Missing money, missing policy and Resource Adequacy in Australia's National Electricity Market

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Abstract From 2012-2017 more than 5000MW of coal plant exited Australia's National Electricity Market (NEM). The average plant exit notice period was 5.2 months. Exit at scale peaked just as imbalances in the market for natural gas emerged. Compounding matters were Variable Renewable Energy (VRE) plant entry lags due to policy discontinuity in prior periods. By 2016/17, the culmination of coal plant exit, gas market imbalances and VRE entry lags produced more than 20 Lack of Reserve events across the NEM, three blackouts including a black system event in the South Australian region. Spot and forward electricity prices rose to record levels, viz. \$90-\$130/MWh compared to an historic average of \$42.50. In this article, the lead-up to these abnormal trading conditions are traced back to policy decisions a decade earlier in the markets for electricity, natural gas and renewable energy. Lessons for other energy markets undergoing transformation include i). transparency over lumpy plant exit decisions, ii). climate change policy stability, and iii). clear policy limits to gas export capacity vis-à-vis domestic supply.

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