Australia's electricity market reform roadmap

The Energy Security Board is changing the market and regulatory frameworks so we can better integrate large and small scale renewables into the system. Without these reforms, we won't be able to unlock the full value the renewable revolution and new technologies can offer customers.



up of members from each market

AEMC

They make and revise the energy rules and provide advice, putting consumer interests first

body. The ESB provides a whole of system oversight for energy security and reliability to drive better outcomes for consumers.



Protects vulnerable consumers and enables market participation, regulates competitive markets and monopoly infrastructure, incentivises networks to become platforms for energy services, and informs debate.



Australia's energy market operator and system planner. Their role is to manage the electricity and gas systems and markets across Australia.



What do we need to consider?

These changes present new challenges and opportunities we need to address. The post-2025 market design project is considering how our market frameworks need to be updated so they meet emerging and future needs. Broadly, there are four key challenges the redesign must consider.



Meeting consumer needs

Our arrangements need to support different customer choices and needs, provide effective consumer protections and deliver greater value to all electricity users.

Managing variability and uncertainty

We need systems, tools and arrangements that can better support the grid, with increased variability and uncertainty from supply and demand resources.

Need for capital replacement

As existing thermal plants reach the end of their economic life and retire, we need to replace the energy and essential services they provide.

Recognising demand flexibility and integrating Distributed Energy Resources (DER)

Flexible demand and DER can support the needs of the grid. Unlocking their value can deliver benefits to all electricity system users.

Market reform timelines

The post-2025 market design program is being approached over three key phases of development and delivery.

Short term deliverables:

Interim reforms (12-months). These will address the issues that need to be solved as soon as possible.

Intermediate deliverables:

These relate to substantial reforms to be designed by December 2020 with implementation (at least in part) before 2025. These will be evaluated alongside the longer term deliverables.

Longer term deliverables:

These relate to policy concerning investment programs, ageing thermal generator retirement, and further integration of (DER). Implementation of this phase is likely to be after 2025.

Market Design Initiatives

These program elements are being considered together so that coherent reforms are developed that work for all customers.

Resource Adequacy Mechanisms Ageing Thermal Generation Strategy

Essential System
Services

Scheduling and Ahead Mechanisms Two-Sided Markets

DER Integration Transmission Access Reform

This initiative is considering whether existing mechanisms are sufficient to bring on timely and efficient investment and support the needs of the system over the next 10-15 years.

With a lot of thermal generators retiring over the next two decades, the ESB is looking at whether additional measures are required to support the NEM, and how to do so at least cost to customers.

Changes in the resource mix in the NEM mean that a range of system services need to be defined to maintain a secure and resilient system. This initiative sets out a reform path for procurement of these essential services.

This initiative is considering options to introduce greater visibility and certainty of resources on the system ahead of real time. This could provide increased opportunities for demand resources and DER to participate, improving the

There is potential for customers, including owners of DER and smart appliances, to unlock and receive value from their flexibility. Future arrangements that value the flexibility of energy use and demand resources can deliver

The value and potential flexibility of DER is increasing. It is currently not easy for new and different types of service providers to participate in the NEM. We need arrangements that enable new business models and technologies to

New generation is connecting to the existing transmission network where there isn't enough capacity. That is why we need to give generators sharper price incentives to locate in parts of the grid that work better for consumers, remove market barriers to batteries and

We need your help

We want to hear your views on these issues. The ESB is seeking feedback on the potential solutions identified, and your thoughts on other measures that could support customer needs.

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