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Sent via email: info@esb.org.au

Attention: Energy Security Board

Woodside welcomes the opportunity to make this submission to the Energy Security Board's National Energy Guarantee (NEG) Consultation Paper.

About Woodside

Woodside is Australia's largest independent oil and gas company. We have a global portfolio and are recognised for our world-class capabilities as an explorer, developer, producer and supplier of energy.

Our mission is to deliver superior shareholder returns through realising our vision of becoming a global leader in upstream oil and gas. Our assets are renowned for their safety, reliability and efficiency, and we are Australia's most experienced liquefied natural gas (LNG) operator.

Our producing assets in Australia include the landmark North West Shelf (NWS) Project, which has been in operation since 1984. In 2012, we commenced production from the Pluto LNG Plant and in mid-2017 we added additional volumes from our non-operated Wheatstone LNG interests.

We continue to be at the forefront of our industry by seeking to grow new markets for LNG. To achieve this, we are planning for Australia's first LNG fuel hub to capture growing land and marine LNG fuel markets.

Woodside is characterised by strong safety and environmental performance in all locations where we are active and we are committed to upholding our values of integrity, respect, working sustainably, discipline, excellence and working together.

Woodside's climate change approach

Woodside believes that natural gas will continue to play an important role in the long term energy mix, reducing emissions by replacing coal and integrating with renewables to address intermittent power generation. This is directly aligned with the stated aims of the National Energy Guarantee.

As a long term policy objective, Woodside continues to support global carbon pricing as a means to achieve low cost emissions reductions. We also remain supportive of market based mechanisms in the absence of global action.

Carbon policy needs to be applied consistently to all fuels and emission sources so that industries such as LNG are not disadvantaged with costs that international competitors may not face.

We note that in the absence of such a policy being adopted on a long term and bipartisan basis, business is faced with heightened risk of unanticipated and potentially more costly future policy changes, and/or the re-emergence of piecemeal policy at a State level, both of which can undermine the business environment and future investment.

It is with these observations in mind that we consider the proposed National Energy Guarantee. Woodside is not a direct participant in the National Electricity Market but has a strong interest in the development of a long term, bipartisan and effective climate change policy framework that delivers emissions reductions while maintaining Australia's competitiveness. Our specific comments are therefore targeted at section 4 of the consultation paper, relating to Commonwealth Government design elements in respect of the NEG's emissions requirement.

National Energy Guarantee

Woodside agrees with the Energy Security Board that Australia's energy system should be clean, reliable and affordable. These are prudent objectives. We note that the NEG aligns with many of our policy principles outlined above.

Emissions Intensive trade exposed Industries

Woodside's preference is for a bipartisan, national approach to climate change that covers all sectors. As this is not currently in place, we recognise the current need for sector level policies.

There are advantages of focusing on Australia's electricity sector in the first instance. It emits more than any other sector and new technologies have expanded the range of cost effective abatement options. The electricity sector is also less exposed to international competition as an Australian customer cannot readily purchase electricity from overseas. Many other industries, including our own, are subject to international competition and imposing regulations may encourage these industries to invest in jurisdictions with less stringent environmental regulation. This has potential to harm the Australian economy and fails to reduce global emissions as it simply moves those emissions offshore.

Setting the target

Woodside supports stable and effective policies that deliver least cost abatement. If a sectoral approach is to be taken it is important to recognise each sector has a different abatement cost curve, so an economy wide policy needs to allocate appropriate targets to each sector. The consultation paper suggests the NEG's target aligns with the current Australian emissions reduction target: 26-28% below 2005 levels by 2030.

Recent cost reductions in wind and solar PV likely provide the electricity sector with more opportunities for low cost abatement than many other sectors. Woodside would therefore encourage the Energy Security Board to consider a sectoral 2030 target that is higher than 28% to ensure Australia achieves least cost abatement across the economy as a whole.

Woodside supports the intent of allowing the NEG to provide a long term investment signal and for future targets to be in line the Paris Agreement's nationally determined contributions process. This submission should be read in conjunction with Woodside's submission to the Department of Environment and Energy's 2017 Climate Change Policy Review available at:

<http://www.environment.gov.au/climate-change/review-climate-change-policies/discussion-paper-2017>

We trust this submission is of assistance and look forward to participating further in Australia's climate policy discussions.

Yours sincerely,

Fiona Hick

Vice President, Health, Safety Environment and Quality



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29 March 2018

Sent via email: safeguard.mechanism@environment.gov.au

Attention: Department of Environment and Energy

Woodside welcomes the opportunity to make this submission to the Department of Environment and Energy's Safeguard Mechanism (SGM) consultation process.

We support the principle of simplification embodied in the consultation paper and our response covers the areas where our experience allows us to make a constructive contribution. In particular, we believe that the success of this approach rests in selection of appropriate default production variables and emissions intensities for each sector.

A key area of concern is the uncertainty in energy policy beyond 2020. This increases business risk and may hinder investment. Although we appreciate that this consultation is focused on transitioning from reported baselines, we recommend the Department and government use the analysis conducted during this period to develop post-2020 policy settings and then finalise this work as a priority.

Our response to the specific questions in the consultation paper is included in Appendix A.

We welcome any questions relating to our submission. In particular we support continued industry engagement regarding default production variables and emissions intensities in order to achieve stable and efficient policy outcomes.

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Our mission is to deliver superior shareholder returns through realising our vision of becoming a global leader in upstream oil and gas. Our assets are renowned for their safety, reliability and efficiency, and we are Australia's most experienced liquefied natural gas (LNG) operator.

Our producing assets in Australia include the landmark North West Shelf (NWS) Project, which has been in operation since 1984. In 2012, we commenced production from the Pluto LNG Plant and in mid-2017 we added additional volumes from our non-operated Wheatstone LNG interests. In early 2018, Woodside increased its share in the Scarborough gas field, off the coast of Western Australia. The Scarborough gas field provides greater alignment, certainty and control as the company pursues a development concept that involves maximising existing infrastructure at the Pluto LNG, as well as expanding it. We have also made significant progress in the Browse project, where with our fellow joint venture participants we are targeting a development concept that efficiently utilises emerging spare capacity at the North West Shelf gas plant.

We continue to be at the forefront of our industry by seeking to grow new markets for LNG. To achieve this, we are planning for Australia's first LNG fuel hub to capture growing land and marine LNG fuel markets.

Woodside is characterised by strong safety and environmental performance in all locations where we are active and we are committed to upholding our values of integrity, respect, working sustainably, discipline, excellence and working together.

Woodside's approach to climate change

Woodside recognises the scientific consensus on climate change and the challenge of providing safe, clean, affordable and reliable energy whilst reducing emissions. Woodside is committed to being part of the solution.

We believe oil and gas will continue to be vital in meeting the world's energy needs and that the benefits of natural gas, in particular, will see it play an increasingly important role globally both in the energy mix and in reducing greenhouse gas emissions by replacing coal and integrating with renewables to address intermittent power generation.

To achieve this, Woodside pursues a number of strategies to ensure the resilience of our portfolio, improve the carbon performance of our facilities and developments and communicate the future role of gas. These include:

- Promoting natural gas in the energy mix as a means to reduce greenhouse gas emissions, support renewable energy and improve local air quality;
- Promoting and pursuing a culture of energy efficiency and improved resource use in our own designs and operations;
- Supporting our host countries in their endeavours to set emissions reduction targets in accordance with internationally accepted science and to achieve these targets using efficient and stable policies;
- Supporting lowest cost abatement through global carbon pricing;
- Evaluating the resilience of our portfolio and investment decisions to potential changes in global climate policy;
- Setting and publishing targets to encourage innovation and drive reductions in our carbon footprint and energy use; and
- Pursuing greenhouse gas emission reduction technologies with our peers and scientific institutions.

Where Woodside has the opportunity to engage with governments about future energy policies, we are guided by some key principles.

We recognise that an ideal policy – global in nature, stable over the long term, with targets based upon science, and delivering objectives at the lowest global cost – is not currently contemplated by the international community through a single mechanism or institution. Instead, pragmatic and incremental policies should be (and are being) implemented, but should trend towards the ideal whilst mitigating the interim disadvantages of piecemeal action. For example:

- Policy objectives and targets should be based on the internationally accepted climate **scientific consensus**. National commitments and actions should be geared to make appropriate contributions to the scientifically derived global objective. Formal review cycles should ensure targets remain appropriate and that policies are effective in achieving them.
- Policies should target action to which ever global sector or geography can meet objectives at the **lowest cost**. To reduce the gap to global action, jurisdiction should be held at the highest level of a country's system of government, and should endeavour to link internationally where possible. We believe that free markets efficiently allocate resources, and that a global market for high quality offsets should be encouraged and supported. Pre-competitive research and development support should be deployed to accelerate lower emission technologies down their cost curve in order to reduce the future marginal cost of abatement.
- Policies should **enhance national competitiveness and reduce trade distortion** by targeting relief to energy intensive trade exposed (EITE) sectors that compete with, or export to, markets that impose less ambitious policies upon their own equivalent sectors. Reducing the energy and carbon intensities of the economy enhances competitiveness. About 90% of the emissions from Woodside's value chain comes from our customers using our end products and this means that differential treatment of emissions by other countries in the value chain will be highly distortive if not levelised by EITE policy. Without effective EITE relief, the pace of national action will be constrained by the needs of the most vulnerable sector.
- Policies should be **enduring over the long term** in order to allow sound investment decisions. This means that they must accommodate the delivery of competing priorities such as energy security, energy

poverty, economic development, and urban air quality; and they need to survive election cycles which implies a need for political compromise and pragmatism in service of bipartisan consensus.

Our specific comments on the SGM consultation are informed by the above principles and our experience operating industrial facilities and complying with current and previous Australian emissions legislation.

Safeguard Mechanism

Woodside agrees with the Department of Environment and Energy that the SGM can be improved to make it fairer and more efficient. We also agree that the SGM should be designed to encourage the industrial sector to manage its emissions whilst minimising administrative burden. We are of the view that all three elements of the proposal support this outcome.

Transition to calculated baselines

All Woodside facilities use reported-emission baselines. This means a move to calculated emission baselines would impose additional administrative burden, but we understand and support the broader policy benefits of aligning baselines with expected, rather than historic emissions.

Simplifying calculated baselines

We support introducing the option to use default production variables for calculated baselines, removing the requirement for audited emission forecasts.

We believe this process could be further simplified by immediately switching to production adjust baselines removing the need to transition through a calculated baseline period. We would still however advocate that a calculated baseline period apply to new facilities, as initial emissions may depend more on start-up activities than production variables during a commissioning period.

Selection of default variables

We advocate that default production variables should ideally:

- Rely on information that is currently subject to regulatory reporting;
- Link to emissions generated across facilities within an industry over time; and
- Exclude self-generated electricity that is consumed on site.

Applications made to date for facility calculated baselines will logically use production variables that most robustly and simply explain a facility's forecast emissions. For individual facilities this could be input feedstock (such as natural gas) or intermediate products, depending on the facility structure. For the LNG industry as a whole, the default variables need to reflect inter-facility variation. As the dominant relationship between emissions and production stems from the type of product being produced, we would propose that these be based on output variables. As a minimum these should distinguish between LNG and other hydrocarbon products, but a more granular approach may also be justified, such as distinguishing crude or condensate from natural gas.

Although LNG facilities will often generate multiple products, most emissions are derived from the LNG liquefaction process. LNG production is in turn determined by the feed quantity, the concentration of methane in the feed and the fraction of this methane that is liquefied. Other characteristics impact the emissions profile, such as reservoir carbon dioxide that needs to be vented or long distances requiring compression, but these factors cannot typically be used as production variables.

We recognise that some LNG facilities have used feed quantity as their sole production variable when making calculated-emission baseline applications. This may be due to reservoir composition and the fraction of the feed methane that is liquefied are relatively consistent over the baseline setting period, resulting in feed quantity being an appropriate production variable for an individual facility. Despite this, the overall determinant of emissions produced will rely upon LNG liquefaction.

One challenge that employing outputs variables creates for the LNG industry is that NGER reports do not have sufficient information to reflect the relationship between emissions and specific products. As such, additional information will be required to determine default emission intensities. For an integrated facility this can be complicated, even with access to detailed operating data. Woodside has put considerable effort into forecasting and improving emissions intensity in recent years and would welcome further engagement with the Department around appropriate default emission intensities for the oil and gas industry

Electricity as a default variable

The Safeguard rule excludes scope 2 emissions and requires that self-generated electricity is included when production variables are outputs. In the LNG industry, the design of a facility can (to a large extent) treat electricity and direct gas combustion as substitutes, which may create the following unintended consequences:

1. Including self-generated electricity as a production variable encourages a facility to power more of its liquefaction with self-generated electricity to achieve a higher baseline. This would not change LNG production, but could potentially double the facility's baseline as it would include a component for LNG production and another for self-generated electricity.
2. If self-generated electricity is included as a production variable, the facility could still choose to power all its liquefaction with electricity, but import it (i.e. scope 2). This would result in a baseline appropriately determined by LNG production, but emissions would be transferred to the electricity generation facility. At present the electricity sectoral SGM baseline is unlikely to be triggered and thus these are effectively removed from being covered emissions.

Although we do not have detailed understanding of how other industries operate, this incentive structure may exist beyond the LNG industry.

The first perverse incentive could be addressed by subtracting consumption from self-generated electricity. The second could be dealt with by including scope 2 emissions in baselines, but this may be challenging to operationalise, especially if it only applies to a single industry. An alternative would be to ensure that the entire electricity sector is covered by an effective emissions management policy, such as applying the emissions component of the National Energy Guarantee nationally.

It should be stressed that although the policy may create perverse incentives, these are unlikely to have a large impact on emissions profiles or baselines once design decisions are made, since the equipment necessary to run a liquefaction facility on electricity is capital intensive. Additionally, if default production variables are chosen appropriately, emissions from self-generation will be adequately captured as part of the default emissions intensity, without introducing the risk of unintended consequences.

It should also be noted that although the use of emission forecasts has prevented this being a problem for calculated emissions baselines determined to date, it may distort baselines when using default production variables.

Annually updated baselines for actual production

We support the transition to annual production adjustment for all facilities covered by the SGM. We do not see this as an effective means to address trade competitiveness issues, so do not see a reason to limit application to trade exposed industries.

Although most, if not all, facilities have a non-linear relationship between production and emissions¹, trying to adjust for non-linear emission relationships is likely to become administratively cumbersome considering the diversity of industry in Australia. However we also find that the current fixed baseline approach limits even minimal growth in production. As such we feel that fixed emission intensities provide a sensible balance if applied to products, but with flexibility to allow facilities to change the relative mix of products they produce.

A calculated emission baseline provides appropriate certainty for new facilities with emission profiles determined by commissioning activities, not production. Where a facility is transitioning from a reported emissions baseline however it would be simpler to move straight to an annually production adjusted baseline. This is especially valid where default emissions intensities are used, but the system would be further streamlined if it also applied where site-specific emission intensities are used.

To simplify reporting, we recommend baselines are set using actual production. Although, this means a baseline can only be precisely determined retrospectively, we believe most facilities will understand their production and emissions outlook well enough to avoid an excess emissions situation. Use of forecast production would also reintroduce some of the regulatory burden that this consultation is looking to remove.

¹ For example LNG facilities typically have better emissions intensity at high production, whilst offshore oil production facilities emissions can be independent of production.

With annual adjustments based on industry NGER-aligned production variables, it should be possible for the annual safeguarding compliance process to be completed through the existing NGER reporting and ACCU acquittal process.

Baseline beyond 2020

Woodside is considering multiple developments which are scheduled to start post 2020. Significant uncertainty arises from benchmark intensity values, which when combined with the SGM being silent on trade competitiveness further complicates investment decisions and discourages future investment. As such, we reiterate our support for the recommendation of the Finkel review and the 2017 Climate Change Policy Review that emissions legislation should be enduring, bipartisan and coordinated between federal and state governments.

Although we understand the current consultation focuses on how to transition from reported baselines, we advocate that the accompanying consultation and analysis could concurrently inform post-2020 policy settings.

We also note that using a benchmark emissions intensity below average emission intensities (as proposed for benchmark baselines), reduces the competitiveness of Australia's trade exposed industries by imposing costs that international competitors may not face. Careful consideration should be given to minimising this distortion, with potential options including:

- Use of default (i.e. average) emissions intensities for benchmark baselines in trade exposed industries.
- Formally assessing competitiveness impacts when establishing benchmarks, by comparing the effective costs imposed on Australian trade exposed industries, with those based in other jurisdictions. Of particular relevance to the LNG industry, is that other LNG exporting nations are not Australia's traditional trade partners and include Qatar and Nigeria – neither of which seem likely to impose carbon costs on their domestic industries in the foreseeable future. Any decisions regarding trade competitiveness could be updated in future reviews to ensure they remain appropriate – ideally as part of the five-yearly review of Australia's climate targets and policies.
- Allowing trade exposed facilities (or possibly all facilities) to generate ACCUs where their emissions are below their baseline, noting that this will require an amendment to the existing ACCU process. This would provide an additional incentive to deliver all cost-effective abatement, not just manage emissions where necessary to avoid an excess emissions situation.

Conclusion

Woodside supports the proposed amendments to the SGM as it will support fairer policy, produce baselines that better reflect expected emissions and encourage safeguard facilities to deliver additional cost-effective abatement. We support further streamlining of the proposed policy by transitioning directly to production adjusted baseline immediately. We also recommend the Department engage with industry to consider the selection of appropriate variables and values to use when setting default emissions intensities.

Further effort to confirm energy policy settings beyond 2020 should also be prioritised.

This submission should be read in conjunction with Woodside's submission to the Department of Environment and Energy's 2017 Climate Change Policy Review available at:

<http://www.environment.gov.au/climate-change/review-climate-change-policies/discussion-paper-2017>

We trust this submission is of assistance and look forward to participating further in Australia's energy policy discussions.

Yours sincerely,

Fiona Hick

Vice President, Health, Safety Environment and Quality

Appendix A. Responses to specific consultation paper questions

Consultation paper question	Woodside response
<i>Transitioning to calculated baselines</i>	
The proposed approach to transition all facilities to calculated baselines over 2018-19 and 2019-20.	This will place an additional administrative burden on Woodside, but we support the policy principle.
Whether there are reasons to allow facilities that applied for a calculated baseline in 2016-17 to reapply.	Woodside does not operate any facilities that have made a calculated baseline application.
The most appropriate way of transitioning landfill facilities under the proposed approach.	Woodside does not operate any landfill facilities.
<i>Simplifying calculated baselines</i>	
The option to use default production variables and emissions-intensity values for calculated baseline applications, to reduce auditing and administrative costs.	Woodside supports the optional use of default production variables and emissions intensity values. Baselines using default production variables should transition straight to a production adjusted baseline, to avoid having to audit production forecasts.
Whether emissions-intensity values should be set at a level that reflects a median or average performance, or some other level.	Without seeing the values, we are not well placed to comment.
<i>Annually updating baselines for actual production</i>	
Whether baselines annually updated for production should apply to emissions-intensive, trade-exposed facilities only, a broader set of facilities, or to all facilities?	This provision should be open to all facilities and should not be seen as a means to address competitiveness issues that trade exposed industries face.
Whether baselines updated for production should be updated less frequently than every year (e.g. every three years)?	Baselines should be updated annually, in line with NGER reporting.
Whether baselines annually updated for production would make the existing flexibility provisions for increasing baselines redundant?	The initial calculated and significant expansion provisions could be repealed on the basis of annual production updates. Consideration should be given to allowing trade exposed industries to use default emission intensities to establish benchmark baselines post 2020.
<i>Aligning reporting for businesses</i>	
The proposed approach for businesses to report production data consistently and regularly through the National Greenhouse and Energy Reporting System.	We support this. Woodside already reports production through the NGER system.
Whether there is a need to standardise the basis for determining annually updated production-adjusted baselines (e.g. through the use of commonly-defined 'production variables').	The NGER energy commodities currently reported are sufficient to cater for all likely production variables used by the oil and gas industry.
<i>Mechanics and timing</i>	
The proposed approach for updating baselines based on actual production.	Baselines should be updated based on actual, not forecast production.