



Minutes

Meeting Title:	Evolution of the Pilbara Network Rules Working Group
Date:	23 May 2024
Time:	9:30 AM – 11:30 AM
Location:	Online, via TEAMS

Attendees	Company	Comment
Dora Guzeleva	Chair, Energy Policy WA	
Rebecca Mason	APA	
Nathan Kirby	BHP	
Quentin Jeay	BHP	
Lekshmi Jaya Mohan	BP	
Anthony Guevarra	CITIC Pacific Mining	
Melinda Anderson	Economic Regulation Authority	
Guy Tan	Horizon Power – Pilbara Network	
Jaden Williamson	Horizon Power – Pilbara Network	
Summa McMahon	ISOCco	
Noel Michelson	Rio Tinto	
Reece Tonkin	Woodside Energy	
Rory Burn	Woodside Energy	
Rudi Strobel	Yindjibarndi Energy Corporation	
Chris McKay	Energy Policy WA	
Stephanie Hemsley	Energy Policy WA	
Thomas Marcinkowski	Energy Policy WA	
Tom Coates	Energy Policy WA	
Ajith Viswanath Sreenivasan	RBP	
Eija Samson	RBP	
James Seidelin	RBP	
Richard Bowmaker	RBP	
Tim Robinson	RBP	

Item	Subject	Action
1	<p>Welcome</p> <p>The Chair opened the meeting with an Acknowledgement of Country.</p>	
2	<p>Meeting Apologies and Attendance</p> <p>The Chair noted the attendance and apologies as listed above.</p>	
3	<p>Competition Law Statement and Agenda</p> <p>The Chair noted the Competition Law Statement, reminded members of their obligations and encouraged them to bring any Competition Law issues to her attention as they may arise.</p> <p>The Chair presented the meeting agenda and objectives.</p>	
4	<p>Action Items</p> <p>The Chair noted that action item 1 has been closed. The National Energy Market (NEM) Reliability Review report was emailed to the working group on 1 May 2024.</p>	
5	<p>Scenario Approach</p> <p>Mr Robinson provided an overview of the scenario modelling approach with reference to slides 4-6 and made the following key points:</p> <ul style="list-style-type: none"> • During the Pilbara Advisory Committee (PAC) meeting on 18 April 2024, members identified the need for modelling a middle scenario that explores partial integration (Scenario nB). • Due to missing data, which has now been obtained, it has taken longer than anticipated to model Scenario A as originally intended. As a result, Scenario A has been modified to restrict which generators can serve which loads and allow for optimisation across all the generators in the connected areas. <p>Mr Robinson invited comments from the working group.</p> <ul style="list-style-type: none"> • Mr Williamson sought clarification on the purpose of Scenario A, particularly in comparing modelling results. <p>Mr Robinson confirmed that Scenario A was intended to reflect the existing Pilbara Network Rules (PNR) mechanisms and emphasised the benefit of discussing how the modelling approach can be adjusted to better represent a particular future.</p> <ul style="list-style-type: none"> • Mr Williamson queried the modelling restrictions on transmission infrastructure build in Scenario A. He explained that this approach, will likely result in a situation in which there is no effective sharing of generation capacity. In Scenario C, however, different aspects are being tested to model the full benefits of a market. <p>The Chair asked Mr Williamson which mechanisms in the PNR he believes are not represented in Scenario A.</p> <ul style="list-style-type: none"> • Mr Williamson clarified that his point was in relation to comments regarding limited Essential System Services (ESS). He explained that, currently, as islanded systems connect, entities share the regulation and spinning reserve services to the extent that the transmission connection can support it. • Mr Williamson also highlighted the risk of understating the potential efficiency of the current PNR mechanisms by limiting how much capacity is allowed to flow between modelled demand nodes in Scenario A. <p>Mr Robinson highlighted that a key purpose of the modelling is to provide insights in the most efficient use of generation on the system. He asked Mr Williamson if he perceived the current PNR as capable of facilitating the most efficient use of generation.</p>	

Item	Subject	Action
	<ul style="list-style-type: none"> Mr Williamson stated that, while it may not lead to the most efficient outcome, this would be more efficient when compared to energy users self-supplying. He acknowledged that there are factors within Chapter 6 of the PNR that are unsatisfactory and may produce inefficient outcomes, noting that there are mechanisms in place now which offer some relief. Mr Williamson reiterated his primary concern that presenting Scenario A (as presently modelled) may lead to overestimating the benefits of moving to something else. <p>The Chair emphasised that the key difference between Scenario A and Scenarios B and C is that in Scenario A users must meet their own load, causing balancing energy to not be shared efficiently. She asked Mr Williamson to clarify what changes he would suggest to the modelling of Scenario A.</p> <ul style="list-style-type: none"> Mr Williamson suggested that parties should still have an obligation to meet their own load. However, the generation sources they use to achieve this are broadened if they have greater access to other generation on the system, as opposed to being restricted to sources located in their area and existing 'skinny' connections. <p>Mr Robinson acknowledged that the quantity of capacity (fixed costs) will impact the efficiency of a scenario's output but reiterated that the modelling will provide broader insights including operating costs (variable costs). He highlighted that a key modelling output is the level of efficiency under each scenario.</p> <p>Mr Robinson suggested that there are areas within Chapter 6 of the PNR (capacity adequacy) that don't require modelling to reveal their inadequacy with high penetration of renewables.</p> <ul style="list-style-type: none"> Mr Williamson agreed that the capacity allocation mechanism would not result in the most efficient outcomes, particularly when renewables increase. <p>Mr Robinson acknowledged the points raised and asked Mr Williamson how Scenario A could be amended to address the concerns raised.</p> <ul style="list-style-type: none"> Mr Williamson highlighted the challenges in assuming future interconnection in the modelling, reflecting that users who are not connected cannot take advantage of these until they are connected to the North West Interconnected System (NWIS). Mr Jeay asked if gas transmission constraints would be considered in the modelling. <p>Mr Robinson explained that gas transmission constraints are not considered in the modelling, but noted that comparisons between generation facilities gas usage and capacity could be made. He highlighted that new gas-fired facilities are not being developed in the Pilbara and there are further constraints to reduce gas-fired generation overtime.</p>	
6	<p>Changing Demand</p> <p>Mr Robinson presented demand-related modelling assumptions and initial results, slides 8-12.</p> <p>Mr Robinson invited comments on the load duration curve graphs on slide 11 and the variations between the peak and minimum load.</p> <ul style="list-style-type: none"> Mr Tan noted that the load duration curves are very flat, and suggested that significantly more variation will occur than what is being presented. He proposed modelling a 50% drop in peak load, highlighting the need to capture variations such as those, caused by time of day and weather. <p>Mr Robinson indicated that further data would be helpful to better capture potential issues and contingencies, and analyse variations between the peak</p>	

Item	Subject	Action
	<p>and minimum load. He committed to discussing this further with the Independent System Operator (ISO).</p> <p>ACTION ITEM: RBP to discuss the availability of data and/or insights relevant to the load duration curve with the ISO.</p> <ul style="list-style-type: none"> Mr Tonkin suggested considering the potential impacts of an increase in the number of embedded generation facilities connected to the NWIS. He explained that variation in embedded generation output, due to high temperatures and other factors, will have a corresponding impact on operating load. Ms Mason highlighted the importance of recognising the uniqueness of the NWIS and its distinct load profiles when compared to other energy markets. <p>The Chair noted that the load presented in slide 11 is significantly flatter than that experienced in the South West Interconnected System (SWIS). She also noted that the scenario modelling is driven by the fact that the generation mix will change and asked whether the modelling should assume that load would also respond to signals over time.</p> <p>Mr Robinson added that the graph on slide 9 excludes flexible loads. He noted (with reference to slide 8) that a portion of 'New Industry (including hydrogen)' component of demand is treated as potentially flexible loads. He explained that, for modelling purposes, it is assumed that all other loads are not necessarily flexible.</p> <p>Mr Robinson emphasised that the difference between peak and minimum load in the Pilbara (as illustrated in slide 12 graph) is not an ongoing systemic issue and, therefore, does not need to be resolved through new PNR mechanisms.</p>	<p>RBP</p>
<p>7</p>	<p>Changing Supply</p> <p>Mr Robinson presented supply-related modelling assumptions and initial results from Scenarios 1A and 1C, slides 14-17. He invited comments from the working group.</p> <ul style="list-style-type: none"> Ms Mason sought clarification on how generation mix interplays with the capacity mix. <p>Mr Robinson clarified that firming generation is included in the later years to cover variability when there is no renewable output. He explained that without an emissions constraint, there would be a reduced amount of renewable resources. He added that, unlike Scenario A, constraints in Scenario C are not binding, resulting in more renewable usage in Scenario C.</p> <ul style="list-style-type: none"> Ms Mason asked whether the modelling considers the location, transmission infrastructure requirements, and costs associated with introducing renewable resources. <p>Mr Robinson advised that these considerations, and associated findings, will be analysed during the final set of outcomes.</p> <ul style="list-style-type: none"> Ms Mason emphasised a need to consider the cost impacts of renewable resources, noting the unique characteristics and load profiles of the NWIS, and the critical importance of supply reliability. She added that the overbuilding of renewables may not be in the interests of key energy users in the NWIS. <p>Mr Robinson noted the alternatives to overbuilding renewables for maintaining reliability (storage, gas generation and unserved demand), and noted that some of these options are not supported in the modelling due to the industry emission reduction targets. He agreed that consumers' acceptance of the potential reliability and cost implications are a key driver for overbuilding renewables.</p>	

Item	Subject	Action
	<ul style="list-style-type: none"> Ms Mason suggested modelling an additional scenario which explores the impact of sensitivities and levels of flexible demand. <p>Mr Robinson acknowledged Ms Mason's suggestion.</p>	
8	<p>Other matters for PNR Review (Stage 3)</p> <p>Mr Robinson listed the issues identified during the preceding Harmonised Technical Rules (HTR) and PNR workstream meetings (slides 19 and 20).</p> <ul style="list-style-type: none"> Mr Williamson highlighted that options to address these issues may involve different mechanisms (i.e. the PNR, HTR and other instruments). <p>The Chair acknowledged this view and advised that another workstream is working in parallel (but slightly behind the PNR workstream) to examine the Pilbara Networks Access Code.</p> <p>The Chair emphasised the importance of the governance work. She acknowledged stakeholder feedback raised during the ISO's ACCC application process and advised that a review of the governance arrangements in the PNR will be prioritised in the work program.</p> <p>Mr Robinson invited members to raise other issues (not necessarily informed by the modelling) that should be taken into account in stage 3 of the project.</p> <ul style="list-style-type: none"> Mr Williamson suggested examining work completed during the Pilbara Roundtable process in 2023. <p>Mr Robinson agreed and noted that work conducted by the Pilbara Roundtable has, and will continue to, inform this project.</p> <ul style="list-style-type: none"> Mr Williamson also suggested reviewing certain roles and responsibilities of Network Service Providers (NSPs). He noted that the PNR is a bit inconsistent as a result of attempting to marry up the responsibilities of an NSP, who manages third-party access, versus the responsibilities of an NSP, who is vertically integrated. Ms Mason requested access to the 2023 Pilbara Energy Transformation Assessment Stakeholder Report (PETA report). <p>The Chair advised that this document is not publicly available yet, but that Energy Policy WA would circulate it as soon as possible.</p> <ul style="list-style-type: none"> Ms Mason asked if the results presented in this meeting will inform the PNR evaluation, or if there will be another modelling exercise and analysis. <p>Mr Robinson clarified that, at a high level, the results presented in this meeting will highlight issues that the system will need to address in the future. With this information, the working group will examine the current PNR to assess whether its mechanisms are able to address these issues.</p> <p>Mr Robinson noted that the modelling also aims to examine the efficiency benefits of varying levels of integration and, thus, should involve a cost analysis. He added that the modelling will also inform the evolution of the PNR in respect to how issues should be addressed (i.e. through the PNR, or through other mechanisms such as cost allocation mechanisms or a form of dispatch).</p> <ul style="list-style-type: none"> Ms Mason asked if transmission costs will be modelled and associated results presented in the next meeting. She questioned the merit of building transmission lines and highlighted the importance of examining the costs and benefit of building transmission. <p>Mr Robinson advised that the results will include transmission cost estimates but reiterated that this modelling activity adopts transmission assumptions from the PETA report, and is not focused on producing new transmission scenarios.</p>	

Item	Subject	Action
	<p>The Chair noted that - unlike the transmission assumptions adopted - actual transmission infrastructure requirements and costs would be dependent on the location of the load and renewable resources.</p> <ul style="list-style-type: none"> Ms Mason reiterated the importance of considering the cost and benefits of building transmission infrastructure, maintaining a graduated approach, and establishing what 'fit for purpose' means. Through the meeting chat, Mr Strobel proposed to consider weather events in stage 3, particularly regarding reliability and renewable and gas generation profiles. He explained that his point relates to the earlier discussions surrounding projected generation mix and related sensitivity analysis. Mr Tonkin noted that the Pilbara ISOC is seeking comment from stakeholders on its operational procedures and suggested that RBP examines these procedures and related market-based issues. He suggested developing alternative methods to reduce barriers to entry, such as allowing facilities to opt out of spinning reserve and other ESS costs if generation and load can be matched across the grid. Mr Tonkin also suggested considering allowances for demand side management, and examining cost structures for firm and flexible demand and how it can be integrated to deliver the lowest cost solution for users. <p>The Chair acknowledged Mr Tonkin's suggestions and emphasised the importance of maintaining the overall reliability and security of the system when considering and implementing changes to the PNR.</p> <p>Mr Robinson agreed and noted that, in the SWIS, there are mechanisms by which participants are excluded from contributing to a service.</p> <p>The Chair added that this mechanism is overseen by AEMO who determine a participant's risk factors.</p>	
9	<p>Next Steps</p> <p>Mr Robinson presented the next steps for the EPNR project (slide 22).</p> <p>The Chair closed the meeting.</p>	

The meeting closed at 11:07am.