

# Is the NEM broken? Policy discontinuity and the 2017-2020 investment megacycle

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**Abstract** The recent history of Australia's National Electricity Market (NEM) from 2012-2017 has been problematic with sudden coal plant closures, a tight domestic gas market and sharply rising electricity prices. The supply-side response that followed from 2017-2020 was an investment megacycle – 12000MW of plant commitments comprising \$20+ billion across 105 projects – most of them Variable Renewables. Problems emerged including entry lags, connection delays, system Frequency careering outside normal bands, failing system strength, rising Frequency Control Ancillary Service costs and increasing Operator interventions in the security-constrained dispatch process. Market institutions were caught out. Yet instead of identifying and addressing urgent problems, a suite of market redesign proposals emerged which focus on future investment and Resource Adequacy. In this article, we analyse recent NEM performance and find all pressing issues relate to real-time power system security, not Resource Adequacy, and reflect a Rate of Change problem stemming from record levels of simultaneous (asynchronous) new entry. Resolution requires establishment of 'missing markets' to restore power system resilience. Fundamental market redesign is a distraction – it may well become necessary but there is no united agreement as to why this is the case nor when it is required. As it stands, no reform proposal comes even close to resolving the NEM's existing, and pressing, problems.

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