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Mr Noel Ryan
Acting Director, Electricity Networks
Public Utilities Office
Department of Treasury

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Sent via email: PUOsubmissions@treasury.wa.gov.au

Dear Mr Ryan

Woodside welcomes the opportunity to make this submission to the Public Utilities Office's Issues Paper on "Improving access to, and operation of, the Pilbara electricity network – the North West Interconnected System".

Woodside is an Australian-headquartered oil and gas company with approximately 3,500 employees, primarily located in Perth and the Pilbara. Our interest in the North West Interconnected System (NWIS) and indeed Western Australia's electricity system as a whole arises from a number of perspectives:

- Woodside is a significant supplier of natural gas to Western Australian customers, including for power generation, and is also developing the capability to deliver liquefied natural gas via road tankers in competition with diesel power generation in off grid regions;
- Woodside operates the North West Shelf and Pluto gas projects which, as the Issues Paper notes, have significant standalone generation capacity in excess of 380MW. Woodside is also a joint venture participant in the Wheatstone gas facility which has approximately 120MW generating capacity; and
- The North West Shelf and Pluto projects are supported by two supply bases as well as by employee accommodation, including in excess of 700 homes in Karratha. These consume power from the NWIS. Reducing the cost of power in the NWIS will improve competitiveness directly (by reducing their power bills) and indirectly by improving the attractiveness of the Pilbara as a place to live and work.

For Woodside, like many major Pilbara resource and industrial projects, security of electricity supply is essential. As recent events in South Australia confirmed, the cost of a blackout is unacceptably high. This factor has contributed to the *ad hoc* development of the electricity system in the Pilbara which is noted in the Issues Paper, because several companies including Woodside have opted for the control and security of supply that is offered by self-reliance on standalone generation. There is however a cost to this approach, which is that in aggregate the system has an excess of redundant generating capacity and duplicated spinning reserve. Woodside is therefore investigating options to improve efficiency, including the potential for NWIS interconnection as well as large scale renewables and storage. Indeed, Woodside is currently installing large scale battery technology on an offshore platform in order to increase generating efficiency.

In principle Woodside therefore supports the four policy objectives proposed in the Issues Paper (section 1.1), and agrees with the PUO that whilst these are not novel they have to date proved elusive. Woodside would like to participate in the proposed future consultation on a Design Paper, and offers the following principles (as well as the attached detailed response to the Issues Paper) as input to the drafting of the Design Paper:

- As far as possible align the NWIS arrangements to the South West Interconnected System (SWIS) and National Electricity Market (NEM), modifying for local conditions only where essential, in order to capture the benefits of standardised approaches for business;
- Improve network access on open market terms: this will best allow the market to deliver secure and reliable power both from new generation sources and also from consumer demand management and storage; and
- Pursue the principle of cost reflective pricing to reduce the risk of distorting the wholesale market;

- Provide system coordination through an independent system operator to maximise efficiency, transparency and governance benefits.

Woodside welcomes the opportunity to continue to discuss the development of this policy and please do not hesitate to contact Shannon O'Rourke on 9348 3439, if we can provide further information.

Yours sincerely

Shaun Gregory

Senior Vice President & Chief Technology Officer

Attachment 1 – Detailed responses to Issues Paper

ATTACHMENT 1 – DETAILED RESPONSES TO ISSUES PAPER

1. Would customers outside Horizon Power's network benefit from competition?	It has been proven that increased competition provides superior outcomes for consumers. Should Woodside contract for power or ancillary services from the NWIS, the prices we receive will be positively impacted by improved market transparency and greater competition.
2. Does the lack of a coordinated approach to electricity infrastructure in the NWIS present a barrier to entry for junior miners and renewable energy projects?	Open access arrangements based on robust market rules is likely to give greater certainty to project proponents.
3. Is there economic benefit to a consolidated approach to coordinating development of electricity assets in the NWIS? Provide examples where possible.	Yes, please contact Woodside to discuss.
4. What process should be used to determine which networks and related assets should initially be subject to the arrangements?	The starting assumption should be that all connected assets will be subject to the new operating arrangements from day one. Grandfathering arrangements may be needed to manage contractual obligations and may delay implementation.
6. What barriers do you see to increased competition in the NWIS?	If wholesale and retail market arrangements are properly structured no barriers should exist.
7. Do stakeholders consider information asymmetry to be an issue in negotiating access? If yes, what additional information is required?	Yes. Similar information as is available on the NEM.
8. What 'ring fencing' arrangements should be required of networks subject to the new regulatory framework to ensure access seekers are treated on an equitable basis? How should compliance with ring fencing arrangements be enforced?	Discussion of ring-fencing is premature, properly designed market arrangements should preclude the need for ring-fencing.
9. What implications arise from the Uniform Tariff Policy with respect to any new regulatory framework in the NWIS?	Over the long-term, efficiency benefits from reforms should reduce the cross-subsidy required from other WA consumers.
10. What barriers do you see to the introduction of an independent system operator in the NWIS?	None
12. Are there significant foregone opportunities for providing more efficient dispatch of available	Subject to detailed technical, risk and economic analysis, it should be possible to integrate then

generation resources in the NWIS, or for the integration of currently non-interconnected loads and generators in the region? What are the barriers?	efficiently dispatch across currently non-interconnected generation, share ancillary services such as spinning reserve, and avoid unnecessary capital investment. However, there are many barriers to be considered. These include: obligation to remain connected in face of network instability; high cost of lost production in the event of a HV fault (e.g. lightning strike) or above ground transmission line failure (cyclonic area); potential costs to make plant systems compliant with access codes (which may include protection systems, power management and possibly HV filtering); potential rotor stability issues relating to network weakness; and potential harmonic impacts to the NWIS from large load commutated inverter drives.
14. What obligations to comply with a proposed new set of NWIS Technical Rules should be introduced?	The same obligations as apply in the WEM and NEM.
15. What barriers to cooperation and or the efficient provision of ancillary services are caused by the low number of large and diverse/competitive interests in the NWIS and under what circumstances?	See Question 12 answer.
17. How should the costs and benefits of potentially moving to a new regulatory framework be assessed in developing the new framework?	Economic modelling has been undertaken in other jurisdictions to identify costs and benefits associated with similar changes.
18. If you are a generator or electricity retailer, would you be interested in seeking access to the services of the Horizon Power NWIS network, or any other Pilbara network now or in the foreseeable future?	Potentially in the future.
19. To what extent should access arrangements be based on negotiation between parties and to what extent should they be subject to imposed requirements on both parties?	Defined processes should be set out for applying for and negotiating access to both transmission and distribution networks. These processes should also include arrangements for resolving deadlocks.
21. If agreement on an access-related matter cannot be reached, how should disputes be resolved? What is the appropriate dispute resolution body?	See answer to question 19. It should be noted that while dispute resolution processes are common, most allow parties to a dispute the right to seek a court decision on the matter.
22. Should guidance relating to the setting of electricity network access prices, such as the build-up of costs (e.g. asset valuation, cost of capital,	To the extent possible arrangements should mirror those utilised in the NEM.

operating costs) and tariff design (e.g. tariff structures, postage stamp pricing, etc.), be specified in the regulatory framework or should this be addressed solely via commercial negotiation?	
23. Should any regulatory oversight or monitoring of electricity network access prices on the NWIS be undertaken? If so, how and by whom?	Yes, by the body tasked with providing regulatory oversight of electricity markets in WA, ideally this should be the AER.
26. How should non-price considerations (such as security and reliability of supply and customer service standards) form part of a light-handed regulatory framework?	A number of frameworks for ensuring security and reliability, and customer service standards have been developed. It is important to define the standards that will apply from the commencement of the new market arrangements. As the NWIS networks and the operation of those networks improve, rising performance standards can also be expected.
27. How should capacity constraints be addressed in the new regulatory framework? Should the networks be required to only offer an unconstrained connection (e.g. N-1)? How constraints are managed post connection?	How constraints are managed can only be determined following analysis of the nature of a constraints, the impact of the constraint, the financial impact of the constraint and the options available for management of the constraint.
29. Should periodic reviews of a new regulatory framework be conducted to ensure the framework achieves the targeted objectives?	Yes
30. What information requirements should be placed on participants to ensure any new regulatory framework for the NWIS is operating as intended?	A light handed regulatory regime based on information disclosure, similar to the New Zealand model, should be sufficient.
31. What should the guiding objectives for the independent system operator be? Are the National Electricity Objectives appropriate for the NWIS?	The National Electricity Objectives are an appropriate starting point. Other objectives may be required to address specific NWIS issues.
32. Should the proposed independent system operator be granted statutory immunity that excludes, or caps, liability for damages claims from third parties? Should there be any exclusions from immunity?	A general immunity is not appropriate. Risks should be allocated based on the ability of parties to manage them.
33. Is there a preference for the independent System Operator functions to be held by a separate entity or ring-fenced within an existing network operator? Similarly, is there a preference for how the costs of an independent system operator should be recovered?	Given the nature of asset ownership on the NWIS, the System Operator should be a separate entity. If all NWIS transmission and distribution assets are managed by a single entity, then ring-fencing may be an option.

35. How much visibility of the NWIS power system will an independent system operator require? How far should the visibility (and real-time data requirements) extend into generation facilities and the distribution network?	Given the size of the NWIS system the system operator role will likely encompass transmission, distribution, and generation dispatch. To be successful will require access to a comprehensive suite of real-time and forecast data.
36. Will a more formalised approach to managing outages (planned and unplanned) benefit electricity users on the NWIS?	Yes
37. Should an independent system operator for the NWIS have powers to manage and investigate system critical events similar to that of SWIS system management? What dispute resolution mechanism is preferred?	No, an independent regulator should have responsibility for investigations. The system operator may be the subject of investigations.
38. Is there a reason why a system of economic dispatch of generation and constrained network access should not be introduced to the NWIS?	This is essential.
39. If introduced, should the independent system operator include oversight of longer term planning and forecasting requirements that inform development of the NWIS?	Yes, although actual investment is left to market participants.