National Energy Guarantee Stakeholder Response

Energy Security Board (ESB) Draft Design Consultation Paper

8 March 2018

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About Edge

Edge Energy Services ("Edge") is an expert energy group providing comprehensive portfolio management solutions to large commercial and industrial (C&I) customers across Australia. Edge comprises an outstanding team of industry-based professionals. Our portfolio comprises over 10 TWh of energy from large market sites in the National Electricity Market (NEM). Around 7.5 TWh of this is managed through structured retail and wholesale products (including physical and financial solutions – spot and derivatives). Edge clients form some of the largest energy users in their region, and indeed the NEM. We also manage over 800 small market sites, and have vast experience assisting some of Australia's largest generators, renewable developers and network providers.

Introduction

Edge appreciate this opportunity to comment on the National Energy Guarantee (NEG). It is important that the National Electricity Market remains secure and Australia can be part of the international commitment to reducing climate change while remaining competitive.

The NEG seeks to achieve these objectives while trying to achieve support from both major federal parties. The importance of bipartisan support has been acknowledged, as the market struggles to self-adapt with uncertainty. Having a lasting framework which is flexible enough to allow for changes in a rapidly changing energy market whilst providing certainty to investors who need to recoup long term fixed charges is difficult. Ensuring the market remains efficient and effective is critical to achieving the objectives. It is in this context that Edge provides this initial submission.

Edge NEG consultation paper feedback

Edge's interests are aligned to that of our client base; reliable and affordable energy. We welcome an environment that tackles both energy and climate policy, and in doing so support policy that provides clear investment signals and increased transaction liquidity. We see these as fundamental to a sustainable and lower energy cost future. The objective of the NEG is therefore embraced by our group. However, the consultation paper contains many design considerations which give rise to significant concerns over the effectiveness of the NEG.

Potential NEG drivers for increasing costs

Ultimately, our concerns are mainly around changes that can lead to increasing costs.

Our main concerns following the NEG consultation paper and subsequent webinar include:

1. increasing administration;
2. increasing complexity;
3. increasing risk margins;
4. decreasing transparency;
5. decreasing liquidity;
6. increasing competition on the buy side; and
7. decreasing competition on the sell side.

These concerns are explored in more detail below.

Implementation uncertainty

An efficient and transparent NEG development and implementation process is critical. Large users and new entrants have been responding to market drivers. Development of the NEG threatens to delay this progress. Early and clear NEG parameters are required to allow for long term investment decisions stay on track. The ESB has proposed implementation through amendments the AEMO's National Electricity Law (NEL) and National Electricity Rules (NER). An iterative approach has been flagged (as opposed to a large scale single change), with the established rule change process enabling refinement of the NEG over time. We caution a protracted and opaque process. The market was reacting as required to solve reliability and affordability issues. These projects remain at risk with NEG uncertainty.

Implementation costs

Implementation of the NEG may be costly for many market players. Ultimately, these costs will flow to consumers. End users will pay for implementation of the NEG. The ESB in encouraged to pursue a simple and pragmatic approach to achieving the NEG objectives.

Compliance / governance costs

Governance costs associated with complying with the NEG may be high for many market players. A retailer's cost to serve will increase, as they invest in changes to systems and processes, and potentially more personnel. Ultimately, these costs will flow to consumers. End users will pay for participating in and complying with the NEG. Again, the ESB is encouraged to pursue a simple and pragmatic approach to achieving the NEG objectives.

Failure to comply

Ultimately costs associated with a failure to comply with the NEG will flow to consumers. End users will pay for non-compliance that results in financial penalties.

Increasing market complexity

Increasing the complexity of the market will drive higher indirect costs (such as compliance / governance costs). End users may also incur additional costs in managing their positions in the more complex environment. Consultants, lawyers and the like will be the winners. We fear that end users will be the main losers, and particularly large wholesale users.

Forecasting and targets

The ability to forecast and set reasonable targets stands to greatly impact investment signals and ultimately cost outcomes.

Decreasing transparency

Thanks to increased exchanged based (ASX) trading, the wholesale contract market today is relatively transparent. However, there is still a lot of trading activity that is hidden behind over-the-counter transactions. South Australia suffers considerably from a lack of transparency. Prices reflect this (amongst other fundamental drivers). Increasing the need for boutique over-the-counter hedge contracts will further decrease transparency. Large users have spent many years pulling down the curtain and seeing exactly what drives their energy costs. Doing so has allowed them to develop and implement strategies, often in conjunction with their retailers, to best manage electricity costs and risks. The NEG cannot undo this position. Transparency clouds actual cost outcomes, takes control away from large sophisticated users, and ultimately drives end user costs up.

Decreasing contract liquidity

At times the wholesale contract market today lacks liquidity due to a shortage in contract availability. This liquidity is impacted by timing, fuel source, and region. South Australia suffers considerably from a lack of liquidity. Prices

reflect this (amongst other fundamental drivers). We note the NEG aims to increase contract liquidity by placing an obligation on retailers (with insufficient vertical integration) to buy contracts. Our concern is that this type of retailer (i.e. one with insufficient or no generation) is already buying contracts to manage their short spot positions. One would argue that given these types of retailers already utilise these contracts to manage their risk, the NEG does little to increase contract trading. If anything, it may reduce liquidity by putting more power in the hands of the generators (see "Segmenting the market" and "Enforcing a requirement to buy, but not to sell").

Note that to counter decreasing liquidity, Edge strongly supports limiting the extent of carry-over of overachievement, to place an obligation on the sell side to ensure contracts are made available to the market.

Segmenting the market

By segmenting the market into different types of generation, the NEG runs the risk of further decreasing liquidity in each segment. It puts generators in segments with less competition than they'd otherwise face in a greater (all-in) contract market. Furthermore, it puts generators in segments where they have no obligation to sell, but the retailers have a requirement to buy (see "Enforcing a requirement to buy, but not to sell").

Enforcing a requirement to buy, but not to sell

A perfect storm for increasing costs. The NEG proposes to place an obligation on retailers to own, or to contractually purchase, an amount of various generation sources. However, there is no obligation on any generator (vertically integrated or not) to sell their product to anyone. Large players are well positioned to withhold contracts until prices increase, and retailers are obligated to buy or potentially face penalties. Ultimately, the retailer is indifferent, as any risk of price uncertainty or realised increased cost will be passed through to the end user. Again, Edge strongly supports limiting the extent of carry-over of overachievement, to place an obligation on the sell side to ensure contracts are made available to the market.

Managing the cost of the right energy mix

Retailers with insufficient or no vertical integration will need to manage the timing mismatch and cost uncertainty around selling fixed price retail contracts and complying with the NEG obligations. Retailers will price this risk, and charge end users accordingly.

Barriers to entry for smaller retailers and intermediaries

Smaller retailers and intermediaries with no physical generation will struggle to be competitive under the NEG. The costs and risks will be too high to compete with pricing from vertically integrated retailers. The product innovation we see from smaller retailers and intermediaries will be unsustainable under an environment such as that prescribed by the NEG. This will result in a reduction in retail competition, and higher price outcomes for end users.

Targeting the right market players

Fundamentally the emissions and reliability components of the NEG will require retailers to support a range of different generation technologies through their contracting. We don't see support for generation or financial contracts lacking from retailers. In a tight supply mix, as we have now, the generators are in the driver's seat. Our concern is that the NEG stands to give these players even more market power. Especially the larger dispatchable generators and vertically integrated players (see "Further supporting large vertical integration").

Further supporting large vertical integration

The growth of large vertically integrated market players in the NEM has created a significant imbalance of power. There are a handful of organisations who literally control market pricing in specific regions. Even the more liquid regions are not immune to this. Large vertical integration decreases contract liquidity, decreases market transparency, and decreases competition between market participants. All drive prices higher. The NEG, in its proposed form, sits

perfectly for large vertically integrated retailers / gentailers. It further supports their business structure / model. It is essential that the NEG be designed to release this market power and open these vertically integrated assets to the benefit of the remainder of the market.

OTHER CONSIDERATIONS

Forecasting

- A central forecast of reliability to send market signals would be difficult to administer. Certain technologies such as concentrated solar thermal will take up to four years to plan and build while solar PV projects can be executed in less than half that time and batteries can be installed with little warning. Choosing the optimal time period in which to forecast reliability will depend on which type of technology should be encouraged.
- If reliability is only compensated based on long term reliability we have to accept that these forecasts are uncertain. If reliability is under-estimated the market could face reliability issues potentially resulting in black outs. On the other hand, if the forecast requires too much reliability, this cost will be socialised further increasing the price of power for consumers.
- If reliability is forecast in a shorter timeframe, the accuracy increases. This has the advantage of reducing over-or under forecasting. It has the disadvantage that it is not possible for all types of options to compete. If reliability forecast is less than one year, many generation responses will not have sufficient time to respond. This could lead to temporary solutions being put in place repeatedly.
- AEMO has been producing forecasts of reliability for a long period of time however they may not be best placed to manage the risks involved with sending actual price signals. AEMO is a not-for-profit organisation and any penalties levied against it for inaccurate forecasts will only be socialised back on the consumers.

Gold plating reliability

Edge understands the impacts of reliability better than most, with large clients having been significantly impacted by reliability issues in recent years. Clients responded swiftly, implementing mechanisms to place them in better positions in the event of further events. Whilst the reliability issues and mechanisms to address them were undoubtedly costly, we fear that gold plating the NEM to reliability below 0.002% would present the greatest cost impact of all. Our client base suffered considerable cost increases when networks were developed to cater for potential demand growth. An overcomplicated NEG that further increases the power of large dispatchable generators unfortunately stands to create a reliability level that is unnecessary and costly. Are there better ways to ensure dispatchable generation continues to play a key role in the NEM?

Dispatchable and intermittent generation working together

Even in the absence of policy certainty, the market has responded to price drivers and we've seen a significant increase in renewable generation developments (at various stages). In parallel to this, we have seen a significant drop in the cost of energy from these projects, and on the NEM. Two things stand in the way of these developments:

1. Any threat to the RET in the short to medium term (such as a failure to issue LGCs to projects that come online post 2020); and
2. A lack of support from dispatchable generators to provide firming products.

The NEG should promote dispatchable generators in supporting (firming) intermittent renewable generation, and thus work together to create the ideal physical and financial product mix.

Offsets

Pollution is an international problem not limited to one region or sector of the economy. The electricity market is the largest contributor to carbon pollution in Australia and therefore well placed to take the lead on reduction in overall carbon pollution. As it is a global problem, it is encouraged that a least cost solution to solving the issue is sourced as widely as possible. Edge would encourage the ESB to allow as many credible carbon off-set certificates as is responsible. Edge does not believe that the offset must come from the electricity sector in the NEM. ESB should also be careful not to mix up the need for additional generation with the need to reduce carbon pollution. If it is better or cheaper for the market to start additional non-renewable generators and then off-set this through farming or other mechanisms this should be done. If we needed both a carbon reduction and additional generation, there should be a price signal for this.

It is understood that the number of certificates needed could be significant. The ESB should work with various Governments to determine the impact of allowing international certificates would have on the economy.

As with the other suggestions, a simpler approach of taxing pollution should be adopted. This could be replicated outside the NEM and to other sectors in the economy. The electricity market is well placed to handle the initial reductions however once further reductions are needed, other parts of the economy must contribute. It would make sense to have a design for pricing pollution which could be applied across the entire economy.

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