

The state of AI in home solar

October 2026 edition

25 developments from May 2025 to October 2026, each dated
and each with its source.

→ AI in the apps: assistants and optimisers	4
→ Hardware, suppliers and a notable failure	3
→ Regulation and policy	8
→ Forecasting, mapping and research	5
→ Money, adoption and the market	5
→ What to watch next	5

In short

AI in UK home solar now sits mostly in the software layer around the hardware. Inverter and battery makers are adding assistants and optimisers to their apps. Aggregators are paying households to let algorithms dispatch their batteries. Grid operators are using machine learning to forecast and estimate rooftop output they cannot see. Most of what is sold as AI is tariff-aware scheduling: forecast solar, forecast use, read prices, then charge or discharge. Independent evidence that the AI versions beat a well-set manual schedule or an open-source optimiser is still thin, and the savings figures are mostly from the vendors. The bigger changes for homeowners in the past year came from elsewhere: record installation numbers, plug-in solar becoming legal, and a reminder from GivEnergy's collapse that cloud-dependent monitoring can disappear.

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- ➔ Enphase, Sigenergy and Fronius have all put AI assistants or optimisers into their homeowner apps, and SolarEdge has previewed one, but none of these firms has published independent evidence of savings.
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- ➔ UK household uptake hit records: MCS logged about 150,000 solar and 36,000 battery installations in the first half of 2026, and 92% of those batteries went on homes with solar.
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- ➔ Machine-learning solar forecasting is now in live use on the GB grid, where NESO uses Open Climate Fix's Quartz Solar model in its control room.
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- ➔ Regulation of AI in this market is still guidance rather than rules: Ofgem's ethical AI guidance, updated in May 2026, is good practice the sector is encouraged to follow, not a binding requirement.
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- ➔ GivEnergy's administration in April 2026 showed that remote monitoring, history and API access can be at risk even when the battery itself keeps working.
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The main hardware brands are adding natural-language assistants and automatic tariff optimisation to their homeowner apps. In practice the optimisers do what open-source tools have done for years: plan battery charging against forecasts and prices. What is new is the conversational layer, and some assistants can now change settings once the homeowner confirms.

20 Aug 2026

Enphase makes its AI Assistant broadly available in the Enphase App

Enphase said its AI Assistant is broadly available to homeowners in most markets through the Enphase App, and that availability varies by country, system type and app version. It answers questions using site data already in the app, such as production, consumption, battery activity, grid import and export, and EV charging. With homeowner approval it can change supported settings, including battery profiles and charge-from-grid, and each change needs explicit confirmation.

Why it matters If you have Enphase kit, you can now ask why your battery behaved as it did instead of digging through graphs. Check in the app whether it is enabled for UK systems before relying on it.

Source: [Finviz \(GlobeNewswire release\)](#) finviz.com

4 Jun 2026

SolarEdge previews an AI energy companion for the mySolarEdge app

At Intersolar 2026, SolarEdge showed a planned AI assistant for the mySolarEdge app. It would take into account tariffs, solar forecasts, battery and EV use, and household consumption habits, and optimise use and export in the background. No launch date was given, and the report does not say which countries will get it.

Why it matters This is a preview, not a product. SolarEdge owners should not plan around it until a UK release date is confirmed.

Source: [Solarserver](#) solarserver.de

3 Jun 2026

Sigenergy launches SigenAgent, a goal-based AI energy agent

Sigenergy announced SigenAgent, delivered through mySigen App 4.0 in June 2026 as a software upgrade to existing storage and charging products. The user sets a goal, such as lower bills or secured backup, and the system plans device behaviour to meet it. Sigenergy cites roughly 50% lower grid-purchase costs in Poland and about 70.3% lower average bills across roughly 2,500 plants in Sweden. These are company figures.

Why it matters Existing Sigenergy owners get it as an update, with no new hardware. Treat the savings figures as marketing until someone tests them against a UK tariff.

Source: [AAP \(GlobeNewswire release\)](#) [aap.com.au](#)

23 Jan 2026

Fronius sets out its AI Energy Cost Assistant for Agile Octopus users

Fronius UK described its Energy Cost Assistant, which uses forecast PV production, household consumption and live prices to time battery charging and discharging. It also aims to reduce unnecessary cycling and to store surplus solar when an export limit applies. It needs a GEN24 Plus or Verto Plus inverter, a compatible battery, a Fronius Smart Meter and a Solar.web Premium subscription, which Fronius priced at £21.84 a year as of January 2026. No savings figures were given.

Why it matters Fronius owners on a time-of-use tariff can hand battery scheduling to the vendor for a small subscription. Compare its results against your own schedule before assuming it does better.

Source: [Fronius UK](#) [fronius.com](#)

Energy suppliers are moving into hardware and selling it as a package with their smart tariffs and app control. Meanwhile one of the UK's best-known battery brands failed. That is a reminder that the software and cloud layer is the most fragile part of a home system.

1 Oct 2026

Octopus plug-in solar kits sell out within a fortnight

Octopus said its first 500 plug-in solar kits sold out in about two weeks, and it restocked twice in under four weeks. Kits cost £450 for one panel or £650 for two, including mounting, and 89% of buyers chose two panels. Octopus estimates roughly £150 a year for a two-panel household exporting surplus on its Outgoing tariff, depending on sunlight and use.

Why it matters Plug-in solar gives you a cheap, small system to measure against your smart meter data. Model it with your own half-hourly use before relying on the headline savings figure.

Source: [Octopus Energy](https://octopus.energy) octopus.energy

22 Jun 2026

Octopus announces Nook home battery range for 2027

Octopus announced the Nook Cube, a 2kWh plug-in battery expandable to 10.5kWh and controlled through the Octopus app. It also announced the Nook Colossus, a wall-mounted system in 5kWh and 10kWh models that stacks to 30kWh. Both are due for Octopus customers in the UK, Germany, Italy, Spain and France 'from next year'. The release gave no prices and made no AI claims, but said pairing the batteries with Octopus smart tariffs can increase savings.

Why it matters A supplier-owned battery controlled by the supplier's tariff logic is a different deal from a battery you schedule yourself. Wait for prices and control options before including it in a comparison.

Source: [Octopus Energy](https://octopus.energy) octopus.energy

9 Apr 2026

GivEnergy files notice to appoint administrators

Battery maker GivEnergy filed a notice of intention to appoint administrators, dated 7 April 2026. Shortly before, it had told customers it would introduce a single monthly fee for remote access, historical data, automation and API use, saying hardware sales had slowed. Distributor Midsummer Energy de-listed GivEnergy products, citing doubts about warranties, firmware updates and spare parts. ESS News reported that cloud services could become unavailable even if the batteries keep running.

Why it matters If your monitoring and automation depend on a manufacturer's cloud, keep a local route such as a local API or Home Assistant integration. Export your data regularly.

Source: [ESS News](https://ess-news.com) ess-news.com

No rules aimed specifically at AI in home energy have been made. Ofgem has published good-practice guidance, now in its second edition. The policy changes that affect what homeowners can buy and measure are elsewhere: plug-in solar, the Future Homes Standard, Warm Homes Plan loans and the move to half-hourly settlement.

24 Jul 2026

Government legalises plug-in solar from 27 August, capped at 800W

The government amended the Plugs and Sockets etc. (Safety) Regulations 1994 through SI 2026/848, creating an interim product specification for plug-in or balcony solar from 27 August. Qualifying systems are capped at 800W output and must not include batteries designed to store electricity for later use. Envirotec reported estimated savings of about £100 to £180 a year, with payback in roughly three to five years.

Why it matters Renters and flat owners can now legally add a small system and measure its effect themselves. The ban on built-in batteries limits what these kits can do for evening demand.

Source: [Envirotec](https://www.envirotecmagazine.com) [envirotecmagazine.com](https://www.envirotecmagazine.com)

23 Jul 2026

Future Homes Standard sets rooftop PV target for new homes

Stroma's guidance on the Future Homes Standard, published in March 2026, says rooftop PV is generally expected to meet a target tied to 40% of each dwelling's ground-floor area. A 720 kWh/year backstop applies where the full target cannot be met. Exceptions are narrow, and SAP 10.3 is the transitional calculation method while the Home Energy Model is developed.

Why it matters Buyers of new homes will increasingly get PV as standard, sized by a regulatory formula rather than to their own consumption. That makes self-modelling a battery or extra panels more worthwhile.

Source: [Stroma](https://www.stroma.com) [stroma.com](https://www.stroma.com)

13 May 2026

Ofgem publishes version 2 of its ethical AI guidance

Ofgem updated its guidance on AI use in the energy sector. Version 2 adds a practice on proportionate explainability and transparency, new considerations on explaining forecasting methods, and new sections on data analytics, consumer privacy and explainable AI in grid management. It is good practice the sector is encouraged to adopt, not a binding requirement.

Why it matters There is still no specific rule protecting you if a supplier's AI makes a bad call on your battery or tariff. The guidance does give you grounds to ask how a prediction was made.

Source: [Ofgem](https://www.ofgem.gov.uk) ofgem.gov.uk

29 Jan 2026

Over one million meters moved to half-hourly settlement

Elxon said more than one million meters had been accepted into Market-wide Half-Hourly Settlement. It expects about 80% of all meters, roughly 25.9 million, to be on the new arrangements by October 2026. It also planned to launch a Smart Data Repository publishing aggregated half-hourly data in autumn 2026.

Why it matters Half-hourly settlement is what makes time-of-use tariffs, and the optimisers built around them, economic for suppliers. Expect more such tariffs to choose between.

Source: [Elxon](https://www.elxon.co.uk) elxon.co.uk

23 Jan 2026

Warm Homes Plan sets £2bn for low and zero-interest loans

Carbon Brief's analysis of the Warm Homes Plan reports £15bn of grants and loans by 2030 for up to 5 million households. That includes £2bn for low and zero-interest consumer loans covering solar panels, batteries and heat pumps. It says rooftop solar could triple the number of homes with panels from 1.6m to 4.6m by 2030. In one example, a three-bedroom owner-occupied home could save £450 a year with loan-financed solar and a battery.

Why it matters Cheap finance changes the payback maths in any model you build. Run your scenarios at the loan rate as well as at cash.

Source: [Carbon Brief](https://www.carbonbrief.org) carbonbrief.org

1 Jul 2025

Solar Roadmap targets 45-47 GW by 2030 with 72 actions

The government's Solar Roadmap aims for 45-47 GW of solar by 2030, up from nearly 19 GW in May 2025, through 72 actions developed with the Solar Taskforce. At the time, plug-in systems were not allowed, and the roadmap committed to a safety study on them. Its most optimistic projection was 50 GW by 2030 and 85 GW by 2035.

Why it matters This roadmap set the path to the plug-in solar legalisation that followed a year later.

Source: [pv magazine](https://www.pv-magazine.com) [pv-magazine.com](https://www.pv-magazine.com)

10 Jun 2025

Government confirms solar on almost all new homes in England

Energy Secretary Ed Miliband confirmed on 6 June 2025 that the Future Homes Standard would make solar 'almost universal' on new homes in England, with rare exceptions. The government estimated a typical household could save about £530 a year at then-current prices. Solar Energy UK estimated the mandate would cover 90% of new homes in England.

Why it matters This means a growing stock of homes that come with PV and need a battery, tariff and monitoring decision from day one.

Source: [pv magazine](https://www.pv-magazine.com) [pv-magazine.com](https://www.pv-magazine.com)

20 May 2025

Ofgem publishes first guidance on ethical AI use in energy

Ofgem published the first edition of its guidance on using AI in Britain's energy sector, following a consultation that closed on 7 February 2025. It acts as a roadmap to the existing regulatory framework and covers governance, risk and consumer-facing uses. It does not create new rules.

Why it matters This is the baseline for what suppliers and aggregators using AI on your account are expected to do.

Source: [Ofgem](https://www.ofgem.gov.uk) [ofgem.gov.uk](https://www.ofgem.gov.uk)

The clearest proven uses of machine learning are upstream of the household: national solar forecasting, estimating rooftop output the grid cannot see, and roof mapping. Research on using language models for PV design shows they can help but still make errors. Consumer testing shows general-purpose chatbots are not reliable advisers.

11 May 2026

Google Solar API adds detection of existing rooftop arrays

Google made 'detected arrays' data generally available in its Solar API, so developers can request existing rooftop solar installations for a building. A release on 8 May 2026 refreshed imagery and building data in about 30 regions, including the United Kingdom. An earlier worldwide refresh, on 14 May 2025, used a model developed with Google DeepMind to improve roof and obstacle heights.

Why it matters The roof models behind many online solar estimators have been updated for the UK. A tool's roof outline and shading are still worth checking against your own roof.

Source: [Google Maps Platform](https://developers.google.com/maps-platform) [developers.google.com](https://developers.google.com/maps-platform)

18 Nov 2025

Which? finds AI chatbots give inaccurate consumer advice

Which? asked six AI tools 40 consumer questions and found too many inaccuracies and misleading statements. Perplexity scored 71, Gemini AI Overview 70, Gemini 69, Copilot 68, ChatGPT 64 and Meta AI 55. Its survey of 4,189 UK adults found 51% use AI to search the web. Energy questions were not part of the test.

Why it matters Use a chatbot to structure your model, not to supply facts. Check tariff rates, export payments and regulations against primary sources.

Source: [Which?](https://www.which.co.uk) [which.co.uk](https://www.which.co.uk)

6 Nov 2025

NESO puts Open Climate Fix's AI solar forecasting into its control room

Open Climate Fix said its Quartz Solar model is now live in NESO's control room. It combines machine learning with satellite imagery and weather data and forecasts up to 36 hours ahead. OCF says it is about 2.8 times more accurate than NESO's previous tools and halves large errors. It expects at least £30m a year in avoided imbalance costs, which is the organisation's own estimate.

Why it matters This is the best-documented live use of AI in UK solar. Better grid forecasts feed into the wholesale prices that dynamic tariffs pass on to you.

Source: [Open Climate Fix](https://openclimatefix.org) openclimatefix.org

1 Oct 2025

Preprint uses vision and language models to assess facade solar potential

An arXiv preprint set out a four-stage pipeline combining image rectification, zero-shot segmentation, language-model spatial reasoning and energy simulation to estimate PV potential on building facades. Across 80 buildings in four countries, it reported a mean area estimation error of $6.2\% \pm 2.8\%$ against expert annotations, at about 100 seconds per building. It has not been peer reviewed.

Why it matters Language models are starting to be used in PV layout work, with measured error rates. This is not yet a consumer tool, and the work covers facades rather than roofs.

Source: [arXiv](https://arxiv.org) arxiv.org

21 Jul 2025

UK Power Networks uses machine learning to estimate unseen rooftop solar

UK Power Networks and Open Climate Fix built a model that estimates rooftop solar output the network does not directly measure. It uses historical weather, satellite data and substation measurements, and forecasts unmetered solar at each primary substation. UKPN said this helps it plan investment and make room for low-carbon connections.

Why it matters Better visibility of rooftop output could, over time, ease network concerns that slow approvals for larger home systems and exports.

Source: [Transport & Energy](https://transportandenergy.com) transportandenergy.com

Investors are funding the software that aggregates and dispatches home batteries, and installation numbers keep rising. Batteries are growing fastest and are increasingly fitted to homes that already have solar, which widens the market for the optimisers above.

20 Aug 2026

MCS records 150,000 solar and 36,000 battery installs in H1 2026

MCS counted about 210,000 certified installations in January to June 2026, 17% above the previous best start to a year. Solar accounted for almost 150,000, up 14%, and batteries for 36,000, almost double the same period of 2025. 92% of the batteries went onto properties with solar panels, while heat pumps fell 17%.

Why it matters Solar plus battery is now the standard package, so tariff optimisation is becoming an everyday decision for many households.

Source: [Renewable Energy Magazine](https://renewableenergymagazine.com) renewableenergymagazine.com

8 Jul 2026

Virtual power plant firm Axle Energy raises £18.7m Series A

London-based Axle Energy raised £18.7m (\$25m) in a round led by Energize Capital, with Accel, Picus Capital and Eka Ventures taking part. It says it manages more than 300,000 connected devices, including home batteries, EV chargers and heat pumps, with over 2GW of flexible capacity.

Why it matters Third-party aggregators that pay you to let them dispatch your battery are well funded. Weigh their payments against what you would save by running the battery yourself.

Source: [UKTN](https://uktech.news) uktech.news

8 Jan 2026

Octopus raises \$1bn for Kraken at \$8.65bn valuation ahead of demerger

Octopus Energy Group raised about \$1bn of equity in Kraken, its software arm, at an \$8.65bn valuation. It was the first stand-alone investment round in Kraken, which describes itself as an 'AI-powered operating system for utilities'. The round clears the way for its demerger from Octopus.

Why it matters The platform behind Octopus's smart tariffs and device control is now valued as a separate business. Its product priorities will shape what many UK suppliers' apps can do.

Source: [Skadden](https://skadden.com) skadden.com

13 Nov 2025

UK rooftop solar breaks 2011 annual record by November

MCS recorded 203,125 rooftop solar installations by early November 2025, beating the 2011 annual record with more than a month to go. Certified battery installations to the end of September were up 122% on the same period of 2024. New builds made up 35% of installations in 2025.

Why it matters The installed base of homes generating their own power, and wanting to model and monitor it, is at an all-time high.

Source: [pv magazine](https://www.pv-magazine.com) pv-magazine.com

21 Jul 2025

Sunsave raises £113m to fund solar and battery subscriptions

Sunsave raised £113m: a £100m debt facility from Crédit Agricole and £13m of Series A equity led by Norrsken VC and IPGL. The debt funds installations of its Sunsave Plus solar and battery subscription across England and Wales. The company says subscribers report net savings of over £685 a year.

Why it matters Subscription models move the upfront cost off the homeowner. You will need your own consumption model to check whether the monthly fee beats buying outright or borrowing.

Source: [Sunsave](https://sunsave.energy) sunsave.energy

What to watch next

↑ **Whether vendor AI optimisers beat a good manual schedule**

Enphase, Sigenenergy and Fronius now sell or bundle AI optimisation, but the only savings figures come from the companies themselves. No independent UK comparison against a well-set fixed schedule or an open-source optimiser has been published. Until one is, test any optimiser against your own half-hourly data for a few weeks before trusting it.

↑ **Cloud dependency after GivEnergy**

The GivEnergy case showed that remote access, data history and APIs are the first services at risk when a manufacturer fails. Watch whether administrators or buyers keep the platform running. Also watch whether other brands follow its move to charge monthly fees for features that used to be free.

↑ **Plug-in solar standards and batteries**

The 27 August legalisation uses an interim product specification and excludes built-in batteries. Watch for the permanent standard and whether it relaxes the battery restriction. That will decide whether plug-in kits stay a daytime-only measure.

↑ **Half-hourly settlement completion and the Smart Data Repository**

Elxon expected about 80% of meters on half-hourly settlement by October 2026, and planned to start publishing aggregated half-hourly data in autumn 2026. Whether both happen on time will affect how many time-of-use tariffs reach the market. It will also show whether useful public data becomes available for benchmarking your own system.

↑ **Octopus Nook prices and control**

Octopus's Nook batteries are due in 2027, with no prices published. The key questions are cost per kWh against established brands, and whether owners can schedule the batteries themselves or only through Octopus tariffs.

How this report was made

Every development here was found in a public source dated from May 2025 to October 2026: trade press, regulators, journals and company announcements. Each one names its source, so you can read the original.

All 25 source links were checked on 12 Oct 2026. Nothing here is advice; it is a record of what happened.

The next edition, and the guides behind this one, are at aisolarpanel.co.uk/report/