GOVERNMENT OF WESTERN AUSTRALIA

Department of Energy and Economic Diversification

Energy Policy WA

Evolution of the Pilbara Networks Rules (EPNR) Working Group (HTR Workstream) - Minutes

Date:	2 July 2026
Time:	2:00pm – 4:00pm
Location:	Microsoft Teams online

Attendees	Representing in Working Group	Comment
Dora Guzeleva	Chair, Energy Policy WA (EPWA)	
Tim Robinson	Robinson Bowmaker Paul (RBP)	Presenter Item 4
Lizzie O'Brien	APA	
Robin Batra	APA	
Gian Garttan	APA	
Njabulo Mlilo	BHP	
Anthony Marcos Guevarra	CITIC Pacific Mining	
Melinda Anderson	ERA	
Glen Carruthers	Fortescue	
Ken Chong	Fortescue	
David Stevens	Horizon Power (Pilbara Network)	
Waisoon Leong	Horizon Power (Pilbara Network)	
Neil Gibbney	Pilbara ISOCo	
Lewis Peaty	Pilbara ISOCo	
Peter Van Den Dolder	Pilbara ISOCo	
Shervin Fani	Woodside	
Guests/Observers	**Representing**	
Lathin Thomas	Rio Tinto	
Scott Frazer	Rio Tinto	
Matthew Kok	Rio Tinto	
Alistair Duffy	RBP	
James Seidelin	RBP	
Tom Coates	EPWA	Presenter (1 – 3)
Luke Commins	EPWA	

1. WELCOME AND AGENDA

Mr Coates opened the meeting with an Acknowledgement of Country.

Mr Coates noted the Competition and Consumer Law obligations of Working Group members and invited members to raise any issues with her.

2. MEETING APOLOGIES AND ATTENDANCE

Mr Coates noted the attendance as listed above.

3. INTRODUCTION

Mr Coates provided a recap of work completed since the previous meeting in October 2026, which included development and consultation on draft amendment rules. He advised that the purpose of today's meeting was to discuss working group members feedback on these rules.

4. FEEDBACK ON SUBMISSIONS

Open questions in the Workshop Guide

Mr Robinson discussed the 'open questions' for feedback with reference to the Workshop Guide. An updated Workshop Guide is **attached** to these Minutes, summarising the discussion and outcomes.

Grandfathering Considerations

Mr Robinson referred members to the draft rules identified in the Workshop Guide and sought views on both those rules and the broader approach to grandfathering.

- Ms O'Brien suggested that consideration should be given to an overarching grandfathering provision, potentially in Chapter 1, under which a Facility's negotiated performance requirements would generally remain fixed once connection negotiations had been finalised.

Mr Robinson noted that some facilities may already comply with the new proposed standards and emphasised that any departures from the Technical Rules should be transparent and appropriately documented.

- Ms O'Brien and Mr Batra cautioned against regulatory scope creep acknowledging that excessive grandfathering requirements could reduce incentives for Facilities to exceed minimum standards. They suggested considering an approach similar to that adopted in the SWIS when implementing Generation Performance Standards for existing assets.
- Mr Stephens agreed, noting the practical difficulties associated with maintaining numerous exemptions for legacy Facilities and suggesting that it may instead be preferable to determine which new requirements should apply retrospectively.
- Mr Carruthers cautioned that extensive grandfathering arrangements could make future system changes more difficult, noting that flexibility to revise matters such as generation settings and droop response settings may be necessary to maintain an efficient and secure system.

The Chair noted that similar issues are currently being considered in the WEM, including whether Facilities should be required to retune settings to address system strength concerns.

The Chair observed that Western Power has the ability to review control settings and request retuning where necessary to maintain system performance.

The Chair indicated some reluctance to adopt a blanket approach whereby all performance standards are permanently fixed at the time of negotiation. However, she acknowledged that, if changes would require hardware modifications, consideration would need to be given to whether Facilities are technically capable of implementing those changes and whether compensation mechanisms may be appropriate.

The Chair concluded that some degree of flexibility and an ability to revisit technical standards will likely be necessary, particularly given the pace of change associated with renewable generation and storage technologies.

- Mr Batra requested that the administrative burden on existing Facilities be minimised, cautioning against requiring information or models that had not previously been needed to demonstrate performance.
- Mr Carruthers considered that certain requirements, such as the provision of EMT models, are likely to become necessary for all Facilities and may, therefore, not be appropriate candidates for grandfathering. He suggested that some requirements may warrant grandfathering, while others should not.

The Chair agreed that EMT models should be available for new Facilities, noting the challenges experienced in the SWIS where a lack of suitable EMT models has contributed to difficulties in assessing system strength and may lead to conservative operational outcomes.

Mr Robinson cited the example of proposals relating to Storage Works, noting that the existing Rules may not have contemplated current storage technologies and that some amendments would be needed to address gaps in the existing framework.

- Mr Stephens noted the importance of establishing a clear and enduring grandfathering framework. He observed that the current framework largely considers pre- and post-PNR implementation arrangements and may not adequately address future rule changes occurring between versions of the Rules. He queried whether Appendix 3 would be reviewed as part of the PNR review.

Mr Robinson confirmed that the broader exemptions framework was proposed to be reviewed. He noted that the Rules should provide minimum and automatic standards, processes for negotiating departures from those standards, and associated grandfathering and exemption arrangements.

Mr Robinson observed that there are broadly two categories of provisions within the HTR: provisions relating to minimum technical capability requirements; and provisions relating to operational settings. He suggested that the former may be more suitable for grandfathering, whereas the latter may require greater flexibility over time.

The Chair agreed with Mr Stephens' observations and noted that, if a set point for grandfathering were required, completion of connection negotiations may be an appropriate point from which grandfathering protections could apply.

5. GENERAL BUSINESS

The meeting closed at 3:30 pm.

ATTACHMENT 1 – Workshop Guide (updated 2 July)

Contents

6. STAKEHOLDER QUESTIONS - ISSUE 8

Issue	**8 – Review of HTR cl 3.7 (Requirements for the connection of storage)**
Issue Lead	**Peter (ISO)**
Explanatory Note (extract)	Clause 3.7 provides for the determination of requirements by the ISO, in collaboration with the NSP, for the connection of storage facilities, defined as Storage Works in the Pilbara Networks Rules. By delegating the responsibility to determine performance requirements for storage works to the ISO, clause 3.7 does not provide for the same level of transparency, consistency, and rigour as other user facilities including large generating units (clause 3.3), small generating units (clause 3.4), LV connected inverters (clause 3.5), and loads (clause 3.6). A suite of amendments to clauses 3.3 and 3.7 are proposed to support the participation and increasing prevalence of Battery Energy Storage Systems and inverter-based generating units
HP question	What is the basis for requirement in clause 3.3.4.4(f)(1)(c) for non-synchronous generating units to achieve at least 90% of the maximum response expected according to the droop characteristics within 2 seconds of any frequency disturbance? It is likely sufficient. Worth checking in future studies.
BHP question	Given proposed clause 3.3.4.4(f)(1)(c), controller obligations in 5.2.3(e) may require clarification or upgrade. Clause 5.2.3(e) requires a controller to notify the NSP prior to a generating unit being operated in a mode where the generating unit will be unable to respond in accordance with clause 3.3.4.4.
Anon question	Drafting changes include reference to 'hydro generating units'. Is this necessary, or can it be removed?
Workshop outcomes	Members noted that a two-second response requirement already exists elsewhere in the HTR and therefore has an established precedent. Members also noted that the requirement aligns with the WEM Rules and that consistency across systems is desirable. Members requested that EPWA review clause 5.2.3(e) and consider whether any consequential amendments are required to ensure consistency with clause 3.3.4.4(f)(1)(c). Members agreed to retain references to "hydro generating units". APA raised state-of-charge considerations and requested that EPWA consider additional drafting to recognise energy source availability for Storage Works, including circumstances where a storage facility may not have sufficient stored energy to provide a particular service. EPWA noted that broader issues relating to storage technical standards, including state-of-charge considerations and grid-forming requirements, are intended to be considered through future work on a more comprehensive storage technical standards framework.

7. STAKEHOLDER QUESTION - ISSUES 10 AND 11

Issue	**10 and 11 – Inverter Dynamic Performance**
Issue Lead	**Njabulo (BHP)**
Explanatory Note (extract)	New definitions for 'disturbance stability' 'generating system' and 'non-synchronous generating unit' have been introduced to clause 1.5. The definition of 'small disturbance rotor angle stability' has been removed. The definition of transient stability in clauses 2.2.7 and 2.2.8 have been amended to be technology agnostic in their application. Clauses 2.2.8(a) – (c) have been removed and replaced with Table 2.8, outlining the disturbance stability criteria for small and large disturbances respectively. Clauses 3.3.1(d) and subclause (1) have been amended to align them with changes to clauses 2.2.7 and 2.2.8. Clauses 3.3.1(i) has been introduced to require all generating systems to ensure their connection does not degrade power system dampening. Clause 3.3.3.3(f) has been introduced to amend the conditions under which power stations with non-synchronous generating units may absorb reactive power after disturbances in the power system.
APA request	APA requests discussion on a damping method at an upcoming working group meeting
Workshop outcomes	APA highlighted that differing damping calculation methodologies have been applied in the SWIS and noted that the absence of guidance can result in inconsistent outcomes. Members agreed that further consideration of damping assessment methodologies may be beneficial and agreed to log a separate issue for future discussion, with APA to provide input based on its SWIS experience.

8. STAKEHOLDER QUESTION - ISSUE 28

Issue	**28 – Fault Level Requirements and Equipment Fault Ratings**
Issue Lead	**David (HP) and Peter (ISO)**
Explanatory Note (extract)	The HTR Working Group undertook a high-level review of fault level requirements and fault level management in the Harmonised Technical Rules considering: • minimum fault rating requirements for Transmission plant at significant network nodes; and • potential requirements for limitations on maximum fault levels on the system and guidance on the calculation of fault levels. After this review, the working group determined updates to the HTR were required. Amendments to clause 3.2.1, including Tables 3.1 and 3.2, specify the minimum Short Time Withstand Current and Short Circuit Breaking Current for new equipment on transmission and distribution networks.
Anon request	Table 3.2 sets minimum short time withstand and breaking current ratings for distribution equipment. The submission requests that the table adopt higher, more conservative minimum ratings to support future fault-level growth and site expansion (increased load and new generation). Equipment ratings can be negotiated with the NSP when fault-level calculations demonstrate materially lower prospective fault levels at the installation point.
Workshop outcomes	Mr Batra noted that the proposed fault level ratings are generally consistent with IEC and OEM recommendations, with the exception of the reference to 33 kV equipment, and sought clarification from Mr Stephens regarding the basis for this distinction. Mr Stephens took the question on notice. Members requested that the issue title be amended to more accurately reflect the subject matter of the proposed amendments, noting that the issue relates to equipment fault withstand capability rather than broader system strength considerations.

9. STAKEHOLDER QUESTIONS - ISSUE 32

Issue	**32 – Update CFCTs to reflect system changes and approved derogations**
Issue Lead	**Peter (ISO)**
Explanatory Note (extract)	Table 2.10 has been amended to update Critical Fault Clearing Times in the NWIS, to align with other technical rules and reflect the findings of an independent study not captured during the development of the HTR. Practically, this means removing HP-Rio tie lines so that Table 2.10 lists the maximum Total Fault Clearance Times for systems that are 33kV (or below) as 300ms. News clauses 2.6.4(h) and (i) have been added to allow alternate Total Fault Clearance Times. Clause 2.6.4(h) will allow for slower clearance times with the agreement of the ISO, and clause 2.6.4(i) allows NSPs to require the clearance time for primary equipment to be reduced to the required maximum total fault clearance time in Table 2.10 with the agreement of the ISO.
BHP question	With reference to clause 2.6.4(i), while the NSP/ISO may agree to a higher clearance time based on network conditions, they should also have the ability to require the clearance time to be reduced to the required levels in table 2.10 should network conditions change.
BHP question	We note that the alternative maximum total fault clearance time for 66kV in table 2.11 is lower (105) than the value for the maximum total fault clearance time for 66kV in table 2.10 (120). Query on what the rationale is for this?
Workshop outcomes	Members discussed whether changes to fault-clearing times could be managed through the existing exemptions framework, noting the importance of maintaining transparency while avoiding unnecessarily onerous administrative processes or the proliferation of separate exemption mechanisms. Members generally supported further consideration of using the existing exemptions process, provided the associated process burden remains proportionate. Members noted that, if an exemptions framework is not adopted, some form of publication or notification process should still be required. Members also discussed the potential need for shorter fault-clearing times as renewable generation increases on the system. While recognising the importance of avoiding unnecessary costs, members acknowledged that forward planning is required when considering future protection system requirements. Mr Stephens explained that the proposed fault-clearing times in the Amending Rules were informed by Horizon Power's Technical Rules and existing precedent. He noted that the proposed values may be refined in the future following more detailed system studies and agreed to provide members with further information on the rationale for the proposed timeframes.

10. STAKEHOLDER QUESTIONS - ISSUE 35

Issue	**35 – Special Protection Schemes**
Issue Lead	**Njabulo (BHP)**
Explanatory Note (extract)	New definitions of 'Non-credible Contingency Event', 'Protected Event' and 'Special Protected Scheme' have been introduced to clause 8 of the PNR and clause 1.5 of the HTR. Rule 198A has been introduced outlining when the ISO may determine that a non-credible contingency event should be treated as a Protected Event and the requirements for an NSP to respond, whether by implementing a Special Protection Scheme, providing an alternative method of response, or why no action is necessary. Clauses 2.2.1(d) and 2.2.1(e) have been amended to account for the new defined term non-credible contingency event and correctly align with the style of the rest of the HTR. New clause 2.3.10 is introduced to outline how special protection schemes will operate and be maintained. New clause 4.1.8 is introduced to outline how special protection schemes, and the relevant facilities and equipment, will be tested by the relevant NSPs.
BHP suggestion	With reference to Rule 198A(3), BHP note that the ISO can identify the need for a Special Protection Scheme, but that ultimately the NSP can choose to pursue the investment or disagree (outlining why no further action is required). We suggest that the ISO make the final determination based on feedback from the NSP
APA question	The note on Rule 198A(2)(d) indicates the design of the scheme should look to avoid the use of ESS, constraint rules or manual load shedding measures where feasible. If these measures are available and can be adjusted to avoid the situation, should these not be considered?
Anon question	The note on Rule 198A(2)(d) refers to avoiding "manual load shedding" measures where feasible but does not address automatic schemes such as UFLS and UFIS. The submission requests clarification on whether UFLS/UFIS are intended to be treated as a Special Protection Scheme under the proposed SPS/Protected Events framework, and if so, what governance, documentation, testing and reporting obligations would apply to these existing schemes.
Workshop outcomes	Members discussed the potential for Energy Storage Systems to respond to non-credible contingency events, noting that this may, in some circumstances, be a more efficient solution than implementing a Special Protection Scheme (SPS). Members noted that, if this approach is adopted, consideration should be given to ensuring that the party causing the non-credible contingency bears the associated costs.

	Members discussed whether decisions regarding investment in an SPS should rest with the ISO or the NSP. Members considered that the NSP may be best placed to make the decision, provided that the decision is subject to an appropriate dispute or review mechanism. Members observed that the current Rules provide limited clarity regarding the definition and treatment of credible contingencies. There was broad support for adding this matter to the issues register for future consideration. APA noted an apparent inconsistency between clauses specifying frequency deviation bands (±0.025 Hz and ±0.05 Hz). EPWA agreed to review the drafting and determine whether consequential amendments are required.