Smug: Smart battery optimisation

easy-pv.co.uk

Smug is a cloud application, a smartphone app and an in-home display for your inverter that work together to optimise the way your battery charges and discharges.

How does Smug work?

Smug uses weather forecasting and machine learning to understand how much energy the user consumes each day. It then predicts whether the user will have excess solar generation to sell back to the grid, or whether they will need to buy energy to cover their household use.

Where the user is on a time-of-use tariff, it will control their battery to export surplus energy at the best price, and buy any deficit at the cheapest time.

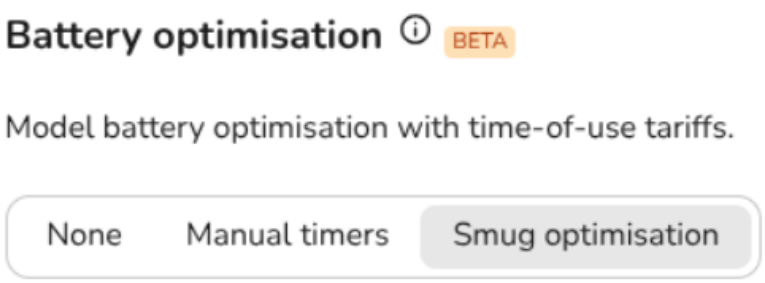
This can save the user £100s on their bills every year, depending on their tariff, usage patterns, and the size of their battery and inverter.

To find out more, please visit the Smug website! https://smug.energy/

How to interact with Smug in Easy PV

To include Smug in an Easy PV project, simply choose a compatible inverter and ensure that ‘Smug optimisation’ is selected in the consumption task.

Navigate to **Consumption** > **Self-Consumption** > **Edit** > **Energy Management** > **Battery Optimisation**

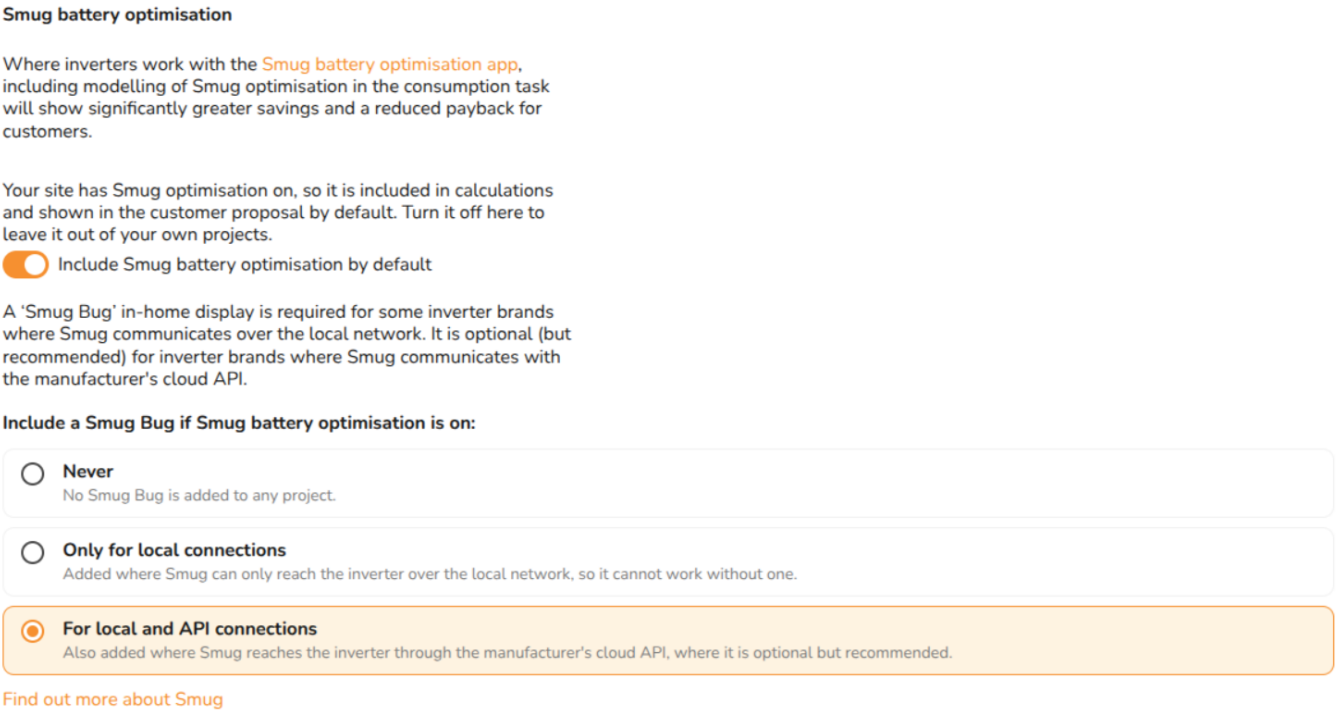


The Smug Optimisation toggle in the consumption task

How to include Smug by default

In your team settings, you can set Smug to be included by default.

Navigate to **My Account** > **Preferences** > **User Preferences** > **Performance** > **Smug battery optimisation**



The Smug default toggles in User Preferences

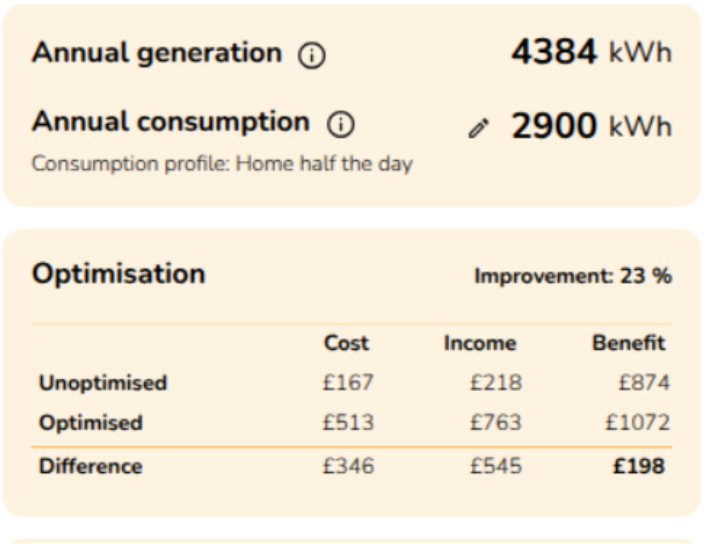
How to find the optimisation statistics

Once Smug is included in a project, you will be able to view the optimisation benefit of Smug in the consumption task.

Navigate to **Consumption** > **Right-hand side bar**

See below an example of Smug optimisation statistics in an Easy PV project.

Throughout this section, we will use an example that models a project of: 12 × 445 W panels, a Fox ESS 8 kW hybrid inverter and 3 × EP6-H Plus 5.21 kWh batteries on a home using 2,900 kWh a year.



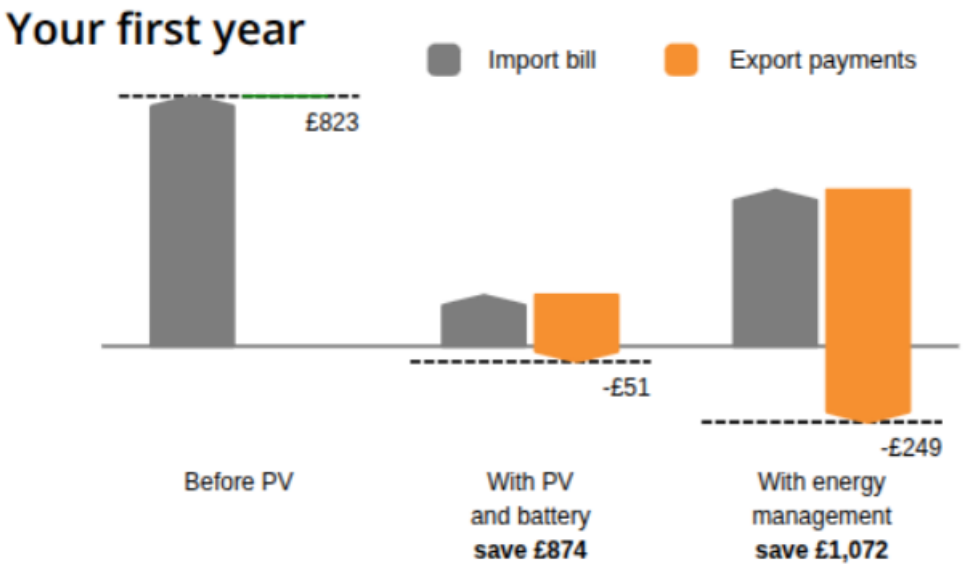
(Above) Example of optimisation statistics in the consumption task

You will also be able to find optimisation statistics in generated **customer proposal** documents.

Navigate to **Customer Proposal** > **Generate PDF** > **Financial**

This section generates estimates of financial returns. See below, the example customer's first year financial returns statistics. The rightmost section of the graph demonstrates Smug energy management's affect.

In this example (the same example project that we have been using throughout this thread), we can see an improvement in user savings of £198 (-£249 + -£51 = -£198). Therefore, the difference between an un-optimised system and an optimised one is a saving of £874 and £1,072.

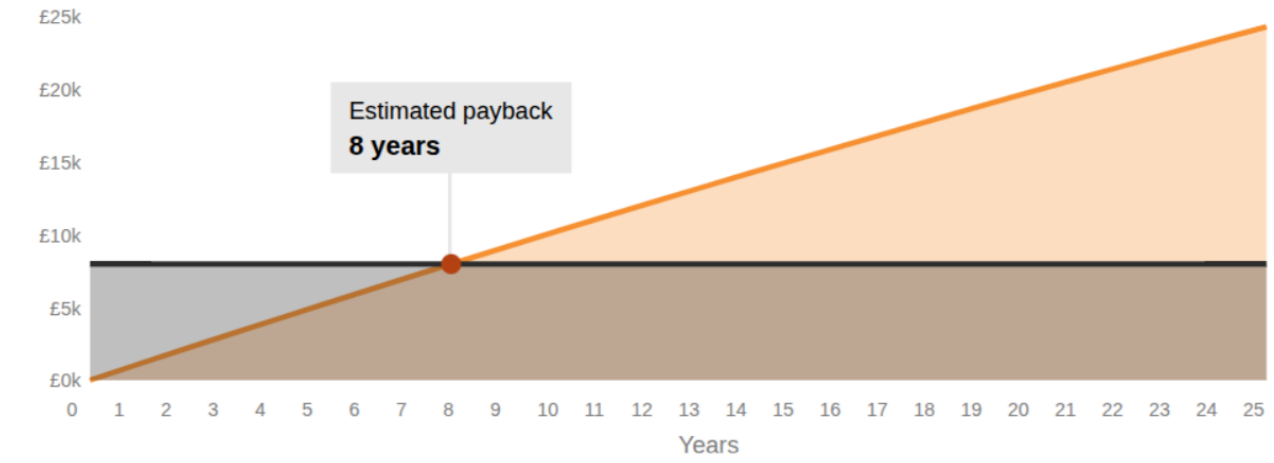


In the customer proposal, statistical details are laid out and explained below this graph in the Financial Benefits page (see below).

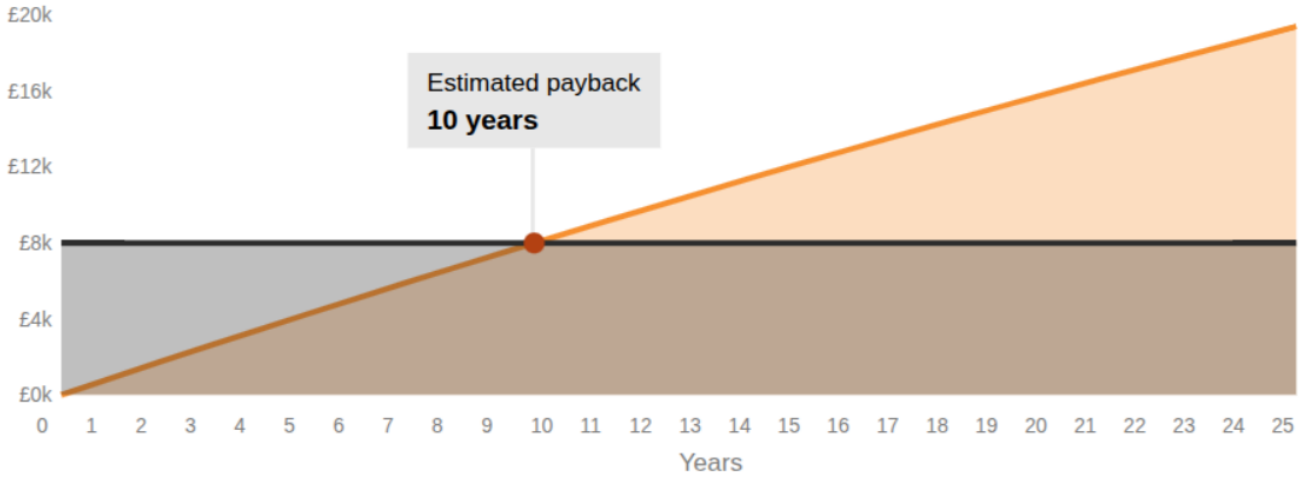
> If you have a battery that supports charge and discharge timers, you can make additional savings by buying electricity when it is cheap and exporting electricity when prices are high. Our model predicts additional savings of around £198 with energy management, meaning that overall you can expect to make a profit of £249 in the first year.

You will also be able to see the effect of Smug in the estimated payback period. For the example we have been using, the payback period is two years earlier with Smug optimisation.

With Smug:



Without Smug (the same example project, with Smug optimisation removed):



FAQs

Which inverters are compatible?

Smug works with Eleven Energy, FoxESS, Sigenergy and SolarEdge systems. Smug also works with legacy GivEnergy systems, where it allows users to control and monitor their systems without any connection to the GivEnergy cloud service.

Solax, Enphase, Solis, and Growatt compatibility is currently in beta testing and is expected to be released in Q4 2026.

Please see the Smug Compatibility for full details of which inverters and brands are compatible:

https://smug.energy/help#compatibility

Smug is expanding further, and integrations for others brands will follow soon. Please get in touch via hello@smug.energy if you would like us to prioritise a particular manufacturer.

Still Need Help? / Want to know more?

Contact Support: If you've got further questions, get in touch with our support team at **help@easy-pv.co.uk** (UK). *If you are experiencing a bug, to help us look into your issue faster, please include the email address of your account, the name of the project and screenshots of any unexpected behaviour.*

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