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SUBMISSION TO THE GARNAUT CLIMATE CHANGE REVIEW ETS DISCUSSION PAPER

Woodside welcomes the further opportunity to respond to the Garnaut Climate Change Review's Emissions Trading Scheme discussion paper ("ETS paper").

Woodside is currently Australia's largest exporter of LNG with plans to significantly expand its LNG business over the next 10-15 years.

Woodside has demonstrated its commitment to reducing the greenhouse gas emissions from the facilities it operates on behalf of the North West Shelf Venture over the past decade, through investments in emissions reduction technology development and implementation, participation in the emerging carbon markets and contributing to the adaptation effort.

This submission will focus on the issue of carbon leakage and preserving Australia's international competitiveness while meeting Australia's greenhouse gas reduction targets, which in Woodside's view are the most pertinent and relevant points of discussion arising from the ETS paper.

'Avoiding distortion in trade-exposed, emission-intensive industries'

As discussed in Woodside's submission to the Garnaut Review's Interim Report, Woodside concurs with the Review's suggestion that addressing impacts to trade-exposed, emissions-intensive industries ("TEEIs") is key to avoiding carbon leakage and preserving Australia's international competitiveness.

The commodity or "price taker" nature of some products makes it impossible to pass through the cost of carbon to consumers in the absence of a global agreement. Distortion in global competitiveness is exacerbated if the production of the good is emissions intensive and the main competitors are based in countries where there is no carbon constraint. This lack of a "level playing field" erodes competitiveness and is likely to result in a diversion of capital investments to countries without carbon constraints. This in turn, encourages these countries to increase production at lowest cost, which often drives towards high emissions intensity technologies, thereby causing the undesirable effect of carbon leakage and an increase in global Greenhouse Gas ("GHG") emissions.

Mechanisms for avoiding carbon leakage and preserving Australia's international competitiveness should be implemented until such time as a true reflection of comparative advantage is achieved with competitors in countries that do not currently have carbon constraints. Principles that would determine which entities are subject to these mechanisms should include:

1. The primary test of whether or not the industry is trade exposed. A trade exposed industry should have the following characteristics:
 - The industry is a price-taker: This is determined by the suppliers' inability to effectively pass the carbon costs* through to its customers. Price-taking goods are goods that have reasonably transparent spot market prices and minimal product differentiation. Examples of which are commodities such as oil, gold, wheat, some base metals, coal and LNG.
 - The local industry is export and import exposed: A large proportion of the good is either exported or susceptible to imports.
 - Industry competitors based in non-carbon constraint countries: The majority of worldwide production is based in countries without carbon cost*.
2. Where the industry is trade exposed, the emissions intensity of that industry. This should be determined using transparent and verifiable means. The absolute and relative impact of carbon cost* to industries should be considered when assessing emissions intensity.

** For the purposes of this submission, carbon cost means additional costs borne by the business as a result of the implementation of a carbon constraint in the economy. These costs can include, but are not limited to;*

- *the purchase of permits in order to acquit a company's greenhouse gas emissions; and*
- *the implementation of actions required by regulators to offset GHG emissions.*

LNG and its relationship with TEEII concepts

Australian LNG is a trade exposed industry which requires mechanisms to avoid carbon leakage and preserve Australia's international competitiveness until a true reflection of comparative advantage is achieved. That is because:

- Australian LNG is a price taker: LNG is widely accepted as a commodity product and therefore, LNG producers would generally be price-takers in the global market. In addition, the long-term nature of an LNG contract makes it difficult, if not impossible, for suppliers to pass the cost of carbon to the customers in the absence of a global agreement;
- Australian LNG is export and import exposed: A large proportion of Australian LNG is currently exported to Asia Pacific countries; such as Korea, Japan and China. Woodside believes that LNG plays an important role in helping reduce global greenhouse gas emissions by reducing reliance on other fossil fuels. However, the competitiveness of LNG production in Australia will be eroded if there are no mechanisms for maintaining Australia's international competitiveness;

- Australian LNG competitors are based in countries with no carbon constraints: The majority of current and proposed global LNG production is based in countries such as Indonesia, Malaysia, Qatar and Nigeria, emerging economies where there is no carbon constraint; and
- Producing Australian LNG is emissions intensive: Although LNG lifecycle greenhouse emissions are approximately half of other fossil fuels, a significant proportion of the LNG lifecycle greenhouse emission is in the extraction and processing of gas to LNG. Converting gas to liquid is an emission intensive process.

The ETS paper discusses the use of an efficiency factor (referred to as the “e” factor) for determining the level of assistance for TEEIs. While Woodside does not disagree with the methodology in principle, determining an ‘e’ factor needs to consider the following points:

- LNG projects are long term business investments. Such projects are highly capital intensive, have a long lead time to investment decision and generally require at least 30 years of operation in order to be commercially viable;
- Making significant greenhouse gas emissions reduction in LNG requires large step changes in technology and a high marginal cost of abatement. Woodside estimates a carbon price in excess of \$100 per tCO₂e is required to trigger significant technological advancement in LNG production;
- There are limited available data on LNG plant emission intensity. As most LNG plants are owned by national oil companies located in mostly emerging economies, most information on their emissions is not transparently accessible. As a result, it is difficult to determine global efficiency benchmarks for LNG. There are currently only two operating LNG plants in Australia.

Mechanisms for maintaining Australia’s competitiveness in global markets

Woodside is considering a number of possible mechanisms for preserving Australia’s competitiveness in global markets and avoiding carbon leakage. They are listed as follows, not in any order of preference.

Administratively Allocated Permits (or cash equivalent)

The first option is to use some administrative means to allocate permits to trade-exposed industries, or a cash equivalent.

Depending on the administrative means applied, permit allocation is very effective at compensating TEEIs for the cost of emissions trading. Experience in the European emissions trading scheme has demonstrated that it is critical that the method for allocation of permits be designed to avoid the potential of carbon market inefficiencies and windfall profits.

The use of industry or best practice benchmarks (rather than historical emissions) as a basis of allocating permits removes perverse incentives to maintain inefficient energy usage practices.

Border Adjustments

In this mechanism, a rebate (equal to the increased cost due to AETS) which could take the form of a permit or timely cash payments would be provided to TEEIs. The rebate would

apply only to exported products and would be determined at the point of export. Products for domestic consumption would not receive the rebate, thereby retaining the intended carbon price signal in Australia. Similarly, goods imported into Australia from countries not subject to a carbon price would be subject to a levy to offset their price advantage.

Border adjustments for carbon have been proposed in both the United States and Europe, but have not yet been adopted by any country. However, the United States has already implemented border adjustments for two other environmental taxes (the ozone-depleting chemicals tax implemented pursuant to the Montreal Protocol and the Superfund hazardous chemical excises). In addition, border taxes have been implemented in Australia, in the form of Goods and Services Tax and fuel excises.

Recent studies have demonstrated that border adjustments imposed a lower economic cost on the countries administering them than exemptions.¹

General Tax Adjustment

This mechanism involves offsetting the cost of carbon with a reduction in other business taxes. The UK's Climate Change Levy adopts general tax adjustment approach, where, although firms are required to pay the levy, it is offset by reductions in compulsory employer contributions to social security taxation. Germany and Sweden have adopted similar 'green' tax reforms.

Typically, general tax reductions are designed to achieve economy-wide benefits but are not industry specific and thus prone to inequitable burden-sharing. The issue of inequitable burden sharing can be solved by designing a tax mechanism that is TEEII-specific.

The overarching principles in all the mechanisms suggested should be protection against carbon leakage and preserving Australia's international competitiveness.

In addition, Woodside submits that these mechanisms should be considered for any potential legal issues presented by World Trade Organisation ("WTO") and General Agreement on Tariffs and Trade ("GATT").

Woodside welcomes the opportunity to continue an open dialogue on delivering Australia's greenhouse commitments in ways which are both environmentally and economically efficient.

Woodside also supports the views expressed to date in submissions put to the Garnaut Review by AIGN and APPEA.

Yours sincerely,



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Vice President, Sustainable Development

¹ M.H. Babker and T.F. Rutherford, 'The Economic Effects of Border Measures in Subglobal Climate Agreements', *The Energy Journal* Vol. 26 No. 4, 2005