September 2024 -December 2026

CheckWatt + ECLIPSE

Energy Consumption reduction based on Open-source Reference framework

www.eclipse-digital.eu

Funded by the European Union

ECLIPSE OBJECTIVES - WHY?

Europe's energy transition is accelerating — but fragmented apps, platforms, and protocols are holding it back.

- Energy costs and grid instability are growing challenges for consumers and operators alike
- Dozens of energy apps exist across Europe, but they don't speak the same language



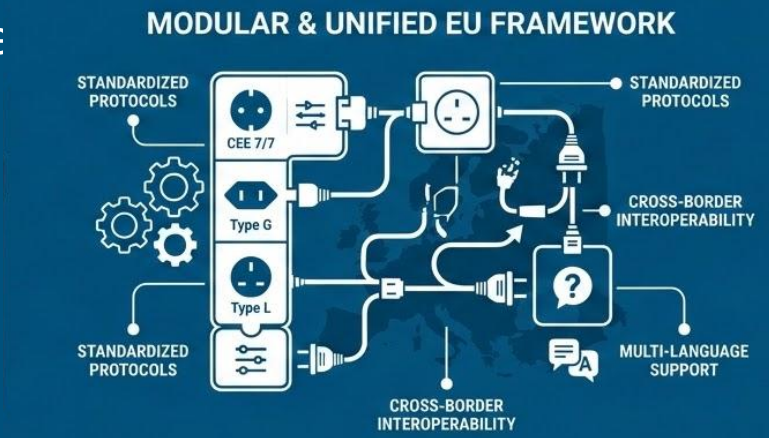
ECLIPSE OBJECTIVES - WHAT?

- ECLIPSE develops the Common European Reference Framework (CERF) — a shared set of guidelines for energy-saving applications across all EU member states.
- The goal: consistent, interoperable tools that help consumers reduce and shift energy use in response to real-time grid conditions.



ECLIPSE OBJECTIVES - HOW?

- Define standard protocols and rules for ne and existing energy apps
- Make information simple, useful, and actionable for everyday consumers
- Build solutions that are scalable and compatible across all EU member states



ECLIPSE OBJECTIVES - WHERE?

15 demo sites · 17 EU countries

Deployed with DSOs, TSOs, aggregators, retailers, and energy service providers — designed from the start to be replicated across the entire European Union.



This is CheckWatt

Connecting energy assets to power the green transition

CheckWatt is an energy tech company and Virtual Power Plant (VPP) provider — aggregating batteries, solar PV, and EV chargers across the Nordics into a smart, coordinated network called Currently.

- Reduce costs — Spot price optimisation, self-consumption, and peak shaving for asset owners
- Generate revenue — Frequency reserves and balancing services (FCR-D, FCR-N, FFR, mFRR) to TSOs and DSOs
- Support the grid — Ancillary services and local flexibility that keep the power system stable and renewable-ready.



CheckWatt leads the Swedish pilot site

Sweden as a whole serves as the pilot site, with focus on central and southern regions where flexibility services have the greatest impact.

Key objectives:

- Broaden data sources for more accurate forecasting
- Extend participation to additional balancing markets: FCR-N, mFRR and FRR
- Improve consumer communication — clearer, faster, and more actionable



How the VPP Works

The pilot operates through CheckWatt's VPP, Currently.

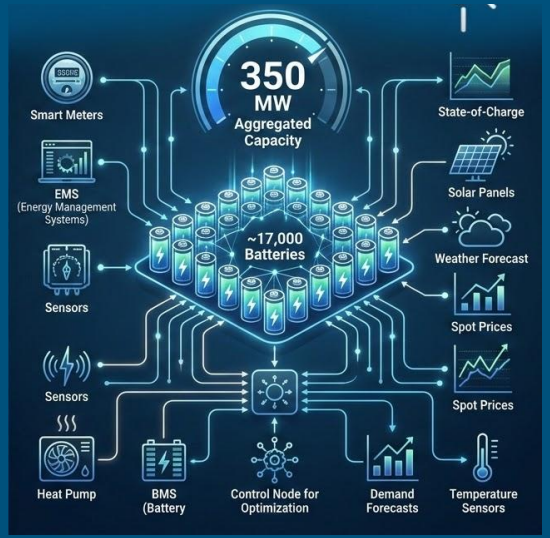
- The CM10 device connects residential, commercial/industrial, and utility-scale resources, handling local processing and scheduling.
- Aggregated capacity is then offered in balancing markets to TSOs and DSOs for grid stabilisation.
- CheckWatt manages settlement and ensures partners and asset owners are compensated for the flexibility they deliver.



Scale & Resources

- ~17,000 batteries contributing 350 MW of aggregated capacity, with heat pumps under exploration on an experimental basis.

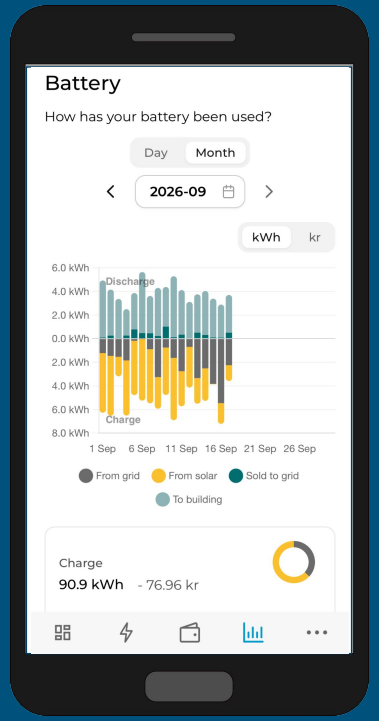
- Data collected includes State-of-Charge, energy consumption, solar production, bough/sold energy, spot prices and more.



Platform & New Services

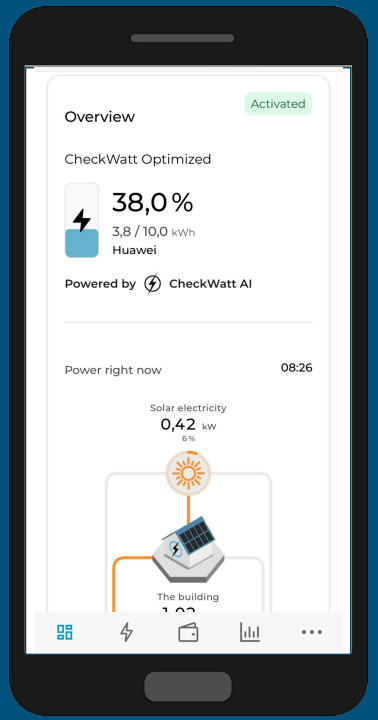
During Eclipse, CheckWatt introduced and improved services delivered through an **upgraded web platform** and a **new smartphone app**, designed to be more comprehensive, intuitive, and useful for end users.

- **Reduce costs** — Self-consumption, peak shaving, and spot price optimisation (CheckWatt AI)
- **Generate revenue** — Frequency reserves: FCR-D, FCR-N, FFR, mFRR, and aFRR
- **Support the local grid** — Local flexibility services delivered to DSOs

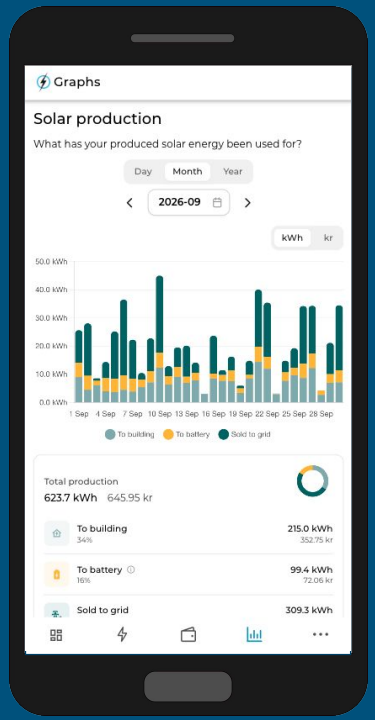


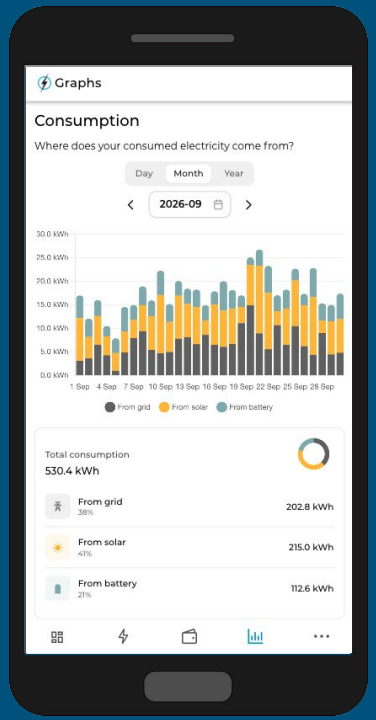
Demo


Overview
Activated
CheckWatt Optimized
38,0 %
3,8 / 10,0 kWh
Huawei
Powered by CheckWatt AI
Power right now
08:25
Solar electricity
0,42 kW
6 %
0,66 kW
The building
1,08 kW
Battery
0,72 kW
Discharging
Power grid
0,06 kW
Selling
Total prod. electricity
18.50 MWh
2026-09-17 08:26
Total bought electricity
11.8 MWh
2026-09-17 08:26
Total sold electricity
18.10 MWh
2026-09-17 08:26
SE3 Electricity price (excl. VAT)
110.78öre/kWh
2026-09-17 08:00
Savings will soon be shown on this page. For now, you can find them on the battery page
Daily revenue
Total over the week: 23 SEK
FCR-D
7 SEK
6 SEK
5 SEK
4 SEK
3 SEK
2 SEK
1 SEK

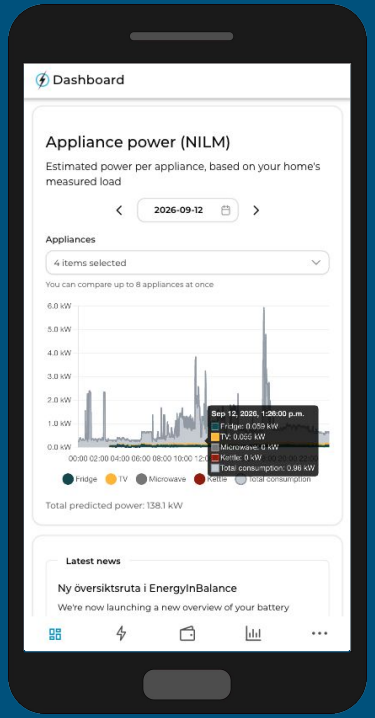

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Solar electricity
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6 %
The building

Demo


Graphs
Solar production
What has your produced solar energy been used for?
Day
Month
Year
2026-09
kWh
kr
Total production
623.7 kWh 645.95 kr
To building
34%
215.0 kWh
352.75 kr
To battery
16%
99.4 kWh
72.06 kr
Sold to grid
309.3 kWh


Graphs
Consumption
Where does your consumed electricity come from?
Day
Month
Year
2026-09
Total consumption
530.4 kWh
From grid
38%
202.8 kWh
From solar
41%
215.0 kWh
From battery
21%
112.6 kWh


Graphs
Battery
How has your battery been used?
Day
Month
Year
2026-09
kWh
kr
Discharge
Charge
Charge
164.8 kWh - 155.61 kr
From grid
40%
65.4 kWh
- 83.55 kr
From solar
60%
99.4 kWh
- 72.06 kr


Dashboard
Appliance power (NILM)
Estimated power per appliance, based on your home's measured load
2026-09-12
Appliances
4 items selected
You can compare up to 8 appliances at once
Fridge
TV
Microwave
Kettle
Total consumption
Total predicted power: 138.1 kW
Latest news
Ny översiktsruta i EnergyInBalance
We're now launching a new overview of your battery

Thank you

www.eclipse-digital.eu