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The Australian energy market and reform implications

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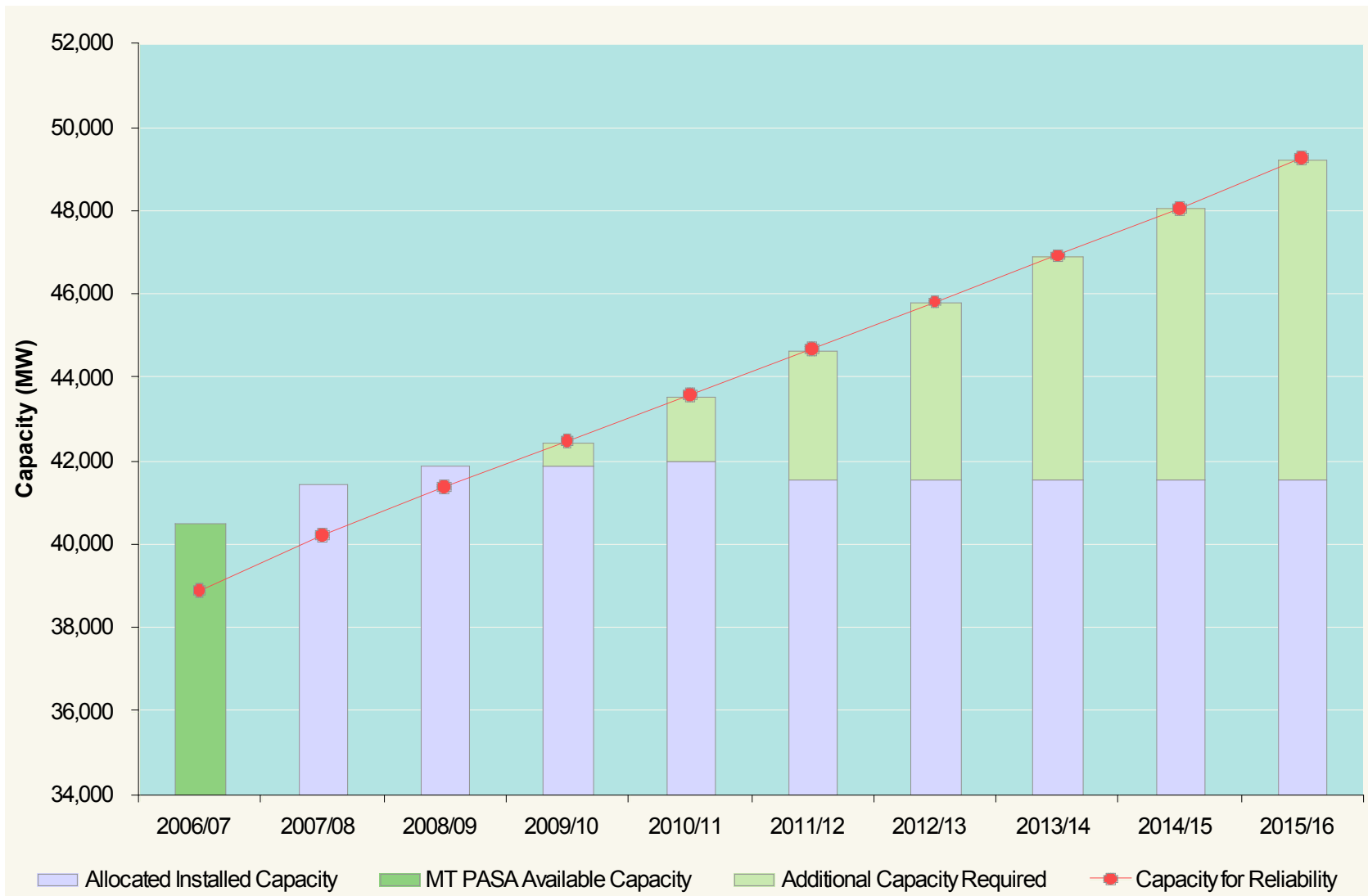
- **Electricity & gas supply / demand trends**
- **Energy market reforms**
- **Carbon emissions trading**
- **Energy price implications**



Electricity & gas supply / demand trends



2006 SOO: NEM-wide outlook



2006 SOO: Supply-demand balance low reserve condition points

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Region	2006 EBD* LRC Point	2006 EBD Reserve Deficit
Queensland	2009/10	244 MW
New South Wales	2010/11	327 MW
Victoria and South Australia (combined)	2008/09	136 MW
South Australia	2007/08	92 MW
Tasmania	Beyond 2015/16	

Notes:

- The 2007 SOO will be publicly released on 31 October 2007. It will contain new estimates.
- *EBD refers to the 2006 SOO Executive Briefing Document that uses the current minimum reserve levels.

- **Eastern Australia expected to be self sufficient in gas until 2012-13, with supply deficit being made up from imports of LNG ... probably from WA's NW Shelf**
 - **The two largest gas basins in eastern Australia (Gippsland and Cooper-Eromanga) expected to decline over the period to 2029-30**
 - **Otway basin and coal-seam gas (largely Queensland) will make increasing contributions to gas supply**
- **According to ABARE, over the next 15 years the mining sector is expected to increase its share of total primary energy consumption (electricity + gas) in Australia from 5 % to 10%**



Energy market reforms



➤ COAG response to ERIG

- **Proposed new governance arrangements for electricity and gas**
 - **Creation of AEMO to seek synergies from the management of electricity and gas markets / system**
 - **Creation of a coordinated electricity and gas network planning role within AEMO**
 - **Required to prepare a National Transmission Network Development Plan with a minimum 10 year outlook**
 - **Transfer of regulatory responsibilities from State regulators to AER**
 - **MCE is currently consulting on nationally harmonised arrangements for regulating distribution networks.**
- **Desire to refine of energy financial markets – integration of spot and forward contract markets – is proving to be a challenge**

➤ Gas market developments

- **Bulletin board – objective to facilitate improved decision making via development of single system for communication of up-to-date market information covering all major production and pipeline systems in Australia**
- **Short term trading market – objective to facilitate: market-wide pricing transparency; congestion management; and secondary trading**

➤ MCE work programs

- **Renewable and distributed generation**
 - **Initiatives to assist the development of: demand-side participation (via smart meters); and renewable (wind, solar) and distributed (close to load) generation**
- **National framework for energy efficiency (NFEE)**
 - **Half greenhouse gas savings required by 2050 could potentially be achieved by adopting energy efficiency measures**
 - **NFEE activities target demand-side energy efficiency opportunities in the stationary energy area**



Carbon emissions trading



- **Carbon emissions will be priced ... only a question of how and when**
- **Lack of clarity is impacting on investment decisions for electricity generation ... Owen report (NSW) covers this question in detail**
- **Cap and trade scheme has bi-partisan support**
 - **Coalition proposal starting by 2012**
 - **Labor proposal starting by 2010**
- **Carbon price will flow on to energy prices**

- **State-based National Emissions Trading Taskforce report (2006) superseded by PM's Task Group on Emissions Trading report (2007)**
- **PM's proposal will cover energy, transport, industrial processes and fugitive emissions, but not agriculture or land use to begin with**
- **National Greenhouse + Energy Reporting Bill 2007**
- **Future developments**
 - **2007 – 2008: determine long-term aspirational goal and finalise design of emissions trading scheme**
 - **2009: pass emissions trading legislation and establish independent regulatory body**
 - **2010 onward: set short-term firm emission limits, issue trading permits, test and establish trading scheme**



Energy price implications



- **Wholesale electricity price has doubled over the past 12 months**
 - **Forward contract prices remain high for 2008 (\$60 ~ \$80 / MWh) but fall by 2010 (\$40 ~ \$50 / MWh) as drought is expected to ease and new generation plant comes on line**
- **As LNG picks up the supply shortfall in eastern Australia, domestic gas prices are expected to be set by (international) LNG prices**
- **Pressures on energy price**
 - **Easy energy supply options have already been taken ... increasing demand will have to be serviced by new generation technologies, with more challenging (expensive fuel sources) and greater expectations regarding technical capabilities**
 - **Emissions trading schemes will drive a wedge into existing price structures**
 - **Market structure issues can impact participant risk profiles and competitive pressures**

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