

8 March 2018

Dear Dr Schott,

Re: National Energy Guarantee – Draft Design Consultation Paper

We are writing as an engaged group of young energy professionals who are dedicated to helping the energy sector transition to a highly reliable, low carbon future. RCYA's goals are to promote knowledge-sharing, build our skills and capacity and increase our connections in the renewable energy sector. We have chosen to study, work and build careers in this sector because we know that clean energy is the cornerstone of Australia's economy going forward.

The National Energy Guarantee (**NEG**) represents the greatest opportunity to transform the National Energy Market (**NEM**).

We are writing as the voice of future generations, who will inherit the impacts of any enduring reform implemented today. We were children when the NEM was introduced – we look to the history books to understand its inception - but now want to hold a pen in writing its reform.

At the heart of the Finkel Review was the need for an 'orderly transition', away from coal-fired generation and towards a decarbonised and low emissions energy sector and economy. We understand the centrality of the Energy Security Board's (**ESBs**) objectives under the NEG of security and reliability of supply but emphasise the importance of constructing a bold, modern vision for a robust and resilient energy system.

Our main concerns are that the NEM does not face a supply or reliability issue and that the NEG is looking for a problem to a solution – the second wave 'gold plating' of the NEM. Locking in excessive obligations regarding 'dispatchable' generation capacity may further entrench coal and gas generation and incumbent 'gentailer' business models, rather than creating market signals for investment in 'smart' low carbon technologies or market conditions that foster competition. Australia has one of the most advanced energy systems in the world and is at the tipping point of embracing large-scale transformation of renewables, driven by the market and assisted by appropriate government schemes. Slowing this momentum and placing higher administrative burden and obligations on market players without commensurate benefits risks driving higher electricity prices that will be passed through to consumers – an important leg of the energy trilemma, as flagged by Dr Finkel. A policy to integrate emissions and energy is long overdue, yet must be driven by ambition and rapid transformation to cut emissions and embrace the opportunity of hybrid renewables projects beyond business as usual (**BAU**).

We set out three key principles to govern design and implementation of the NEG, which we believe must be taken into account in order to 'future ready' the NEM:

- **facilitate accessibility, competition & participation;**
- **ensure transparency, compliance & accountability; and**

- ***promote resilience & adaptability for the future.***

With this lens, we provide our response to some of the stakeholder questions posed by the ESB in the NEG Consultation Paper and detail three key issues the consultation must not ignore:

- ***modelling and forecasting should be based on science, not ideology;***
- ***low carbon storage should be incentivised not incumbent coal-fired and gas generation; and***
- ***emissions reductions must be additional and deliver on ‘our fair share’.***

What principles should decision-makers apply to assess market design?

All good market design requires a principled approach. While we go beyond pure economic market principles, the principles we propose are ‘value adds’ that can provide a lens for assessing the decisions the ESB, Government and key stakeholders must make.

1. **Accessibility, competition & participation** – Market rules must allow access to diverse market participants and not lock in incumbents. There is a risk that the reliability guarantee will allow gentailers to contract with themselves and prevent smaller retailers from accessing competitive contracts. With the inability to forward contract (for financial and physical capacity), smaller retailers will be less competitive and be subject to increased price risks. We already see the impacts of this in the NEM, resulting in the insolvency of several emerging retailers. The NEG must promote competition and accessibility to not expose consumers to the potential pass through of high prices from retailers.
2. **Transparency, compliance & accountability** – The NEM already has a complex contracting framework with the infrastructure and regime to enter into forward contracts, derivatives and long-term hedges. The proposed NEG will set capacity ‘gaps’, load-based emissions reductions and contracting obligations on retailers. These must build on the current framework and not introduce increased administrative burden, while also not locking in BAU which has been shown to be insufficient to meet Finkel’s energy trilemma in a timely manner. Open data, information provisioning and regular reporting will be key to enabling transparency for price discovery and to allow for accurate modelling in setting forward capacity requirements. Enforcing compliance with reliability and emissions obligations will be also be important, including limited ‘roll-over’ flexibilities and penalties for non-compliance. Regular reviews and the ability to ‘ratchet-up’ emissions obligations and adjust reliability obligations is encouraged, based on robust, verifiable and accurate data-based modelling. Critically, we support open source modelling to ensure transparency and enable open interrogation of assumptions.
3. **Resilience & adaptability for the future** – A resilient and adaptable grid incentivises and supports the emergence of new technologies and business models. Embracing technology, particularly digitisation and ‘smart’ capabilities, will be crucial to modernise and enable a robust grid for the future. New markets for storage and demand side response create opportunities to catalyse distributed generation while creating new dispatchable resources. The NEG must allow for emerging technologies and new business models to fully contribute to the most efficient system solutions.

What key issues do we think are game changers?

We provide detailed responses to a number of consultation questions in Attachment A. We consider the following issues to be ‘game changers’ to the effectiveness of the NEG and intersect with the themes and issues posed by the ESB.

1. **Modelling and forecasting should be based on science, not ideology** – Decisions regarding the design and implementation of the various components of the NEG must be based on science, numbers and fact rather than on ideology. This goes to the heart of the economic assumptions, data and scenarios that inform the modelling and forecasts for capacity gaps and emissions reduction targets under the NEG. To endure, the NEG must have bipartisan support as well as the flexibility to be enhanced and for the emissions obligation to be ‘ratcheted up’ when the targets become obsolete or due to overperformance.
2. **Low carbon storage should be incentivised not incumbent coal-fired and gas generation** – We are concerned that medium to long term capacity contracts will lock in coal-fired generation beyond its competitive life, despite potential alternatives such as new utility scale battery technologies. Retailers will pass obligations through to generators who should be encouraged to be ‘storage ready’ at financing and be able to bundle storage offerings into renewable power purchase agreements (PPA). Snowy 2.0 is a strategic battery for the NEM that should be storing and dispatching renewable energy generation at scale. Distributed battery use at the household or business level should be catalysed for demand side response and provide the benefits and services of dispatchable storage en masse. Most importantly, we want to see integrated hybrid technology solutions that bring together, renewables, storage and smart technology to allow cost-effective, low carbon dispatchability from decentralised utility-scale energy parks.
3. **Emissions reductions must be additional and deliver on ‘our fair share’** – the Emissions Guarantee must assess emissions reductions on additionality, with robust verification and ‘quality’ and ‘quantity’ requirements on load based emissions obligations. Overperformance should be encouraged, with the ability to ‘ratchet up’ ambition and adjust obligations over time. We also recognise the ‘fair share’ contribution that must be made by the energy sector against other sectors, as the emissions reduction effort across the economy is not uniform. Cost-effective emissions reduction gains can be made in the energy sector, suggesting the minimum electricity sector emissions reduction pathway should go well beyond Australia’s 2030 reductions in order to achieve climate mitigation and intergenerational equity obligations at the rate required to limit 2C global warming by the end of the century and in our lifetime.

What else needs to be considered?

We recognise the scope for the ESB’s consultation is limited, but in our view countless issues remain outstanding. Beyond the points we raise in our submission, we would like further clarity from the ESB on the following questions:

1. What do stakeholders consider to be the role of distributed energy resources in meeting capacity requirements and delivering emissions reductions?

2. Can the stakeholders provide a transparent and justifiable estimate of compliance costs likely to stem from the Guarantee as it is currently proposed? Accurate and evidence-based estimates from the following stakeholders would be particularly valued: generators, retailers, the AER and AEMO.
3. Can the stakeholders identify potential points of conflict between the proposed Guarantee and existing and developing requirements (under the NER and other)?

Further, we request that the ESB clearly set out how the Guarantee will interface with existing and ongoing reforms across the energy sector, including but not limited to the AEMO's Integrated System Plan and the AEMC's Reliability Frameworks review.

We encourage the ESB to continue to take a critical lens to the development of the NEG and apply the principles and intersecting issues we raise when evaluating and designing the NEG. We welcome your response and are available to discuss our submission further.

Kind regards,

Jacqueline Fetchet (Program Leader Renewable Cities Young Ambassadors)
Miyuru Ediriweera (Poles & Wires)
Dr Bjorn Sturmberg (Founder, SunTenants and Director, Kairos Power)
Naomi Stringer

We are a group of passionate, committed and independent young professionals working in the renewable energy sector who are affiliated with the Renewable Cities Australia - Young Ambassadors Program. This submission and its content represents the views and opinions of its authors and does not necessarily reflect the views of Renewable Cities Australia, its owners, and others in the Young Ambassadors Program. We acknowledge Kim Shore and Simon Bunstead for their contributions.

Please contact Jacqui Fetchet at jacqui@renewablecities.com.au for any follow up queries or comments.

Attachment A: Responses to consultation questions

Emissions Guarantee

We consider that the Commonwealth target of 26-28% emissions reduction by 2030 based on 2005 levels, as committed under the Paris Agreement and the 2017 Commonwealth Review of Climate Change Policy, is unacceptable and locks in an emissions reduction effort at or above BAU. In no way is this enough to limit 2C of global warming or reflective of the cost-effective opportunity Australia has to reduce economy-wide emissions.

Across the economy, the energy sector has always been seen to have to do the ‘heavy lifting’ required to meet emissions reduction targets, as significant emissions reductions in the energy sector are considered more achievable (i.e. switch large-scale supply to renewables) than other sectors (i.e. fuel switch or electrify transport or agriculture).

The emissions guarantee, or any obligations placed on the energy sector that contribute to national goals, should be accessible, simple and cost-effective to deliver. The implications of the energy sector not pulling its weight, and over and above its weight, to reduce emissions will have economy-wide impacts and lead to increased costs in other sectors.

Principles for an emissions guarantee should align with global best practice for developing environmental markets based on the fundamentals of driving competition and efficiency in markets and build on the principles we highlight in our Overview. We rate each issue under the consultation questions against our RCYA Principles, where:

- Red: poses major risk to meeting the objectives of the principle
- Orange: has issues with meeting the objectives of the principle
- Green: aligns with meeting the objectives of the principle

RCYA Principles Assessment		
<i>Accessibility, competition & participation</i>	<i>Transparency, compliance & accountability</i>	<i>Resilience & adaptability for the future</i>
A	B	C
Emissions targets must be fairly set at the retailer level so that obligations are proportional to retailer size in the market rather than a fixed volume (even if a fixed volume arises due to a market cap being dispersed across all retailers). Like the reliability guarantee, limits should be placed on gentailers ability to source ‘in-house’ to promote market liquidity and fair pricing for smaller retailers.	Price discovery, as well as targets and penalties, must be publicly available and open source data provided by the AER. Additionality and verification of offsets must be based on quality of supply and appropriate caps on non-energy sourced emissions reductions. Non-compliance and penalty regimes should use creative price structures to enforce compliance while promoting competition.	Emissions reductions could be pooled from multiple generators or hybrid energy parks, encouraging complementary supply. New markets for carbon supply are encouraged, but markets should be sculpted based on quality of offset and diversification of supply (not just lowest cost land abatement). Classification of storage from an emissions reduction and additionality perspective must also be scrutinised.

Page & Q	RCYA Response	RCYA Principles Assessment		
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Pg 18 Q6	<ul style="list-style-type: none"> • What are stakeholders' views on the appropriate emissions level to assign to contracts that do not specify an emissions level or generation source? • What (if any) impact would these approaches to determining the deemed emissions level have on the liquidity and availability of those types of contracts? 			
	<p>The NEM deals in purely financial contracts and many contracts (i.e. over the counter hedges and derivatives) may not be required to specify a generation source. We encourage the ability for emissions reductions to 'pool' together as a product to increase the liquidity and tradeability of emissions, while encouraging hybrid generation at scale.</p> <p>We query whether the expectation is to retrofit existing long-term hedges with obligations for emissions reductions or how already locked-in contracts will be expected to meet emissions levels. We caution against opening up pre-existing contracts and suggest that any 'deeming' should be limited to a transition process that covers arrangements or the emissions tied to pre-contracted supply.</p> <p>If a transitional deeming regime is introduced, we propose a technology based deeming method where emissions would be predetermined based on the type of technology (carbon or non-carbon), the term of the contract (looking forward) and the project emissions from the forward contract. A transitional scheme must integrate with the RET and align with the already established principles and concepts around calculations and eligibility. The ESB should consider how energy storage could be calculated, if at all, limiting additionality risks.</p> <p>Deeming emissions may create more liquidity if the ability to 'pool' is introduced and retailers could purchase aggregate emissions supply. We query the interaction with the voluntary market and ability to claim carbon neutrality, for example corporates, and whether non-Customers would be able to purchase emissions reductions from the market, similar to the way LGCs are purchased now.</p> <p>We emphasise that emissions reductions on a facility level must be tied to the MWh produced and apply to all non-carbon generation, including gas. Any shortfall penalties at the facility level should allow the ability for that facility to purchase third party emission reductions from the market or pay a penalty price for non-delivery.</p>			

Page & Q	RCYA Response	RCYA Principles Assessment		
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Pg 18 Q7	<ul style="list-style-type: none"> • What are stakeholders' views on how to deal with internal non-contractual arrangements between the retail and generation arms of a gentailer, for the purposes of the emissions requirement? • What are stakeholders' views on how to determine the emissions level to assign to contracts between the retail and generation arms of a gentailer? 			
7	<p>Gentailers must be subject to the same emissions obligations as retailers without generation assets and must not have internally lower requirements to comply. A concern with allowing gentailers to contract with themselves is limited price discovery and transparency leading to reduced liquidity in the emissions reduction market.</p> <p>This creates a similar concern to the Reliability Guarantee, where gentailers could lock out smaller retailers who would be subject to higher prices to purchase emissions reductions and therefore pass on higher prices to customers or become unviable as a business.</p> <p>We propose that gentailers have a percentage cap on emissions reductions (whether contractual or deemed) to be purchased from its generation arm and consider 10-15% to be appropriate to limit the risks we outline.</p>			
Pg 20 Q9	<ul style="list-style-type: none"> • Should the emissions requirement allow for unlimited carry-over of overachievement or specify limits on the carry-over of overachievement? • If limits are to be specified, what should those limits be and how should they be designed? For example, should the size of limits vary inversely with the size of the retailer's load? This could give more flexibility to smaller retailers. • If limits are to be specified, how should overachievement in excess of the limits be treated? Should there be a process by which it is offered to the market? 			
9	<p>As stated, the current emissions reduction targets are unacceptable, meaning additional effort is required to deliver meaningful reductions. Overachievement should be encouraged or incentivised – we see no risk in meeting targets early and regular review allows for targets to be adjusted to reflect good performance, with an inability to reduce targets (as was seen with the RET).</p> <p>In terms of modelling, we recommend the ESB calculate a 10% under and overperformance baseline and cap against the sector-wide annual target and distribute this among retailers proportionately to cap the risk of slippage. This range should be ratcheted down overtime (while the emissions reduction target itself is ratcheted up) on an annual basis to meet targets and improve ambition. Overperformance should be first sold to the market to meet that year's obligations as we propose rather than carried over to meet internal obligations for future years.</p>			

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	<p>We recognise the benefits of carrying over overachievement but recommend this is limited to a proportional cap of the annual load based obligation against the sector. A percentage cap may give too much flexibility based on the size of a load and a proportional cap is accessible to smaller retailers by being predictable.</p> <p>The ability to trade overachievement is also beneficial, however we are concerned that the ease of compliance by purchasing from other high achievers may limit structural change or effort in an underperforming facility. Indeed we want to limit the scenario where it is cheaper to purchase penalties or buy from overperformers than deliver on internal obligations, as was seen with ERM in the RET.</p> <p>We would like to cap the amount that an overperforming retailer can trade to other underperforming retailers to 10% and equally limit the amount an underperforming retailer can purchase to 10%. To incentivise overperformance and discourage underperformance, a tiered pricing regime could be introduced where a premium could be paid for the first 10% tradeable overachievement (i.e. a price at 2%, 5%, 10% etc.) that would be higher than the market and underperformers may have to purchase first from overperformers, then from the market to pass on this price benefit.</p> <p>Ultimately, we encourage overperformance, ambition and early achievement of targets to rapidly decarbonise the energy sector.</p>			
Pg 21 Q10	<ul style="list-style-type: none"> • What are stakeholders' views on the deferral of compliance? • Should all retailers be able to carry forward a fixed amount or should it be set proportionally to a retailer's load? This could give more flexibility to smaller retailers than large ones. If so, would any provisions need to be introduced to prevent large retailers re-organising themselves as several smaller retailers in order to gain the benefit of the higher limit? • If the limit on deferral should be a static percentage of load (rather than varying), what percentage is appropriate? That is, what percentage would provide the necessary flexibility without substantially increasing the risk that the overall emissions reduction target would not be met? 			
10	<p>Please see our response to question 9 in relation to penalties, percentage caps and pricing on underperformance and modelling against the overall sector target to calculate retailer-based caps.</p> <p>We caution against too much flexibility or leniency in the annual deferral or rollover regime for compliance on a</p>			

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	<p>retailer basis. Any rollover should be capped at a percentage of the overall load obligation at 10%, based on working backwards from the sector-wide target of a 10% annual underperformance cap.</p> <p>Any deferred compliance should attract a per MWh penalty charge i.e. 10% fee that will be attached to any additional purchase from the following year. AER could charge this fee as a dedicated levy that may be used to promote other energy-related initiatives, i.e. offer electricity discounts to low income consumers. A flat per MWh charge should be attached to any underperformance beyond the 10% cap set at an appropriate rate (i.e. above the cost of purchasing), also a dedicated charge.</p> <p>We emphasise that pricing regimes should be used to drive compliance and that it should be more expensive to non-comply and pay an additional charge than to perform. Compliance should learn from the lessons of the RET and issues of appropriately set penalty prices against market liquidity and supply. We are also concerned about the additionality of purchasing emissions from other sources and rolling over or deferring obligations.</p>			
Pg 21 Q11	<p>If offsets are permitted by the Commonwealth Government:</p> <ul style="list-style-type: none"> • Should limits on individual retailers' use of offsets be set at an absolute level, regardless of retailer size? An absolute limit would represent a greater proportion of a smaller retailer's emissions than a larger retailer. • Or, instead, should limits on individual retailers' use of offsets be based on the size of retailers' loads, such that offsets represent the same proportionate share of retailers' emissions regardless of retailer size? • What are the pros and cons of each of the above approaches? • If limits on use of offsets are independent of retailer size, how should the risk of large retailers splitting into several smaller entities for the purposes of increasing their overall offset limit be addressed? • What (if any) requirements to use within-NEM opportunities before using offsets are appropriate? 			
11	<p>From a competitive perspective, as we have outlined, we are concerned by larger retailers splitting off into smaller entities to limit obligations or reduce compliance. This should be prevented by capping the amount of emissions eligible to be purchased in-house by gentailers, as we propose in Question 7.</p> <p>We are concerned by the broad scope that may apply to offsets permitted by the Commonwealth and under what sort of scheme offsets may be offered. A 'lowest cost abatement' regime as we have seen under the Emissions Reduction Fund has delivered questionable additionality and lowered the quality of offsets available in the market, i.e. funded land-based abatement predominantly, with less methods funded in other sectors like energy efficiency</p>			

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	<p>or transport.</p> <p>The pros of setting offsets at an absolute level are that a cap is created at the overall target and the obligation to meet the cap is split amongst retailers. The risk of percentage or proportionate shares at the retailer level is that the volume of offsets could exceed the overall percentage of the target that is recommended. Offsets may also be cheaper to acquire than energy-based emissions contracts, creating a disincentive to purchase renewable contracts. Overtime this will erode liquidity, reduce the quality of emissions reductions and potentially hinder sector-wide ability to produce meaningful reductions.</p> <p>We consider that the best quality emissions reductions come from the generation source and should be tied to renewable energy facilities – the majority of emissions reductions should be sourced in this way. The overall emissions reduction target should have an annual cap (i.e. 25%) on the ability to be sourced from offsets, recognising the opportunity to grow a carbon market with the right price signals and design principles. This cap would then be dispersed proportionately amongst retailers, representing an annual cap on sourcing offsets.</p> <p>International offsets should not be included as eligible offsets in the Emissions Guarantee as this limits the quality (and potentially the fungibility), verification and potential additionality of tradeable emissions reductions.</p>			

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Pg 24 Q15	<p>What are stakeholder views on the proposed approach to compliance with the emissions requirement and particular:</p> <ul style="list-style-type: none"> • Whether this approach provides the appropriate drivers of compliance. • The type of information the AER will need to access to ensure compliance. • Other possible enforcement tools, such as increased prudential requirements or restrictions on accepting new customers while emissions requirements remain outstanding. 			
15	<p>Please see our responses to compliance in Questions 9, 10 and 11.</p> <p>Our concerns with compliance relate to the costs of incurring a penalty, additionality and verification of offsets and enforceability of non-compliance.</p> <p>As noted, we encourage regime flexibility, but emphasise that emissions reduction is an intergenerational obligation on governments and the economy to deliver in response to climate change. The NEG must cap under/over deferrals and impose penalties that make non-compliance impossible and paying a penalty price instead of delivering on obligations costly rather than cost-effective.</p> <p>We believe that appropriately designed market signals can limit the need for administrative burdens and over-regulation, the ESB and the AER need to think creatively about what sort of price signals and regimes, potentially in other areas of the market, could hinder the ability for retailers to non-comply. For example, penalties placed on dispatch, customer freezes, dedicated levies for penalties that can be passed through to low income customers.</p>			
Pg 25 Q16	<ul style="list-style-type: none"> • What are stakeholder views on how the Guarantee may impact on competitive market? 			
16	<p>Please see our RCYA Principles Assessment column on competition and our response to Question 34.</p> <p>Our general concern across the Emissions Guarantee and the Reliability Guarantee is the ability for gentailers and incumbent retailers to hedge out smaller retailers through too much flexibility and price manipulation enabled by internally contracting with the generation arm to meet emissions or reliable supply obligations.</p> <p>An effective market promotes competition driven by price signals and transparency, that allows the market to develop innovative solutions, integrate new technologies and pass through cost-reflective pricing to customers. Embedding costs through increased administrative burden and inequitable flexibility or advantage (i.e. through under / over compliance and self-contracting) for gentailers and incumbents may undermine goals of reducing costs for consumers and creating a competitive, accessible and participatory market place.</p>			

Reliability Guarantee

Is there a reliability problem?

As acknowledged in our Overview, we do not consider that the NEM has a reliability problem, or that the problem is severe enough to move to a capacity market.

We remain unconvinced that the NEM faces a supply or reliability issue, both immediately and in the near future, which cannot be adequately responded to by the many existing arrangements and processes within the Rules. Instead, it seems that the ESB is seeking a problem for its solution. Such an approach risks creating a second wave of 'gold plating' following the significant reinforcement of the networks in NSW and Queensland over the past 10-15 years. Affordability is already a pressing issue for many consumers - there is no need to put in place reforms which would add to this burden.

Instead, this would suggest there is time for the ESB and stakeholders to develop a more fulsome response to the energy trilemma - affordability, reliability and sustainability - in a manner that places new reliability obligations only where current Rules are insufficient and new obligations would provide a clear and material net benefit to consumers.

Planning for the future

The ESB recognise the fundamental objectives and intersection of meeting security and reliability of supply. As defined by the ESB: *A reliable system is one with enough energy (generation and demand side participation) and network capacity to supply consumers.*

From a supply perspective, the NEM has to manage forces of planned (an early) closure of coal-fired power stations, constrained gas supply and the momentum of small to utility scale renewables deployed in a distributed way. These trends are inevitable and should be leveraged, rather than resisted or restricted, and new forms of technology are to be encouraged. Priority should be given to hybrid integrated generation at scale (i.e. energy parks) where renewables and storage are supplied as a bundle and innovative distributed demand side response initiatives that leverage small-scale batteries and smart technology. The network must also modernise and have fully integrated data and smart information sharing capability.

We are cautious about moving toward a capacity market that may limit or constrain the possibility of a 'future ready' grid. In other jurisdictions, capacity markets have shown to increase prices and embed higher regulatory and administrative burdens.

Principles for a reliability guarantee should align with global best practice for developing capacity markets based on the fundamentals of driving competition and efficiency in markets, and build on the principles we highlight in our Overview. We rate each consultation question against our RCYA Principles, as classified above.

RCYA Principles Assessment		
<i>Accessibility, competition & participation</i>	<i>Transparency, compliance & accountability</i>	<i>Resilience & adaptability for the future</i>
A	B	C
<p>Like the emissions guarantee, limits should be placed on gentailers' ability to source 'in-house' to promote market liquidity and fair pricing for smaller retailers.</p> <p>Concern should be given to AEMO's potential dual ability to forecast and instruct retailers on the gap as well as procure capacity as retailer of last resort.</p>	<p>Modelling assumptions must be clearly stated and open for review.</p> <p>Non-compliance and penalty regimes should use creative price structures to enforce compliance while promoting competition.</p> <p>Risk of retailers passing on costs of compliance to consumers in high prices</p>	<p>New markets for demand side management and storage should be encouraged, as should the integration of smart technology to forecast and respond to shifts in demand and manage peaks.</p>

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Pg 34 Q24	<ul style="list-style-type: none"> • What are stakeholder views on the length of the forecasting period? • Should the existing ESoO and MTPASA forecasting processes be adapted for determining the gap, or should a separate bespoke process be developed? • What elements of the current MTPASA and EsoO processes should be reviewed in light of the potential for the process to lead to a compliance obligation? E.g. how should AEMO treat inputs from generators such as their forced outage rate or summer capacity if these assumptions could lead to a triggering of an obligation? • Should AEMO be able to determine assumptions independently or should responsibility for the accuracy of assumptions be placed on the market participant? • How should the forecasting methodology and assumptions be consulted on? 			
24	<p>Longer time horizons for forecasting periods are preferable over shorter term ones, provided they are updated appropriately to reflect new information and the results of the forecast are used judiciously.</p> <p>As noted in the consultation paper, longer time horizons can leave the forecasts more susceptible to uncertainty in terms of changing technology costs, business decisions and demand patterns. The impacts of these can be managed by regular and transparent review of the various assumptions which inform the forecasts as well as the forecast method itself. Furthermore, it is essential that the inherent truth that no forecast can ever be entirely accurate be considered when using the results of the forecast so that the reliability obligation is not unnecessarily triggered as a result of an artefact of the modelling - this is discussed in further detail in our response to Question 26.</p> <p>At the same time, longer time horizons also provides the market with greater certainty as to the occurrence and size of potential reliability gaps which may trigger the reliability obligation. This allows greater lead time for the market to respond to the gap in the most efficient manner and for the obligation be triggered only if the market mechanisms are insufficient. Otherwise, with a short forecast time horizon, there may be very little lead time for the market to respond to a reliability gap before the obligation is triggered. This would likely introduce a risk premium into new investment as developers and potential investors would have to factor in the potential impacts of the obligation being triggered. This may also provide less opportunity for longer lead time solutions to be constructed or new technologies to be commercialised to meet the reliability and/or emissions obligations.</p> <p>On balance, we consider that the benefits of greater certainty to the market would materially outweigh the potential</p>			

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	inaccuracy of the forecasts.			
Pg 36 Q26	<ul style="list-style-type: none"> • What trigger point would be most appropriate and proportionate to the identification of the reliability gap? • Should a multi-year gap trigger a compliance requirement in only the first year of the gap or over the full duration of the gap? • What is the minimum feasible time period for the market to alleviate a potential shortfall? • If the length of the trigger period is such that the market is not given this minimum feasible time, is it appropriate for the Guarantee to contain the flexibility to have a shorter term trigger to provide sufficient time for the market to have an opportunity to respond to the shortfall? 			
26	<p>Given our concerns outlined in our Introduction that the Guarantee may introduce additional costs and risks to the NEM, care must be taken in developing its governance arrangements. This is particularly true for the reliability component. Otherwise, the intervention of the reliability component into normal operation – or merely the risk that it may intervene in the future – may distort the investment decisions and place unnecessary costs on consumers for no real benefit.</p> <p>The reliability obligation must only be triggered if it is the best mechanism available to ensure consumers maintain the level of reliability they are willing to pay for. More specifically, it must only be triggered if:</p> <ul style="list-style-type: none"> • there is a material and sufficiently certain reliability gap forecast; • existing mechanisms within the Rules are insufficient to meet this gap; and • the benefits to consumers of triggering the reliability obligation to address this gap materially outweigh the costs of doing so. <p>In this respect we recommend that the forecasting be done with sufficiently long time horizons to enable existing mechanisms to address any reliability gap in an efficient way.</p> <p>There must also be a materiality threshold established for triggering the gap. For instance, it could be defined as a multiple of the Reliability Standard. The Reliability Standard is well defined in the Rules and there are existing planning and forecasting mechanisms which are tied to this level such as the RERT and ESOO. This would align the reliability obligation with existing market mechanisms while still providing opportunity for normal market practices to respond to the reliability gap.</p> <p>Further, we suggest that the relative balance between forecast supply and demand in adjacent years also be</p>			

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	considered in determining whether to trigger the reliability obligation. One option is that a moving average of forecast reliability shortfall or surplus be compared against the materiality threshold described above. As is noted in the ESB's paper, longer-term forecasts can be more susceptible to uncertainty so using a moving average helps to ensure that the reliability obligation is not unnecessarily triggered by a 'blip' in the forecast supply and demand or some other artefact of the modelling process.			
Pg 39 Q27	<ul style="list-style-type: none"> • What are stakeholder views on the types of contracts that should be considered eligible for the purposes of the requirement? • Do stakeholders consider eligible contracts should be financial, or have a link to physical capacity? • What do stakeholders think of the approach to certify financial contracts back to a physical asset? • To what extent does the design choice about eligible contracts influence different types of retailers, and so market structure? • What are stakeholder views on the proposed approach of determining the generation source in a vertically integrated business? 			
27	<p>We support having a detailed and transparent methodology for determining an energy source's "firmness" for complying with the reliability obligation. In other words, an intermittent generation source should be eligible for a proportion of its nameplate capacity based on the flexibility of its output and its ability to provide generation at the time of the forecast reliability gap. This will help to ensure the widest possible pool of eligible generators to meet the reliability obligation if it is triggered and ultimately assist achieving the most efficient price.</p> <p>For vertically-integrated gentailers, there must be transparency of the contracting price and other arrangements to help ensure that contracts are provided to its affiliate business at fair market rates and not concentrating market power.</p>			
Pg 45 Q34	<ul style="list-style-type: none"> • What are stakeholder views on how the Guarantee may impact on competitive markets? 			
34	<p>Please see our RCYA Principles Assessment column on competition.</p> <p>The Guarantee, as it is currently proposed, will give a significant advantage to established, vertically-integrated gentailers at the expense of smaller, emerging retailers.</p> <p>The impact of the Guarantee on competition will be the cumulative effect of its structural design and the setting of many individual policy levers. We discuss some policy settings in detailed responses to other questions, and here focus on the Guarantee's structural design.</p>			

Page & Q	Response	RCYA Principles Assessment		
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	<p>The NEM is currently suffering from a shortage of competition in both the generation and retail markets. It is our view that the structure of the Guarantee will broadly serve to entrench the market power of large players in both markets, particularly in the retail market. It will reduce the viability of small players and raise the barriers to new market entrants. This is due to three primary drivers: the increased competitive advantage of capital; the increased costs of participating in the contracts market; and the increased costs of meeting compliance requirements.</p> <p>Access to capital is a natural advantage in any market, however the relative importance of capital differs between markets. Capital plays a considerably greater role in investments in electricity generation infrastructure than for investments in the electricity retailing businesses. Placing the expectation on retailers to invest in generation capacity, or demand side alternatives, will significantly increase the ongoing capital requirements of retailers as well as the capital investment required to establish new retailers.</p> <p>The costs of entering a contract market and meeting compliance requirements typically scales poorly for small players, ie: it places unequally great strain on the viability of small players compared to larger ones. We are concerned that the proposed contract markets is unduly complex, creating a barrier to entry and burdening smaller players with elevated operating costs that cannot recovered from a small customer base. This is particularly pronounced for non-vertically integrated players that cannot manage contracts internally. We therefore believe that the increased role of retailers will be a major advantage for existing vertically integrated gentailers at the expense of small and emerging players.</p> <p>We also note that two contradictory views have been put forward through the Guarantee consultation process regarding competition in the wholesale market. Namely that:</p> <ol style="list-style-type: none"> 1. Increased contracting will lead to weaker price discovery in the wholesale market, thereby causing distorted competition and non-optimal outcomes which ultimately lead to higher prices; and 2. Increased contracting will lead to an increased desire for dispatch in the wholesale market, so that participants can defend their contracted positions, thereby resulting in lower prices. <p>Given the contradiction between such possible outcomes, it is incumbent upon the ESB to develop tests which can be rigorously and transparently applied to determine actual outcomes.</p>			

