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ENERGY MARKET Newsletter

ACIL ALLEN

The Nelson National Energy Market Review

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Recent pipeline investments committed to by APA

APA Group has announced a five-year, $75 million East Coast Gas Grid (ECGG) Expansion Plan

The influence of market intervention on retail electricity prices

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What is ACIL Allen's NEM Reference Case?

The Reference case projection is a market outlook of the National Electricity Market (NEM)

Trends in the sector: What we have seen

For over two decades, our expertise in energy market modelling has evolved, notably so over the past 10 years with a focus on helping clients understand the nuances of the electricity grid/network, undertaking Marginal Loss Factor (MLF) and network congestion studies.

Our energy market advice is characterised by deep sector understanding as well as market leading quantitative analysis, greenhouse gas policy, regulatory frameworks, renewable energy development, and climate change mitigation and adaptation policies. This expertise has cemented our role in assisting AEMO with its annual MLF verification process. Initially serving the private sector with market analysis and pricing, our capabilities have broadened significantly.

We now offer comprehensive services, including MLF, congestion, and Cost-Benefit Analysis/Regulatory Investment Test for Transmission (CBA/RIT-T) modelling, addressing diverse energy market challenges. Our client base has continued to expand, encompassing government bodies, regulators, and transmission proponents, allowing us to analyse policy impacts and support infrastructure projects.

A recent focus involves modelling Battery Energy Storage System (BESS) financial performance. For a solar developer, we compared DC-coupled and AC-coupled PV-BESS configurations, factoring in FCAS co-optimisation, storage duration, MLFs, and degradation rates. We also conducted network site selection studies, optimising BESS locations based on MLF and grid congestion.

This expansion has broadened our service offerings, better meeting client needs in the dynamic energy sector. We've learned that decades of sector knowledge enable successful pivots, even with new clients and tools. Flexibility and a "can-do" mindset are key. Moving forward, we'll maintain close sector connections, refining our modelling tools and approaches, including market, network, ACCUs/Safeguards, and RIT-T modelling, to address emerging opportunities and challenges faced by our clients.

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The Nelson National Energy Market Review: Our take

In November 2024, the Australian government initiated a crucial review of the National Electricity Market (NEM), appointing Associate Professor Tim Nelson to lead the investigation. The panel, including Paula Conboy, Ava Hancock, and Phil Hirschhorn, sought public submissions from December to February, aiming for a draft report in the third quarter of 2025.

Nelson, speaking on the EnergyInsiders podcast, stressed the need for "actionable recommendations" for swift implementation, prioritizing practicality over lengthy, complex reforms. He proposed a framework focusing on incentives for essential market services: bulk energy, shaping (intra-day smoothing), and firming (long-duration reliability).

A key consideration is sustaining incentives for new bulk energy supply when CIS and LTESA contracts roll-off. The consultation paper explored potential certificate schemes among other options.
For shaping and firming, the review is examiningoptions including expanding the Retailer Reliability Obligation, introducing a capacity price signal, and evolving the current energy-only market.

Nelson highlighted the intricate relationship between wholesale, contract, and retail markets, addressing consumers' desire for price stability amidst increasing volatility. The review also explores how consumer energy resources, such as rooftop solar and batteries, can participate in and benefit from wholesale market signals, including through intermediaries.

This comprehensive review tackles complex issues beyond traditional wholesale market design, including decarbonization and the interaction between retailers and consumers. Given the broad scope, formulating coherent proposals and securing political support will be a formidable challenge. We will be watching with a healthy dose of scepticism.

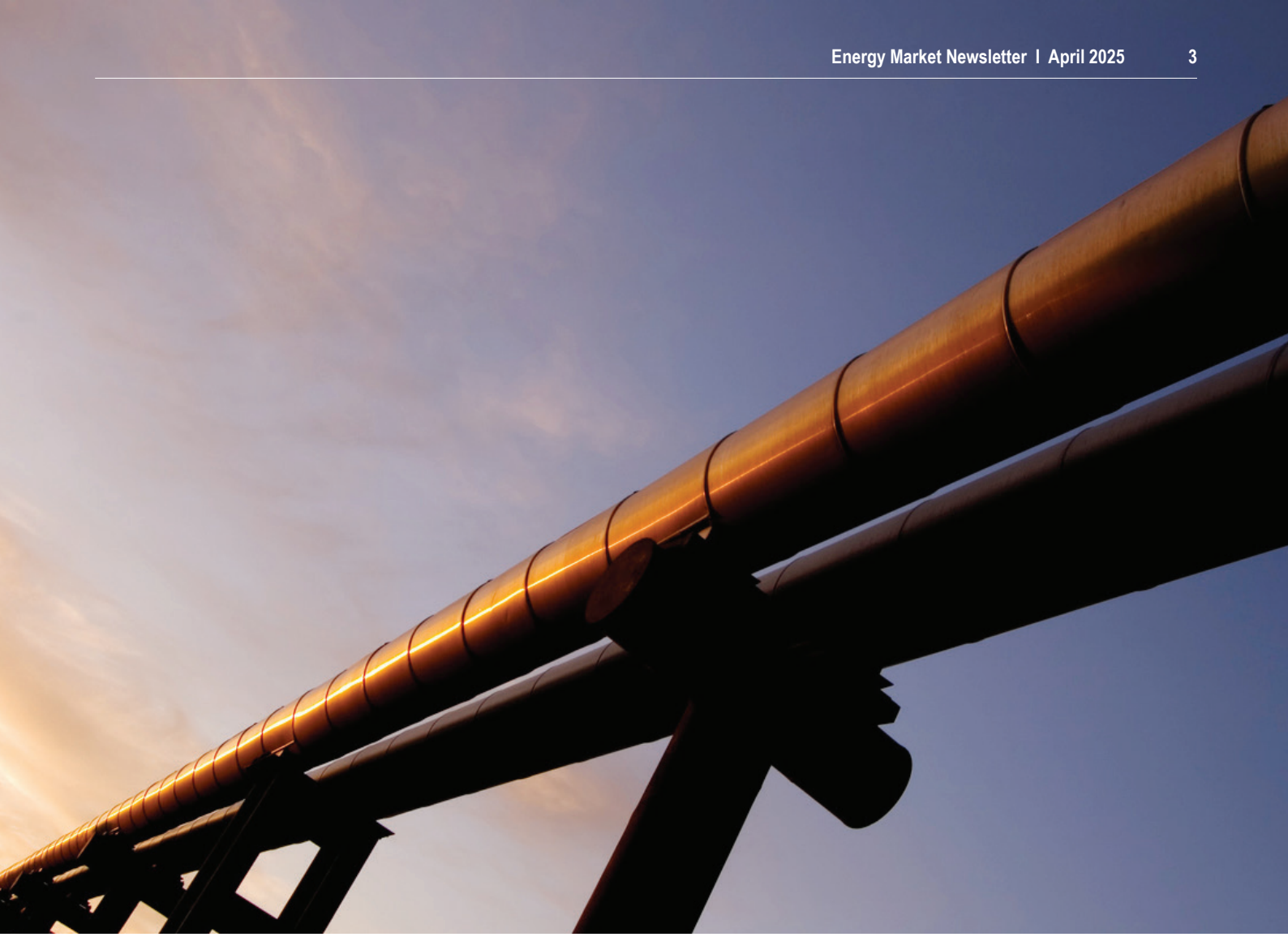
The influence of market intervention on retail electricity prices

The Australian Energy Regulator (AER) released its draft 2025-26 Default Market Offer (DMO) on March 13, 2025, setting maximum electricity prices for standing offer customers in NSW, SE QLD, and SA. The DMO also serves as a benchmark for comparing retail offers. The 2025-26 DMO has received a fair degree of attention given its draft and final determinations straddle the upcoming Federal election with the final determination to be released in late May. Electricity prices are once again featuring heavily in the current political campaigns of the major parties.

The DMO price, along with retail electricity prices, consists of several components that reflect the costs incurred by retailers in supplying electricity to customers. These components include wholesale energy costs, various environmental scheme costs, transportation costs (transmission and distribution), other costs (such as market fees) and a retail margin. The largest component is the Wholesale Energy Cost (WEC), making up approximately 40-45 per cent of the total retail electricity price.

The AER, as part of its DMO determination process, engages ACIL Allen to assist with estimating the WEC. We have been providing this service for the past six years. The WEC is primarily driven by futures contract prices, residential and small business demand profiles, and spot price outcomes. Current futures market trends suggest that the WEC component of retail electricity prices may well remain at the current elevated levels until June 2028.

Recent political interventions, such as fuel price caps and gas reservation policies, aim to lower electricity costs. However, due to retailers' hedging practices, these interventions are unlikely to impact retail bills for 12-18 months. Furthermore, futures prices have not decreased despite these policy announcements, indicating that any effects on consumer bills will likely be delayed until mid-term of the next federal government. You can read more about this at this link.



Recent pipeline investments committed to by APA: What does it mean?

APA's Investment in the East Coast Gas Market (ECGM)

APA Group has announced a five-year, $75 million East Coast Gas Grid (ECGG) Expansion Plan, building on previous investments to increase north-to-south gas transport capacity by 24% and develop southern market storage. This plan addresses AEMO's warnings of potential gas shortfalls in the ECGM, particularly impacting southern states.

The Rationale for APA's Investment

AEMO has highlighted the risk of insufficient gas supply to meet demand. APA's investment aims to mitigate these shortfalls by enhancing pipeline capacity, facilitating the flow of northern gas reserves to southern markets. APA emphasizes the vast northern gas reserves, advocating for pipeline expansions over LNG imports to ensure domestic energy security and avoid exposure to volatile global markets. They believe their investment will unlock northern supply, negating the need for LNG.

What This Might Mean for the ECGM

AEMO's latest report indicates a slight delay in projected shortfalls until 2028, partly due to APA's expansion. While APA's investment and other developments improve near-term supply, long-term projections suggest LNG imports will still be necessary from the late 2020s and especially heading into the 2030s. Declining production from key suppliers and increasing demand pose significant challenges. Despite APA's efforts, LNG terminals at this stage remain crucial to meet future demand, ensuring long-term ECGM stability.

You can read more about this in our latest Insight article from Michael Symes here.

Read more

What is ACIL Allen's NEM Reference Case?

The Reference case projection is a market outlook of the National Electricity Market (NEM), reflecting current market conditions including any recent changes such as supply and retirements, change in fuel costs, change in demand, government policy and interconnector upgrades.

The Reference case incorporates the **best information** available to ACIL Allen **at the time that the case is developed**. All assumptions used in the modelling are taken from publicly available or in-house information and **databases maintained** by ACIL Allen.

The Reference case is modelled at an hourly resolution using ACIL Allen's in-house simulation model, PowerMark. The market projection covers the calendar years 2025 to 2040, and spot years out to 2050 (at five-year intervals).

Inputs

- Macro-economic variables
- Electricity demand
- Electricity supply
- Federal and state based schemes/policies
- New entrant capital costs
- Fuel prices
- Newtwork constraints
- Marginal loss factor (MLF)

Powermark

- Linear Program Dispatch Engine (representation of NEMDE)

Outputs

- Projected electricity prices
- Projected regional and NEM generation capacity and dispatch
- Renewable share of generation in the NEM and regions
- Projected regional and NEM combustion emission
- Projected interconnector flows
- Results for individual project

NEM Reference case subscription

Given the rapid pace of change occurring in the NEM, including regular policy changes made by state and federal governments, we update our Reference case once a quarter. Several of our clients see value in subscribing to our quarterly updates allowing them keep track of the impact changes in policy or market fundamentals have on NEM outcomes.

What are deliveries expected to get from the NEM Reference case subscription?

Client Results workbook

A detailed Excel workbook which provides the Reference case modelled results at an annual, quarterly and monthly resolution

National Electricity Market outlook summary report

A Powerpoint summary report that presents the key assumption changes and main results

National Electricity Market outlook report

A comprehensive Word report detailing the input assumptions, methodology and results of our Reference case projection, including an informative commentary on the market projections.

How to subscribe the NEM Reference case?

To subscribe and stay up with our latest insights, please email us at **info@acilallen.com.au**