

De batterij in de energietransitie



RaboResearch Energietransitie

Kennis website

Open access articles

Client newsletters

Podcasts



Battery Energy Storage Systems in Europe

Battery energy storage systems (BESS) are expected to play an instrumental role in integrating the increasing share of intermittent renewable energy sources.

8 October 2025

RaboResearch

Sector coverage

Clean tech and offshore

Renewable production

Storage

Grids & networks
(electricity markets)

Clean energy trading

Mobility & transport

Circular Economy

Other topics



Susan Hansen



Hyung-ja de Zeeuw



Pablo Ruiz



Sanne de Boer



Coen Hutters



Boglárka Márkus



Owen Thomson



José Serrano



vacancy



Amit Mathrani

Rabobank

De energietransitie gaat verder dan alleen klimaat

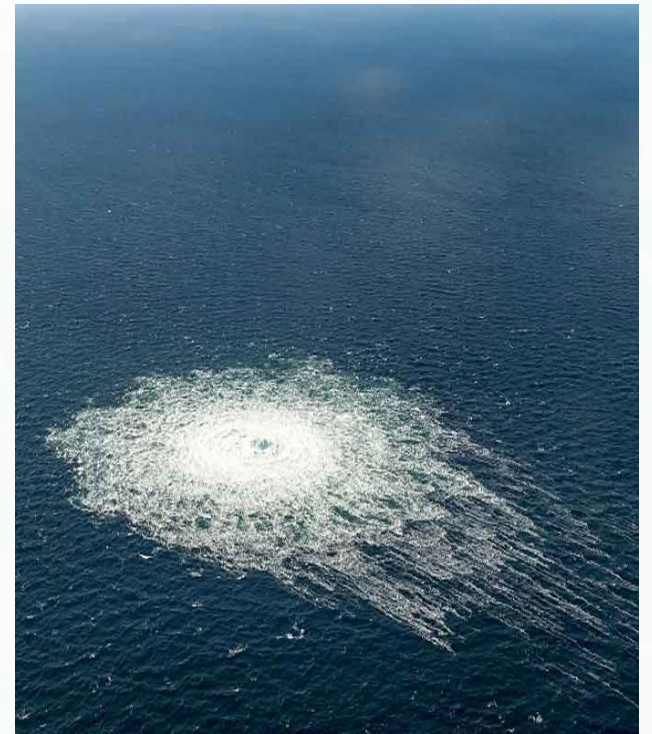
Terugdringen uitstoot



Betaalbaarheid



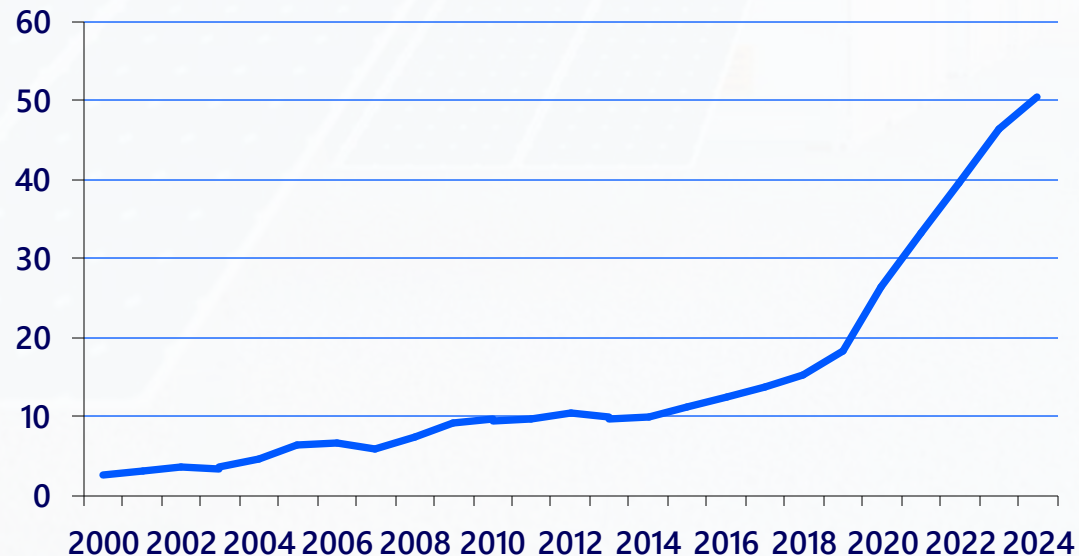
Energie-afhankelijkheid



Zonnepanelen en windturbines zorgen voor uitstootvrije en betaalbare energie van eigen bodem

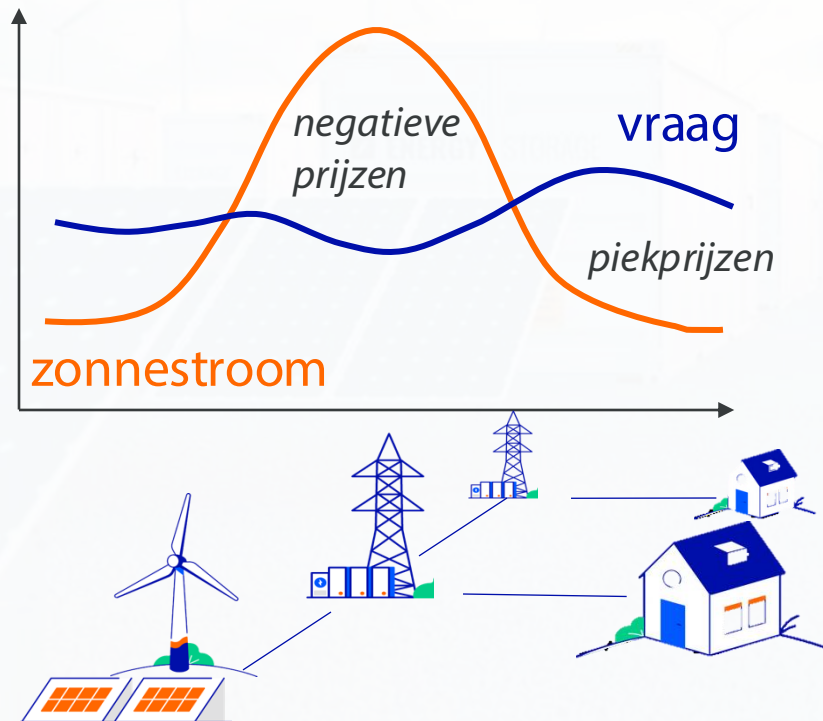
Zon en wind vervijfvoudigd in afgelopen 10 jaar

Aandeel hernieuwbare elektriciteit in %

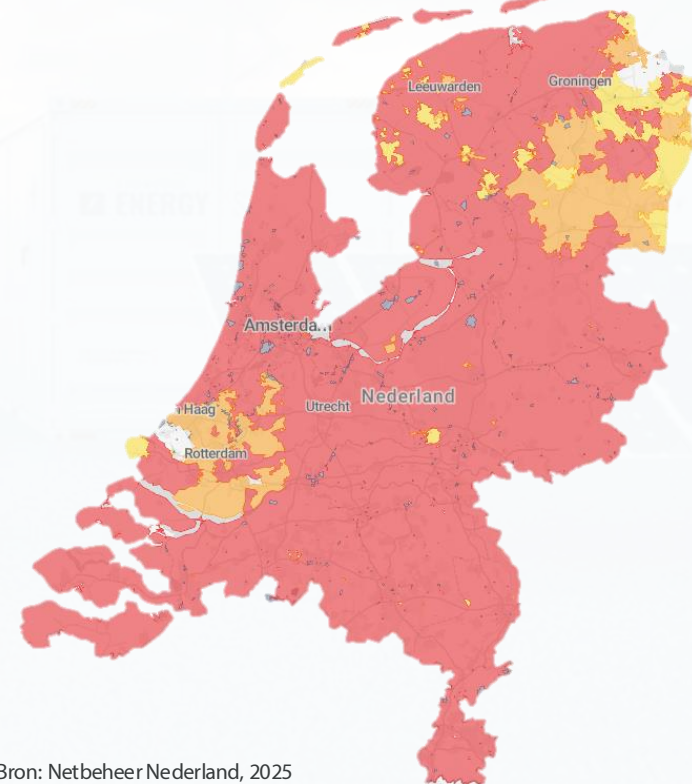


Hernieuwbare energie zorgt voor nieuwe uitdagingen

Mismatch vraag en aanbod



Netcongestie



Bron: Netbeheer Nederland, 2025

De batterij als duizenddingendoekje

Grid services

- Frequency support
- Voltage support
- Inertia services
- Black start
- Congestion management
- Grid investment deferral



Resource adequacy

- Capacity remuneration mechanism



Portfolio optimization

- Energy shifting
- Peak shaving
- Power smoothing
- Backup generation



Energy trading

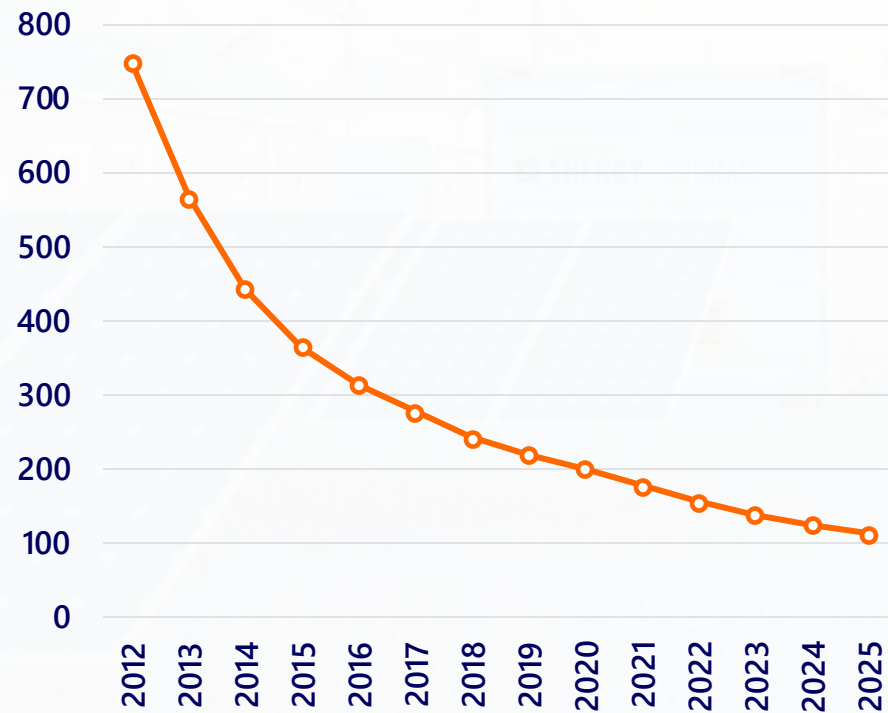
- Day-ahead market
- Intra-day market



Bron: RaboResearch, 2024

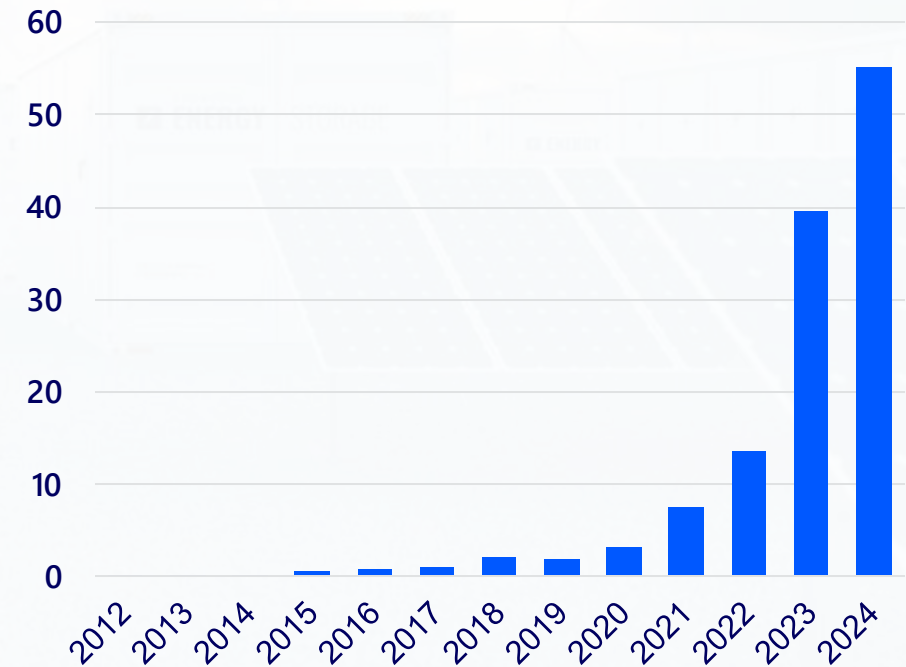
Groei van batterijprojecten explodeert terwijl prijzen dalen

Prijs batterijpakketten (USD/kWh)



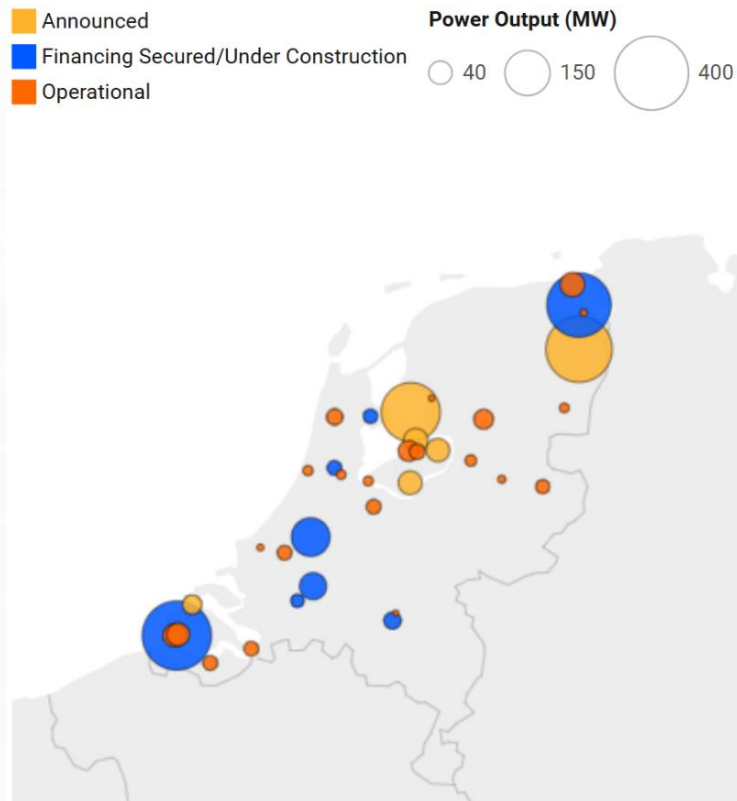
Bron: BloombergNEF, RaboResearch, 2025

Wereldwijde toename batterij-energieopslag (GW)



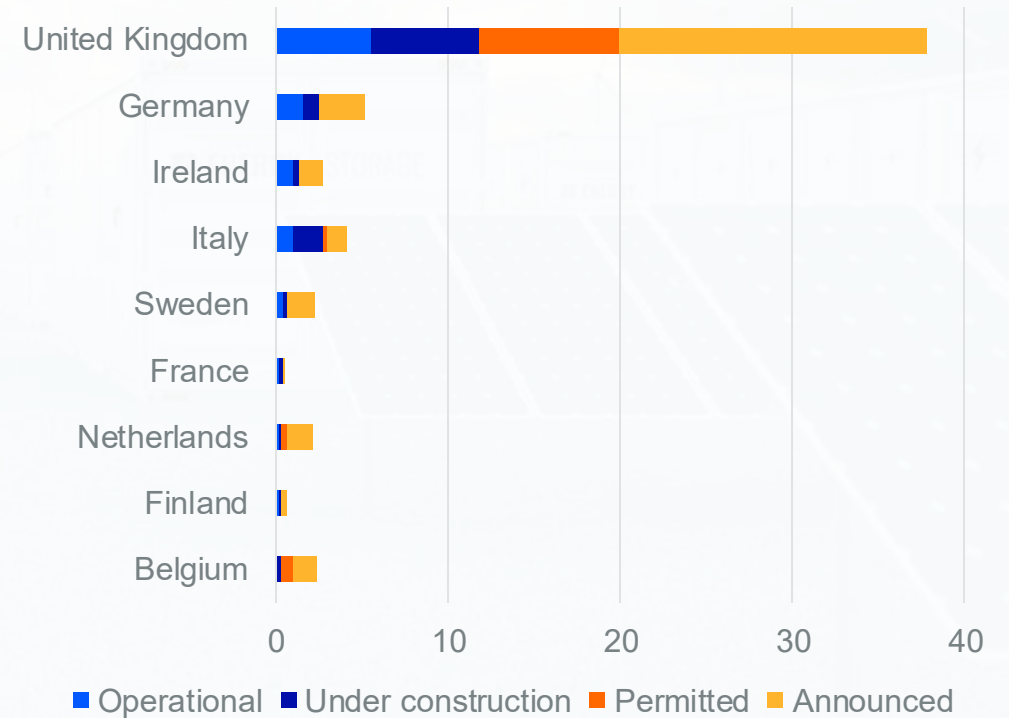
Bron: BloombergNEF, RaboResearch, 2025

Projecten in Nederland en in de rest van Europa



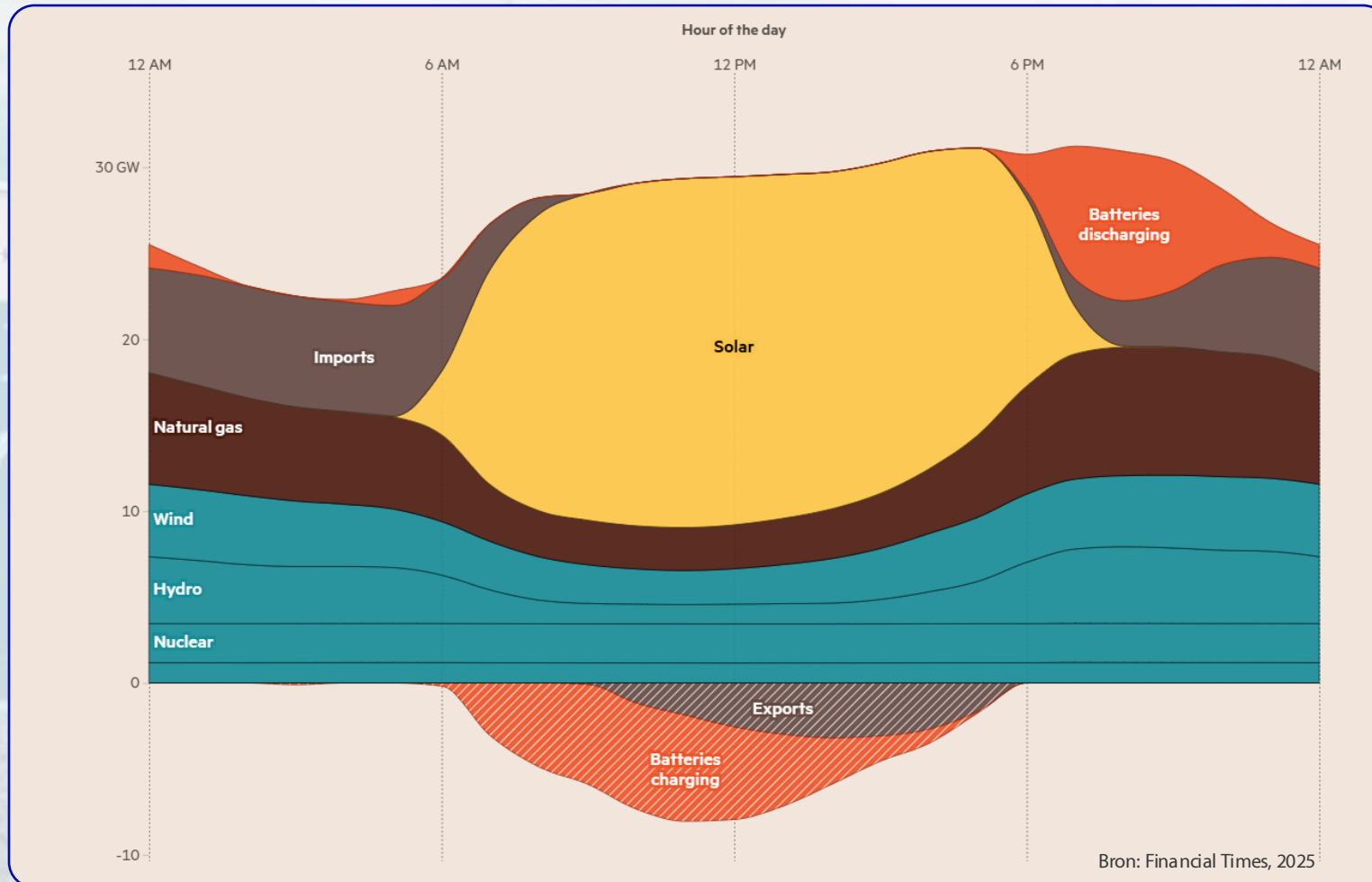
Bron: BloombergNEF, RaboResearch, 2025

Top European BESS markets



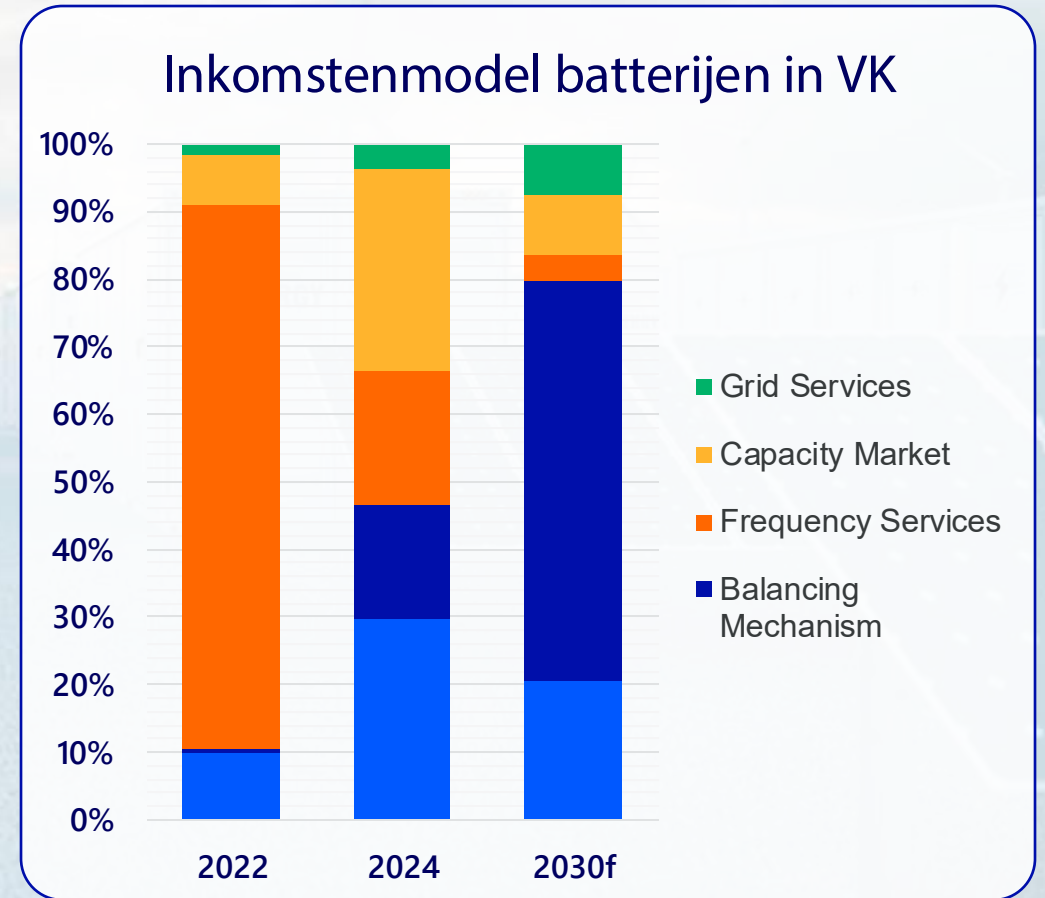
Source: [European Energy Storage Inventory | JRC SES](#) (06/03/2025)

Batterijen als integraal onderdeel van het elektriciteitsnet



Batterijen: Essentieel maar niet zonder uitdagingen

- Opslag beperkt tot een aantal uur
- Grootste deel afkomstig uit China
- Concurrentie op het net neemt toe
- Regulering loopt achter op groei



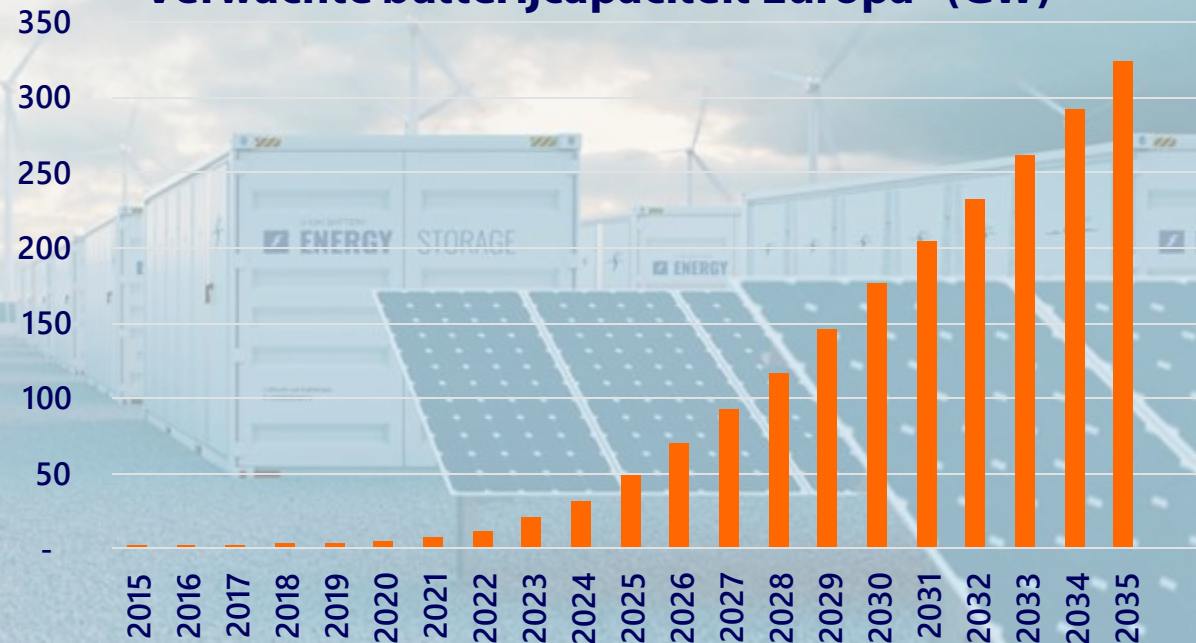
Bron: Financial Times, 2025

*Batterijen zijn een
blijvend onderdeel van
het energiesysteem*

*Technologische ontwikkelingen
en prijsdalingen zullen
doorzetten*

Dit is pas het begin...

Verwachte batterijcapaciteit Europa* (GW)



*: voor en achter de meter

Bron: BloombergNEF, RaboResearch, 2025

Bedankt voor uw aandacht



Coen Hutters

Specialist energietransitie RaboResearch

coen.hutters@rabobank.com

de coöperatieve Rabobank 

Disclaimer

This publication is issued by Coöperatieve Rabobank U.A., registered in Amsterdam, The Netherlands, and/or any one or more of its affiliates and related bodies corporate (jointly and individually: “Rabobank”). Coöperatieve Rabobank U.A. is authorised and regulated by De Nederlandsche Bank and the Netherlands Authority for the Financial Markets. Rabobank London Branch is authorised by the Prudential Regulation Authority (“PRA”) and subject to regulation by the Financial Conduct Authority and limited regulation by the PRA. Details about the extent of our regulation by the PRA are available from us on request. Registered in England and Wales No. BR002630. An overview of all locations from where Rabobank issues research publications and the (other) relevant local regulators can be found here: <https://www.rabobank.com/knowledge/raboresearch-locations>

The information and opinions contained in this document are indicative and for discussion purposes only. No rights may be derived from any transactions described and/or commercial ideas contained in this document. This document is for information purposes only and is not, and should not be construed as, an offer, invitation or recommendation. This document shall not form the basis of, or cannot be relied upon in connection with, any contract or commitment by Rabobank to enter into any agreement or transaction. The contents of this publication are general in nature and do not take into account your personal objectives, financial situation or needs. The information in this document is not intended, and should not be understood, as an advice (including, without limitation, an advice within the meaning of article 1:1 and article 4:23 of the Dutch Financial Supervision Act). You should consider the appropriateness of the information and statements having regard to your specific circumstances and obtain financial, legal and/or tax advice as appropriate. This document is based on public information. The information and opinions contained in this document have been compiled or arrived at from sources believed to be reliable, but no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness.

The information and statements herein are made in good faith and are only valid as at the date of publication of this document or marketing communication. Any opinions, forecasts or estimates herein constitute a judgement of Rabobank as at the date of this document, and there can be no assurance that future results or events will be consistent with any such opinions, forecasts or estimates. All opinions expressed in this document are subject to change without notice. To the extent permitted by law Rabobank does not accept any liability whatsoever for any loss or damage howsoever arising from any use of this document or its contents or otherwise arising in connection therewith.

This document may not be reproduced, distributed or published, in whole or in part, for any purpose, except with the prior written consent of Rabobank. The distribution of this document may be restricted by law in certain jurisdictions and recipients of this document should inform themselves about, and observe any such restrictions.

A summary of the methodologies used by Rabobank can be found on our [website](#).

Coöperatieve Rabobank U.A., Croeselaan 18, 3521 CB Utrecht, The Netherlands. All rights reserved.

Rabobank