



National Energy Guarantee Design Paper

**Alinta Energy
Submission**

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Submitted via email: info@esb.org.au

1. Introduction

Alinta Energy (**Alinta**) welcomes the opportunity to provide a submission to the Energy Security Boards' (**ESB**) *National Energy Guarantee Draft Design Consultation Paper* (the **Design Paper**).

Australia's various wholesale and retail energy markets are inherently complex and sophisticated. As such, the ESB faces a significant task in designing the National Energy Guarantee (**NEG**). Nonetheless, with the current membership of the board and their associated roles in the National Electricity Market (**NEM**), Alinta is of the view that the ESB is well placed to thoughtfully and thoroughly engage with industry in the development of these new obligations.

Alinta considers that:

- Australia requires a stable, national and bipartisan energy and renewables policy environment, where participants can be confident making significant and long-term investment decisions; and
- the NEG should eliminate inconsistencies, move away from political ideology and focus on reliable, affordable and sustainable energy delivered over defined time horizons.

Given this preliminary stage of consultation, and the wide scope of areas the NEG will likely affect, Alinta's submission focuses on a number of key strategic considerations we believe the ESB should concentrate their analysis on going forward.

In this regard, Alinta recommends that the ESB focus on the following areas to guide and inform the further development of the NEG:

1. The emissions guarantee requires a nationwide approach in order to move to a low carbon future to meet Australia's Paris Commitments. Alinta considers the coverage of all jurisdictions (both NEM and non-NEM) within Australia is a fundamental starting point.
2. A cornerstone of the reliability guarantee is the ability to accurately forecast a "reliability gap", nonetheless this remains a challenging task considering:
 - Under the NEG, the Australian Energy Market Operator (AEMO) (a non-commercial organisation) will have an implicit bias to overstate any potential gap to subsequently ensure beyond doubt that security of supply issues will not arise; and
 - AEMO's recent record in forecasting demand accurately several years in advance has proven to be inaccurate.
3. Whilst Alinta is supportive of the intent of the emissions guarantee, as it is currently proposed under the NEG it is complex and potentially challenging to meet as a best practice method of achieving least cost emissions reductions. Some incremental refinements are required.

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4. The NEG design will require careful consideration to ensure that current market concentration issues are not exacerbated.

These policy positions are further explored in greater detail below.

2. Who is Alinta?

Alinta is an active investor in energy markets across Australia with an owned and contracted generation portfolio of nearly 3,000MW, including 1,700MW of gas-fired generation facilities and 1,070MW of thermal generation facilities. Alinta has a detailed renewable investment strategy across Australia and is pursuing renewable energy projects at an increasing scale. Alinta currently retails electricity and gas to more than 830,000 customers including more than 370,000 customers in NEM markets. Alinta is committed to contributing to energy market development across Australia and in all regions as it pursues its growth strategy.

The diversity of Alinta's portfolio, its investment strategy, product offerings, and first-hand experiences across multiple jurisdictions has allowed it to develop a detailed understanding of wholesale electricity markets across Australia and various jurisdictional emission reduction policies. Alinta is therefore well placed to provide informed comment in response to the ESB's design paper.

3. Australian Wide Coverage of Emissions Guarantee

Alinta operates across the NEM, in the Western Australian Wholesale Energy Market (**WEM**) and has significant energy interests in the North West of Western Australia. In doing so, Alinta is exposed to regulatory developments across all levels of government and is witness to various unique clean energy (renewables and energy saving) policies across different jurisdictions.

Transitioning Australian energy markets to be able to deliver low emissions electricity but also be affordable, accessible and reliable, requires significant forward planning by policy makers and the provision of long-term policy signals.

An immediate barrier for Australia's electricity sector successfully transitioning to a low emissions economy is the absence of a national, coordinated, and long-term climate and energy policy. Major investment is required for future energy generation, such investment will not take place unless there is durable and bi-partisan policies that investors expect to last through multiple election cycles.

Co-ordinated and integrated, long-term energy and renewables policy (including storage solutions), which takes account of all options, opportunities and challenges, and has a firm bipartisan commitment from both the federal and state governments, will deliver the best results for consumers in the long term.

Alinta supports providing signals for clean energy investment and firmly believes this would be most efficiently and effectively achieved through a single national policy. The emissions component of the NEG has the potential to be such a policy.

However, Alinta notes the design paper’s focus for the emissions guarantee appears only concerned with the NEM; with the design paper proposing that the legal and regulatory apparatus for the emissions guarantee be implemented through the NEM’s National Electricity Law and National Electricity Rules. Whilst this may be appropriate for the NEM, it risks striking out vitally important economic regions of Australia from the emissions guarantee from the outset.

An essential and fundamental starting point in transitioning to a low carbon future is the coverage of non-NEM jurisdictions within Australia within the emissions guarantee¹. As such, Alinta is strongly of the view that any emissions guarantee must be Australia-wide and should include the key regions of:

- The Western Australian WEM located in the South West Interconnected System (**SWIS**);
- The North West Interconnected System (**NWIS**); and
- The Northern Territory Electricity Market.

If the emissions guarantee progresses to the implementation stage absent these vitally important economic regions of Australia, the NEG risks creating complex interactions between various jurisdictional emission reduction programs in the future that could create distortions, increase uncertainty and deter and confuse efficient future clean energy investment.

Alinta notes the design paper’s stated intention that the NEG is seeking to achieve:

“Integrating energy and climate change policy through the establishment of clear reliability and emission targets to give investors the certainty they are looking for.”²

Alinta is supportive of this objective and suggests that the clearest way to achieve the emissions reduction objectives is to ensure the emissions guarantee component can be met in a flexible and least cost manner. Alinta considers that this implies geographic neutrality across Australia.

For example, it may be less expensive to meet the emissions obligations by reducing emissions and investing in clean energy generation plant in Western Australia or sequestering carbon dioxide in the Pilbara region, rather than in the East Coast NEM states, or vice versa. From the environmental perspective of meeting Australia’s Paris commitments to reduce emissions by 26-28 per cent on 2005 levels by 2030, it is not relevant where in Australia the emissions reduction has taken place, only that it has in fact taken place. The emissions guarantee should not mandate requirements that act to ensure that emissions commitments can only be met within NEM State borders.

¹ To be clear, Alinta supports non-NEM jurisdictional coverage for the **emissions guarantee only**. The fundamentally different structures of other non-NEM markets such as the capacity mechanism in the WEM, make the reliability guarantee unsuitable and surplus to purpose in that context.

² Energy Security Board, National Energy Guarantee, *Consultation Paper Fact pack*, page 2 (February 2018).

Alinta encourages the ESB to seek Australia-wide coverage of the emissions guarantee, therefore ensuring Australia's emissions reduction goals can be met flexibly and at lowest cost to consumers.

A fundamental starting point of the emissions guarantee is the coverage of non-NEM jurisdictions within Australia such as the WEM, the NWIS and the Northern Territory. Geographic neutrality of the scheme will ensure lowest costs being faced by consumers to meet Australia's Paris Commitments.

4. Forecasting Risk

A cornerstone of the reliability guarantee is the ability to accurately forecast a "reliability gap", nonetheless this remains a challenging task. Alinta notes that under the reliability guarantee the NEG proposes that AEMO be responsible for undertaking modelling to forecast future requirements for reliability in each NEM region. The purpose of the modelling is to provide information to the market about the size of any forecast 'gap' in reserves expressed in terms of MW in a region, at a point in time.

Governance Risks

Whilst AEMO has extensive modelling experience through its existing Electricity Statement of Opportunities (**ESOO**) and Medium Term Projected Assessment of System Adequacy (**MTPASA**) processes, Alinta considers governance risks may arise under the NEG in establishing AEMO as both the body charged with forecasting any reliability gap and even potentially the body charged with "triggering" any eventual reliability requirement.

Under the NEG as it is currently proposed, once a gap has been forecast in the future, a governing body is to be charged with the triggering of any required obligations on retailers. The selection of this body is a crucial consideration and presents several challenges and governance risks. Alinta is of the view that to prevent governance risks, the triggering body should not be a government majority owned body such as AEMO. Whilst AEMO is a prudent market operator, AEMO is not a commercial organisation and is not exposed to any of the subsequent costs a triggering of the reliability obligation implies. Any subsequent obligation (and associated material costs) is allocated to retailers and ultimately consumers.

In Alinta's view, this is a key centralisation risk of powers under the NEG, and requires independent oversight to ensure that AEMO does not have both the forecasting responsibility and the power to trigger the obligation. As an alternate pathway forward, Alinta suggests that the body placed with the triggering of the reliability mechanism must be an independent panel containing the following representatives:

- Independent chair
- AEMO/ESB representative
- Retail consumer body advocate
- Major energy user group association

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- Industry association representative such as the Australian Energy Council
 - Network Association Representative

Alinta considers such an independent “trigger panel group” would crucially:

1. Allow for consideration of the associated costs entailed with the pulling of any trigger; and
2. Provide an independent detailed examination of AEMO’s forecasts to ensure they are in fact consistent with other industry forecasts.

The NEG should ensure a thorough separation of powers exists. The body charged triggering any reliability obligation should consist of an independent panel containing both consumer and industry representatives

Forecast Centralisation Risks

Since the NEM’s inception structural reforms have acted to separate the supply chain, privatise government owned entities and create new markets all under appropriate regulatory frameworks. As a result of these reforms, a key pillar and recognised attribute of the NEM today is the decentralisation of decision making and risk taking.

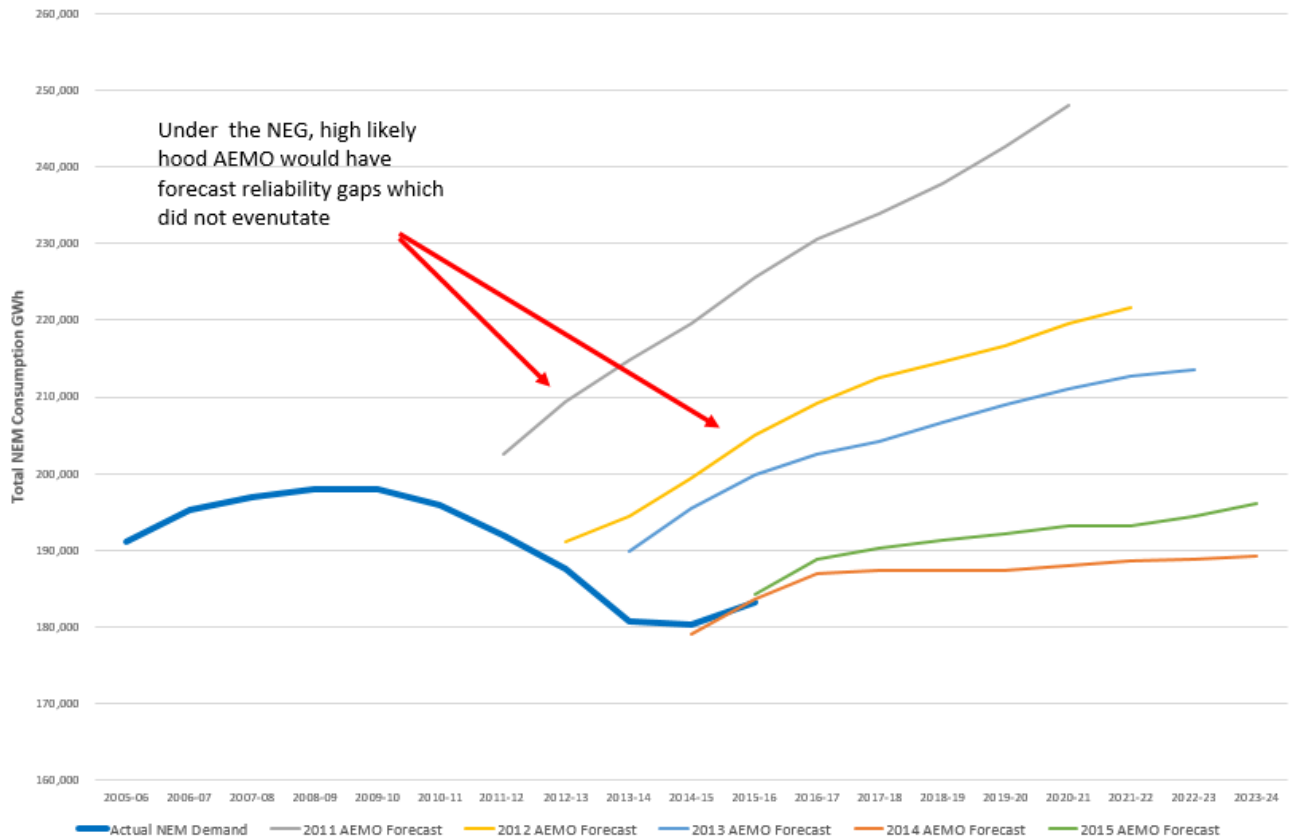
This has allowed generation and network investment to be the responsibility of the market and its decentralised participants. Importantly, this allows for investment risk to be carried by numerous individual private enterprises and not the public, allocating risk economically and appropriately.

The NEG as it is currently proposed, risks departing from one of the key pillars and recognised strengths of the NEM, that being de-centralisation of decision making. Under the proposed NEG, AEMO will be the centralised peak demand forecaster, which signals investment opportunity.

Alinta considers the NEM’s investment signals and market frameworks broadly achieve their objectives currently. Noting this, the NEM’s investment signal is currently fragile in that it can be easily diluted as it relies heavily on a clear articulation from government on policy stability, regulatory settings and transparency from multiple forecasting sources. As alluded to in the design paper, if an investor thinks they can receive higher prices from AEMO from a procurer of last resort mechanism, this will in effect become the market dominating priority, consequently extinguishing the existing NEM investment signals.

This also presupposes AEMO’s forecasts are in fact accurate. Again, AEMO’s recent record of forecasting demand several years in advance has proven to be inaccurate, as demonstrated in diagram 1 below.

Diagram 1 – AEMO’s NEM Forecasts Over Time

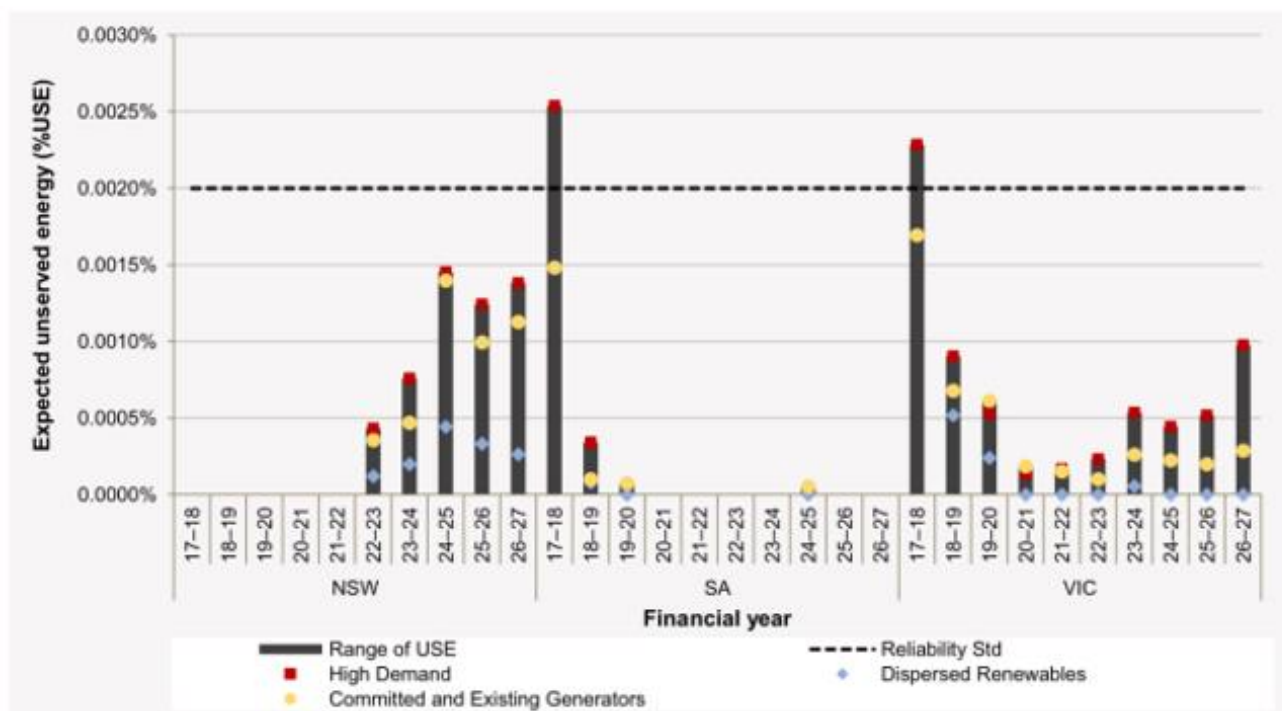


Source: Alinta analysis using industry data and AEMO NEFR and ESOO medium term growth projections (2011-2016)

One of the benefits of the NEM’s current design is that forecasting errors are decentralised and that multiple participants can have and maintain differing views on market demand. Nonetheless, if the NEG was implemented back in 2011, it is not hard to envisage a scenario when AEMO as the peak demand forecaster for the NEG would have signalled investment opportunities which persistently and materially overstated demand, potentially pulling the trigger for the reliability guarantee unnecessarily. The subsequent result under such a scenario would have been to allocate greater costs to consumers and/or tax payers than would have otherwise been required.

This should not be seen as any explicit criticism of AEMO per se, rather a critique of the conservative forecasting bias the NEG would intrinsically impose on any organisation charged with undertaking reliability forecasts in this context. For example, under the proposed reliability guarantee, AEMO is to be charged with ensuring that sufficient capacity in the system exists. Thus AEMO will always have an implicit bias to overstate any perceived gaps in the future, to ensure beyond any fraction of doubt that such a gap cannot arise; and subsequent responsibility or blame for any future black outs cannot fall back onto the forecasting body, that is AEMO.

Diagram 2 –Reliability Issues to Subside?



Source: AEMO 2017 ESOO Figure 1, page 2

Diagram 2 from AEMO’s 2017 ESOO document forecasts a range of expected unserved energy outcomes out for the NEM until 2027 on a state by state basis. This diagram is useful in demonstrating that forecasts of unserved energy are only expected to breach (under some scenarios) the reliability standard in Victoria and South Australia for this year (17/18) before significantly subsiding in subsequent years. Assuming these forecasts are correct, this raises the question as to whether the reliability mechanism would in fact ever be triggered given reliability issues are forecast to subside in the near term.

Alinta encourages the ESB to concentrate their analysis on the risks of centralising the forecasting component of the reliability the guarantee.

Forecasting is inherently challenging as evidenced through AEMO’s recent forecasts which have been imprecise in the past. The NEG potentially centralises forecasting risk into one body.

5. Development and refinement of the Emissions Guarantee

Alinta recognises that climate change is a global challenge, and supports measures to progressively reduce carbon emissions. Meeting Australia's emission reduction commitments will require a long-term transition; which needs to be facilitated through a stable, long-term bipartisan policy framework with commitments from federal and state governments across Australia.

Australia currently has a range of policies in place to reduce emissions and to promote the more efficient use of energy. Yet, climate change policy in Australia has been marked by frequent changes of direction and uncertainty in recent years. Alinta considers it vital that the NEG be seen as a genuine and practical scheme to signal that emissions reduction policies are entering a new phase of stability in Australia. The NEG has the potential to be such a policy.

Alinta is supportive of the intention of the emissions guarantee. However, as it is presently proposed elements of the emissions guarantee appear unnecessarily complex (when compared to certificate based schemes for example) and therefore requires further consideration by the ESB. Alinta suggests the ESB focus its analysis on the following areas:

- What incentive retailers will have to “contract” generation that meets an average annual emissions intensity target (in tCO²-e) if they cannot create or trade a registered certificate of some form which can be surrendered through a compliance mechanism.
- Consideration of the practicality of acquitting emissions obligations via contracts that can't be physically honoured in the NEM's gross pool.
- The suitability of placing the emissions obligation on retailers, when the emissions guarantee must be traced back to a physical generation source.
- The complexity involved in calculating a weighted average of purchases across multiple contract types (including financial contracts, OTC's, Caps, futures and others), many of which do not currently specify any existing generation source or emissions intensity level. The cost of establishing and maintaining such a calculation and compliance repository is likely to be material and ongoing.
- The risk involved in placing new physical obligations into financial contracts, which may ultimately distort the nature of the underlying financial contract with unforeseen consequences.
- The likely liquidity effects which will arise when sub-financial markets must be created to support new contract product buckets which comply with the emissions guarantee.

Whilst the list of issues above is substantial and requires careful consideration, Alinta is of the view that small changes to the policy architecture of the NEG could ensure the likelihood that the policy remains stable and accepted by both Government and industry.

At this initial point in the consultation period, Alinta encourages the ESB to further consider what elements of other emission reduction schemes in existence around the world could be utilised to support the NEG. An emissions guarantee which contains a trading arrangement which largely relies

on the NEM’s existing market frameworks and contractual arrangements could be the most economically efficient and practical method of reducing emissions within Australia’s energy sector. Whilst recognising the political complications of addressing such a policy, Alinta would urge the ESB to consider what elements of the other global schemes could be used to support the NEG going forward.

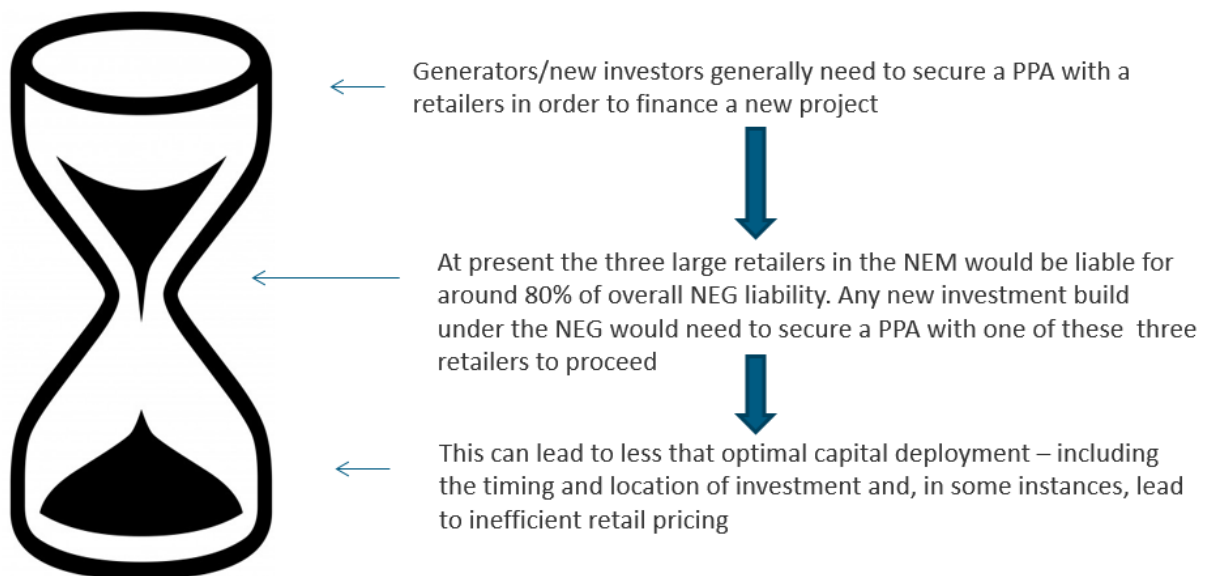
In contemplating elements of other schemes going forward, the role of both gas and thermal generation should be considered as part of the orderly transition to renewables. Maintaining gas fired generation, enabling new storage technologies and ensuring a medium-term role for coal generation will guarantee a balance is struck between meeting Australia’s Paris commitment while delivering affordable and reliable energy to consumers.

The emissions guarantee, as it is currently proposed under the NEG is complex and potentially challenging. Alinta would urge the ESB to consider what elements of other global emission schemes that could be used to support the NEG going forward.

6. New Investment – Market Concentration Concerns

Alinta is aware of a growing concern among industry observers with the current market structure and concentration in the NEM and its subsequent effects on investment – including the timing and location of investment. These concerns are referred to as the “Hour Glass Issue”:

Diagram 3 –The Hour Glass Issue



In Alinta’s view the present Hour Glass Issue has the potential to be exacerbated under the NEG if not carefully managed. As such, Alinta encourages the ESB to further identify enhancements to the NEG that are aimed at:

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- Providing a transparent environment to ensure participant are not able to unduly favour their own related parties at the expense of the market or not transacting in ways equivalent to arm's length transaction, both of which can have consequences for the consumers;
 - Creating a level playing field, which minimises effects of market concentration, to deliver the most efficient and cost-effective outcome for consumers;
 - Ensuring delivery of the most efficient capital investments which leads to efficient retail price outcomes; and
 - Establishing a central procurement model/auction which imposes information and behavioural obligations to encourage a greater spread and type of competitors in the market place. This would act to dilute market concentration concerns as projects would have an alternative method to sell capacity at an efficient price.

Market concentration concerns such as the “hour glass issue” require careful consideration. The capacity procurement approach currently utilised in the WEM could provide a blue print.

7. Conclusion

Alinta believes the ESB's Design Paper provides the starting point for policy development and subsequent potential construction of the NEG. As explored in our discussion above, the ESB should focus future analysis on the following key areas:

1. The emissions guarantee, which requires a nationwide approach with the coverage of non-NEM jurisdictions within Australia a fundamental starting point.
2. The ability to accurately forecast a “reliability gap”, remains a challenging task when considering issues of centralisation risk and forecasting bias.
3. The emissions guarantee's complexity, remains challenging to meet as a method of achieving least cost and efficient emissions reductions. Elements of other schemes should continue to be explored.
4. The NEG design will require careful consideration to ensure that current market concentration issues are not exacerbated. Capacity procurement methodologies currently used in the WEM could provide a blue print for such an approach.

Alinta looks forward to participating in the ongoing National Energy Guarantee process.

Please contact Mr Anders Sangkuhl on anders.sangkuhl@alintaenergy.com.au or 02 9375 0992 if you have any queries in relation to this submission.

Yours Sincerely



Jacinda Papps

Manager, National Wholesale Regulation