energy storage europe

LCPDelta

EMMES 10

EUROPEAN MARKET MONITOR ON ENERGY STORAGE

About LCP Delta

LCP Delta™ is a trading name of Delta Energy & Environment Limited and Lane Clark & Peacock LLP. LCP Delta™ combines the expertise of LCP Energy and Delta-EE to provide a single partner across the whole energy value chain. We are a team of passionate people using data, primary research, insights, analysis and models embracing advanced technology and innovation to accelerate the energy transition globally.

About Energy Storage Europe

Energy Storage Europe, based in Brussels, is a leading member-supported organisation representing more than 70 entities across the entire energy storage value chain. Founded in 2011, it includes utilities, technology providers, optimisers, research institutes, and system operators. The Association promotes energy storage deployment to enable a resilient, climate-neutral energy system.

More about this report here:

You can find more information about this report at
www.energystorageeurope.eu
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Executive Summary

Storage Is Scaling Rapidly While Europe's Energy Needs Are Set to Grow Even Further

In 2025, storage surpassed 100 GW, electrochemical storage continued to set deployment records, negative prices became structural across European power markets, and forecasts for utility-scale batteries were revised upward by 25% compared with last year. Yet no European country has reached its storage potential. The combination of increasing renewable penetration, growing system flexibility needs, longer-duration projects and expanding investment frameworks means that energy storage is moving from a growth sector to a core pillar of Europe's future electricity system.

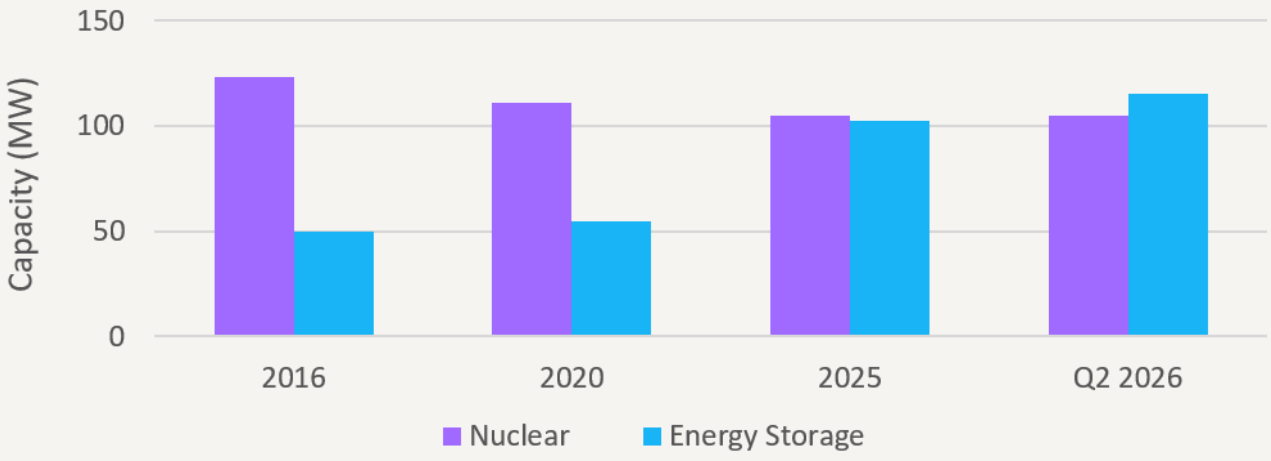
Total Installed Capacity in 2025

Residential		C&I		FoM	
26.7 GW	40.4 GW	3.5 GW	5.9 GW	18.5 GW	34.4 GW

European energy storage reached a landmark milestone in November 2025, surpassing 100GW of installed capacity across EMMES-monitored countries. By Q2 2026, it overtook nuclear capacity in Europe (currently around 105GW), with storage projected to lead by at least 10GW by end of quarter.

This reflects two sharply diverging trajectories: storage capacity doubled over the past decade driven by rapid battery uptake, while nuclear has steadily declined as reactors were decommissioned across Germany, Great Britain, and Belgium.

Comparison of energy storage and nuclear capacity (MW)

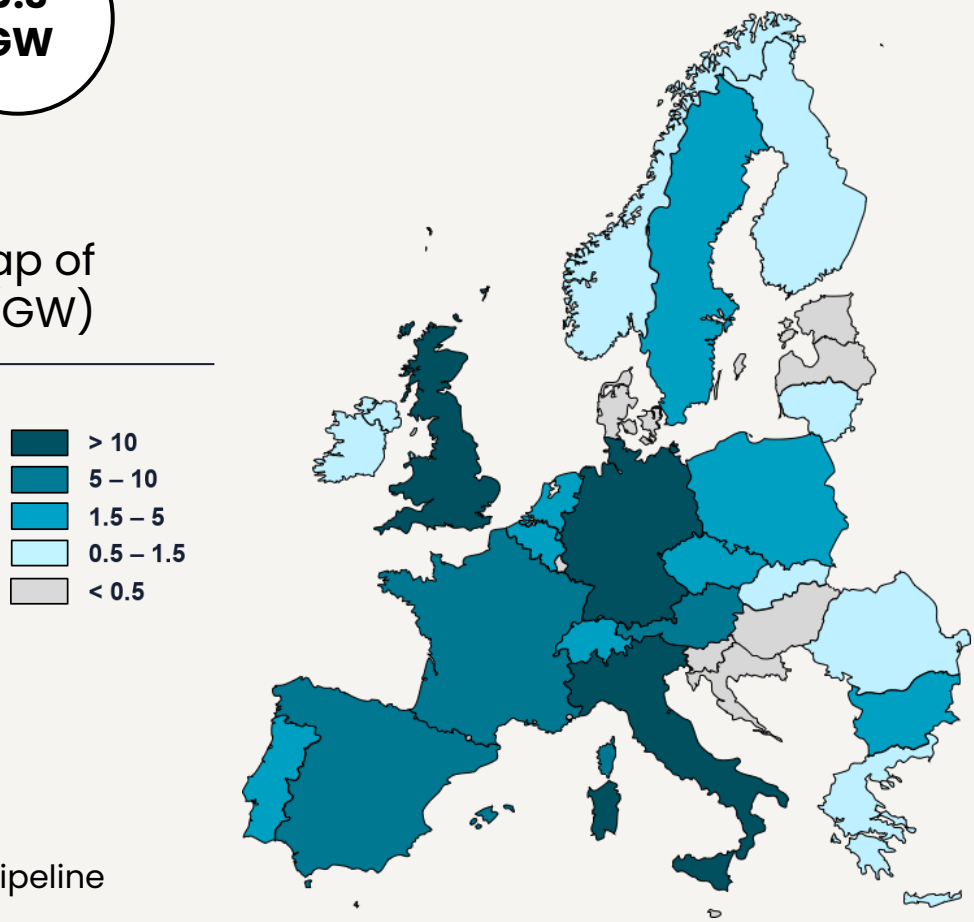


102.7 GW Installed Currently Across Different Technologies

Cumulative installed capacity by technology

- Pumped Hydro Storage — 53.3 GW
- Electrochemical Storage — 48.7 GW
  - FoM — 18.5 GW
  - BtM — 30.2 GW
- Large-scale Thermal — 0.4 GW
- Other — 0.3 GW

European map of power capacity (GW)



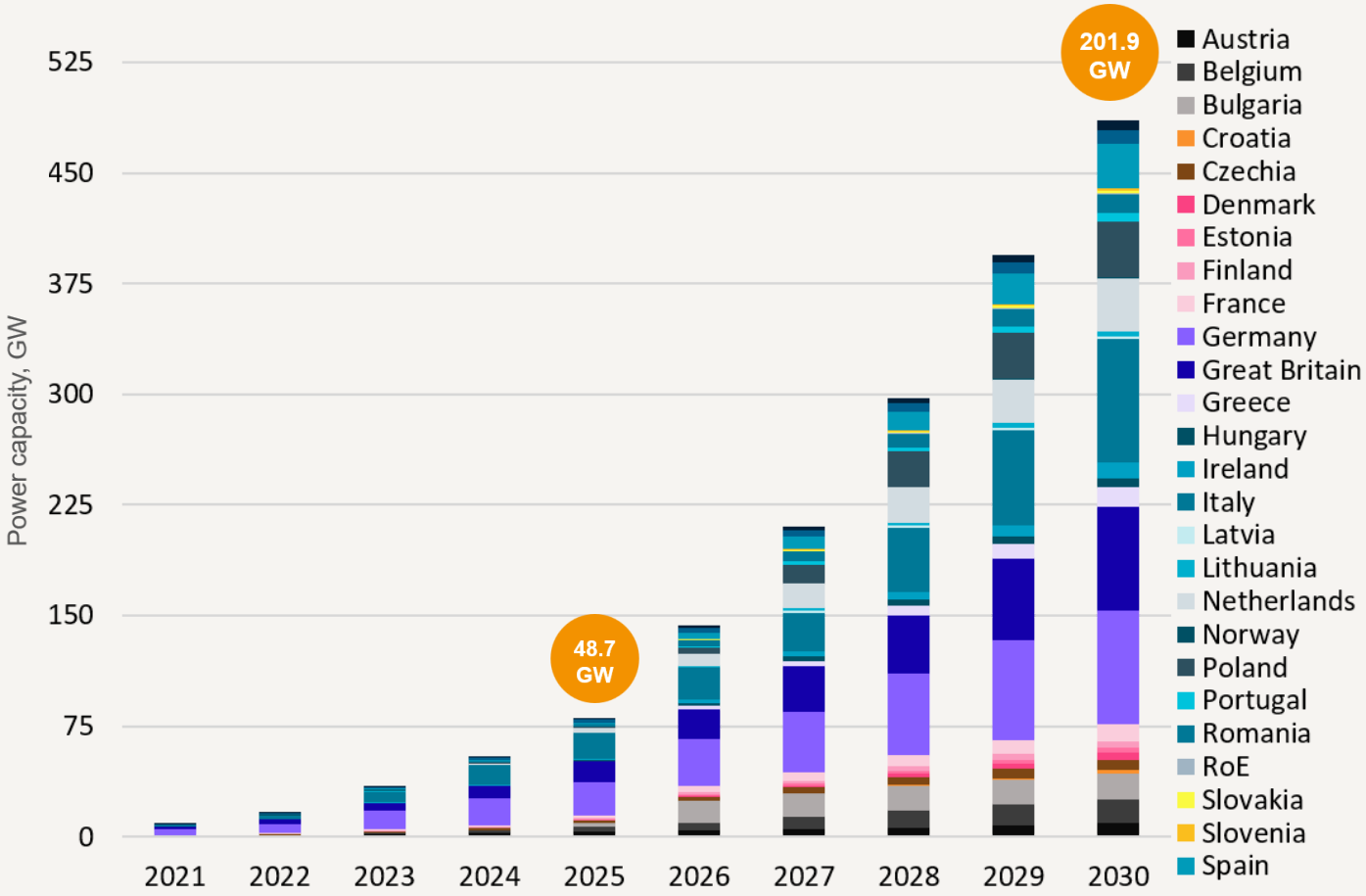
Source: Enact - Asset Pipeline

Additional 153 GW/485 GWh of electrochemical storage added to European grids by 2030

49 GW 2025 cumulative installed capacity

202 GW 2030 cumulative installed capacity

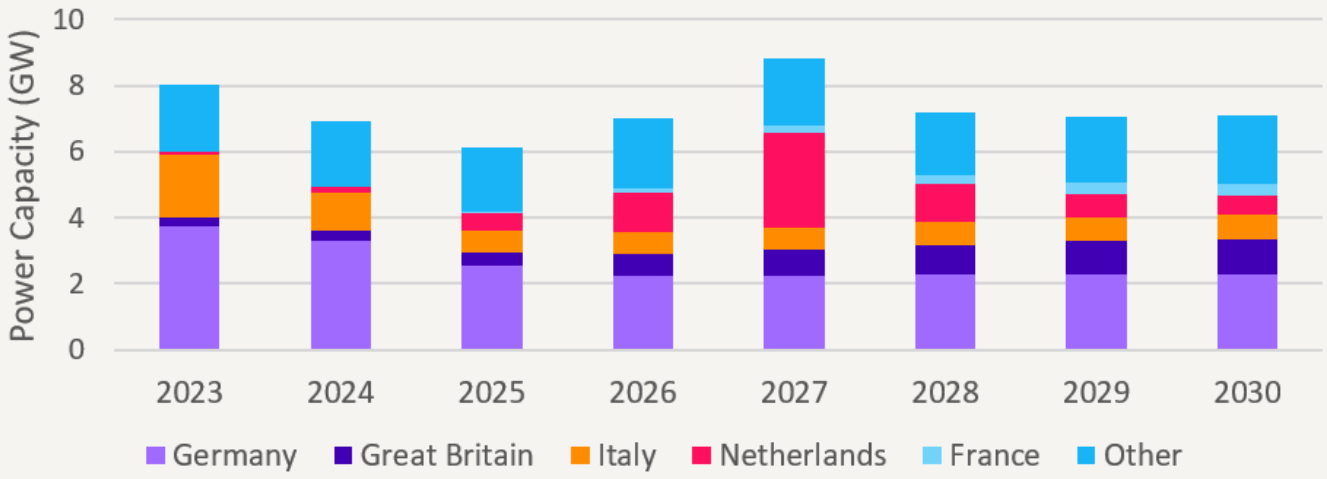
Cumulative installed power capacity by country



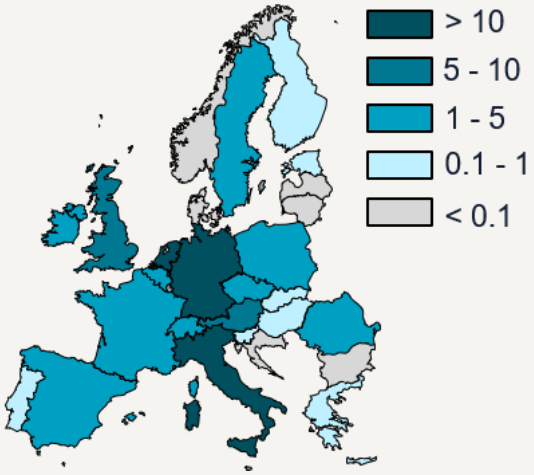
Behind-the-meter storage: market trends

Residential European market forecast

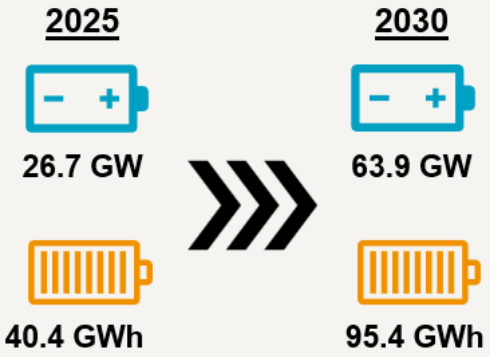
New capacity per year



Total installed capacity 2030 (GWh)



Growth in total installed capacity



Geopolitical tension renewed consumers' concerns around energy supply, strengthening batteries value proposition

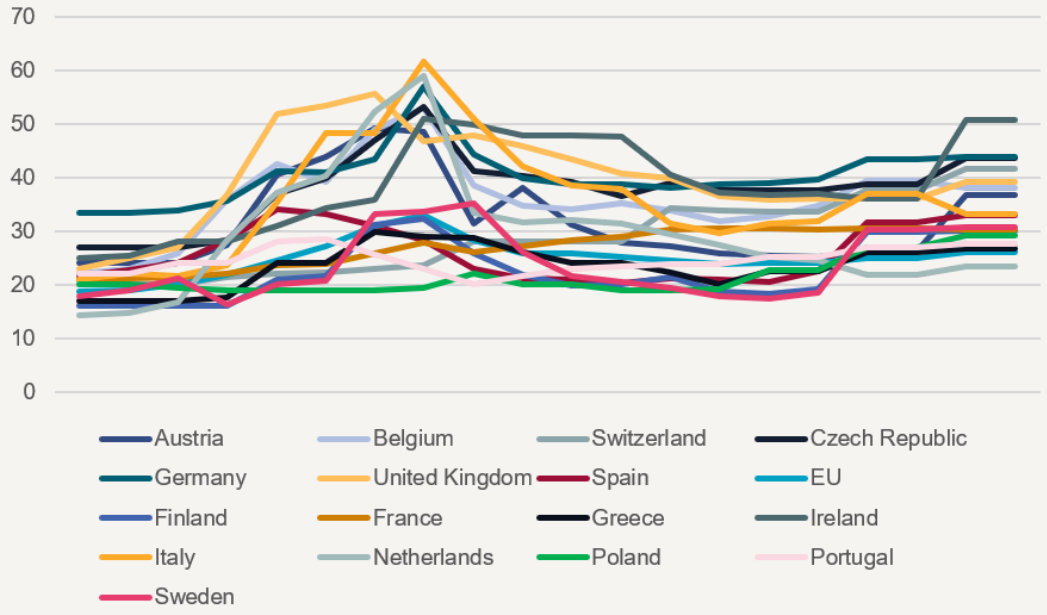
The battery-to-solar ratio is rising (from 1:4 in 2022 to 1:2 in 2025 and toward 3:4 by 2030), narrowing the deployment gap between the two assets

Increasing smart tariff availability strengthens the economic case for home batteries

Residential storage demand: from post-crisis slowdown to renewed market momentum

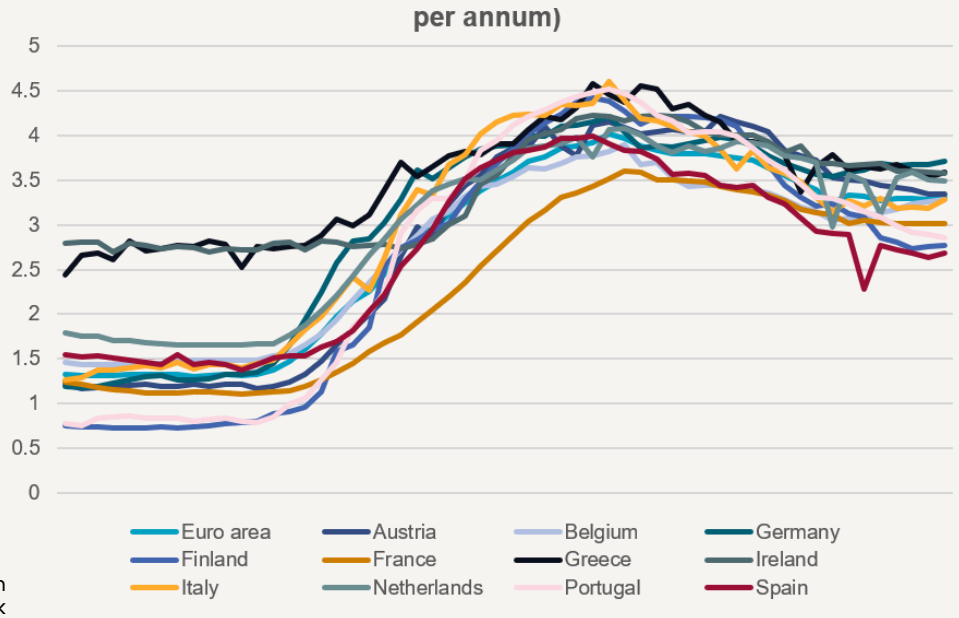
Following a period of subdued growth driven by high borrowing costs and fading energy crisis urgency, renewed geopolitical tensions and gas market volatility in 2026 are restoring the investment case for residential PV and battery storage.

Evolution of Electricity Prices for Residential customers (€c/kWh)



Electricity prices for household consumers inc. taxes and levies
Sources: Eurostat, OFGEM, LCP Delta

Composite cost of borrowing indicator for households (% per annum)



Source: European Central Bank

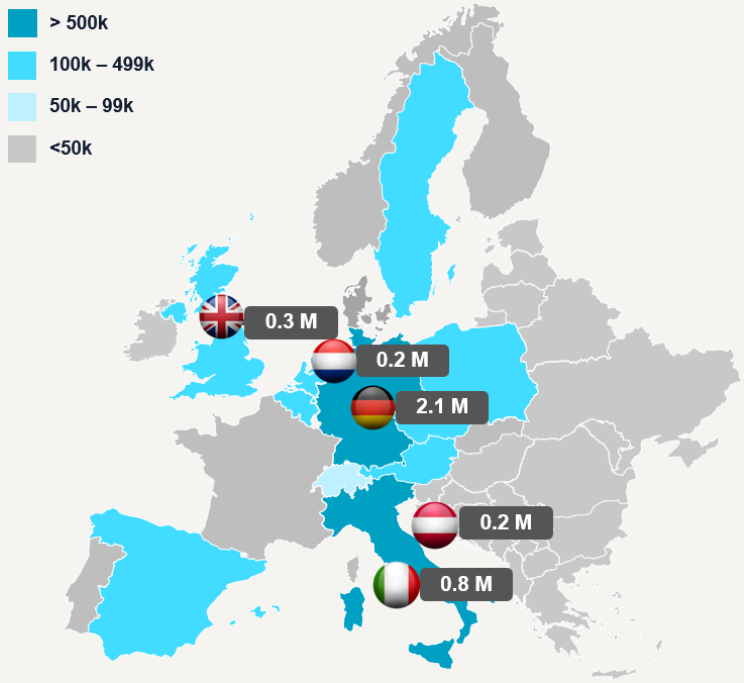
Retrofit opportunity in solar PV homes

The installed bases for both technologies are vastly different. Europe had >17m solar homes and 4.5m battery homes in 2025.

There is significant scope for retrofit battery installations – this is particularly evident in countries like the Netherlands, UK and Belgium. So, in some cases the battery market will grow while the PV market declines.

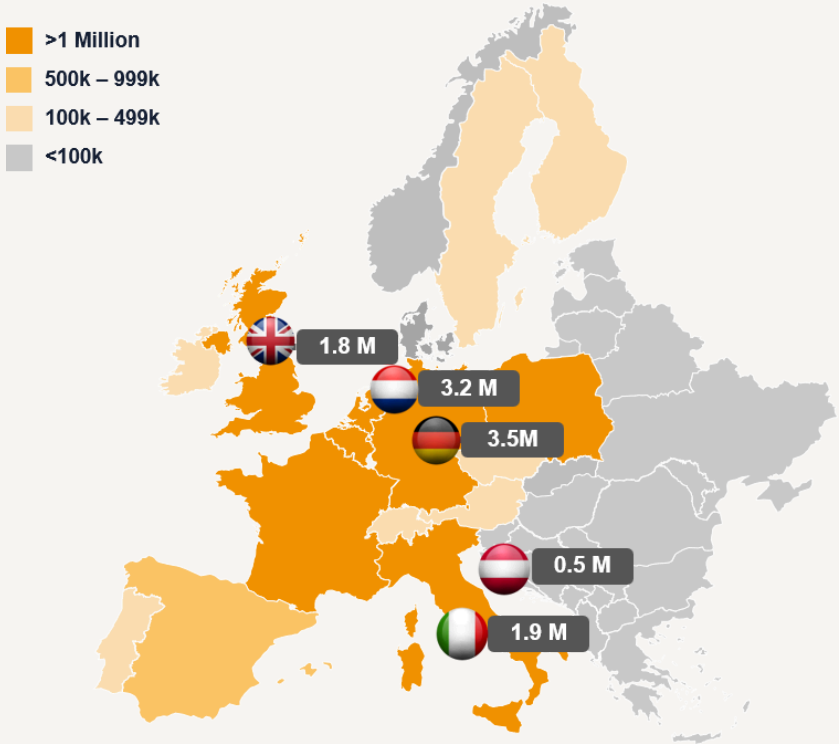
Residential battery installed base

Number of systems



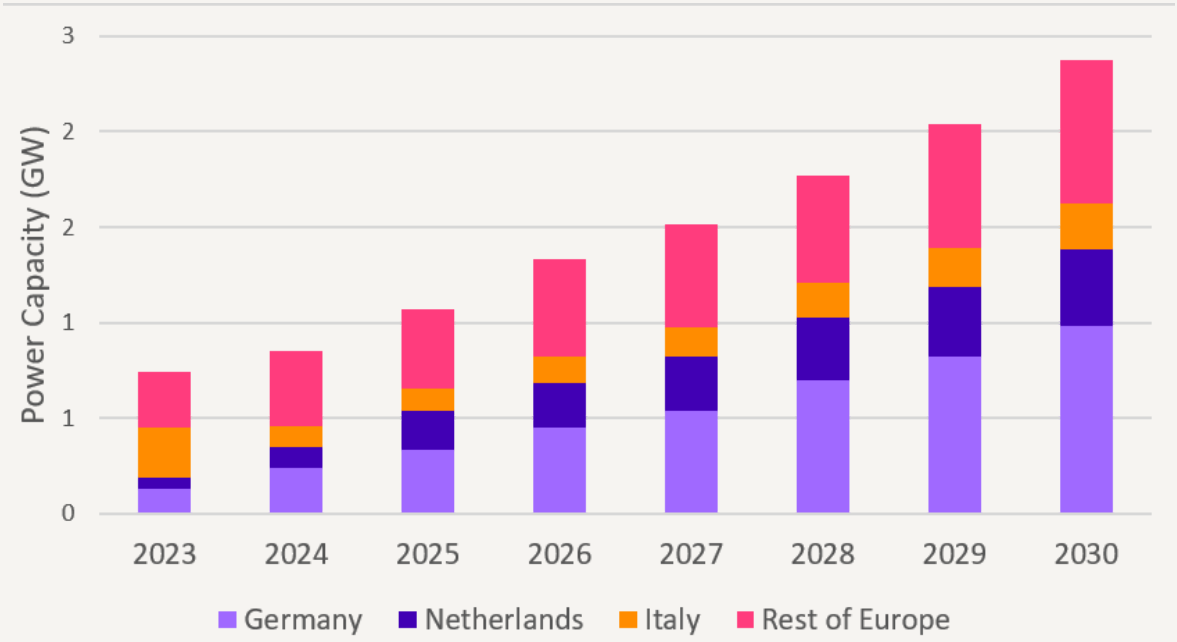
Residential solar PV installed base

Number of systems

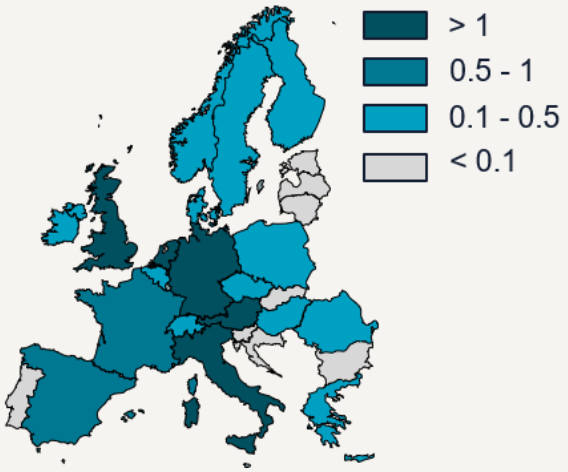


Electrochemical Storage C&I Forecast

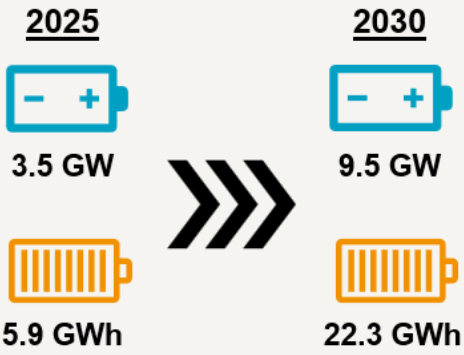
New capacity per year



Total installed capacity 2030 (GWh)



Growth in total installed capacity



Increasing electrification of businesses will support C&I storage growth

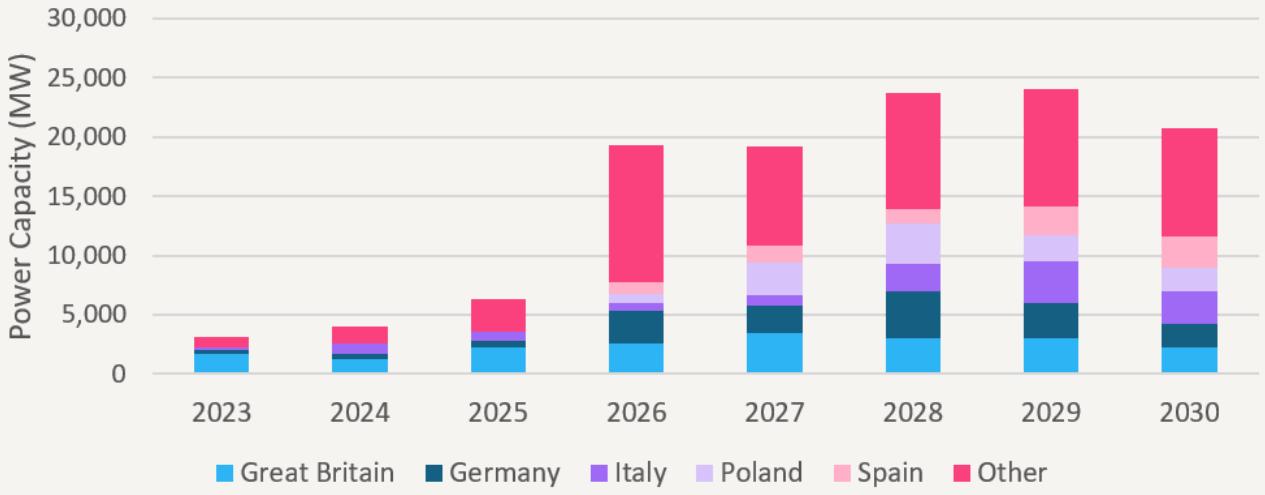
Declining technology costs. spread of flexibility and stability services will strengthen the business case

Network charges remain a significant cost item for C&I customers; looking ahead, cost-reflective network tariffs would strengthen the business case

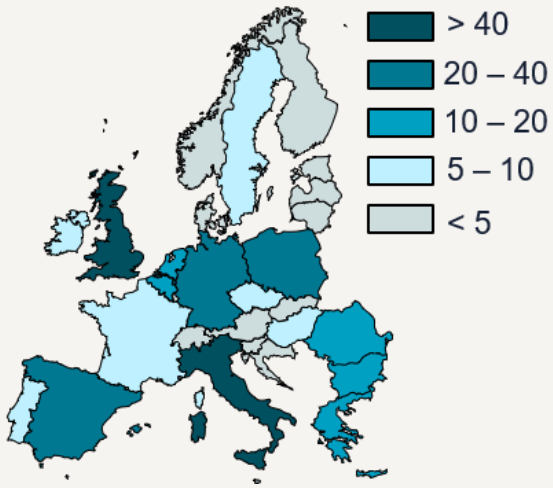
Front-of-the-meter storage: market trends

Electrochemical Storage FoM Forecast

New capacity per year



Total installed capacity (GWh)



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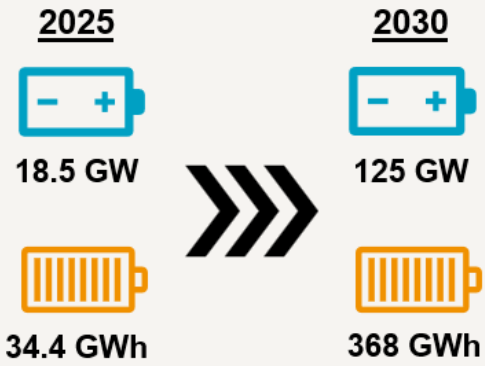


Looking at current storage buildout versus electricity demand across Europe, no country has reached its full storage potential

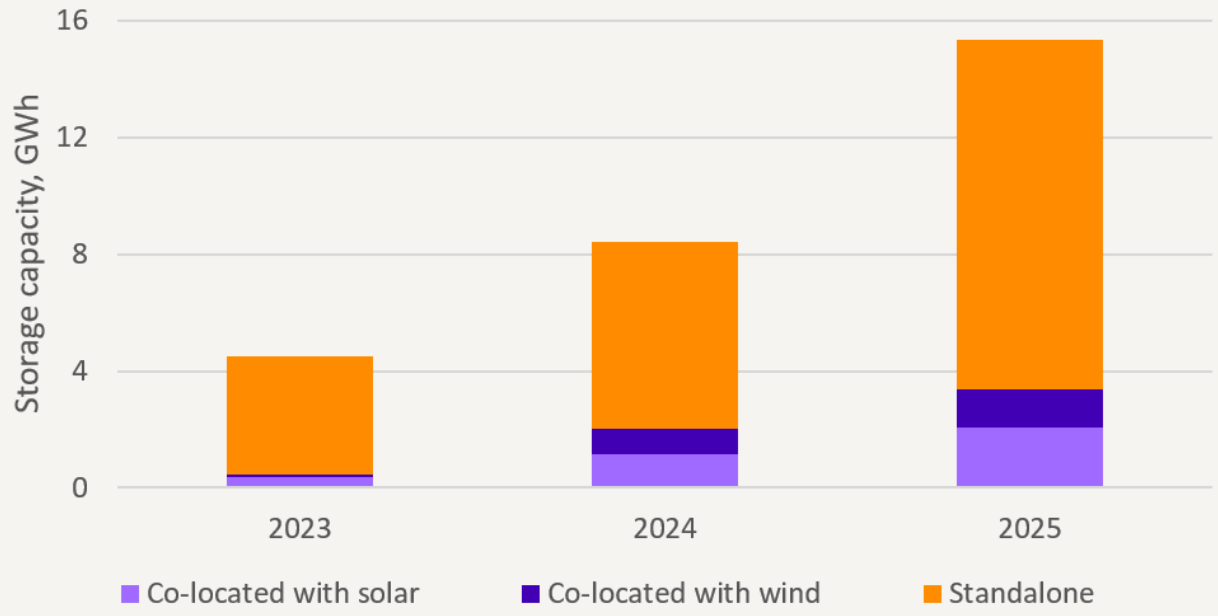
Project duration increases: cost still a limiting factor, but cheaper technology drives duration growth

Bulk of new storage is stand-alone; but as grid availability becomes more challrnging, number of co-location project will grow

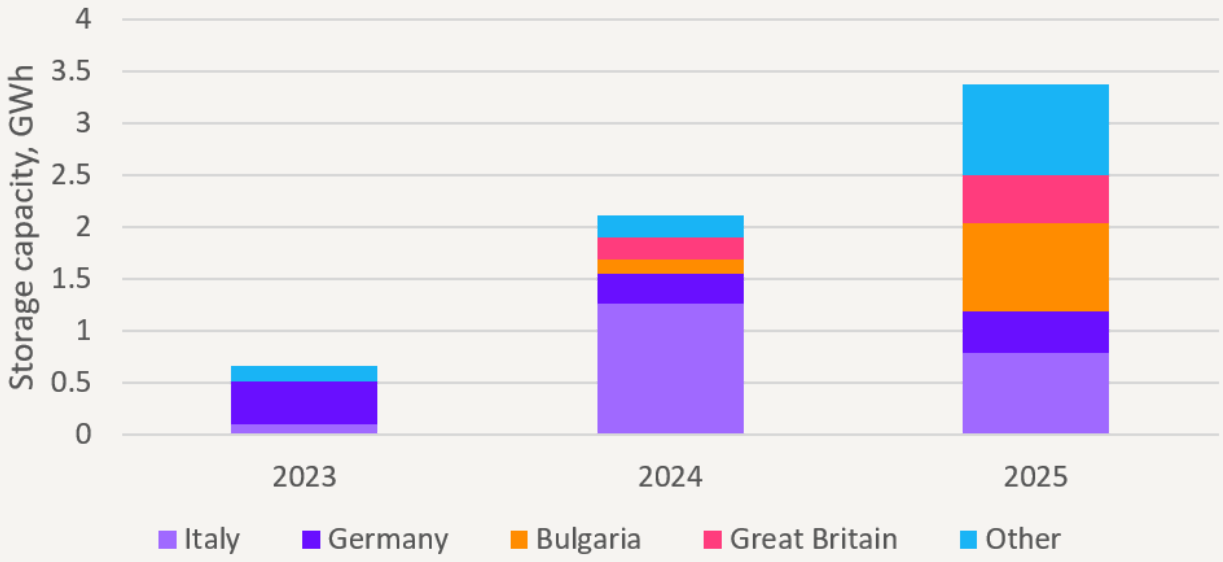
Co-location versus Standalone

In 2025, more than 3GW of projects were co-located with wind or solar

Newly installed storage capacity by type of installation



Co-located storage capacity by country



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