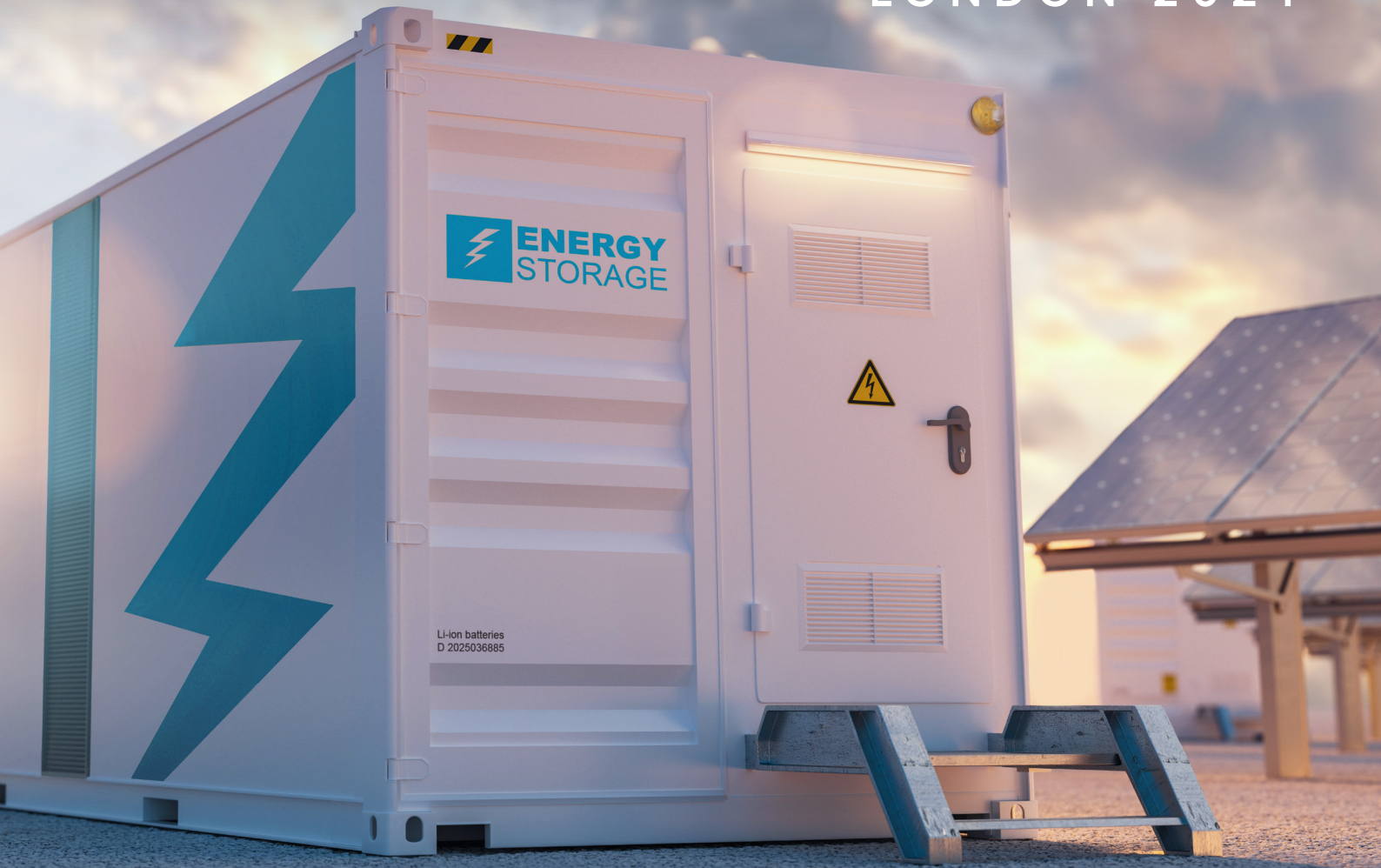


PROGRAMME HIGHLIGHTS

AURORA
Battery Conference

LONDON 2024



CHARGING AHEAD:
UNLOCKING INVESTMENTS IN EUROPE'S
BATTERY STORAGE MARKET

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Dear friends & colleagues,

It was my great pleasure to welcome you to the Aurora Battery Conference 2024.

The context of this conference was the rapid expansion of Battery Energy Storage System (BESS) expected by 2030, creating a significant investment opportunity of 34bn €.

The fundamentals for investment in this market are strong—with BESS helping to integrate the large amount of renewable energy capacity coming onto the system and providing grid services. The conference highlighted markets such as Germany, Italy, and Great Britain as being particularly attractive. The pipeline of projects is huge, and a range of financiers and investors are increasingly active in the sector.

However, there are barriers and challenges. In particular, the cost and availability of grid connections, along with the lack of finalised market and support mechanisms for BESS in some markets, continues to slow deployment.

During the conference, the Aurora team underscored the growing importance of locational value for investment in markets like GB and Italy. Panellists also assessed the benefits of co-locating batteries with renewables as a partial solution for grid buildout delays.

Finally, our panel of industry experts provided an in-depth look into the likelihood of reaching the 20+ GW of battery storage by 2030 in GB, outlined in NESO's recent Clean Power 2030 report. They also provided valuable insights into this target's potential impact on future asset returns.

I hope this highlights pack helps to distil our main takeaways from the day, even though it cannot do justice to the experience of being there and the richness of questions and challenges in the room.

We are incredibly grateful to have been joined by thought leaders from the industry who provided their views on the challenges and solutions needed to achieve renewable ambitions. Many thanks to the following speakers for taking the time to bring their insights to our panel sessions: Alexa Strobel, Axel Thiemann, Christopher Matthews, Fabrizio Fenu, Giuseppe Cicerani, Lucie Kanius-Dujardin, Magdalena Markiewicz, Peter Clifton, and Rebecca Beresford.

We also extend our gratitude to our partners, Clarke Energy and EDF Wholesale Market Services, for their invaluable support in making the event a success.

Lastly, thank you to the team at Aurora, including the panel chairs and keynote speakers, but especially to the Events and Marketing teams, whose commitment, adaptability, and hard work brought this major event to fruition.

We look forward to welcoming you to the 2025 Aurora conferences, and let's keep the conversation going in the meantime!

Richard Howard
Global Research Director, Aurora



AURORA Battery Conference

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Jack Lowe • 2nd
Head of Business Development at Evolution Infrastructure
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1w • 🌐

With NESO's (National Energy System Operator) CP30 and Connections Reform updates published last week, it is an opportune time for [Aurora Energy Research's](#) Annual [#BatteryStorage](#) conference.

Look forward to catching up with the market and discussing the evolving landscape, and how we can support your projects - from 2025 and beyond.

Get in touch if you are attending as well, or have project opportunities to discuss - Evolnra are active on over 2GW of sell-side and/or [#financialadvisory](#) engagements across [#UK](#) [#solarPV](#) and [#BESS](#).



EDF Wholesale Market Services
962 followers
3d • Edited • 🌐

The [Aurora Energy Research](#) Battery Conference in London provided an outstanding platform for insightful discussions and collaboration, and we were thrilled to sponsor and take part in this exciting event!

[Fabrizio Fenu](#), our Head of Business Development at EDF (UK) joined a dynamic panel with [Peter Clifton](#) (Director, National Wealth Fund), [Magdalena Markiewicz](#) (CFO, Eelpower), and [Rebecca Beresford](#) (Director of Markets, National Energy System Operator), moderated by [William Stephenson](#) (GB Flex Lead, Aurora Energy Research).

During the session, the panel tackled key investor pain points and explored how the Route to Market role has evolved over the years. As Fabrizio highlighted, advancing revenue markets demand significant investments in technology and talent—a trend that shows no signs of slowing. Key areas like Quick Reserve, Inertia, and Reactive Power, along with new revenue streams, are rapidly emerging on the horizon.

Key highlights from the panel included:

- ✓ The recent trends in the GB battery storage market, including the emergence of new tolling agreements this year
- ✓ The evolving role of the National Energy System Operator, focusing on the grid connection queue and reducing battery balancing mechanism skip rates
- ✓ The ambitious target of reaching over 20 GW of battery storage by 2030 as outlined in NESO's Clean Power 2030 report and its potential impact on future asset returns

One key takeaway? The need for regulatory clarity and improved connection processes is more crucial than ever to boost investor confidence and accelerate the energy transition.

We'd love to keep the conversation going! Please reach out with any questions or thoughts on battery storage, Route to Market, or emerging revenue streams.

Envinergy
7,250 followers
6d • Edited • 🌐

The [Envinergy](#) team had the privilege of attending the Aurora Battery Conference in London, a pivotal event for understanding the latest advancements and future outlooks in the battery sector. This day allowed us to connect with experts, discuss energy storage challenges, and explore innovations that will shape the future of the energy transition.

Our thanks to [Aurora Energy Research](#) for organizing this inspiring and insightful event, which highlights the critical role of storage solutions in integrating renewable energy and ensuring grid stability. ⚡

[Mihai Bodrug](#) - [Thomas Lefevre](#)



Thomas Lefevre • 3rd+
M&A - Renewable Energy Transaction Manager at Envinergy | CentraleSupélec...
3d • 🌐

It was a privilege to attend the Aurora Battery Conference in London! The event offered valuable insights into the latest innovations in energy storage, its vital role in the energy transition and market potential. I'm excited about the growing opportunities these technologies present for the future of renewable energy and grid stability.

A big thank you to [Aurora Energy Research](#) team for hosting such an insightful event!

[#EnergyStorage](#) [#M&A](#) [#RenewableEnergy](#) [#EnergyTransition](#) [#BatteryStorage](#)



Korkia
3,277 followers
1w • 🌐

This week Korkia representatives [Peter Bolton](#), [Peter Goitanich](#) and [Neil Russell](#) joined the Aurora Battery Conference 2024 in London. This event has grown to be one of the largest energy storage focused events in the UK. Our team enjoyed discussions on the most promising markets for battery energy storage system ("BESS") in Europe and "deep-dives" on the UK. The UK sessions debated how to manage the queue of projects awaiting grid connection, the optimal regions for BESS economics and the range of revenues available. Korkia's development companies continue to accelerate BESS projects through their consenting phases in each of our markets in Europe, North America and South America.

The need for low-carbon energy sources is increasing as society electrifies. This will not only require more electricity generation capacity but also storing capacity related to renewables, such as solar power. Together with our partners we contribute to the transition by delivering high-quality and sustainable projects 🌞 🌊 🌿

[#RenewableEnergy](#) [#PoweringTomorrow](#) [#BESS](#)

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Axel Thiemann • 2nd
CEO at Sonnedix
1w • 🌐

Always a pleasure to attend the annual Aurora Battery Conference, and this year I had the privilege of opening the event.

Thanks to [Richard Howard](#) for a great 'fireside chat', where I shared some of my insights and the [Sonnedix](#) perspective on hybridization and Europe's battery storage market. It feels like we've reached a turning point in 2024, driven by volatility, regulatory activity, and lower capital expenditure.



Fabrizio Fenu • 2nd
Head of Business Development - EDF (UK)
1w • Edited • 🌐

Great to be on the panel with [Rebecca Beresford](#), [Magdalena Markiewicz](#) and [Peter Clifton](#) hosted by [William Stephenson](#) at the [Aurora Energy Research](#) conference yesterday.

We tackled many investor pain points and discussed how the Route to Market role has evolved over the years. As revenue markets advance, adapting to this shift has required significant investments in both technology and talent—and this trajectory shows no signs of slowing, especially with Quick Reserve, Inertia, Reactive Power and new revenue streams on the horizon.

Our main takeaway? Investors and owners are calling for clarity—especially when it comes to regulation and the connection queue. This will be critical for building confidence and paving the way for the energy transition.

[#energytransition](#) [#batterystorage](#) [#energystorage](#) [#netzero](#) [#cleanpower2030](#)



Marios Sourlas • 2nd
Energy Storage Developer | MSc Sustainable Energy System Management
1w • 🌐

Today I attended the Battery Conference 2024 hosted by [Aurora Energy Research](#) in London.

It was a great opportunity to learn about the latest updates in the GB market, explore the risks and benefits of BESS in Southern Europe, and connect with battery experts!

[#Econergy](#) [#AuroraBatteryConference](#)



Dmytro Kuziak • 2nd
RES BESS New Energy Tech | Funding, M&A, Cleantech Space
[Visit my website](#)
1w • 🌐

There is a future for BESS. How it will look like - we can only guess. Thanks to [Aurora Energy Research](#) this guess will be educated.



Advance Climate Solutions
22 followers
1w • 🌐

It was good to attend the [Aurora Energy Research](#) conference on battery storage yesterday in London. More than 500 participants make it to the venue to learn about latest trends and challenges in the industry.

Thanks for organising!

[#AuroraBatteryConference](#)
[#climatechange](#) [#renewables](#)



Adam Wray-Summers CEng FIMechE MEng(Hons) • 2nd
Head of Sustainable Solutions & Resilience at Clarke Energy
1w • 🌐

Packed out event at the [Aurora Energy Research](#) [#BatteryConference](#) today.

Are grid connections, economic expectations, and policy holding back the UK BESS landscape?

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DISTINGUISHED OPENING INTERVIEW AND Q&A

Speaker: **Axel Thiemann**, Chief Executive Officer, Sonnedix
Chair: **Richard Howard**, Global Research Director, Aurora

Opportunities in the battery market are inextricably linked to the development of renewables. The pace of rollout is only continuing to accelerate, with 2 TW of solar capacity now installed globally. However, the intermittency of this generation introduces price volatility – the essential driver of the Battery Energy Storage Systems (BESS) business case. Additionally, grid buildout has not kept pace with the growth in renewables, leading to locational constraints which provide additional value. Add to that decreasing CAPEX, growing availability of capital and increasingly mature supply chains, and the fundamentals start to look very strong for the battery market. Thiemann counts GB, Spain, Italy and Poland among the hottest BESS markets in Europe.

Despite these opportunities, the nascent large-scale storage space has also experienced significant extrinsic volatility in recent years. Challenges such as the financial crisis, low interest rates and high inflation, the Covid-19 pandemic, two ongoing wars, and geopolitical tensions between the US and China have tested market resilience.

In the face of these uncertainties, Sonnedix is developing portfolio resilience through:

- **Contracted Revenue Streams:** Over 90% of Sonnedix's revenues are contracted over the next few years
- **Geographical Diversification:** Europe, Chile and Japan – returns in these markets are reasonably uncorrelated
- **Long-Term Operations:** Securing long-term contracts and making use of asset warranties
- **Innovative Business Models:** Co-location and repowering

Looking ahead, new battery chemistries, such as sodium-based systems, may hold promise. However, Thiemann emphasises the importance of a proven track record before it can be deployed at scale – a perennial “catch-22” in the industry.

Regarding Long Duration Energy Storage (LDES), Howard notes that phasing out unabated gas is necessary for the economics to work out. Thiemann agreed, adding that the longer duration makes the business case for LDES much more complex than that of short-term, short-duration storage.

Provided projects can get through the grid connection queue, the future for BESS looks bright.

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AURORA KEYNOTE

BESS IN SOUTHERN EUROPE: HOW TO NAVIGATE RISKS AND FIND VALUE

Speaker: Maddalena Cerreto, Senior Associate, Aurora

In this keynote, Southern Europe was highlighted as a promising region for Battery Energy Storage System (BESS) investments, with Italy emerging as a top market for investors.

Italy has set an ambitious target of delivering 58 GWh of battery capacity by 2030. Coupled with favourable merchant project internal rates of return (IRRs), this makes Italy the most attractive market in Southern Europe and the second most attractive in Europe overall. The session explored three routes to market for BESS investments: merchant, contracted (via Electricity Storage Capacity Procurement Mechanism (MACSE)), and hybrid business models—each offering different revenue potential, regulatory considerations, and investment risks.

The key factors determining which business model has the highest potential are asset location, technical configurations, stacking opportunities, and resilience to downside scenarios. Asset location is crucial for merchant operations, as revenues depend on the price zone, with southern regions and islands offering higher energy arbitrage opportunities. Stacking is limited in a fully contracted (MACSE) model, with only 20% of ancillary service revenues permitted to be stacked on top of contracted revenues. While merchant business cases result in higher project profitability, MACSE's 15-year contracts provide protection against downside scenarios, ensuring high bankability.

Key highlights included:

- Italy's Transmission System Operator (TSO) projects a significant increase in BESS capacity, from 7.4 GWh to 58 GWh by 2030, with most of this concentrated in Southern Italy.
- Three routes to market—merchant, contracted revenues (MACSE), and hybrid models—offer varying degrees of risk and profitability.
- Southern regions and islands present higher IRRs, driven by higher renewable demand and more favourable market conditions.



Click [HERE](#) to view the presentation

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PANEL DISCUSSION

CATCHING THE NEXT WAVE OF BATTERY ENERGY STORAGE INVESTMENTS IN EUROPE

Chair: **Eva Zimmermann**, Senior Associate, Aurora

Speakers: **Alexa Strobel**, Head of Strategy & Analysis, Field
Christopher Matthews, Chief Commercial Officer, Matrix Renewables
Giuseppe Cicerani, Head of Business Development Energy Storage, Enel Green Power
Lucie Kanius-Dujardin, Global Managing Director, NHOA Energy

The panel explored the evolving landscape of Battery Energy Storage System (BESS) investments across Europe, drawing lessons from Great Britain's success in pioneering capacity market auctions for batteries. Discussions highlighted regulatory hurdles, grid constraints, and shifting market dynamics, with Italy and other emerging markets showcasing both opportunities and challenges. Panellists emphasised the importance of navigating these complexities to unlock the next wave of investments, particularly as projects scale in size and sophistication.

While regulatory delays are slowing deployment in markets like Italy, they are also laying the groundwork for long-term growth. Strategies for market entry, site selection, and partnership development were central themes, with a focus on aligning investments with market fundamentals and evolving revenue streams, including load-shifting and locational balancing.

Key highlights included:

- **Regulatory hurdles:** In Italy, 72 GW of storage applications face bottlenecks, with only 7 GW authorised, emphasising the need for regulatory clarity. Panellists highlighted that the regulatory backlog is slowing progress but also pointed to the long-term benefits of a more structured, regulated market that could unlock substantial future capacity once the barriers are cleared.
- **Scaling projects:** Developers are moving towards multi-gigawatt BESS projects, offering diversified revenue streams but requiring more complex financing and planning. Panellists discussed the need for innovative financing models, risk management strategies, and long-term partnerships to support these larger ventures, while also addressing the challenges posed by site design, planning, and grid connections.
- **Emerging markets:** Smaller markets, such as Belgium, offer profitability and growth opportunities, while larger markets like Germany remain attractive for their stability and depth. Panellists noted that these emerging markets often come with unique regulatory challenges, but their profitability and potential for growth make them valuable targets for developers looking to expand their portfolios.

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AURORA KEYNOTE

DOWN TO THE WIRE(S): HOW CAN GRID DEPLOYMENT MAKE OR BREAK A BESS INVESTMENT CASE IN GB?

Speaker: Nick Civetta, Senior Associate, Aurora

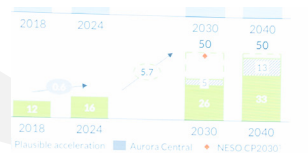
"Battery siting near transmission constraints enables higher returns, but the interplay of renewable ambitions and grid delivery timing is a key risk factor for the decade ahead."

This keynote explored the rapidly evolving economics of Battery Energy Storage System (BESS) in Great Britain, offering a comprehensive analysis of the interplay between renewable energy deployment, grid constraints, and locational value for batteries. With ambitious 2030 targets driving renewable energy growth, the role of BESS in stabilising the grid and optimising energy flows has become increasingly critical. The discussion evaluated how BESS investments perform under scenarios of varying grid development timelines and renewable capacity growth.

Key to the session was the concept of locational value—how the profitability of BESS storage is influenced by its geographic placement. The keynote revealed significant shifts in locational value over time, influenced by renewable energy hotspots, evolving demand centres, and the pace of grid infrastructure upgrades.

Key highlights included:

- Locational Value Dynamics:** North Scotland currently offers the highest locational value for batteries due to its concentration of renewable generation and significant grid constraints. However, as grid infrastructure evolves and demand centres in the south gain importance, South England is projected to emerge as the more profitable region for BESS siting by the 2030s.
- Renewable Growth Risks:** Rapid deployment of renewable energy increases the volume of constrained generation, creating opportunities for batteries to capture higher returns. However, this heightens the risk of wholesale price cannibalisation, where oversupply of renewable energy suppresses market prices. Without parallel investments in grid upgrades, this could limit the long-term profitability of BESS assets.
- Grid Infrastructure Challenges:** Timely delivery of grid enhancements is essential to enable smooth integration of renewables. Delays in grid projects exacerbate existing constraints, providing short-term boosts to locational value for BESS but threatening long-term stability and growth in the market.



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PANEL DISCUSSION

WHERE NEXT? FINDING WAYS TO GET AHEAD IN GB'S BESS MARKET

Chair: **Will Stephenson**, Senior Associate, Aurora

Speakers: **Fabrizio Fenu**, Head of Business Development, EDF
Magdalena Markiewicz, Chief Financial Officer, Eelpower
Peter Clifton, Director, Banking & Investments, National Wealth Fund
Rebecca Beresford, Director of Markets, NESO

The battery storage sector in Great Britain is one of the most mature in Europe, with nearly 5 GW of installed capacity and a robust pipeline waiting to connect to the grid. As competition intensifies, developers must 'get-ahead' to ensure successful project delivery.

The panel discussed the outlook for the battery storage market in GB, covering the emergence of tolling agreements, the role of the National Electricity System Operator (NESO) in addressing market inefficiencies and the capacity required to achieve a "Clean Power" system.

Key highlights included:

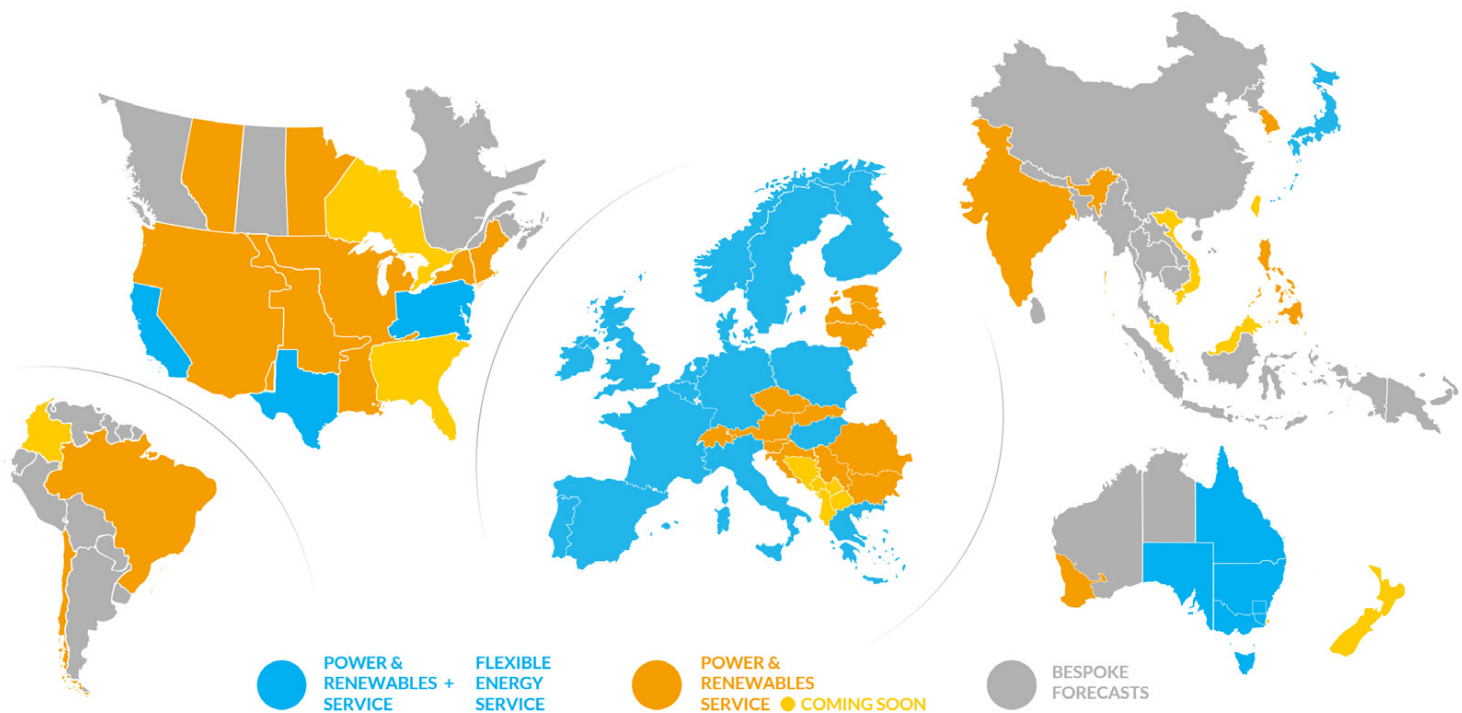
- **Sophistication of the GB Market:** Magdalena Markiewicz (Eelpower) stated that the GB market remains the most sophisticated and attractive in Europe, with limited downside risk from market saturation due to the sufficient depth of the wholesale market.
- **Evolving Business Models:** Fabrizio Fenu (EDF) echoed Markiewicz's view of the GB market and explained the evolving role of route-to-market providers. He noted that whilst frequency response markets may have saturated, business models have pivoted to focus on energytrading revenues.
- **NESO's Clean Power Vision:** Rebecca Beresford (NESO) summarised the findings from the recent Clean Power 2030 report published by NESO. The outlook includes a clear role for battery storage in balancing the grid, with over 20 GW of installed capacity by 2030.
- **Mitigating Competitive Pressures:** Peter Clifton (National Wealth Fund) warned that high competition in the battery market, as forecasted in NESO's scenarios, could impact asset returns. However, tolling agreements, like those that have emerged this year, could help de-risk battery investments and bring alternative sources of capital into the market.



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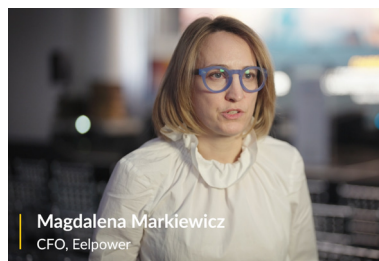


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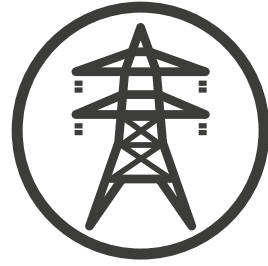


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Get in touch: Alex Hutcheson, Senior Commercial Associate
alex.hutcheson@auroraer.com

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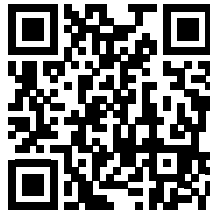
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