



08 March 2018

Energy Security Board  
NEG draft design consultation paper submission

E: [info@esb.org.au](mailto:info@esb.org.au)

Dear Sir/Madam,

### **National Energy Guarantee draft design consultation paper**

Origin Energy Limited (Origin) welcomes the opportunity to make a submission to the National Energy Guarantee (NEG) draft design consultation paper.

Origin supports the international target to limit global warming to no more than 2°C and notes the strong intention of the Paris Agreement to pursue efforts to a 1.5°C scenario. We support Australia's announced 2030 target as a minimum goal for the nation and believe that greater ambition is possible over time. The electricity sector can do more than its pro rata share of the target as it has cost effective abatement options available to it which could be unlocked given the right policy settings.

Origin supports the objectives of the NEG to bring together energy and climate change policy and provide a clear investment signal for low emissions and reliable generation sources at least cost to Australian homes and businesses. With investment under the RET now largely met, policy direction beyond 2020 is critical to driving further investment, maintaining reliability and putting downward pressure on prices.

At a high level, the NEG should be simple, transparent and where feasible complement the existing NEM framework with the aim of minimising market distortion and costs.

While there are some challenges to work through, we remain committed to working with the ESB and market operators to progress the NEG so it can deliver much needed certainty and unlock investment in a cleaner, more reliable energy supply. Our feedback on the design of the mechanism is detailed below.

#### *Reliability*

The current reliability challenge has been caused in large part by the rapid withdrawal of plant at short notice and an investment outlook complicated by policy uncertainty, technology risk and a heightened risk of government investment in generation and storage. The adoption of a generator closure notification mechanism and policy consensus on emissions reductions would therefore go some way to addressing these issues.

The implementation of a safety net such as the NEG could be useful, to guard against any future reliability concerns. It is important to clearly define the nature of the reliability issues facing the NEM by first distinguishing between temporary obstacles and any enduring structural factors that could negatively impact the adequacy of investment, and reliability over time.

While making retailers responsible for reliability has some merit, the existing market already contains strong signals for retailers to contract with dispatchable generation sources to hedge their positions against price volatility. The reliability requirement should build on these incentives and provide as

much opportunity as possible for the market to solve for any forecast reliability “gap” before any market intervention is triggered.

A retailer-based capacity mechanism may not be appropriate as there are many factors outside a retailer’s control. We believe there is a role for the market operator to procure dispatchable generation if the market does not deliver the required investment, with the costs apportioned across the relevant region. This process could provide greater confidence to policy makers that the desired level of reliability will be met. Such a model should also be viewed as a temporary policy, to help the market as it prepares for the transition to a lower carbon intensity and a significant volume of older plant retires.

The process of determining the reliability gap can build on the existing forecasting framework such as AEMO’s Statement of Opportunities, with several enhancements including a robust consultation process and Reliability Panel oversight. There should be transparency regarding any reserve margin built into the reliability requirement and how this relates to the reliability standard.

Any operational constraints impacting reliability should be dealt with through an emergency reserve mechanism such as the existing RERT.

Consideration of an enhanced emergency reserve mechanism such as a strategic reserve should complement the NEG and is dependent on the reserve margin chosen. A relatively high reserve margin would negate the need for an enhanced mechanism, with the current RERT most likely to be sufficient. The economic trade-offs involved should be considered as part of the ESB’s deliberations.

If a reliability shortfall is forecasted, there should be every incentive for the market to respond by investing in generation or through demand response. This has been the case throughout the NEM’s history. In the future if this does not occur, then this would represent a clear case of market failure which would most effectively and transparently be dealt with by resources being procured by the market operator through the NEG, with the costs apportioned across the relevant NEM region.

### *Emissions*

Origin supports the progressive decarbonisation of the electricity sector in Australia. A credible, durable policy framework will be required to underpin the necessary investment to achieve this. Clear direction on the scale and timing of this transition will improve investment confidence not only in low emission generation sources, but also in the complementary generation and storage sources that will help firm up the reliability of this supply.

The mechanics of using contracts to track emissions is challenging. Financial contracts in the NEM are primarily used to manage price volatility in the market. While some contracts are linked to a level of deliverability (e.g. PPAs), guaranteeing the physical delivery of energy was never the intended purpose. Currently, in addition to deciding when to take pool exposure, participants can optimise their portfolio by utilising a range of instruments to manage price risk, including purely financial products such as weather insurance and ASX futures. A forced coupling of financial contracts with physical delivery could compel market participants to deviate from their optimal contracting and risk management strategy. This could add to costs and discourage participation in the futures market which currently accounts for a significant volume of contract trading activity.

An incentive for retailers to contract a greater proportion of their forecast load seems unlikely to lead to more efficient contracting outcomes, improve liquidity or place downward pressure on prices. Some issues worth highlighting include:

- Assigning physical characteristics to wholesale contracts will segment the contract market. Rather than seeking a hedge contract in a region, a trader will need to seek a contract that also has the desired emissions profile.
- A large volume of contracts is traded through futures with the ASX as the counterparty for whom physical attributes cannot be assigned. Ascribing an average is likely to discourage participation in those markets by those with better than average emissions profiles and could reduce liquidity and competition.

- The use of contracts to trace a market participant's liability could prove to be administratively complex with financial contractual volumes exceeding physical. Given the absence of a natural link between purely financial contracts (such as ASX futures) and emissions, there are outstanding questions on how this exercise could be undertaken with the requisite degree of accuracy.
- Contracting entities do not align neatly with individual generating assets, making assignment of emissions factors difficult for a portfolio generator.
- Retailers do not know (or contract to back) C&I loads until close to a given contracting period. A retailer's supply portfolio looking forward two years will give little indication of their eventual position.

We therefore recommend that financial and physical characteristics be kept separate in contracts, potentially using a form of stapled security. We caution against using average or punitive emissions factors in contracts as this may distort market behaviour, reduce liquidity and increase costs. We also suggest that it would be more efficient to place the liability point for the emissions requirement at the generation level.

#### *Point of liability*

Placing the point of liability at the retail level for the reliability and emissions obligations adds a layer of complexity to the NEG design which is unnecessary. This complexity is compounded by the proposed use of financial contracts as the means of measuring that liability.

Determining a retailer's contribution to peak demand at a point in time would not be straightforward. This is because commercial and industrial (C&I) customers have relatively short contracting periods and higher rates of churn when compared to other customers. This means a retailer's liability could not be determined with confidence on an ex-ante basis (i.e. up to a number of years in advance of a projected reliability shortfall). If as suggested an ex-post approach is instead adopted, the concern remains that retailers could require a premium when contracting with C&I customers to account for the added risk, increasing costs for this market segment. In any case, determining liability after the fact is not necessarily consistent with the primary objective of maintaining a reliable system.

#### *Other feedback*

- Targets – Origin supports more ambitious emission reduction targets for the electricity sector. We believe the electricity sector can be responsible for more than its proportionate share of any national carbon reduction measure. We support the progressive decarbonisation of the electricity sector in Australia and an eventual goal of net zero emissions for the electricity sector by 2050 or earlier.
- Process for adjusting targets over time - while we support long-term guidance on the scale of emissions reduction targets, we do not require five years' notice of changes to particular scheme years and suggest that two to three years' notice is more appropriate. We also support a formal process being established in scheme rules to adjust for significant changes in exogenous factors such as demand and technology costs.
- Flexibility options including offsets – we support flexibility options to manage requirements between years through the use of banking and borrowing provisions but we do not support the use of offsets in the NEG. We are concerned that the use of offsets may undermine signals to invest in new low emissions and reliable generation.
- Trade exposed industry assistance – we support the principle of providing assistance to emissions-intensive trade exposed (EITE) industry. However, this should be done in a fair way. Assistance under the RET overcompensates some entities and under compensates others. Such assistance must also be balanced against the increased costs that are placed on other customers including households and small business.

Further information on the above points and responses to specific questions raised in the consultation paper is contained in **Attachment A**.

If you have any questions regarding this submission please contact Matthew Kaspura (Manager Climate Change Policy) on +61 2 9503 5178.

Yours sincerely,

A handwritten signature in blue ink, appearing to read "K. Robertson".

**Keith Robertson**  
General Manager Wholesale and Retail Regulatory Policy  
Origin Energy Limited  
GPO Box 5376  
Sydney NSW 2001  
+61 2 9503 5674—[Keith.Robertson@originenergy.com.au](mailto:Keith.Robertson@originenergy.com.au)

## ***About Origin***

Origin is uniquely positioned to contribute to the important dialogue on energy – we are the largest energy retailer in Australia with more than 4 million customers, one of the largest electricity generators, and a leading producer of gas on the east coast. We're also an LNG exporter and a major and growing investor in renewable energy.

Origin recognises that climate change is a global challenge and unequivocally supports measures to progressively reduce carbon emissions. We support the international target to limit global warming to no more than 2°C and note the strong intention of the Paris Agreement to pursue efforts to a 1.5°C scenario. We support Australia's announced 2030 target as a minimum goal for the nation and believe that greater ambition is possible over time. We support the progressive decarbonisation of the electricity sector in Australia and an eventual goal of net zero emissions for the electricity sector by 2050 or earlier.

Origin has committed to halving our emissions by 2032, which we will achieve by exiting coal, increasing our reliance on gas and growing renewables. We've already committed to 1,200 MW of new renewables since March 2016.