

Scenario report

Allocating 10% of the European Union (EU27)'s annual final electricity consumption to this scenario would provide an equivalent yearly energy budget for 39,363,209 configured AI-worker profiles.

energy-equivalent scenario capacity - not spare grid capacity or deployment prediction

Country	European Union (EU27)		
Equivalent AI-worker profiles			
39,363,209 profiles			
Electricity allocation	Allocated electricity		
10%	241.375 TWh/year		
Watt profile	Runtime		
700 W	24/7 - 168 h/week		
Overhead	One profile yearly		
1.00x	6.1320 MWh/year		
Calculation basis	Data status		
700 W x 168 h/week x 52.1429 weeks/ year x 1.00 overhead = 6.1320 MWh/ profile/year	source_candidate		

Reference comparisons

Continuous 3 MW nameplate-output equivalents	8 MW offshore turbines
9,185	7,654
reference assumption: energy equivalent at continuous 3 MW nameplate output; not a realistic turbine count	reference assumption: 45% capacity factor
Household-year equivalent	100 MWh battery packs
68,964,343	2,413,752
reference assumption: 3,500 kWh/year	reference assumption: 100 MWh battery pack
1 GW nuclear reactor equivalent	500 MW hydro plant equivalent
30.62	122.46
reference assumption: 1 GW reactor at 90% capacity factor	reference assumption: 500 MW hydro plant at 45% capacity factor

Source evidence

Data mode	Source-candidate review
Source name	Eurostat
Source year	2023
Source metric	annual final consumption of electricity; EU27 aggregate computed from the 27 reviewed member records
Retrieval date	2026-07-12
Source status	source_candidate · candidate_not_promoted
Source URL	https://ec.europa.eu/eurostat/api/dissemination/statistics/1.0/data/nrg_cb_e?format=JSON&freq=A&nrg_bal=FC&siec=E7000&unit=GWH&time=2023

Source-candidate values are used in review calculations. They are not promoted or verified runtime data.

Truth boundary

Uses source-candidate values in public-review calculations. They are not promoted or verified runtime data. Eurostat annual final electricity consumption is used as a source candidate. It is not promoted or verified runtime data. Outputs are energy-equivalent scenarios only. They do not show spare electricity or grid capacity, deployed AI workers, or job loss. Data status is shown separately by mode.

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Source status: source_candidate · candidate_not_promoted