Design Consultation Paper – Regulatory framework for the Pilbara electricity networks

Stakeholder Reference Group Presentation

21 February 2018
Agenda

1. Overview and Key Design Elements
2. Light Access Framework
3. ISO Model
4. Next Steps
Overview and Key Design Elements

Zaeen Khan
DESIGN PROCESS

Stakeholder Meetings

- 31 Oct Minister’s Forum
- 28-30 Nov 2017 Stakeholder 1:1 Meetings
- 11 Dec 2017 Stakeholder Reference Group Forum
- 21 Feb 2018 Stakeholder Reference Group Forum
- (TBC) March 2018 Stakeholder Reference Group Forum

Project Milestones

- Oct: 14 Nov 2017 Issues Paper Published
- November: 4 Dec 2017 Submissions due Issues Paper
- December: Consultation Period Issues Paper
- January: 9 Feb 2018 Design Paper Published
- February: 9 Mar 2018 Submissions due Design Paper
- March: Consultation Period Design Paper
- March 2018 Final Design Report

Ongoing ad hoc engagement
KEY ELEMENTS OF LIGHT HANDED ACCESS REGIME

Objectives & Principles
- Access Framework Objectives & Design Criteria

Coverage
- Access Coverage – Initial, Extension

Access Framework
- Information Disclosure
- Negotiation Framework
- Dispute Resolution
- Pricing Methodology
- Connection & Access Policies

Structural & Markets
- Ring Fencing – Accounting, Function
- Markets – Retail contestability thresholds, Prudentials, Metering, Policy settings

Transition
- Transition – initial & extension
KEY ELEMENTS OF LIGHT HANDED ACCESS REGIME

The Design Paper proposes a fit-for-purpose light-handed third party access regime for the NWIS that consists of the following design elements, to apply to covered networks:

- **Pricing Principles** that are consistent with the outcomes of a workably competitive market to guide price setting and to provide reasonable assurance that any access pricing dispute will be successfully and cost-effectively determined.

- The requirement for a service provider to establish, maintain and publish **Reference Tariffs** and standard Access Terms as a starting point for negotiations.

- **Commercial negotiation** as the vehicle to resolve access agreements, including applicant-specific pricing; and

- Clear and binding **arbitration**, administered by the ERA, should negotiations reach an impasse.
KEY ELEMENTS OF ISO MODEL

Objectives & principles

Guiding ISO design objectives & principles

Functions & powers

Planning, scheduling & dispatch
Ancillary services
Network services
Market services
Metering services

Structure

Ring Fenced vs standalone
Governance & funding

Coverage

ISO coverage and liability

Transition

Transition – initial and extension
KEY ELEMENTS OF ISO MODEL

The Design Paper proposes an ISO with the primary objectives to improve system security and reliability and, through independence and stability of the regime, facilitate efficient operation of and investment in the NWIS.

- Stand-alone entity with an independent board (AEMO proposed)
- Responsibilities cover the entire NWIS Interconnected System
- Immune from damages claims
- Functions include:
  - Planning, scheduling and (limited) dispatch functions
  - Management of provision of Ancillary Services
  - Network coordination, connection & access, and production of statements of opportunities
- The scope of ISO functions largely formalises what already occurs today on a less formal basis between participants
- ISO powers will not extend to daily operational control of NWIS networks
- Costs will be recovered from NWIS participants.
Light Access Framework

Paul Sell
**COVERAGE – STAKEHOLDER VIEWS**

### Initial Coverage

- Stakeholders presented a range of views on initial coverage (not all stakeholders presented a view)

<table>
<thead>
<tr>
<th>Horizon’s network only</th>
<th>Horizon + Alinta networks</th>
<th>Coastal networks</th>
<th>NWIS Interconnected Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alinta</td>
<td>BHP</td>
<td></td>
<td>Horizon**</td>
</tr>
<tr>
<td>FMG</td>
<td></td>
<td></td>
<td>Woodside</td>
</tr>
<tr>
<td>Rio Tinto</td>
<td></td>
<td></td>
<td>TransAlta</td>
</tr>
<tr>
<td>BHP</td>
<td></td>
<td></td>
<td>Pilbara Development Commission</td>
</tr>
<tr>
<td>Horizon*</td>
<td></td>
<td></td>
<td>Town of Port</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Headland</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Shire of East</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pilbara</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>City of Karratha</td>
</tr>
</tbody>
</table>

*starting point
**longer term vision

*Businesses that prefer limited coverage initially, generally support mechanisms to potentially extend coverage in the future*
INITIAL COVERAGE

The following interconnected networks in the Coastal Region of the NWIS will be covered at regime commencement:

- the Horizon Power interconnected network; and
- the Alinta DEWAP interconnected network.

Objectives:

- Maximise economic benefits of competition at regime commencement
- **Not jeopardising** the integrated nature of the mining operations (particularly in the absence of any bona fide user applications for coverage).
FUTURE COVERAGE

1. Networks will be permitted to ‘opt-in’ at any time.

2. Coverage will be extended in the future by application of the existing Access Code coverage test as determined by the Minister.
CONTINUUM OF ACCESS PRICING MODELS

- Onus for developing, negotiating and if need be, defending the pricing methodology at binding arbitration placed on the access providers.
- Real threat of binding arbitration to enforce pricing discipline from access providers, rather than prescriptive regime
Submissions presented a range of views on pricing.

The options below would be supported by information, negotiation & dispute guidelines.

<table>
<thead>
<tr>
<th>light-handed regulation</th>
<th>full regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negotiation only</td>
<td>Prices set by Regulator</td>
</tr>
<tr>
<td>Principles &amp; Methods</td>
<td>Floor/Ceiling Price set by Regulator</td>
</tr>
<tr>
<td>Key parameters set by Regulator</td>
<td></td>
</tr>
</tbody>
</table>

* Defined Principles & methods would apply for all but ‘Negotiation Only’
ACCESS FRAMEWORK – PRICING

Pricing Principles
- to guide price setting & arbitration

Access Pricing Guidelines
- Building block approach
  - Simple guidance on building block components
  - Simple guidance on setting Access Tariffs
- Non binding (although taken into account in arbitration)

Reference Tariffs
- Demonstrate consistent with Pricing Principles; and
- Describe methodology and key assumptions

Non-reference Tariff
- By mutual agreement
ACCESS FRAMEWORK – INFORMATION, NEGOTIATION, DISPUTE

- **Information Disclosure** Requirements will be developed in consultation with stakeholders
  - specify the information that must be published by covered networks and the timetable for publication

- **A Negotiation Framework** will be developed, setting out requirements for each covered network to produce and publish:
  - a user access guideline
  - the process for making an access request
  - the process for making access offers, and
  - the process for negotiating access, pricing, and access terms and conditions

- **A Dispute Resolution** Framework will be developed
  - clear and binding
  - administered by the ERA
ACCESS FRAMEWORK – CONNECTION

Market carriage model
- Consistent with other Australian power systems

<table>
<thead>
<tr>
<th>User</th>
<th>Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Generators</td>
<td>‘Unconstrained’ access</td>
</tr>
<tr>
<td></td>
<td>(not constrained to a greater extent than at regime commencement)</td>
</tr>
<tr>
<td>New Generator or expanded capacity</td>
<td>Constrained access</td>
</tr>
<tr>
<td></td>
<td>Appraised (by ISO, without guarantee) of the likely extent of constraints and the options for relieving those constraints (at generator’s cost)</td>
</tr>
<tr>
<td>Loads</td>
<td>Access at default security levels</td>
</tr>
<tr>
<td></td>
<td>To be defined, but with provision for specific loads to request bespoke access and connection point security criteria</td>
</tr>
</tbody>
</table>

- Networks responsible for connection process
- ISO responsible for ‘electricity transfer & access’ aspect of new connections
STRUCTURE, MARKETS, & TRANSITION

- Covered networks’ regulated activities and functions will be required to be **structurally or functionally separated** from their non-regulated activities and functions.

- Due diligence required to ensure **transitional and consequential policy issues** are appropriately addressed (including impact on State finances and SWIS customers, contestability thresholds, TEC settings, access to UTP and default retailer arrangements).

- **Transition Plan** for the new NWIS Light Access Regime
  - allow timelines that permit service providers to efficiently meet new obligations
  - ensure existing contractual positions and operating positions are suitably protected
ISO Model

Mark de Laeter
DESIGN OBJECTIVE & PRINCIPLES

Design objective – modified National Electricity Objective

‘to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity with respect to price, quality, safety, reliability, and security of supply of electricity; and the reliability, safety and security of the national electricity system.’

ISO design principles

(i) The ISO’s core function is to ensure the reliability and stability of the system;
(ii) The ISO should act with impartiality and transparency;
(iii) The ISO should act to maximise overall system efficiency;
(iv) The cost of establishing & operating the ISO should be kept to a minimum;
(v) Proposed arrangements should consider the commercial interests and priorities of privately-owned electricity network assets in the NWIS;
(vi) Technical standards should not present a physical constraint to potential future interconnection of the NWIS, or a barrier to any technology type; and
(vii) ISO effectiveness should be reviewed periodically.
TYPICAL SYSTEM OPERATOR FUNCTIONS

Operates in accordance with Technical Rules* and legislative provisions

2+ years  2 years – 2 days  2 days ←-----------------------------→ 2 hours  Real time  Post Process

System operator

Scheduling & Dispatch
- Option Planning
  - Planning Studies
- Operations Planning
  - Planning Studies
- Scheduling
  - System Load Forecast
  - Pre Dispatch Schedule

Dispatch & Emergency actions
- Dispatch
  - Self
  - Directed
  - Economic

Settlement
- Pricing
- Directive actions
- Incident analysis

Security Analysis
- Contingency Analysis

Emergency response

Generators
- Generation Planning
- Generation Forecast
- Generation Offers Reserve Offers
- Metered Injections

Distribution /Retail
- Demand Planning
- Forecast Demand
- Demand Bids (interruptible load)
- Metered Offtakes

Network Operator
- Capacity Planning
- Outage Planning
- T & D asset outages

* Or an equivalent
GOVERNANCE

The ISO will be a stand-alone entity, with the proposed functions undertaken by AEMO:

- Some services may be provided by other providers under contract
- Revenue and expenditure forecasts will be independently approved by ERA
- Costs will be recovered from NWIS participants.
- Governed by the AEMO Board (on the basis that AEMO undertakes the ISO role)
  - Its charter will be established with the involvement of key stakeholders.
- The ISO surveillance functions will be provided to the ISO governing body by the ERA.
- Governs the proposed new NWIS Rules – change management will be a service provided to the ISO governing body by the ERA.
ISO FUNCTIONS

- The scope of ISO functions largely formalises what already occurs today on a less formal basis between participants.
- The ISO will have sufficient powers to effectively enact its obligations.
- ISO powers will not extend to daily operational control of NWIS networks unless by agreement.
COVERAGE & POWERS

The ISO will have coverage of the entire NWIS Interconnected System, with powers limited to those necessary to undertake its assigned functions.

- The ISO will not have powers to interfere with the efficient operations of networks, other than to protect the security and reliability of the NWIS.
  - these powers do not necessarily require direct control of all network elements
  - Asset owners may elect to have the ISO operate their assets
- Any changes to the ISO powers will be subject to rigorous analysis with stakeholder input to ensure that there is a material net benefit of any changes.
- The ISO will be required to work cooperatively with asset owners who choose to manage the day-to-day operations of their assets (and vice versa)

The establishment of and consistent application of a unified set of NWIS Rules will be a key element in underpinning the secure, reliable and efficient operation of the NWIS interconnected system.
LIABILITY

The ISO will have the same immunity from damages claims as AEMO has for its operations in the SWIS.

• The ISO will be established as a small entity which recovers its costs on a ‘fee for service basis’ without recourse to a substantial balance sheet
• Several stakeholders noted that the ISO should have the same protection as afforded to AEMO in undertaking its functions in the SWIS.
• We also note that it is extremely unlikely that any system operator (and individuals therein) would take on the risk of third party claims.
TRANSITION

NWIS Rules

- Establish a set of NWIS Rules (a hybrid of the WEM Rules and Horizon Power Technical Rules) and ensure the appropriate level of governance to ensure that the NWIS Rules are equitably and transparently applied and any derogations or changes to it are independently approved.

Ops model

- Establish an agreed and enforceable operating model and associated protocols and procedures for planning, scheduling and dispatch (including emergency response and post-incident investigation) that applies to all network owners/operators and generators.

Visibility & control

- Establish the necessary infrastructure for the ISO to have visibility of the network status (including load flows, ratings, configuration) and for it to be able to direct network owners/controllers and generators in prescribed circumstances to maintain or restore network security and reliability.

Ancillary services

- Establish the process to competitively acquire frequency control, balancing energy, spinning reserve and reserve capacity for the NWIS and to manage settlements.

ISO

- Establish the Independent System Operator and the governing Board (with supporting elements*) with adequate powers to undertake the obligations and functions in conjunction with NWIS participants.

Network services

- Establish a central network development and access coordination role, including the powers to acquire the necessary information to publish network and generation statements of opportunity.

COST

• Still to be resolved - general reference band between $5 million to $15 million established.

• Cost can be kept to a minimum by:
  • leveraging off existing entities for provision of services to the NWIS, which should mean costs attributable to the NWIS ISO should be incremental;
  • leveraging off existing documents, procedures and systems; and
  • drawing on in-kind support from key stakeholders to provide their expertise in the development of the proposed NWIS Rules.

• ISO costs will be subject to a detailed due diligence assessment once the final model has been confirmed.
Next Steps

Noel Ryan
DESIGN PROCESS – NEXT STEPS

1. Ongoing ad hoc engagement with stakeholders on specific issues
2. Submissions in response to Design Paper due **9 March**
3. Final Design Report developed for Minister in March with Cabinet submission to follow
4. Final SRG Forum to be held in March to close-out this phase of engagement
5. Subject to Government approvals, the implementation phase will involved a similar (if not more detailed) level of stakeholder engagement.
## NWIS REGULATORY REFORM IMPLEMENTATION TIMELINE

<table>
<thead>
<tr>
<th>Milestone/activity</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government consideration of proposed design of the regulatory framework and implementation plan</td>
<td>March 2018</td>
</tr>
<tr>
<td><strong>Implementation – Phase 1</strong></td>
<td></td>
</tr>
<tr>
<td>Independent System Operator due diligence process</td>
<td>April 2018 – July 2018</td>
</tr>
<tr>
<td>Legislative Drafting</td>
<td>April 2018 – July 2018</td>
</tr>
<tr>
<td>Various workstreams to prepare Rules, Codes, Guidelines etc. with stakeholder working groups</td>
<td>April 2018 – December 2018</td>
</tr>
<tr>
<td>Legislation introduced in Parliament</td>
<td>August 2018 – December 2018</td>
</tr>
<tr>
<td>Develop Transition Plan</td>
<td>August 2018 – December 2018</td>
</tr>
<tr>
<td><strong>Implementation – Phase 2</strong></td>
<td></td>
</tr>
<tr>
<td>Execute transition plan</td>
<td>January 2019 – June 2019</td>
</tr>
<tr>
<td>Stakeholder Engagement</td>
<td>January 2019 – June 2019</td>
</tr>
<tr>
<td>New regime commencement</td>
<td>July 2019</td>
</tr>
<tr>
<td>Mandatory post implementation review</td>
<td>July 2020</td>
</tr>
</tbody>
</table>
Questions?