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ArgMax Power for Catalan Industry

AI-based battery control for commercial and industrial sites on Spanish 6.X TD tariffs



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Operating conditions for Catalan C&I sites

6

Contracted-power periods on 6.1TD

Each period is contracted and paid all year: P1 $\approx$ €29.6/kW·yr against P6 $\approx$ €1.0. Excess is billed per quarter-hour.

681 h

Negative-price hours in Spain, 1 Jan – 4 Sep 2026

Already more than all of 2025.
Midday solar pulls prices down; evening prices stay high.

2 of 50

Tarragona-area substations open to new demand

Most Catalan distribution nodes have no spare capacity for new consumption (Decree-law 22/2025).

WHERE THE SAVINGS ARE

Battery value on a 6.1TD site

Value lever	What the controller has to decide
Lower contracted power, P1-P2	Hold charge for the day's actual peak, not a fixed schedule
No quarter-hour excess	Forecast 15 minutes ahead; discharge before the window closes
Midday-to-evening shift	Charge at midday lows, discharge into evening peaks
Solar self-consumption	Store surplus PV instead of exporting at near-zero prices

The midday-to-evening shift applies to indexed (market-linked) energy contracts. A fixed schedule repeats the same plan every day; site load and prices do not.

THE PRODUCT

ArgMax Power: AI-based EMS for C&I batteries

One control target: the battery

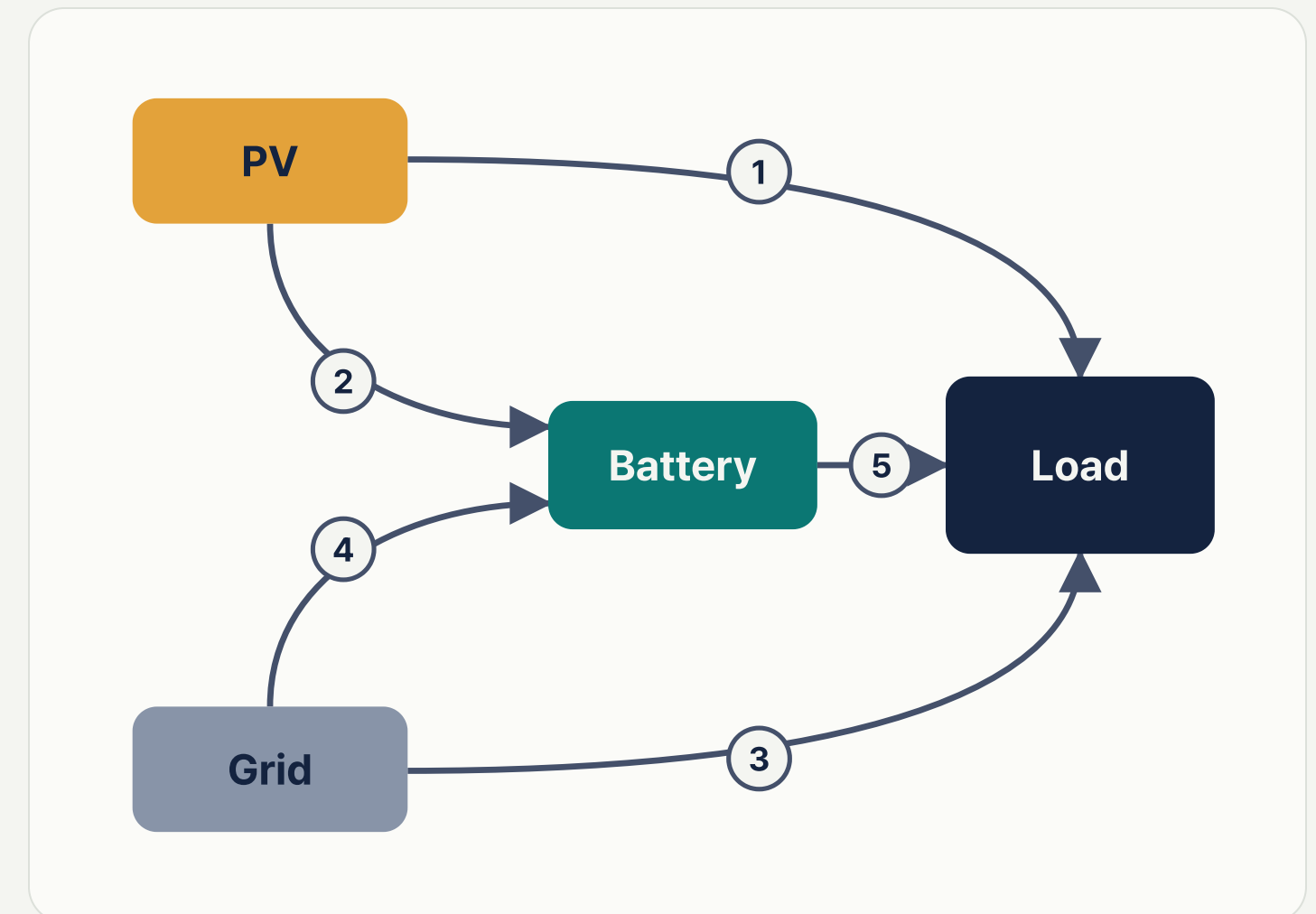
Charge and discharge decisions every 1–60 seconds. Load and PV are forecast, never switched.

Two forecast horizons

A 3-day plan plus minute-level forecasts; the controller corrects the plan as the day unfolds.

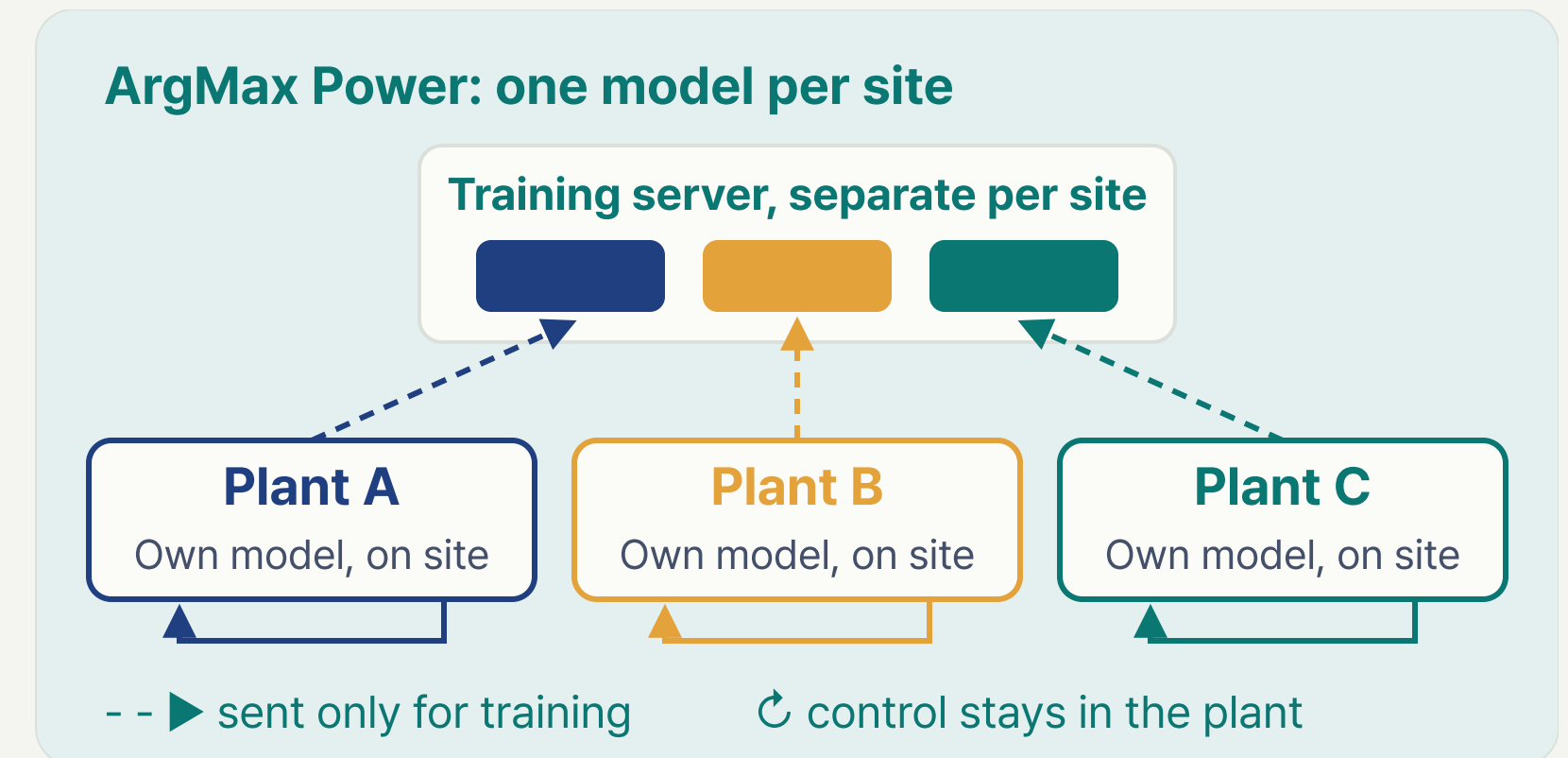
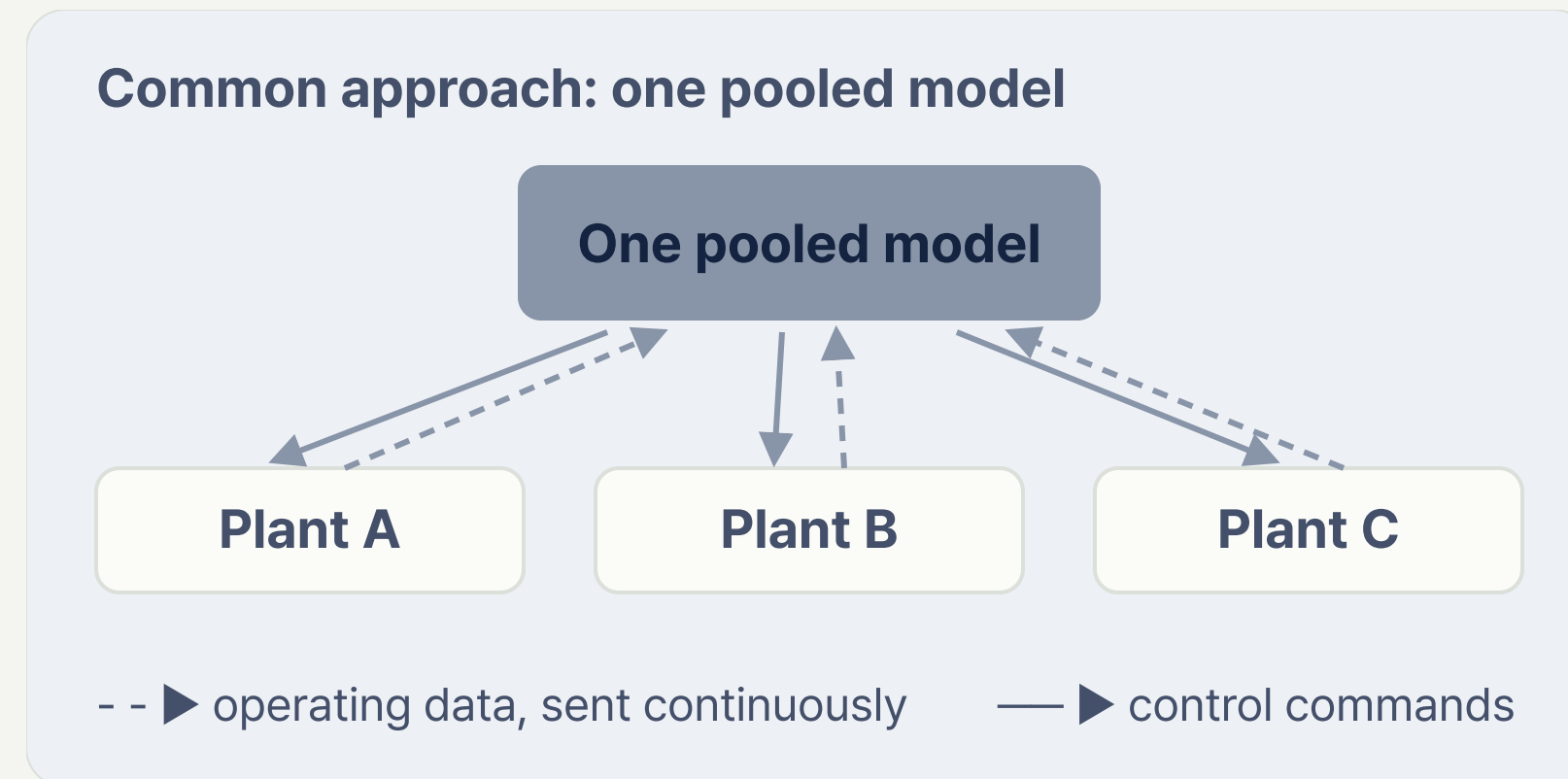
On top of the existing PMS

The site's PCS and batteries are handled as one virtual unit through high-level commands, independent of hardware brand.



HOW IT RUNS

Architecture and data handling



Decisions at the edge. Control continues if the internet connection drops.

One model per site. No customer's data is mixed into another customer's model.

Regional servers. Data leaves the site only for retraining, and stays in region, supporting GDPR requirements.

EVIDENCE

Results to date

JAPAN · MANUFACTURING PLANT · NAME WITHHELD

35%

Peak demand reduction vs. previous schedule-based operation

Running since October 2025. Third-party verified by AI Worx, November 2025. Specific to this site's load, PV and battery.

KOREA · ALUMINIUM ROLLING PLANT · SIMULATION

+€95k / yr

Additional savings per year vs. the plant's current EMS

Based on 12 months of metered data. With 200 kW added PV, payback falls from 6.6 years (current EMS) to 1.7 years. Simulation, not a live deployment.

OUR OFFER

Free pre-installation analysis for Catalan sites

1

NDA and data

12 months of 15-minute consumption data from the distributor or site meter; battery operating logs if one is installed.

2

AI simulation, about 2 weeks

The site is modelled on its own 6.X TD tariff: six contracted-power periods, quarter-hour excess and the energy contract type.

3

Decision report

Battery on site: additional savings versus current control. No battery yet: PV and battery sizing, savings and payback.

Meeting us in Barcelona

Industrial sites with PV or batteries

Automotive, chemicals, food and logistics sites on 6.X TD tariffs.

PV and battery installers, EPCs

Partners who build and maintain the site; we add the control layer on the hardware they choose.

Research and testbed institutions

Joint validation on Catalan sites and tariffs.

Tilda supplies the analysis, the control software and the on-site gateway. Batteries, PCS and installation stay with the customer's chosen suppliers.

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