



## **MEDIA RELEASE**

### **Energy Security Board releases its annual Health of the National Electricity Market**

**The Energy Security Board's annual Health of the National Electricity Market (NEM) report to the COAG Energy Council is released today by the Board's independent chair, Dr Kerry Schott AO.**

**The NEM covers Queensland, NSW, ACT, Victoria, Tasmania and South Australia.**

**During the last year there has been a remarkable growth in variable renewable energy generation in the NEM. In 2018-19 about 16% of electricity consumed was generated by wind and solar PV and this percentage is forecast to increase, driven by falling technology costs, government programs and consumer preferences. By 2022 the proportion is forecast to be around 27% and by 2030 above 40%. This size and pace of change places Australia in an international cohort that includes Ireland, California, Germany, Spain and Portugal.**

**Within the NEM there are different phases of transition. Tasmania, with hydro and wind, is able to operate its system at close to 100% renewables; South Australia operates with an output of around 53% variable renewables; other states in the NEM are currently in the 10-20% zone of variable renewables output but this proportion is growing rapidly.**

**What is uniquely Australian is the high proportion of rooftop solar PV generated. This is now about 5% of total NEM generation and by 2030 it is expected to be 10%.**

**The Health of the NEM report assesses the NEM on the basis of six objectives. These are whether or not the NEM has:**

- affordable energy and satisfied customers,**
- a secure electricity and gas system,**
- reliable and low emissions electricity and gas supply,**
- effective development of open and competitive markets,**
- efficient and timely investment in networks,**

**Overall the ESB reports that NEM performance is improved on the previous year.**

**The issue of most concern to the ESB is security. A secure system is one that operates with appropriate levels of frequency, voltage, inertia and system strength. Security is reported as a critical matter and without it the electricity system can fail in a major way. AEMO has had to intervene in the market more than twice as much this year as the year before. Steps to address this issue focus on ensuring value is recognized for these services is well advanced.**

**The other issue rated as critical is reliability. Reliability simply means having enough supply to meet demand. Reliability has improved since last year but supply is still very tight during summer peak demand in Victoria, NSW and SA. The increased severity of weather events, especially over summer, coincides with an aging, and hence less dependable, coal generator fleet.**

**Affordability has improved slightly over the year for retail customers. The improvement was related**

to falls in average energy use as rooftop solar PV increased along with some energy efficiency. The decline in energy usage is most remarkable in Queensland and SA where the penetration of rooftop solar is high. Retail margins declined modestly and wholesale costs fell as low-cost renewable generation increased. The introduction of the Default Market Offer and the Victorian Default Offer, along with various measures to help customers shop around, also assisted with the improvement in bills.

Looking forward a downward trend in retail prices is noted. Over the period to 2021-22 a decrease in prices of 7.1% (about \$97) is expected. A decrease in wholesale prices is the main driver and this decrease is in turn driven by new low-cost renewable generation entering the system.

It is salutary that low income households are disproportionately effected by high energy costs. Energy is a high proportion of their expenses and the options for decreasing bills, such as energy efficient appliances and rooftop solar PV, are less available.

Investment in networks is underway. The Integrated System Plan sets out transmission requirements over coming decades and notes various sites suitable for developing Renewable Energy Zones. Work on the immediate projects required is occurring .

These include:

- an upgrade of the Queensland-NSW interconnect,
- upgrade of the Victorian-NSW interconnect,
- investment in synchronous condensers in SA, and
- a north west Victoria interconnect.

New renewable generators are experiencing some difficulties with network constraints emphasising the need for this work and the ongoing reconfiguration of the grid. There are large transmission projects in the future and making this investment in a timely manner that is efficient and affordable will be a challenge.

The distribution networks are challenged by the rapid uptake of rooftop solar PV. These networks were not originally designed to manage dynamic two way flows from rooftop solar solar. Networks are shifting to become platforms for service provision rather than dumb one way electricity flow carriers.

Finally the ESB notes that governance in the industry has improved. The Finkel Review recommendations are well on the way to being completed and the market bodies are working together in a more coordinated manner. The ESB has been in existence for three years, as suggested by the Finkel Review, and an independent review for COAG Energy Council is underway and timely.

The members of the ESB are:

Kerry Schott AO - Independent Chair

David Swift - Independent Deputy Chair (Acting)

Clare Savage - Chair of the Australian Energy Regulator

John Pierce AO - Chairman of the Australian Energy Market Commission

Audrey Zibelman - CEO of the Australian Energy Market Operator

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