PERINIMBLE · GRID DATA FAMILY

Home Energy Management

Behind the meter, ahead of the bill — appliance scheduling around price, solar, wind, and storage.

Home Energy Management (HEM) models a home from its address and schedules its appliances to save money and make the most of the home's own solar, wind, and storage — without compromising comfort or leaving any task unfinished. It is the behind-the-meter member of the Grid Data family, extending the platform from the substation to the living room.

KEY FEATURES

A model from an address

HEM starts from the property itself, and the model gets better as the household corrects it with what they own and use.

Price-aware scheduling

Flexible load is scheduled around the tariff and the household's own solar, wind, and storage — lowering the bill without giving up comfort.

Live day playback

Watch a day play out: appliances switching, the battery filling, the bill climbing.

Bill disaggregation

The meter split between appliances, every figure explained.

What-if scenarios

An EV, solar panels, a heat pump — priced on the household's own model, with and without the change.

Utility curtailment, with consent

A utility's request to use less is previewed exactly, and changes nothing until the household agrees.

Strategy comparison

Savings claims measured on the household's own model and kept on record, so they can be checked later.

Model checks

Built-in checks show whether the model behind the numbers still holds up.

USE CASES

- **Utility customer engagement —** a useful energy companion, branded with the utility's name and data.
- **Demand response programs —** consent-based curtailment with an exact preview turns DR from an imposition into an offer.
- **Time-of-use tariff adoption —** show households what a TOU tariff would really cost them — and how scheduling wins it back.
- **Electrification advice —** EV, heat-pump, and solar what-ifs priced on the household's own model.
- **Grid-edge insight —** shows the utility what flexibility actually exists behind the meter.

BETTER TOGETHER

HEM works with the Grid Data Management Platform for meter data, Grid Data Simulator for synthetic territories, and Enhanced Analytics for the grid-side view — together the family covers the complete distribution system, from the feeder to the dishwasher.