



30 September 2019

Dr Kerry Schott AO
Chair
Energy Security Board
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Email: info@esb.org.au

Dear Dr Schott

Response to Post 2025 market design issues paper

Thank you for the opportunity to respond to the Board's Post 2025 Market Design Issues Paper (the Paper).

EDL is a leading global producer of sustainable distributed energy. We own and operate nearly one hundred power stations across Australia, North America and Europe, both grid connected and remote and using wind, solar, unconventional gas, liquid fuels and storage. We have a thirty year reputation for developing innovative, tailored clean and green energy solutions.

EDL supports the secure, reliable, affordable and sustainable supply of electricity to meet the needs of Australian households and businesses. The energy industry is currently transitioning to a new future, one where customers have greater control over their supply and use of electricity, where generation is increasingly green and locally-made and where storage plays a crucial role.

We broadly agree with the opportunities and challenges that the Board has identified as being associated with this transition. We also broadly agree with the principles proposed for the evaluation of potential solutions to those opportunities and challenges.

The market today is quite different to the one it was designed for. For example:

- the level of vertical integration is much higher — when the market was designed there were many average sized generators and retailers whereas today we have three or four large, dominant, vertically integrated companies;
- the sources, intermittency and diversity of generation is much broader — for example, the development of the CSG industry in QLD resulted in new build generation. Utility solar and wind generation were in their infancy in 2000 and the concept of household generation did not exist;
- price is much more variable reflecting those wider sources of generation technologies;

- demand that was materially growing has largely flatlined since 2007 — this means for sensible growth to occur, retirements must take place and the timing of those retirements has become a much important feature of the market to manage;
- the trend to decarbonise is greater;
- the market is more globally linked — in particular, the short run marginal cost of peaking generation has dramatically changed as gas became linked to global prices. Gas, the nominated transition fuel in 2000, may now not fulfil this role given its costs and improvement in the costs of other technologies;
- gas producers have consolidated as much as electricity producers and retailers — more so now as large gas producers are becoming gentailers; and
- technology is changing more rapidly and in ways that are harder to predict.

Many of the above changes weren't predicted. Domestic electricity prices were low compared to pre-market prices and those in other economies due to oversupply and/or low fuel costs. This meant that those changes went largely unnoticed to consumers with generators often bearing the cost. In short, the market design was seen to be working.

Over recent years, changes in input costs, portfolio bidding driven from concentrated markets, the reduction in baseload supply (driven by old age and low marginal cost Variable Renewable Energy plant) and government policies such as feed-in-tariffs have resulted in high prices. Sustained high prices and a reduction in system security and resilience has resulted.

It is clear that the existing market is not delivering consistent with community expectations. Communities and governments are responding to the high price and lower reliability by intervening in the market.

As outlined in the Board's Paper, the result has been numerous reviews, multiple rule changes and government policies that act outside the market to drive lower price and greater reliability. Many of the measures being taken are consistent with the elements that would be evident in capacity markets. Whilst the Board is considering what market approach may be best fit, governments and communities are implementing the one they want. This appears to be a capacity and energy market that finds the right balance between reliability, security, investment certainty, efficiency of dispatch and that given a set of cost inputs results in the most efficient price.

EDL is concerned that, by the time the Board's process is concluded and implemented, the market will:

- be far more complex — numerous rule changes being implemented are likely to result in unintended consequences and complexity that will be difficult to unwind;
- have moved on already in terms of technologies deployed and how they operate — for example, rather than electric vehicles charging overnight, fast charging stations may in fact drive more system instability;
- have not had sufficient investment or, alternatively, if it has taken place, it is not of the right type and location, driven by governments and/or businesses;

- have more concentrated control — when demand is flat the most likely investor is the company which controls the retirement of the plant and the contract with the customer. These are the large vertically integrated companies;
- have overinvested in transmission which, like the previous overspend in distribution networks, will take decades to unwind; and
- have suffered many more interventions.

With the above in mind, there is a risk that we will try to design the perfect system for what will continue to be an imperfect and rapidly advancing market. Our view, rather than try to design a system unique to Australia, it would be sensible to adopt an existing effective and appropriate market design from another market as soon as possible.

EDL operates across a number of international energy markets, including the UK and the US and can offer its view on their appropriateness. EDL's view is that we should adopt the UK (or Integrated Irish) market design and establish a faster review process to adapt it as the market changes in recognition that future changes are likely incapable of being predicted today. The UK and Irish market designs have many of the features that the community and government are indicating they want including:

- transparency and openness;
- an active contract market;
- efficiency of dispatch through the various short term markets;
- through the capacity auction process:
 - the lowest cost for the right solution;
 - confidence in supply — long term contracts (up to 15 years) underpin new projects;
 - technology agnostic — transmission expansions, demand side management and generation compete to be the next new entrant;
 - independent assessment of reliability;
 - greater competition (removes the oligopoly power in terms of underpinning projects); and
- ancillary services markets.

While no market design is perfect, the UK and Irish market design appears to offer attributes that are more closely aligned to Australian community expectations. In our view implementing such a design as soon as possible is likely to lead to far less unintended consequences and more rapidly meet the community's expectations than delivering a potentially bespoke solution from 2025. Our preference would be that the Board adopt this model with work focussed on early implementation rather than assessing the full costs and benefits of multiple designs.

In the event the Board continues with its current process, EDL would extend or amend the five challenges outlined in the paper to include the following:



1. Improving competition or, at a minimum, ensuring the design doesn't reinforce the existing competitive dynamics;
2. Rather than focusing solely on the integration of renewables, also managing the retirement and deteriorating performance of ageing baseload and intermediate plant;
3. Managing the potential retirement of large loads and the implications on energy flows and system security, for example, the retirement of smelters. The focus to date has been on the retirement of large generators. The retirement of large loads is just as likely to have far ranging implications on the market and the market design should be responsive to both;
4. The continued impact of external policies or factors — there needs to be a focus on the speed to change the design should market changes occur that are material, long lasting and/or unexpected; and
5. Rather than the integration of DER as a specific issue, a broader approach on enabling innovation would be more appropriate given that innovation may take many forms (including DER activities).

We would be happy to present the Board and/or other stakeholders participating in the review process with more detail regarding any of the above. We would also welcome the opportunity to support the Review's technical working groups. Please contact Anthony Englund, Head of Regulatory Affairs at anthony.englund@edlenergy.com or on (07) 3275 5504 in this regard.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'J Harman', with a long horizontal flourish extending to the right.

James Harman
Chief Executive Officer