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calc.optimalenergy.ch

BESS SIZING TOOL · SIA PHASE 31 (PRELIMINARY DESIGN)

Optimal BESS Sizer

The right battery size. On real Swiss data.

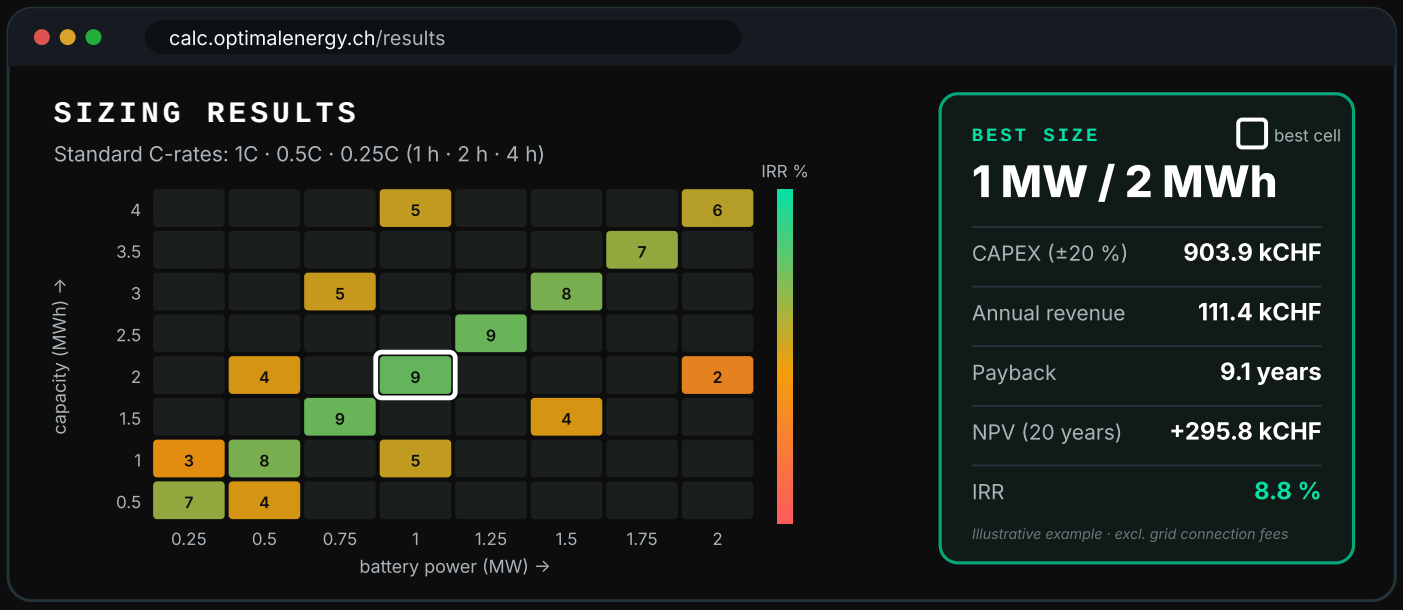
Optimal BESS Sizer simulates your site and battery in 15-minute steps over several years, with the real tariffs of your grid operator. You get the battery size that pays off best, with the figures to decide.

15 min
time step, simulated over several years

2020 →
historical tariffs of the DSOs of French-speaking Switzerland

MDSE 2025
grid-billing rules (AES) for 10 site configurations

±20 %
CAPEX, with RoI, NPV, IRR and payback



How it works

1 — Upload your site data
Load curve, PV production, EV charging: 15-min series or simple profiles.

2 — Tariffs applied for you
Grid, energy, Swissgrid, federal taxes and winter reserve of your DSO.

3 — Every size simulated
Hundreds of power × capacity combinations, dispatched every 15 minutes.

4 — Decide on firm figures
CAPEX ±20 %, OPEX, RoI, NPV, IRR and payback, pre-tax.

Built for

Industrial & commercial sites
Size a battery behind the meter: self-consumption, peak shaving, arbitrage.

Utilities and DSOs
Compare sites and tariffs, and offer a battery study to your customers.

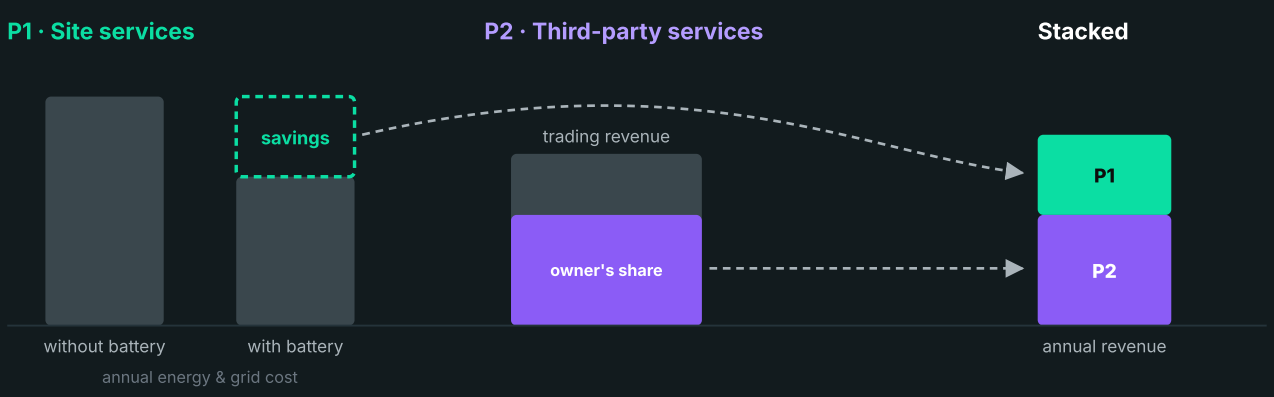
Developers & investors
Get a bankable business case before the detailed design.

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Value stacking

Two value streams. One battery.

The Sizer values what the battery saves on site (P1) and what it earns for third parties (P2), then stacks both, compared with the same site without a battery.



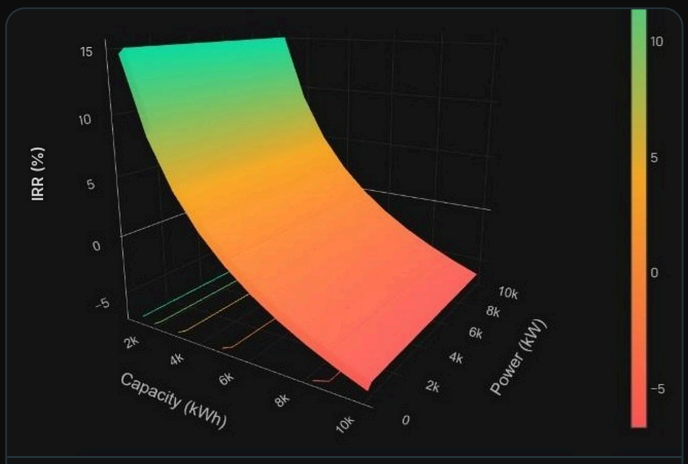
P1 · Site services. Self-consumption of PV, energy arbitrage (peak / off-peak), peak shaving of the grid power.

P2 · Third-party services. Multi-market trading (reserves, arbitrage) with profit sharing, via Optimal BESS Virtualiser.

Stacked. P1 + P2 = the battery's relevant annual revenue.

What is inside

- **Real tariffs** of the DSOs of French-speaking Switzerland since 2020, in 15-min resolution.
- **MDSE 2025 (AES)**: the grid-billing regime is identified for your site configuration.
- **Site growth**: new PV, EV chargers and load forecasts, year by year.
- **Full costing**: CAPEX (±20 %), OPEX, grid reinforcement, replacement.
- **Report** ready for your board, investor or bank.



From the tool: IRR for every power × capacity combination

Part of an end-to-end suite

Our software covers the whole project lifecycle (SIA phases).

SIA 1–2	SIA 3	SIA 4	SIA 5	SIA 6
COMING SOON	AVAILABLE	PLANNED	PLANNED	AVAILABLE
Land Qualifier	**BESS Sizer**	**BESS Financer**	**BESS Constructor**	**BESS Virtualiser**
Finds and qualifies land for a BESS.	Optimal size and business case.	Structures the financing.	Cost, schedule and quality of the build.	Sells the battery as virtual batteries.

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Tool: calc.optimalenergy.ch · ask us for a demo

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