Meeting the demands of a new energy era

The rapid growth of renewables, electrification and dynamic electricity pricing is transforming how households use and manage energy. Johan Pistone, Head of Ecosystem Partnerships at EcoFlow, explains how the company is responding with intelligent home energy systems that help consumers optimise costs, improve efficiency and gain greater control over their energy use.

PES: A warm welcome to PES, Johan. The European home energy market is changing rapidly. What do you believe are the most important trends in home energy today?

Johan Pistone: The biggest trend is the volatility in the energy market, which is increasing rapidly. With more renewables combined with electrification, electricity pricing and availability are becoming very volatile. This is the biggest challenge for customers today.

This volatility, however, is also increasing the possibilities and value of home energy management, which can capture both the highs and lows. That is why home energy management is on everyone's lips today. It is not only a solution to a problem; it can also generate real benefit from the volatility itself.

PES: Why can traditional energy management methods no longer meet the needs of today's households? What problems are your systems designed to solve?

JP: Traditional energy management systems were built for a world where electricity prices, household demand and power supply were relatively stable. Fixed rules and schedules were often enough to manage energy efficiently.

Today, however, households are combining solar, battery storage, EVs, heat pumps and smart appliances, while dynamic electricity pricing and energy market volatility are becoming increasingly common. As a result, energy management has become far more complex.

OASIS 3.0 was designed to address this challenge. It continuously analyses energy conditions, predicts future changes and automatically optimises energy decisions. Instead of managing complex settings, users simply define their goals, such as reducing electricity bills, increasing energy independence or maintaining backup power, and the system takes care of the rest.

Ultimately, it transforms home energy management from manual operation into intelligent, intent-driven energy management. The system handles the complexity, while users stay in control and can always understand why decisions are being made.

PES: How do the systems help users manage home energy more easily, while optimising electricity costs and energy efficiency?

JP: They are designed to make home energy management simple, intelligent and effortless.

OASIS 3.0 continuously analyses weather forecasts, electricity prices, solar generation, household demand and user behaviour to automatically optimise how energy is generated, stored and consumed. This helps users reduce electricity costs while maximising energy efficiency.

EcoFlow EcoBot makes the system even easier to use. Instead of learning complex settings, users can simply express their goals in natural language, such as reducing energy bills or preparing for a potential outage and the system will take care of the rest. It handles the complexity, while the user stays in control and can adjust it to suit their lives.

Together, they give users an intelligent energy agent that works for them in the background, turning home energy management from a manual task into a simple, intelligent experience, while users stay in control.

PES: As more households pursue energy independence, how are the needs of home energy users changing?

JP: Instead of following simple fixed patterns, the need is shifting towards smart, real-time decisions that factor in all the complex variables to find the best solution for each day. And as more customers join this journey, we see clearly that solutions need to become easier to use and easier to maintain, lowering the expertise barrier while increasing the impact.

This reflects three shifts now defining home energy: from passive response to proactive service, from rules-based automation to intent-driven intelligence, and from individual devices to the whole energy ecosystem.

PES: EcoFlow has launched the new OCEAN 2 Home Energy System this year. What user needs was it developed to address?

JP: Many European homeowners have roofs that are far from straightforward, perhaps with multiple orientations, partial shading or limited surface area. This new system was designed precisely for this reality. It is a compact, all-in-one system that combines inverter, battery and energy management in a single unit, making it easier to install and better suited to complex roof layouts than traditional multi-component setups.

The result is a system that delivers strong performance even in conditions where conventional home storage solutions would struggle.

PES: Compared with traditional home energy storage products, what are the biggest innovations and differentiating advantages?

JP: The standout innovation is that the system is built around a fully open Home Energy Management System with one of the largest integration portfolios in the residential storage market. Rather than locking customers into a closed ecosystem, it connects with a wide range of third-party devices and services, including EV chargers, heat pumps, smart meters, dynamic tariff providers and other inverter brands.

This openness is a deliberate strategic choice: we believe customers should be able to build the energy setup that suits their home, not the one that suits a manufacturer's ecosystem.

PES: How does this reflect EcoFlow's vision for next-generation home energy systems? What is the biggest difference from conventional home storage solutions?

JP: EcoFlow is not just another battery and inverter manufacturer, and OCEAN 2 is the clearest demonstration of that. What sets us apart is not the hardware alone; it is the integration between hardware and software.

We believe that having the best individual components means very little if they do not work together intelligently.

OCEAN 2, powered by OASIS 3.0, is a system where every component, the battery, the inverter, the energy management layer, is designed to function as one. Conventional home storage stores energy when told to. Our system makes decisions actively, in real time, to optimise cost, self-consumption and grid interaction simultaneously. That is the fundamental difference.

PES: How do OASIS 3.0 and EcoFlow EcoBot work together with OCEAN 2 to help users manage home energy more simply, reduce electricity bills and improve efficiency?

JP: The combination makes home energy management simpler, smarter and more cost-effective.

OCEAN 2 provides energy storage, while OASIS 3.0 serves as the intelligent brain of the system, continuously analysing weather forecasts, electricity prices, household energy demand and device status to optimise energy strategies. EcoFlow EcoBot acts as the user interface, enabling users to manage their home energy through natural language without having to learn complex settings or energy management rules.

Users simply define their goals, whether it's reducing electricity bills, increasing energy independence or maintaining backup power, and the system intelligently handles forecasting, decision making and execution on the user's behalf while keeping them in control.

The result is higher solar self-consumption, lower energy costs and a more efficient overall energy experience.

PES: You have launched both the STREAM Series and OCEAN 2 this year. Why has the company positioned these two product lines side by side?

JP: They complement each other very naturally. OCEAN 2 is the full home energy system, designed for homeowners who want maximum performance, deep integration and whole-home energy management.

STREAM is the entry point for those who are earlier in their journey: people in apartments, renters or households who want to start reducing their energy bills without committing to a full installation. They address different needs and different moments in a customer's energy journey, but they sit within the same EcoFlow ecosystem and share the same intelligence layer.

Johan Pistone

A customer who starts with STREAM today may well become an OCEAN 2 customer tomorrow.

PES: Who is the STREAM Series mainly for and in what scenarios? How does it lower the barrier for more European households to adopt home energy management?

JP: It is primarily designed for apartment dwellers and households where a full residential storage installation is not practical

Our goal is to build a unified, intelligent energy ecosystem where every product, regardless of scale, is powered by the same intelligence layer.

or possible. The system is installed by a qualified installer, ensuring safe integration with the home's electrical system. Once in place, it links to the home's smart meter via the P1 port to monitor real-time energy flows. Everything is managed through the app.

For the large share of European households who live in apartments or rented properties and who have historically been excluded from the benefits of home energy management, this is the most accessible route in.

PES: What kind of smart energy ecosystem do you aim to build? How will future energy systems evolve?

JP: Our goal is to build a unified, intelligent energy ecosystem where every product, regardless of scale, is powered by the same intelligence layer. STREAM is focused on the residential apartment segment; it is not designed for industrial applications. OCEAN 2, on the other hand, can cover not only residential use but also light commercial and industrial scenarios, making it a versatile platform for a wider range of customers and installers.

What ties the entire portfolio together is that every EcoFlow product is powered by OASIS. That unified software layer is what transforms a collection of hardware products into a genuine energy ecosystem, one that learns, adapts and improves over time regardless of the scale of the installation.

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