

Scenario report

Allocating 10% of Canada's annual final electricity consumption to this scenario would provide an equivalent yearly energy budget for 8,641,585 configured AI-worker profiles.

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

Country	
Canada	
Equivalent AI-worker profiles	
8,641,585 profiles	
Electricity allocation	Allocated electricity
10%	52.990 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
2,016	1,680
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
15,140,057	529,902
reference assumption: 3,500 kWh/year	reference assumption: 100 MWh battery pack
1 GW nuclear reactor equivalent	500 MW hydro plant equivalent
6.72	26.88
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	United Nations Statistics Division (UNSD)
Source year	2023
Source metric	total final consumption of electricity
Retrieval date	2026-07-21
Source status	source_candidate · candidate_not_promoted
Source URL	https://unstats.un.org/unsd/energystats/pubs/yearbook/2023/t34.pdf

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. UNSD 2023 world total and selected non-EU country final electricity consumption values are used as source candidates. They are 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