



Australian Government

Department of the Environment and Energy

Department of the Environment and Energy

National Energy Guarantee

Update on Commonwealth Design Elements

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1. INTRODUCTION

The response to the Energy Security Board's (ESB) public consultation on the National Energy Guarantee (the Guarantee) demonstrates the interest in its design, with over 150 submissions received from a broad range of groups and individuals.

The Guarantee addresses some of the biggest challenges facing the National Electricity Market (NEM) as it undergoes the most significant transition since it was formed in 1998. The Business Council of Australia in their submission called it a "circuit-breaker", and "our best chance to drive the investment we need in the energy sector, while also meeting our emissions reduction targets".¹

Over the last decade around 5,200 megawatts (MW) of traditional thermal generation was withdrawn from the NEM.² Of the 2,600 MW of generation capacity added over the six years to March 2018, 90 per cent was in variable renewables.³ The last dispatchable generator built in the NEM was in Victoria more than five years ago.

Retiring dispatchable generation has been replaced by intermittent generation, primarily built by the Renewable Energy Target (RET). After a record year for investment in renewable energy in 2017, which included 4,900 MW of announced and fully financed new capacity, the Clean Energy Regulator has said the RET is on track to achieve its target of 33,000 gigawatt hours of generation from additional renewable sources in 2020.⁴ However, the RET has a number of limitations, in particular, the lack of emphasis on energy storage.

The ESB proposed the Guarantee to "bring together climate and energy policy for the first time in Australia".⁵ The reliability and emissions components of the Guarantee complement each other, and are intended to ensure that the NEM remains reliable as it transitions towards a low emissions future.

The reliability requirement will ensure that "we have sufficient investment in dispatchable megawatts or demand response to meet peak demand".⁶ The emissions target will enable the NEM to contribute to the achievement of Australia's international commitments, and will provide policy certainty to businesses looking to undertake long-term investments in electricity supply assets.

The consultation process showed strong support for the objectives of the Guarantee.

"In our view, an emissions guarantee providing a national and durable climate policy, coupled with a reliability guarantee safety net, will provide the lowest cost outcomes for customers." – EnergyAustralia⁷

¹ Business Council of Australia submission to ESB Draft Design Consultation Paper

² AEMO, Advice to Australian Government on Dispatchable Capacity, September 2017.

³ AER, State of the Energy Market, 2017 – updated with AEMO Generation Information.

⁴ Clean Energy Regulator, Record year of investment means Australia's 2020 Renewable Energy Target will be met, media release, January 2018.

⁵ <http://www.cleanenergyregulator.gov.au/RET/Pages/News%20and%20updates/NewsItem.aspx?ListId=19b4efbb-6f5d-4637-94c4-121c1f96fcfe&ItemId=468>

⁶ ESB Draft Design Consultation Paper

⁷ ESB Draft Design Consultation Paper

⁷ EnergyAustralia submission to ESB Draft Design Consultation Paper

“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.” – Origin⁸

*“If implemented effectively, the Guarantee is likely to be a durable mechanism, which should provide the policy confidence necessary to unlock long term investment.”
– BHP⁹*

“The NEG has a real opportunity to improve reliability and put downward pressure on prices.” – Australian Steel Institute.¹⁰

1.1 This paper

The Commonwealth Government is leading the design of elements of the Guarantee related to Australia’s emissions reduction targets: setting the emissions target under the Guarantee, the treatment of emissions-intensive trade-exposed (EITE) industries and the role of external offsets.

The Government contributed chapter four of the ESB’s consultation paper, and sought stakeholders’ views on the Government’s approach to these elements. This paper outlines the Government’s updated position on these design elements in response to the feedback received from stakeholders. The Government will further consider these design elements and make a final decision on its positions later this year, in the context of the COAG Energy Council’s decision on implementing the Guarantee.

Target setting

The Government sought stakeholders’ views on how the target should be expressed, how the target could be adjusted if required, the timing for reviewing the target and how the target should interact with other renewable energy schemes.

Energy market stakeholders reiterated the importance of the target in providing long-term investment certainty.

“Stability and long lead times are critical for industry confidence and investment, and the Energy Council is pleased that the Paper has developed a regime [for setting targets] that attempts to provide this.” – Australian Energy Council¹¹

Responses from stakeholders indicated support for the approach to target setting set out in the consultation paper, which sought views on the right balance between certainty and flexibility to respond to a changing energy market in its proposed five year notice period of any changes to the target, with reviews every five years.

EITEs

The Government sought stakeholders’ views on issues to be addressed in exempting EITE activities from the emissions requirement of the Guarantee, consistent with the approach under the RET. Stakeholders provided constructive comments on issues which could be

⁸ Origin submission to ESB Draft Design Consultation Paper

⁹ BHP submission to ESB Draft Design Consultation Paper

¹⁰ Australian Steel Institute submission to ESB Draft Design Consultation Paper

¹¹ Australian Energy Council submission to ESB Draft Design Consultation Paper

raised in exempting EITEs, which the Government will take into account in the design of the exemption.

Offsets

The Government sought stakeholder feedback on whether there was a strong rationale for the use of offsets within the Guarantee, the impact this would have on investment certainty and what an appropriate limit would be if their use was allowed. A broad range of views were expressed by stakeholders, both for and against the use of offsets within the Guarantee. The Government will undertake further consideration before making a decision. Stakeholder feedback makes clear that if offsets are to be used, a robust framework needs to be designed for their use.

Next steps

This paper is intended to sit beside the ESB's high-level design paper to inform COAG energy ministers ahead of their consideration of the Guarantee in April 2018. Following this, this paper will be used as the basis for further detailed design work on the Guarantee.

2. SETTING THE ELECTRICITY EMISSIONS TARGET AND REVIEW PROCESSES

2.1 Setting the sectoral emissions reduction target

The Government set out in the ESB's Consultation Paper that its target for the electricity sector is a 26 per cent reduction on 2005 levels by 2030. This position is based on the need to achieve Australia's commitments under the Paris Agreement while ensuring affordable and reliable electricity supply.

2.2 Form of the emissions target under the Guarantee

The Government suggested in the consultation paper that the target could be expressed as a trajectory of annual average emissions per megawatt hour (MWh) levels (referred to as 'electricity emissions targets'). It noted that the benefit of this approach would be that the target would self-adjust to the level of demand, thereby allowing for the transition to take place at a stable rate. Importantly, this could provide certainty to retailers as to what their requirements will be each year.

Many stakeholders, including Stanwell, AGL, Origin, Telstra and the Clean Energy Council supported that approach.

"The target must take into account the objective of ensuring long-term investment stability insofar as that it reduces risk for market participants and improves efficient market outcomes. In this regard, we support the proposal to set a target for the level of emissions per MWh for retailers in the NEM each year" – AGL.¹²

"This approach is appropriate as it sets a fixed annual target for the level of emissions per MWh for retailers, with actual emissions dependent on total electricity consumption. Regardless of whether demand is higher or lower than expected, the level of emissions per MWh retailers must achieve would remain unchanged, allowing for the transition to lower-emissions generation in the sector to occur at a stable pace." – South Australian Council of Social Service (SACOSS)¹³

There were a small number of submissions that preferred the target be set as in tonnes of emissions. ClimateWorks noted that "the target should be for total emissions reductions—the form of Australia's NDC—rather than an emissions intensity target".¹⁴ However the weight of submissions and the reasons given support the Government's proposed approach that targets be expressed as a trajectory of annual average emissions per MWh levels.

2.3 Forecasts and adjustments to the target

In the consultation paper the Government sought views on an approach under which targets would not be adjusted to account for changes in demand forecasts. Variations in demand could instead be accounted for when the next targets were set. This approach was aimed at providing certainty to industry and market participants. Most stakeholders supported the principle of targets providing certainty.

¹² AGL submission to ESB Draft Design Consultation Paper

¹³ SACOSS submission to ESB Draft Design Consultation Paper

¹⁴ ClimateWorks submission to ESB Draft Design Consultation Paper

“...electricity emission targets should not be updated to account for changes between forecast and actual demand and that these variations be applied to determining future emission targets to preserve investment certainty.” – SACOSS¹⁵

“We agree that the trajectory of the electricity emissions targets should not generally be adjusted to account for variations in electricity demand, but rather that an established methodology to calculate emissions obligation should be set that allows retailers to forecast based on predictable inputs what their obligation may be in any given compliance year.” – AGL¹⁶

The Government believes AEMO is best placed to provide demand forecasts for the Guarantee. Following stakeholder consultation, the Government remains of the view that existing targets should not be revised for changes in demand forecasts, and instead variations should be accounted for when the next set of electricity emissions targets are set under the Guarantee.

2.4 Timing and process for setting the electricity emissions targets under the Guarantee

In the consultation paper the Government sought views on an approach for setting the target under the Guarantee. This was intended to strike a balance between providing certainty to the market and providing flexibility to achieve future targets. This approach included:

- a) An initial target would be set for 10 years from 2021-2030.
- b) The Government would review targets every five years, aligning with its domestic policy review and refine cycle and the five-yearly review under the Paris Agreement.
- c) At each review, the Government would set at least a further five years of targets.
- d) Changes to targets could only occur with five years' notice.

In relation to the 2030 target, some stakeholders noted that, due to the long life of capital investments in electricity generation assets, the emissions trajectory would need to extend beyond 2030 to provide investment certainty.¹⁷ This view was supported by AGL and Origin, both of who made mention of the need for “long-term” guidance.¹⁸

As set out in the consultation paper, the Guarantee is an enduring mechanism, with no fixed end date. Updated targets for 2030 to 2035 would be set by 2025 (in line with Paris targets for 2035 once they are set), 2040 targets would be set by 2030, and so on.

As noted in the consultation paper, this approach would ensure the market had, at any time, between five and ten years of targets available to guide investment decisions. This would provide more future information than was provided under the RET.

Stakeholders from all sectors recognised the need to provide energy companies with enough certainty to manage their investments, and submissions indicated that the Government's proposed approach had found the right balance between certainty and flexibility.

¹⁵ SACOSS submission to ESB Draft Design Consultation Paper

¹⁶ AGL submission to ESB Draft Design Consultation Paper

¹⁷ Clean Energy Council and Telstra submission to ESB Draft Design Consultation Paper

¹⁸ AGL and Origin submission to ESB Draft Design Consultation Paper

For example, Snowy Hydro said that the Government’s proposals “will further enhance investor certainty”¹⁹, while EnergyAustralia noted that “[t]he proposed five-year gateway with a five-year lead time for determining future targets provides a level of policy stability to enable investment decisions in long lived assets to occur”.²⁰ While wanting to preserve the flexibility to increase ambition, the Australian Conservation Foundation supported a five year notice period to “maintain sufficient certainty to investors”.²¹

There was support for aligning reviews of the target with Australia’s reviews of its commitments under the Paris Agreement. For example the Energy Users Association of Australia “agrees with the target setting to initially be 10 years and then subsequently 5-year periods consistent with the Government’s Paris Agreement commitments.”²² The Australian Academy of Technology and Engineering stated that reviews of the target “should align with Australia’s commitments to the Paris agreement.”²³

In contrast, some stakeholders argued that five years would not provide sufficient certainty given the longevity of electricity generation assets, and supported a longer notice period (for example 10 years).

“Electricity sector adjustments may need a longer time frame than the five years proposed. Power generation involves investment in long life assets. Short time frames will likely encourage a continuation of the response behaviours where the market invests in short term peaking (just in time solutions) which would be expected to result in higher prices in the market.” – Minerals Council of Australia²⁴

At the same time, some stakeholders suggested that companies did not require five years’ notice, and a shorter notice period could be given.

“While a period of certainty represents good practice, a five-year lock-in may be too long given that both the end target and demand forecasts are likely to change (and could change significantly).” – The Grattan Institute²⁵

Overall, submissions from stakeholders suggest the Government’s proposed approach of five years strikes the right balance between certainty and flexibility. AGL capture this in their submission, noting that “the proposal to limit changes to the target trajectory by the Commonwealth Government as only applying with five years’ notice seems on balance to be a fair setting”.²⁶

2.5 Geographic neutrality

Energy market stakeholders, in their submissions, expressed a strong preference to see a nationally coordinated and consistent approach to emissions reduction in the electricity sector. Many outlined that competing energy policies across jurisdictions would impact the ability of the Guarantee to provide investment certainty and subsequently achieve an emissions objective at lowest cost.

¹⁹ Snowy Hydro submission to ESB Draft Design Consultation Paper

²⁰ EnergyAustralia submission to ESB Draft Design Consultation Paper

²¹ ACF submission to ESB Draft Design Consultation Paper

²² EUAA submission to ESB Draft Design Consultation Paper

²³ ATSE submission to ESB Draft Design Consultation Paper

²⁴ MCA submission to ESB Draft Design Consultation Paper

²⁵ Grattan Institute submission to ESB Draft Design Consultation Paper

²⁶ AGL submission to ESB Draft Design Consultation Paper

"Alinta supports providing signals for clean energy investment and firmly believes this would be most efficiently achieved through a single national policy." – Alinta Energy²⁷

"Importantly, geographic neutrality will ensure investment decisions in the NEM are not distorted by jurisdictional targets. This NEM-wide approach also recognises the fact that climate change is a global problem and it does not matter where abatement occurs." – Business Council of Australia²⁸

The Government's view is that a consistent approach should be taken to energy policy across the NEM, where there would be a single trajectory of emissions targets set under the National Energy Guarantee.

As signatory to the Paris Agreement, an international agreement between nations, the Commonwealth Government is responsible for setting Australia's national emissions reduction targets, and ensuring we have the right mix of policies in place to achieve it. As such, the Guarantee target would be determined by the Commonwealth.

Where States and Territories pursued their own renewable energy targets, such as to achieve investment or employment policy objectives, this would not change the target under the Guarantee. If these state based targets and mechanisms cause the geographic distribution of investment to deviate from an efficient national approach, the reliability requirement of the Guarantee would ensure sufficient dispatchable generation was available across all jurisdictions.

3. TREATMENT OF EMISSIONS-INTENSIVE TRADE-EXPOSED ACTIVITIES

The ESB consultation paper sets out the Government's intention to exempt EITE activities from the emissions requirement under the Guarantee. This exemption would be consistent with the approach established under the *Renewable Energy (Electricity) Act 2000* (the RET Act).

Utilising the framework established under the RET and retaining the Clean Energy Regulator (CER) as the regulator responsible for EITE exemptions would help to streamline the exemption process, reducing regulatory burden on those businesses.

A number of stakeholders expressed support for full EITE exemptions.

"Rio Tinto strongly supports entities carrying out EITE activities being exempt from meeting the emissions requirement of the Guarantee." – Rio Tinto²⁹

"The proposal to exempt electricity used to carry out EITE activities will be vital to the ongoing viability of many businesses in Australia." – Australian Aluminium Council³⁰

Stakeholders are also supportive of aligning the exemption process with the existing RET.

"Aligning the treatment of EITEs under the Guarantee with the existing RET exemption process is a logical step from a compliance perspective, as well as maintaining the

²⁷ Alinta Energy submission to ESB Draft Design Consultation Paper

²⁸ BCA submission to ESB Draft Design Consultation Paper

²⁹ Rio Tinto submission to ESB Draft Design Consultation Paper

³⁰ Australian Aluminium Council submission to ESB Draft Design Consultation Paper

CER as the responsible regulator under the Guarantee.” – Cement Industry Federation³¹

“In Infigen’s view, the basis for exempting EITE loads, and processes for doing so have been well established through the RET... The basis for reallocation of EITE load should follow these precedents.” – Infigen Energy³²

To ensure the target level of emissions reductions are achieved, this approach would require exemptions provided to EITE customers to be accounted for by non-EITE customers. To achieve this, exempt electricity would be taken into account when setting retailer obligations under the scheme.

“The Business Council supports...exempting electricity used to undertake EITE activities from the emissions requirement under the Guarantee, noting that ‘to achieve the desired level of overall emissions reductions, non-EITE electricity would need to make up the difference’.” – Business Council of Australia³³

The Government sought views from stakeholders in the consultation paper on any issues to be addressed in designing the exemption mechanism.

Some stakeholders noted that the arrangement for assigning generation to EITE load would need to be carefully designed.

“If retailers are able to remove EITE customers’ load from their emissions obligation, then this may unbalance the scheme. Effectively this load will be deemed to be supplied by the most emissive generation rather than the average. This could create difficulties in achieving the total average carbon intensity.” – Australian Energy Council³⁴

“An important consideration when developing the exemption for EITE activity under the Guarantee will be managing what level of emissions-intensive generation retailers can assign to EITE customers. Can retailers assign the most emissions-intensive generation of their load to EITE customers or will EITE activity be assigned the average emissions intensity across the NEM? This will need to be determined before the electricity emissions targets are set.” – Business Council of Australia³⁵

In designing any EITE exemption mechanism, the Government will carefully consider the issues raised by stakeholders in the design process.

4. EXTERNAL OFFSETS

In the ESB Consultation Paper, the Government said that it was considering whether retailers should be able to use external offsets as a flexible compliance option to meet the emissions guarantee, and whether any conditions or limits should be in place on the volume and types of offsets that can be used. To guide its decision, the Government is considering the use of offsets with reference to the design principles of ensuring affordability, facilitating efficient investment and promoting competition.

³¹ Cement Industry Federation submission to ESB Draft Design Consultation Paper

³² Infigen Energy submission to ESB Draft Design Consultation Paper

³³ Business Council of Australia submission to ESB Draft Design Consultation Paper

³⁴ Australian Energy Council submission to ESB Draft Design Consultation Paper

³⁵ Business Council of Australia submission to ESB Draft Design Consultation Paper

A number of stakeholders have raised possible uses and rationales for offsets under the Guarantee. Others raised concerns about their impacts on investment certainty.

Some stakeholders suggested that the use of offsets could provide a flexible compliance option that would help retailers meet their emissions obligations at least cost. They argued that emissions reductions have the same effect on climate change wherever they occur in the world, and in some cases it may be more affordable to purchase offsets than reduce emissions within the electricity sector. A number of retailers, large energy users and industry bodies supported the use of offsets, particularly as a mechanism to lower the cost of compliance with the emissions guarantee.

“We support the eligibility of credible carbon emission offsets from outside the sector as it keeps costs as low as possible for customers.” – EnergyAustralia³⁶

“The Business Council has consistently supported emissions reduction policies that allow access to credible domestic and international permits to ensure compliance can be managed at least-cost.” – Business Council of Australia³⁷

“We support allowing the use of national and international offsets within the Guarantee.” – BHP³⁸

“Offsets can provide a cost-effective way of reducing emissions in the economy and provide a clear market signal for investment in emissions reduction activity” – Carbon Market Institute³⁹

While noting the flexibility benefits the use of offsets could provide, some concerns were raised.

There was support amongst stakeholders for percentage or absolute limits on the use of offsets to ensure the right balance between flexible compliance and investment certainty is achieved.

“A balance must be struck between flexibility and least-cost options for compliance and achieving the primary objective of the mechanism – providing a long-term investment signal in the NEM that will ensure a reliable system and put downward pressure on prices. If offsets are permitted to be used for compliance, the possibility of limitations should be considered.” – Business Council of Australia⁴⁰

Offsets may be helpful to smaller retailers in providing an alternative to contracting with large vertically integrated retailers to meet their Guarantee requirements. Offsets could also help market customers with flexibility in meeting the emissions guarantee for small loads, and could be an outlet for retailers to manage their compliance in response to changes in their forecast requirements.

“Some EITE facilities that are market customers may have small components of their electricity supply that do not receive an EITE exemption. Flexible options will be

³⁶ EnergyAustralia submission to ESB Draft Design Consultation Paper

³⁷ Business Council of Australia submission to ESB Draft Design Consultation Paper

³⁸ BHP submission to ESB Draft Design Consultation Paper

³⁹ Carbon Market Institute submission to ESB Draft Design Consultation Paper

⁴⁰ Business Council of Australia submission to ESB Draft Design Consultation Paper

needed to enable cost-effective compliance for these small loads.” – Australian Aluminium Council⁴¹

“The use of offsets should be permitted because Market Customers may not be able to forecast the requirements accurately when determining what long term contracts to enter into with Generators...Smaller Market Customers will have greater difficulty forecasting their requirements, as they will often be growing rapidly.” - Telstra⁴²

If the Government were to allow the use of offsets, the Government would also need to decide which offsets were eligible to be used. Some stakeholders raised concerns about the quality of international units.

“Limit the use of international offsets on the grounds of the quality of the source. – Snowy Hydro⁴³

In its final report on the 2017 Review of Climate Change Policies, the Commonwealth Government provided in-principle support for the use of high quality international offsets consistent with the rules implementing the Paris Agreement. However, the governing framework for the use of international units under the Paris Agreement is yet to be established.

Should access to offsets be permitted under the Guarantee, a reliable supply of quality offsets would need to be available.

The Government acknowledges stakeholder suggestions about the roles offsets could play. Allowing offsets could provide additional flexibility and lower the costs to retailers of meeting the emissions guarantee.

The Government is continuing to consider whether retailers should be able to use external offsets as a flexible compliance option to meet the emissions guarantee, and whether any conditions or limits should be in place on the volume and types of offsets that could be used. The Government’s position is that if offsets were eligible, it should be in a manner that provides the greatest investment certainty, is technology neutral, helps address small compliance shortfalls and reduces market imbalances.

5. NEXT STEPS

The Government will continue to work with the ESB and the COAG Energy Council to finalise the design of the Guarantee.

The ESB will lead detailed design work on both the emissions and reliability mechanisms, including targeted consultation. The Government will participate in this process where appropriate.

Concurrently, the Government will undertake detailed work to further assess and develop the approaches discussed in this paper before making final decisions. This includes work on: how the target is expressed and the process for reviewing and adjusting it within the emissions mechanism, how any EITE exemption is calculated and implemented, and further consideration of the eligibility of offsets, and the frameworks that could apply if they were to be used. The Government looks forward to engaging stakeholders on these elements and welcomes further stakeholder feedback at any time.

⁴¹ Australian Aluminium Council submission to ESB Draft Design Consultation Paper

⁴² Telstra submission to ESB Draft Design Consultation Paper

⁴³ Snowy Hydro submission to ESB Draft Design Consultation Paper