity and UX localisation all demand significant investment. For many OEMs, particularly those focused on hardware, this level of market-by-market customisation is hard to sustain.

> “We’re a hardware company. Energy retail contracts and market integration aren’t our core expertise.”

— Marketing director, leading battery OEM

Success in Europe means making smart choices: partnering where it matters, avoiding unnecessary integrations, and designing flexible architecture from the start. Business growth is no longer only about hardware. Winning OEMs will be the ones that offer superior software value.

> "Our expertise is not software - and it never will. We want to free up R&D's time to focus on core product development."

— Product Manager, leading PV inverter OEM

Chapter 5

How Solis built a scalable HEMS strategy for Europe

05

Solis, one of the world's top PV inverter manufacturers, offers a proven model for how OEMs can scale intelligent energy solutions across Europe.

By combining an in-house AI-powered HEM app with a flexible integration strategy – and partnering with Enode to simplify ecosystem connectivity – Solis has expanded rapidly while keeping operational complexity in check.

For other OEMs navigating Europe's fragmented energy landscape, Solis' approach shows how to balance product control with market reach, and why interoperability is essential to scaling effectively.

Travis Snyder
Product Manager Europe,
Solis

From hardware leader to energy optimisation provider

Solis is one of the world's largest PV inverter manufacturers, with millions of units installed across more than 100 countries. Known for cost-effective, innovative hardware, Solis has been recognised as a Tier 1 PV Inverter Manufacturer by BloombergNEF and as a Top Brand by EUPD Research.

As the European energy market evolved, so did Solis' product strategy. The company moved beyond standalone inverters to develop SolisCloud, its own AI-powered Home Energy Management System. The platform enables solar production optimisation, household energy management, and participation in flexibility services like VPPs.

> "We saw that consumers were no longer satisfied with just efficient hardware – they wanted intelligent systems that could optimise their energy usage and deliver real savings, SolisCloud was our answer to that shift."
>
> — Travis Snyder,
> Product Manager Europe at Solis.

Scaling across a fragmented landscape

Developing an in-house HEM app gave Solis control over the user experience – but also introduced new challenges as the company expanded into Europe. The market is highly fragmented, with each country requiring different integrations, tariff models, and software partnerships.

"We're working with more than 30 HEM app providers, and most are very local," explains Travis. "You don't see the same providers in Italy, the UK, and the Nordics. That local variation adds huge complexity, especially when you also want to integrate with customer energy tariffs."

To meet local market needs and offer consumers flexibility, Solis needed to support a wide range of third-party HEM apps. But managing each partnership and integration directly was quickly becoming unsustainable.

"We had to hire many more people just to manage the number of partnerships and integrations. It is time consuming to build the integrations and complex to maintain and support them," Travis adds.

With in-country support teams across Europe, Solis bridges the gap between technical complexity and real-world use. Having service personnel who speak the language and understand local regulations, working directly with installers, means they can provide practical training, fast troubleshooting, and instant support as it's needed. The focus on local support has been central to building customer trust, and has become one of Solis' key differentiators in the diverse European market — helping ensure that advanced solutions don't just work on paper, but in real homes.

Combining openness with scalability through Enode

To reduce the operational overhead of managing dozens of individual integrations, Solis turned to Enode, an API aggregator that connects OEM hardware to over 150 energy apps across Europe and beyond.

With a single integration to Enode, Solis was able to:

- Be available to the leading energy management apps across multiple European countries
- Support customer preferences for local or retailer-branded app offerings
- Enable tariff-linked optimisation across diverse market conditions
- Continue growing SolisCloud while expanding reach through ecosystem partners

> "Partnering with Enode dramatically accelerated our European expansion, they built the integration with our API, and now we can reach consumers through myriad high-quality apps—without any extra development on our side."
>
> — Travis Snyder,
> Product Manager Europe at Solis.

Faster scaling, lower overhead, better consumer experience

By combining in-house software innovation with a scalable ecosystem integration strategy, Solis has maintained its position as a top-tier inverter brand while continuing to expand across Europe.

- SolisCloud delivers AI-powered optimisation and brand control
- Enode enables interoperability with a long list of leading apps and energy services
- Consumers gain flexibility to use the HEM experience that best fits their market and preferences
- Solis avoids the cost and complexity of managing dozens of one-off HEM app integrations

Chapter 6

Enode powers OEM growth through one API

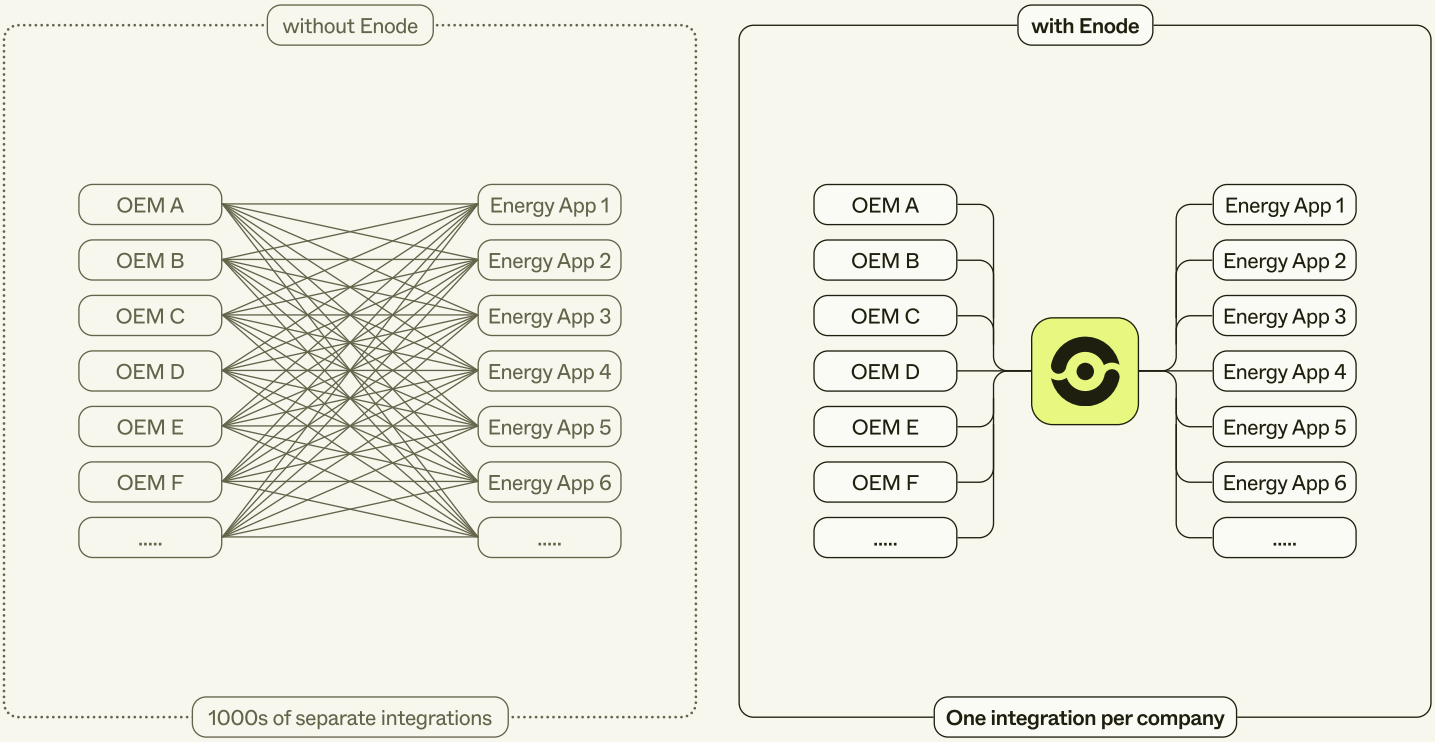
06

Scaling a HEM app-compatible device across Europe is hard – there are dozens of apps to support in fragmented markets. Enode makes it simple.

With one integration to Enode's API, OEMs unlock access to the leading **energy apps** across **Europe, North America and Oceania.**

> "Partnering with Enode ensures we are continuing to meet the changing needs of users and expanding the positive impact of our technology. We're enabling more solar-powered homes to connect with innovative energy services and play a more active role in the energy transition."
>
> — Kun Zhang, Global Product Director, Solis

Enode makes residential energy management scalable



That means instant compatibility with leading HEM apps that consumers already use and love – without the need to build and maintain separate integrations. This enables OEMs to:

Boost product demand

Give consumers control by being supported in their favorite energy apps. Increase satisfaction, build loyalty, and drive product demand.

Expand market reach

Reach over 250M+ consumers globally through the leading app ecosystem. Increase visibility for your products in key global markets.

Free up technical resources

Connect to a network of 150+ HEM apps with Enode's single API. Offload the complex burden of establishing, maintaining and supporting one-off integrations.

Drive the energy transition

Help consumers optimize energy use. Your products become catalysts for sustainable consumption, decarbonization, and a greener future.

Your hardware, connected to a world of energy apps

If you're building the next generation of smart energy devices, Enode is the fastest way to make them work everywhere they need to. To learn more, check out how we work with the leading OEMs on our partnership website.