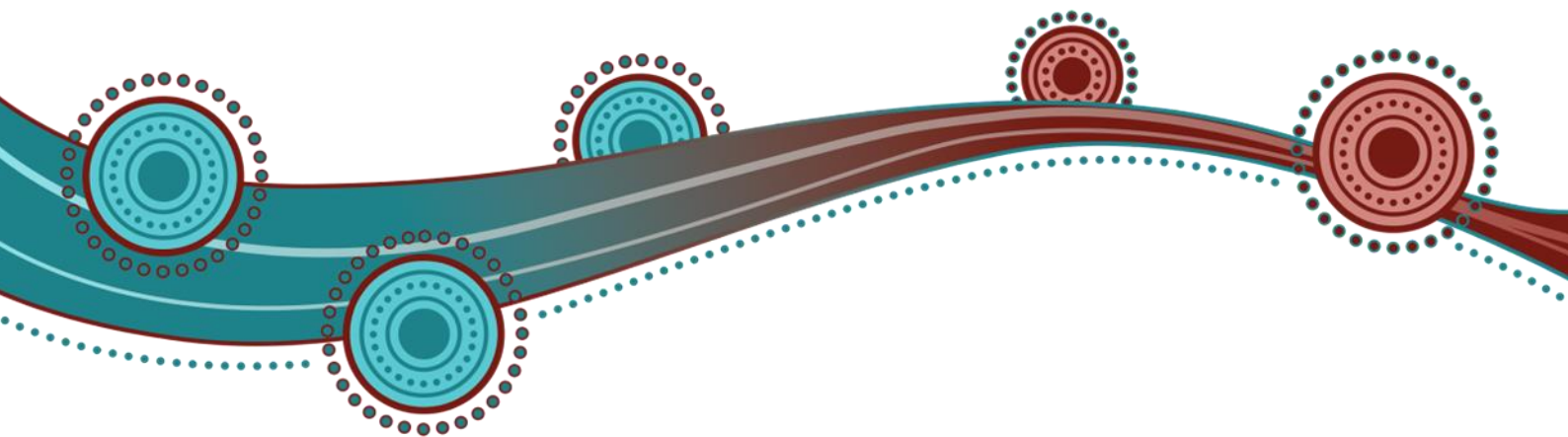


# EFFECTIVENESS OF THE PILBARA NETWORKS REGIME

**30 JUNE 2023**



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# 1. Executive Summary

- 1.1.1 Rule 369 of the Pilbara Networks Rules (Rules) require the Pilbara ISO to collect and analyse data and publish a report within two years of the rules commencement date regarding the operation and effectiveness of:
- (a) the interconnected Pilbara networks; and
  - (b) the regulatory arrangements established for Pilbara networks under Part 8A of the *Electricity Industry Act* (including the Pilbara Networks Access Code and Pilbara Networks Rules)
- in maintaining and improving security and reliability and the Pilbara electricity objective.
- 1.1.2 Following an extension to the transitional rules the Pilbara ISO's functions fully commenced on 1 July 2023. The Pilbara ISOCO therefore has insufficient data to fully analyse the operation and effectiveness of the Pilbara networks regime at this time.
- 1.1.3 This report is prepared in accordance with rule A4.9, whereby ISO functions are performed to the extent possible, having regard to the ISO's processes and available resources. For this reason, Pilbara ISO has chosen not to undertake stakeholder consultation on this report.
- 1.1.4 Information is provided on the operation and effectiveness of the Pilbara regime during the transitional arrangements.
- 1.1.5 The report outlines the system operations and networks access functions that were undertaken during the transition which contributed to maintaining and improving system security and the Pilbara electricity objective.
- 1.1.6 From full commencement of the Rules on 1 July 2023, Pilbara ISOCO will collect data to monitor and analyse the operation and effectiveness of the Pilbara networks regime, including both systems operations and networks access.
- 1.1.7 It is also noted that the Minister for Energy has convened a Pilbara Industry Roundtable to consider decarbonisation as an emerging issue for Pilbara networks, including a review of the Pilbara networks regulatory framework. The Roundtable comprises members from: Pilbara electricity participants, major mining loads, industry representative bodies, government agencies and the Pilbara ISOCO.
- 1.1.8 The Pilbara ISO intends to publish the next report on the effectiveness of the Pilbara networks within two years of the full commencement of the Rules (see Rule 3(4)).

## 2. Introduction

### 2.1 Pilbara networks regime

2.1.1 Pilbara networks are regulated under Part 8A of the *Electricity Industry Act 2004*. There are two key components to the regulation of Pilbara networks, including:

- (a) a light-handed access regime to facilitate third party access to designated electricity network assets in the Pilbara, which is codified in the Pilbara Networks Access Code (PNAC); and
- (b) an independent system operator (ISO), which operates under the Pilbara networks rules (Rules).

2.1.2 The application of the Pilbara networks regime differs according to whether a network is covered and/or interconnected with other networks. The regime fully applies to covered networks forming part of the North-West Interconnected System (NWIS). There is a more limited application of the regime to non-covered networks within the NWIS. For non-interconnected, non-covered Pilbara networks the regulatory framework's application is limited to the collection and reporting of information to support whole of system planning.

2.1.3 The Government has appointed Pilbara ISOCO to perform the independent system operation functions for Pilbara networks under the regime. Pilbara ISOCO is an incorporated not-for-profit company limited by guarantee under the *Corporations Act 2001* (Commonwealth). The founding members of Pilbara ISOCO are the three main operators of electricity networks in the Pilbara: Horizon Power, Alinta Energy and Rio Tinto.

2.1.4 Section 119 of the *Electricity Industry Act 2004* outlines the objective of the Pilbara Networks regime (i.e., the Pilbara electricity objective), as being:

*To promote efficient investment in, and efficient operation and use of, services of Pilbara networks for the long-term interests of consumers of electricity in the Pilbara region in relation to:*

- (a) *price, quality, safety, reliability and security of supply of electricity; and*
- (b) *the reliability, safety and security of any interconnected Pilbara system.*

### 2.2 Monitoring the regime's effectiveness

2.2.1 Under the Rules, the Pilbara ISO is required to collect and analyse data and publish a report regarding the operation and effectiveness of:

- (a) the interconnected Pilbara networks; and
- (b) the regulatory arrangements established for Pilbara networks under Part 8A of the *Electricity Industry Act* (including the Pilbara Networks Access Code and Pilbara Networks Rules)

in maintaining and improving security and reliability and the Pilbara electricity objective.

- 2.2.2 Rule 369 requires the Pilbara ISO to monitor the regime's effectiveness commenced on 1 July 2021, and provides that the first report is to be published no later than 2 years after the rule's commencement date.
- 2.2.3 Given that the Pilbara ISO's functions did not fully commence until 1 July 2023, the Pilbara ISOCO has insufficient data to fully analyse the operation and effectiveness of the Pilbara networks regime at this time.
- 2.2.4 This report is prepared in accordance with rule A4.9, whereby ISO functions are performed to the extent possible, having regard to the ISO's processes and available resources. For this reason, Pilbara ISO has chosen not to undertake stakeholder consultation on this report.
- 2.2.5 This report provides information on the operation and effectiveness of the Pilbara regime during the transitional arrangements.
- 2.2.6 The Structure of the report includes:
- Section 3 – Systems Operations
  - Section 4 – Networks Access
  - Section 5 – Emerging Issues
  - Section 6 – Future Reporting Period

## 3. Effectiveness of System Operations Regime

### 3.1 Pilbara system operations

- 3.1.1 Pilbara systems operate under and according to the Pilbara Networks Rules (Rules).
- 3.1.2 Rule 3 of the Rules provides for the commencement of the Pilbara Networks Rules. The Rules do not fully commence until 1 July 2023.
- 3.1.3 Appendix 4 of the Rules provide for the Transitional Rules. The Transition objective is outlined in A4.1 –
- (a) the NWIS will be operated in accordance with the system security objective; and
  - (b) third party access to covered networks will be facilitated in at least a transitional manner; and
  - (c) NWIS operations on and after 1 July 2021 will continue largely unchanged, until the ISO and NSPs are ready to implement change; and
  - (d) the three registered NSPs will work collaboratively to manage the NWIS, with minimal (and preferably no) resort to directions; and
  - (e) rules which have not commenced, are commenced under rule A4.3 as early as reasonably practicable.

### 3.2 Effectiveness system operations during transition

- 3.2.1 Table 1 outlines the system operations functions that were undertaken during the transition which contributed to maintaining and improving system security and the Pilbara electricity objective.

**Table 1: System operation functions during transition**

Function	Rule	Progress
Access and connection	Sub-appendix 4.3 (Subchapter 4.4)	<ul style="list-style-type: none"><li>• Developed whole of system model</li><li>• Developed reduced model, for use in access and connection processes</li><li>• Developed interim access and connection procedure</li></ul>
Horizon Power limited control desk function	A4.21A – A4.25 (Subchapter 2.3)	<ul style="list-style-type: none"><li>• Entered into interim control desk delegation with Horizon Power</li><li>• Progressed full control desk delegation</li><li>• Developed draft interim Protocol Framework Procedure</li></ul>
System Coordination meetings	A4.26 (Subchapter 7.3)	<ul style="list-style-type: none"><li>• Held fortnightly system coordination meetings</li></ul>

Function	Rule	Progress
		<ul style="list-style-type: none"> <li>Managed planned outages to minimise risk</li> </ul>
Energy Balancing and Settlement (EBAS)	Sub-appendix 4.5 (Subchapter 8.2-8.3)	<ul style="list-style-type: none"> <li>Issued EBAS readiness notice</li> <li>Developed draft interim EBAS procedure</li> </ul>
Procurement of Essential System Services (ESS)	Sub-appendix 4.6 (Subchapter 8.1)	<ul style="list-style-type: none"> <li>Transitional ESS operated as per transitional rules A4.37 – A4.42</li> <li>Entered into contracts the provision of ESS from 1 July 2023</li> </ul>
Harmonised technical rules (HTR)	Sub-appendix 4.7 (Appendix 5)	<ul style="list-style-type: none"> <li>HTR applied as per sub-appendix 4.7</li> </ul>
Developing initial procedures	Sub-appendix 4.8 (Appendix 2)	<ul style="list-style-type: none"> <li>Following interim procedures in place as at 1 July 2023: <ul style="list-style-type: none"> <li>Notices</li> <li>Registration and Standing Data</li> <li>Budget and Cost Management</li> <li>Essential System Services</li> <li>Access and Connection (including Connection Point Compliance)</li> <li>Cyber Security Procedure</li> </ul> </li> </ul>
Generation Adequacy	Sub-appendix 4.9 (Chapter 6)	<ul style="list-style-type: none"> <li>Having regard to the overall balance between generation and load in the power system, issued a notice advising of the suspension of Chapter 6 Generation Adequacy</li> </ul>
Constrained Access	Sub-appendix 4.10 (Sub-chapter 9.1)	<ul style="list-style-type: none"> <li>Constrained access operated as per transitional rules A4.62-A4.65</li> <li>Constraint rules under development</li> </ul>
Transitional process for rule change	Sub-appendix 4.12 (Appendix 2)	<ul style="list-style-type: none"> <li>Pilbara advisory committee established</li> <li>Finalised and participated in rule change processes: <ul style="list-style-type: none"> <li>1 Dec 2021 (commenced) – Pilbara Networks Rules Amendments (Tranche 1) 2021</li> <li>25 Dec 2021 (commenced) – Pilbara Networks Rules Amendments (Tranche 2)</li> <li>31 Mar 2022 (commenced) – Integrated LNG Systems</li> </ul> </li> </ul>

Function	Rule	Progress
		<ul style="list-style-type: none"> <li>○ 14 Mar 2022 (submitted) – Various Pilbara ISO Functions (Access and connection costs; ESS procurement; CPC measures)</li> </ul>



## 4. Effectiveness of Network Access Regime

### 4.1 Light handed access regime

- 4.1.1 The Pilbara networks light handed access regime operates under and according to the Pilbara Networks Access Code (PNAC).
- 4.1.2 Clause 3 of the PNAC provides for commencement.
- (a) The PNAC commenced on the date on which it was published in the Government Gazette, which was 25 June 2021.
  - (b) Covered Network Service Providers were not required to publish access information until 7 January 2022.
  - (c) Subchapter 9.1 of the PNAC provides for a period of transition between the commencement of the PNAC and the date in which access information was published.
- 4.1.3 As the ISO had not fully commenced its functions until 1 July 2023, the Pilbara ISOC Co has insufficient data to fully analyse the operation and effectiveness of the Pilbara networks access regime at this time.
- 4.1.4 This report provides information on the operation and effectiveness of the Pilbara regime during the transition arrangements.

### 4.2 Effectiveness of Pilbara networks access regime during transition

- 4.2.1 Table 3 outlines the access functions that were undertaken during the transition which contributed to the Pilbara electricity objective.

**Table 3: Access functions during transition**

Function	Chapter	Progress
Light regulation networks	Chapter 3	<ul style="list-style-type: none"><li>• Horizon Power coastal network and Alinta Port Hedland network prescribed as a covered Pilbara network and subject to light regulation under the PNAC</li></ul>
Publication of Access Information	Chapter 4	<ul style="list-style-type: none"><li>• Network Service Provider access information published on websites:<ul style="list-style-type: none"><li>○ <a href="https://nwis.com.au">Horizon Power Pilbara Network (nwis.com.au)</a></li><li>○ <a href="https://alintaenergy.com.au">NWIS Consultation (alintaenergy.com.au)</a></li></ul></li></ul>

Function	Chapter	Progress
Pricing	Chapter 5	<ul style="list-style-type: none"> <li>• Network service providers used the pricing arrangements set out in Chapter 5 of the PNAC to produce a price list</li> <li>• Economic Regulation Authority determined the initial rate of return for Horizon Power Coastal Network and Alinta Port Hedland Network: <ul style="list-style-type: none"> <li>○ <a href="#">Pilbara Networks - Rate of Return - Economic Regulation Authority Western Australia (erawa.com.au)</a></li> </ul> </li> </ul>
Arbitration of access disputes	Chapter 7	<ul style="list-style-type: none"> <li>• There were no access disputes on Pilbara networks</li> </ul>
Ringfencing	Chapter 8	<ul style="list-style-type: none"> <li>• Economic Regulation Authority approved the ringfencing rules for the Horizon Power coastal network and Alinta Port Hedland network: <ul style="list-style-type: none"> <li>○ <a href="#">Pilbara Networks - Ringfencing - Economic Regulation Authority Western Australia (erawa.com.au)</a></li> </ul> </li> </ul>

## 5. Emerging Issues for Pilbara Networks Regime

### 5.1 Impacts of decarbonisation for Pilbara Networks

- 5.1.1 Many of the major electricity customers connected to the NWIS have announced significant decarbonisation targets, aiming to ultimately achieve net zero by 2050.
- 5.1.2 Electrifying operations where possible and using renewable electricity is one of the most cost-effective ways of moving towards net zero. Electrification increases the demand for electricity.
- 5.1.3 Replacing thermal generation with zero emissions technology also requires substantially more renewable electricity and storage, due to the intermittent nature of renewable energy sources such as solar and wind.
- 5.1.4 The Minister for Energy has convened a Pilbara Industry Roundtable series to consider decarbonisation as an emerging issue for Pilbara networks. Two relevant issues being considered include:
  - (a) Modelling to understand the quantum of demand and investment in generation and transmission infrastructure that will be required; and
  - (b) Reviewing the Pilbara Networks Regulatory Framework to ensure it is fit for purpose for a decarbonised electricity system.
- 5.1.5 The Industry Roundtable includes members from: Pilbara electricity participants, major mining loads, industry representative bodies, government agencies and the Pilbara ISOCO.
- 5.1.6 Government has indicated it intends to finalise the Pilbara Industry Roundtable in mid-2023, with a plan for implementation of changes over a future period (period to be determined as part of Government analysis).

## 6. Future Reports

### 6.1 Future collection and analysis of data

- 6.1.1 From full commencement of the Rules on 1 July 2023, Pilbara ISO will collect a range of information and data to assist in its function to monitor and analyse the operation and effectiveness of the Pilbara networks regime.

### 6.2 Next reporting period

- 6.2.1 The Rules require Pilbara ISO to recommend a period within which the next report on the Pilbara network regime's effectiveness must be published.
- 6.2.2 It is recommended that the next report is published within 2 years from the publication of this report.
- 6.2.3 This recommendation is on the basis of:
- (a) The Rules fully commenced under 1 July 2023;
  - (b) The reporting period should be no longer than two years, given this report focused only on the operation and effectiveness of the Pilbara regime during transition arrangements;
  - (c) The available resources of the Pilbara ISO; and
  - (d) The work being undertaken by Government in reviewing the Pilbara networks regime to ensure it is fit for purpose for a decarbonised electricity system, which may affect any outcomes of an effectiveness report.