

Solar Export Energy Calculator

Estimate solar allocation for a defined interval, including direct site use, battery charging, grid export, grid import, and self-consumption share.

Generated October 10, 2026

<https://www.elecatrix.com/solar-backup-power/solar-export-energy-calculator/>

Inputs

Input	Value	Unit
Solar generation	20	kWh
Site load	14	kWh
Direct self-consumption	10	kWh
Solar energy to battery	4	kWh

Results

Result	Value	Unit
Direct self-consumption	10	kWh
Solar energy to battery	4	kWh
Grid export	6	kWh
Grid import	4	kWh
Self-consumption	70	%
Export share	30	%

Calculation details

Detail	Value	Unit
Calculation basis	Solar energy is allocated to direct site use first, then the entered battery charge request, and remaining energy is treated as export.	
Export boundary	Energy-balance screen only; this does not model battery state of charge, efficiency, tariffs, export controls, utility approval, or interconnection compliance.	

Formulas

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Used solar = Direct self-consumption + Solar energy to battery

Grid export = max(Solar generation - Used solar, 0)

Grid import = max(Site load - Direct self-consumption, 0)

Self-consumption percent = (Used solar/Solar generation) x 100

Warnings and limitations

This interval energy balance does not approve utility export and is not a tariff, battery dispatch, or interconnection result.