

# Weathering Uncertainty: Operational Forecasting Innovations for Australia's Energy Transition

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As the energy transition evolves, Australia's supply and demand mix becomes increasingly more influenced by weather patterns, introducing new risks and uncertainties to Operational Forecasting. Traditional forecasting methods are insufficient to address this growing complexity. Instead, embracing innovative tools and initiatives is crucial.

In collaboration with The Bureau of Meteorology, Operational Forecasting at AEMO have implemented a solution that integrates various weather scenarios into the forecasting process. By considering each of these alternative outlooks, we can assess and quantify the operational impacts of different scenarios. This approach enhances our situational awareness and preparedness, enabling us to mitigate risks by addressing the underlying uncertainties driving these systems.

This presentation will detail the collaborative efforts with The Bureau of Meteorology to create this solution, the methodologies employed to integrate multiple weather scenarios, and the benefits realised in terms of improved operational forecasting. We will also discuss the practical implications of this approach, demonstrating how it provides a more robust framework for managing the inherent uncertainties in Australia's energy landscape. By leveraging this innovative forecasting method, we aim to minimise risks and ensure a more reliable and resilient energy supply.