

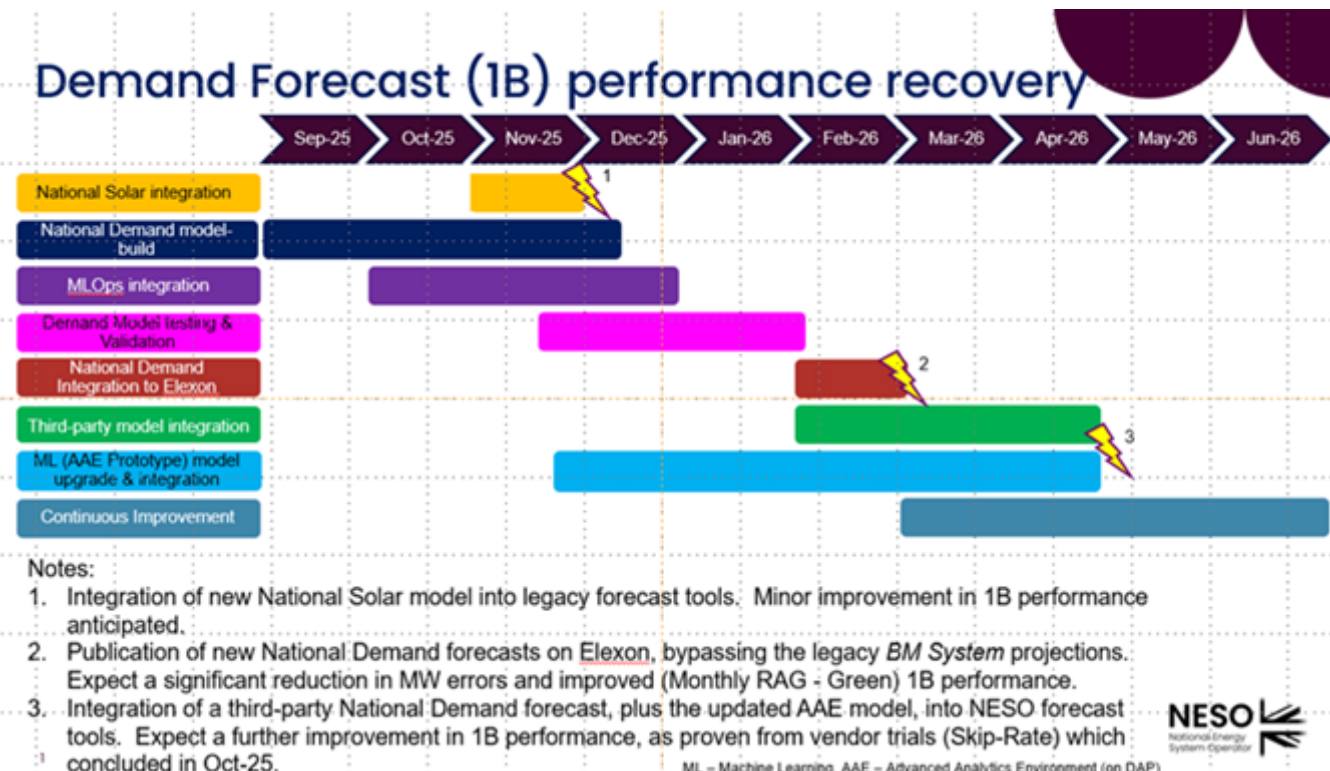
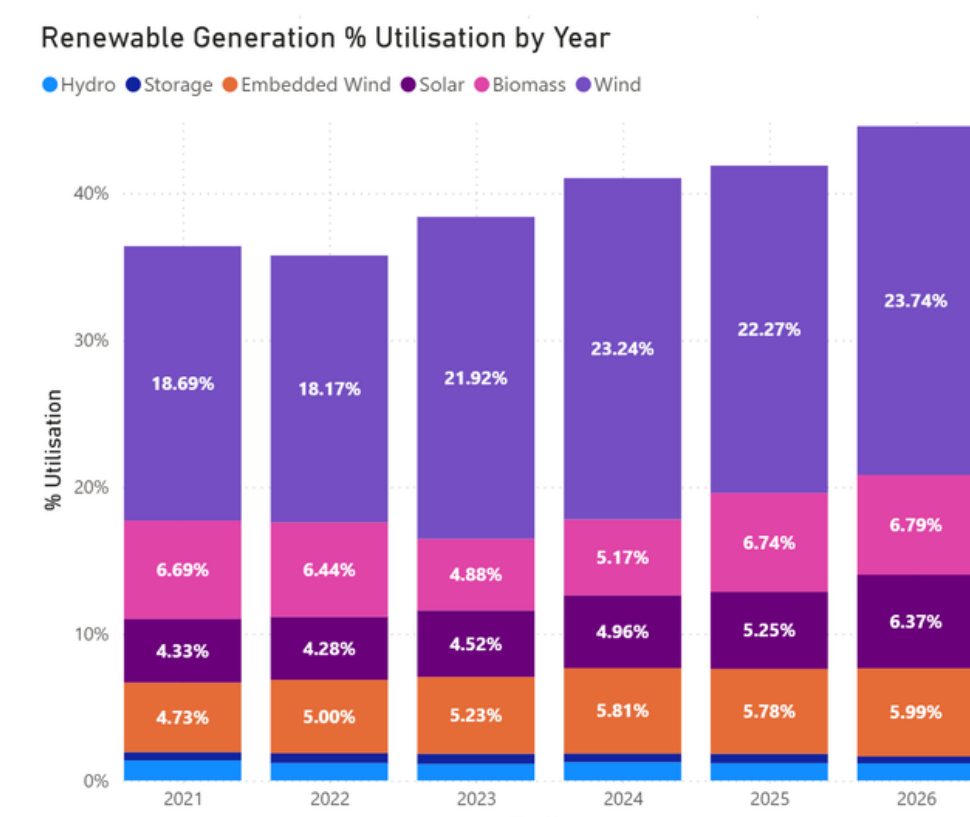
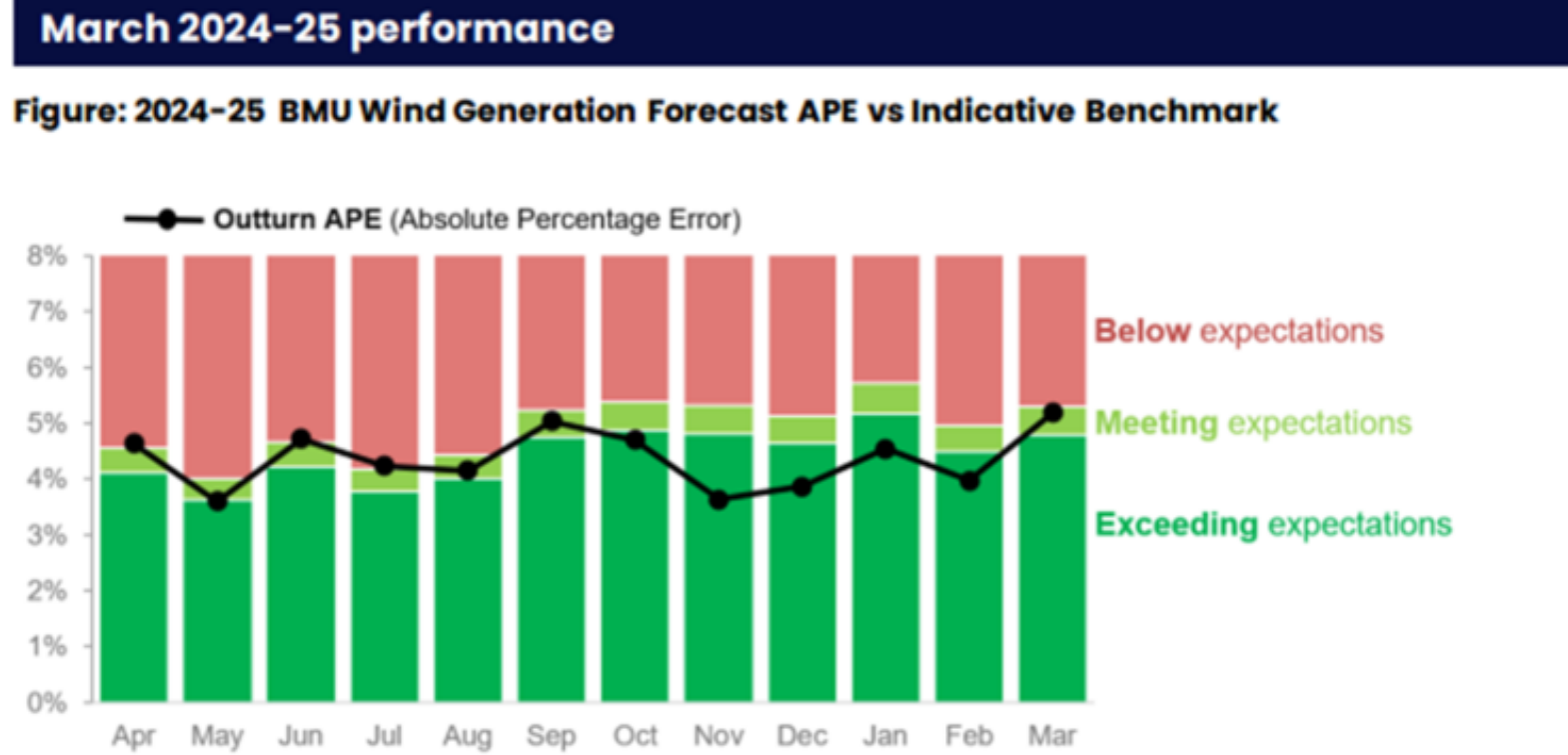


Welcome to our Forecasting and Predictions Capability Journey

RTP Demo screenshot from November event

Key:

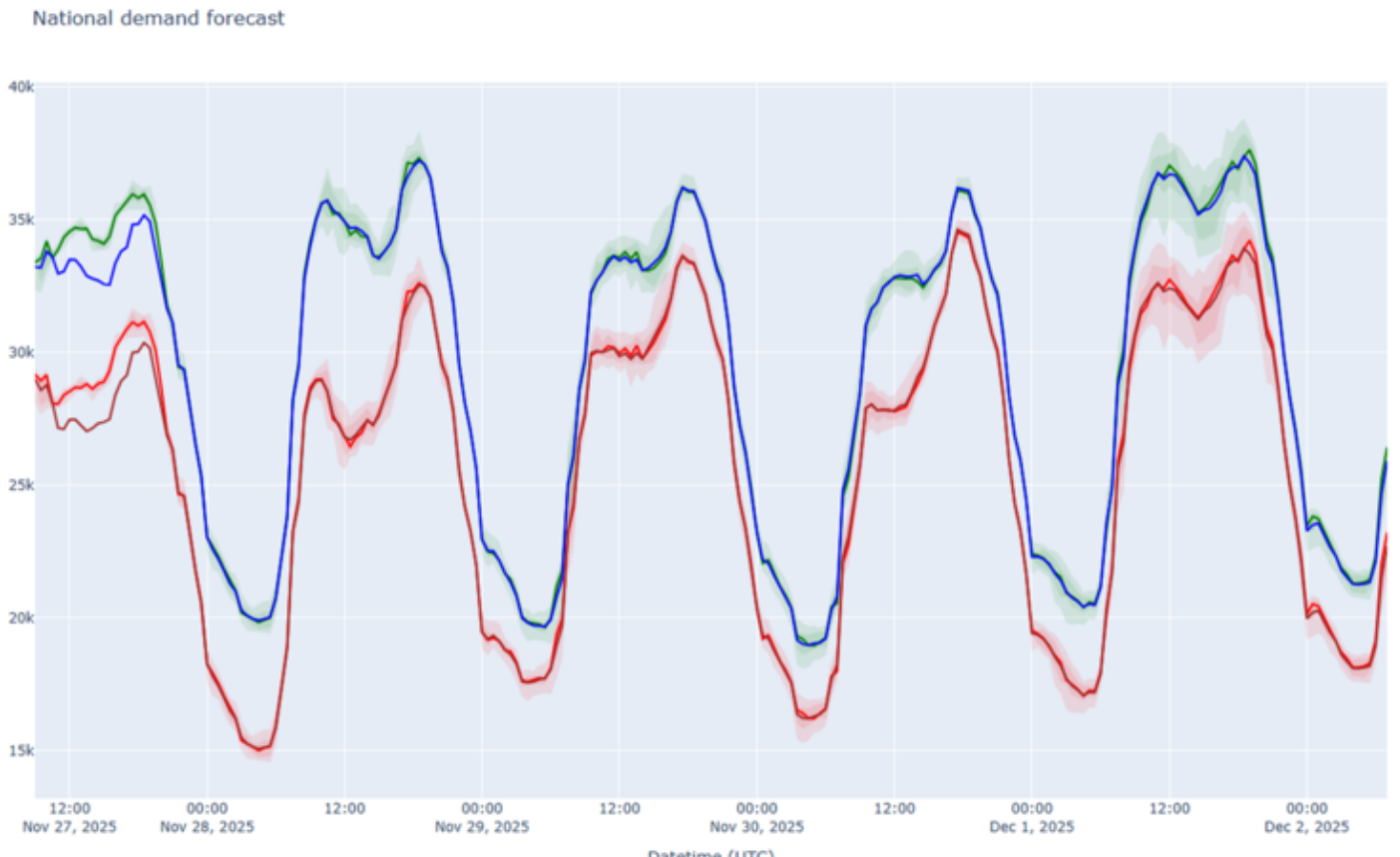
- Drive Consumer Value
- Deliver a Secure, Resilient & Operable Energy System
- Pave the Way to Sustainable Energy
- Lead as a Trusted Expert
- Digital Enabler



New demand forecasting tool



New model progress



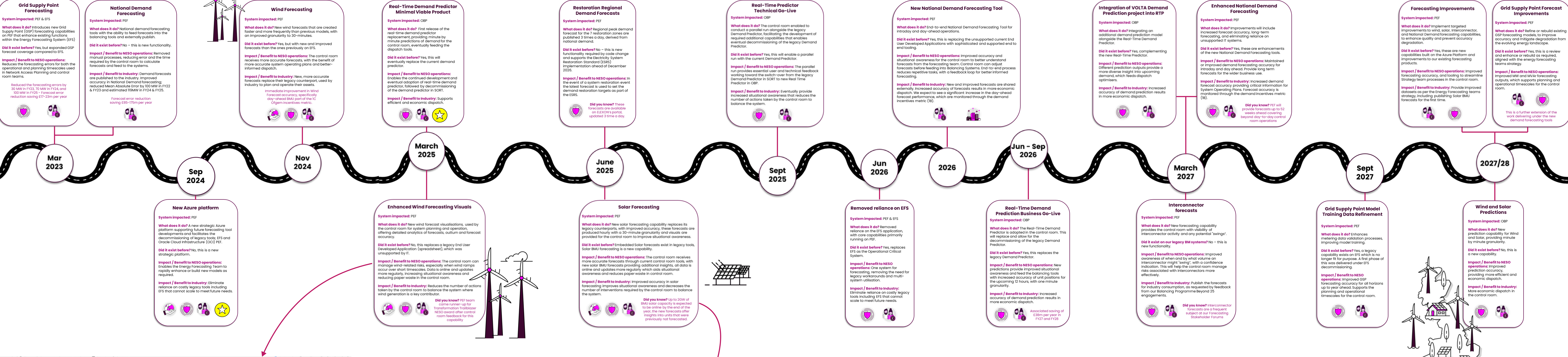
START

2023- What did the world look like?

- Energy Environment:**
 - Demand profile increasingly sensitive to increased penetration of renewable energy resources
 - Market volatility increasing due to changes in market and consumer pricing both in UK and Europe affecting demand profiles
 - Post COVID demand patterns no longer follow traditional trends

- ENCC Balancing & Forecasting Systems:**
 - Increased forecasting error across all production, Wind, Solar, National and GSP (MW and MVA) Demand
 - Increasing forecast error driving higher balancing costs
 - Day-ahead forecasts (Wind and Demand) with increased error are published to the industry

- Drivers of transformation Inc. Customer Voice:**
 - Legacy hard-coded IT systems lack the scalability and flexibility required for modern operations
 - Reliance on grey-IT to bridge gaps left by outdated infrastructure
 - Statistical models are limited by insufficient weather datasets and the absence of AI and Machine Learning capabilities for regular retraining and continuous improvement



End of NESO 1

2028 - Where will we be after NESO1

- ENCC Balancing & Forecasting Systems:**
 - Aligned with our published forecasting strategy, we have transformed our approach to energy forecasting
 - Developed advanced forecasts and models leveraging richer, more diverse datasets
 - Integrated AI and Machine Learning for dynamic modelling, regular retraining, and continuous improvement
 - Implemented flexible and scalable forecasting technologies to meet current requirements and adapt to future needs

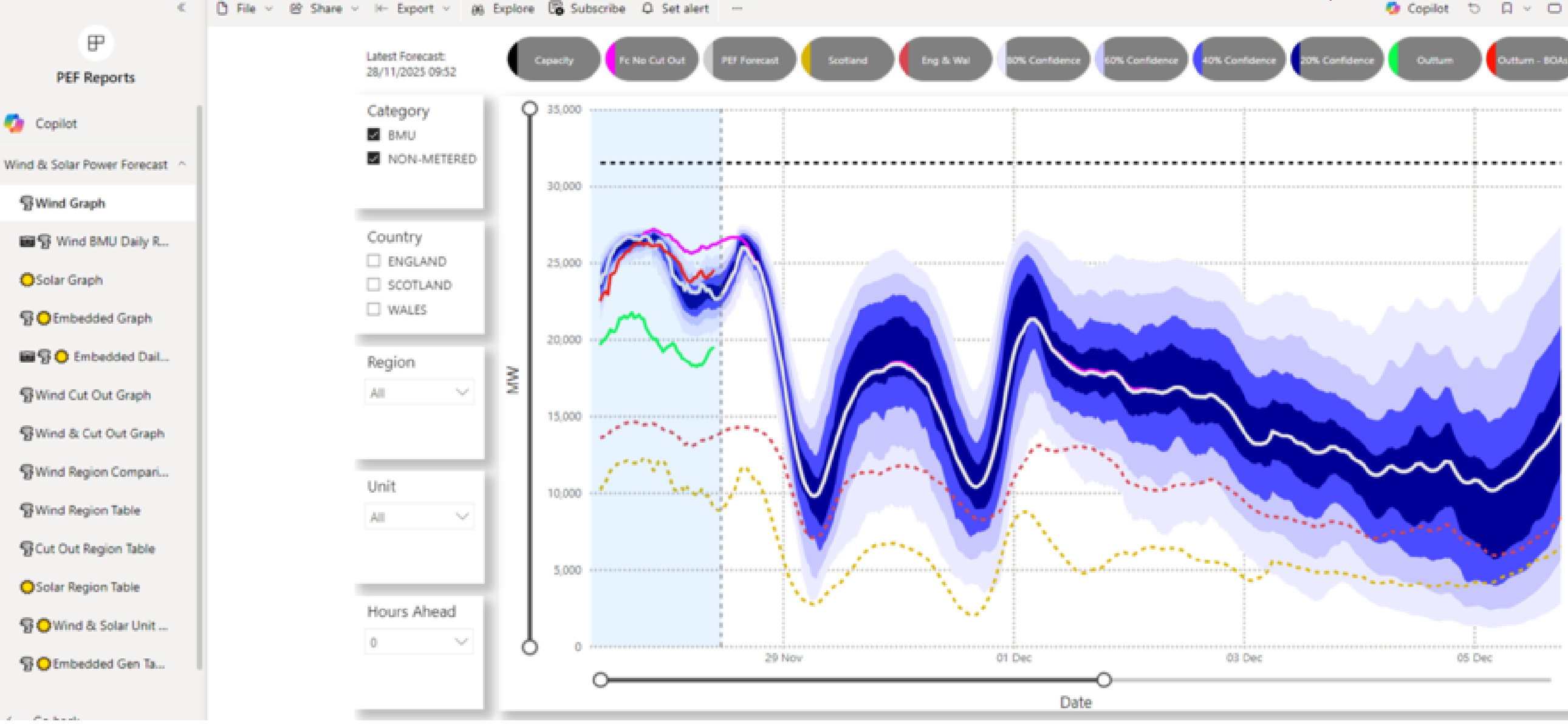
- Control Room Experience:**
 - Improved situational awareness through adaptive, intelligent forecasting tools
 - Delivered granular predictions that feed optimisers for more efficient and cost-effective dispatch
 - Reduced forecasting errors by continuously adapting to the evolving energy landscape, resulting in lower balancing costs

Dispatch Strategic Review

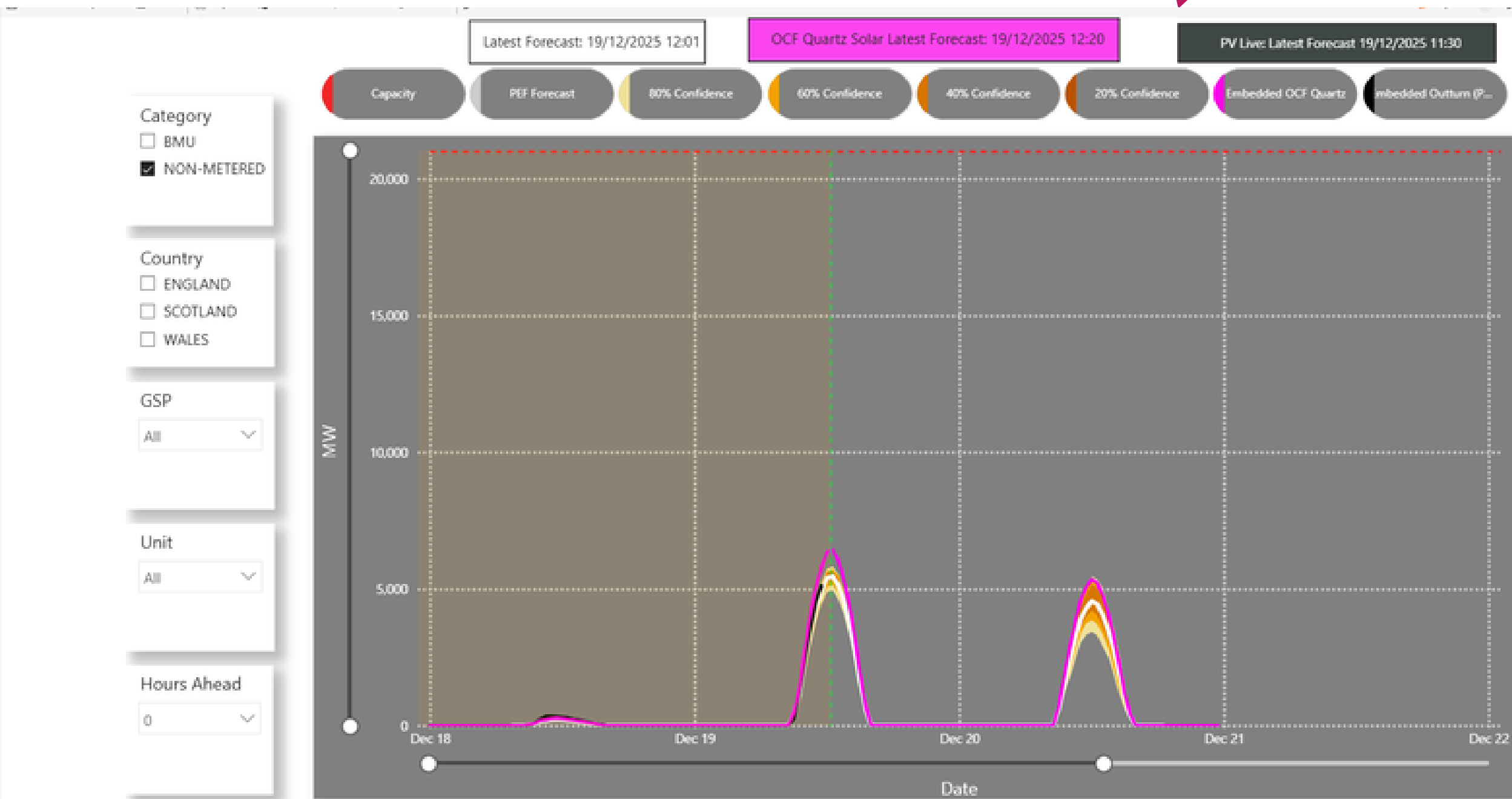
NESO commissioned an independent review of Control Room processes, systems & operational model associated with energy scheduling and dispatch.

Key Aim: Recommend changes to tools, processes or operating model to make the ENCC ready to meet 2030 energy system challenges.

Recommendations in the Forecasting & Predictions space where OBP is the Enabler	Activity already underway?	Activity
Increase the cadence of forecasts entering the control room	✓	Wind Forecasting (FY25 Q3), Solar Forecasting (FY26 Q2), New Demand Forecasting Tool (FY26 Q4), Interconnector forecasts (FY27 Q4)
Deploy reinforcement learning models to provide feedback on forecasts entering the control room	✗	TBC



PowerBI wind visuals - March 2025 Enhanced Wind Forecasting Visuals



PowerBI solar visuals - June 2025 Solar Forecasting

