

# **ACCESS AND CONNECTION INTERIM PROCEDURE**

VERSION: 1.0

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## VERSION RELEASE HISTORY

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# 1. Introduction

## 1.1 Purpose and scope

- 1.1.1 This Interim Access and Connection Procedure (Procedure) is made in accordance Pilbara ISOCO's functions under Chapter 9 and Sub-appendix 4.14 of the Pilbara Networks Rules (Rules).
- 1.1.2 The *Electricity Industry Act 2004* (WA), the Electricity Industry (Pilbara Networks) Regulations 2021, the Pilbara Networks Access Code and the Rules prevail over this Procedure to the extent of any inconsistency.
- 1.1.3 In this Procedure, where obligations are conferred on a Rules Participant, that Rules Participant must comply with the relevant obligations in accordance with rule 85, unless the Rules Participant has grounds for non-compliance under rule 172 of the Rules.
- 1.1.4 The purpose of this Procedure is to document the ISO's access and connection process as well as the roles and responsibilities of those participating in that process.

## 1.2 Definitions and interpretation

- 1.2.1 Terms defined in the *Electricity Industry Act 2004* (WA), the Electricity Industry (Pilbara Networks) Regulations 2021, the Pilbara Networks Access Code and the Rules have the same meaning in this Procedure unless the context requires otherwise.
- 1.2.2 The following principles of interpretation apply in this Procedure unless the context requires otherwise.
  - (a) Subchapter 1.2 of the Rules apply to this Procedure.
  - (b) References to time are references to Australian Western Standard Time.
  - (c) A reference to the Rules or Procedures made under the Rules, have the meaning given to them in the Rules.
  - (d) Words expressed in the singular include the plural and vice versa.
  - (e) A reference to a paragraph refers to a paragraph in the Procedure.
  - (f) A reference to a rule, subchapter or chapter refers to the relevant section in the Rules.
  - (g) References to the Rules in this Procedure is bold and square brackets e.g. "**See Rule [xxx]**", are included for convenience only, and do not form part of this Procedure.
  - (h) Explanatory notes are included for context and explanation and do not form part of this Procedure.
- 1.2.3 Appendix A of this Procedure outlines the head of power rule(s) that this Procedure is made under, as well as other obligations in the Rules covered by the Procedure.

## 1.3 References

1.3.1 The following Procedures are linked and must be consulted in conjunction with this Procedure:

- (a) Modelling Procedure;
- (b) Registration Procedure; and
- (c) Visibility Procedure.

## 2. Process Overview

### 2.1 Application of Procedure

**See Rules [5(2); 91(1); 267; 270; A4.14]**

- 2.1.1 This Procedure applies to the following new connections **[Rule 267]**:
- (a) the creation of a new connection point on a Host NSP's network; and
  - (b) existing connection points where there is a change in the level of injection or withdrawal of electricity, or technical characteristics of facilities connected, or to be connected, at the connection point,
- unless the connection is an exempt connection.
- 2.1.2 An exempt connection is a connection which is exempted from the ISO's supervision under Rule 270 of the Rules. The following connections are exempt connections:
- (a) The creation of a new connection point on a Host NSP's network where this is an injection or withdrawal of less than 10 MW; and
  - (b) Existing connection points where there is a network augmentation of less than 66 kV or where there is a change in injection or withdrawal of electricity of less than 10 MW,
- and where the Host NSP believes in good faith there is no risk to security and reliability of the system.
- 2.1.3 A Host NSP may seek guidance from the ISO on whether a new connection is an exempt connection.
- 2.1.4 This Procedure applies to an integrated mining network to the extent reasonably necessary to achieve or promote, to a GEIP standard the purposes outlined in Rule 5(2) including managing energy, power flows and power quality across the interconnector and facilitating the maintenance, improvement and restoration of security and reliability in a covered network.
- 2.1.5 An integrated mining network may seek guidance from the ISO on how this Procedure applies to a new connection on their network.
- 2.1.6 This procedure applies to Connection Applicants who are not required to register as an NSP under Rule 91(1). Should a Connection Applicant be required to register as an NSP under Rule 91(1) following energisation, they should engage directly with the Pilbara ISO to determine if their application should be progressed as an Excluded Network (in accordance with this Procedure) or as a Registered NSP (under a separate process to be agreed with the ISO and the interconnecting Host NSP).
- 2.1.7 For new connections where the Connection Applicant has lodged a connection application prior to the commencement of this Procedure, the ISO in consultation with Connection Applicant and the Host NSP may vary the access and connection process outlined in this Procedure in accordance with Sub-appendix 4.3 of the Rules.

- 2.1.8 This Procedure outlines the ISO's access and connection process, including:
- (a) the phased access and connection process for new connections:
    - Feasibility assessment: where a Connection Applicant conceptualises the project
    - Application assessment: where a Connection Applicant formally requests access from a Host NSP
    - Connection assessment: where the Connection Applicant designs, constructs and undertakes performance testing prior to and after connection as appropriate.
  - (b) process for Connection Point Compliance assessments;
  - (c) roles and responsibilities of the ISO, Host NSP and where relevant the Connection Applicant at each stage of the connection process under this Procedure.
  - (d) high-level requirements for power system modelling.
  - (e) the process for stakeholder engagement, cost mechanisms and timelines for the access and connection process.

## 2.2 Roles and responsibilities

### **See Rules [268; 269; 273]**

- 2.2.1 The general roles and responsibilities of the Connection Applicant, Host NSP and the ISO are outlined in the Host NSP's User Access Guide, the Rules, HTR and this Procedure.
- 2.2.2 The Host NSP performs a central role, liaising with both the Connection Applicant and the ISO. The Host NSP is responsible for the connection standards and the ISO is responsible for supervising these standards.
- 2.2.3 In carrying out its activities under Subchapter 9.2 and 9.3 of the Rules the ISO must:
- (a) act independently;
  - (b) in accordance with the Pilbara electricity objective; and
  - (c) with a view to maintain and improving system security.
- 2.2.4 The ISO's approach under this Procedure is to undertake its activities in an efficient and transparent manner with the aim of facilitating access and connection. The ISO's role therefore is to provide guidance, advice and undertake due diligence checks of the studies and assessments undertaken by the Host NSP and Connection Applicant throughout the access and connection process.
- 2.2.5 This Procedure does not cover all aspects of the access process and should be read in conjunction with the documentation published by the relevant Host NSP.
- 2.2.6 The ISO and the Host NSP may enter into an agreement detailing the roles, responsibilities, communication, time and costs to perform each stage of the connection process.



## 2.3 Confidential information

**See Rules [120(2); Subchapter 11.2]**

2.3.1 At each stage of the access and connection process information is exchanged between the Connection Applicant, the NSP and the ISO. Some of this information will likely be Confidential Information, including power system models and supporting information ("modelling information").

2.3.2 Rules Participants must comply with obligations to provide modelling information to the ISO whether or not the information is confidential, see Rule 120(2) of the Rules.

2.3.3 The confidentiality regime in Subchapter 11.2 of the Rules governs the process for preserving confidentiality, including the process for disclosure. The Modelling Procedure outlines the minimum requirements for the full model and the reduced model.

{Note – The ISO has published a "Guide to Confidentiality – Access and Connection" on the ISO's website.}

## 2.4 Conflicts of interest

2.4.1 The access and connection process is predicated on the separate roles and responsibilities of the parties involved. To ensure due consideration and robust assessment it is important that those undertaking the studies and those reviewing the studies on behalf of the Connection Applicant and the Host NSP are separate and independent.

2.4.2 Where a conflict of interest is identified, the ISO may, for example, seek to repeat some studies, undertake additional work or attend connection testing - to ensure the assessment is robust and the appropriate checks and confirmations have been undertaken.

2.4.3 The ISO will provide advice through the access and connection process to the Host NSP should a conflict of interest be identified.

## 2.5 Modelling

**See Rule [271]**

2.5.1 The Host NSP must provide the PowerFactory model of its network, including the new project to the ISO in accordance with the Modelling Procedure.

2.5.2 The Host NSP may request the ISO to undertake system modelling to assist the Host NSP and an Connection Applicant in connection with preparation and processing of access applications and negotiations with network access contracts.

## 3. Access and Connection Process

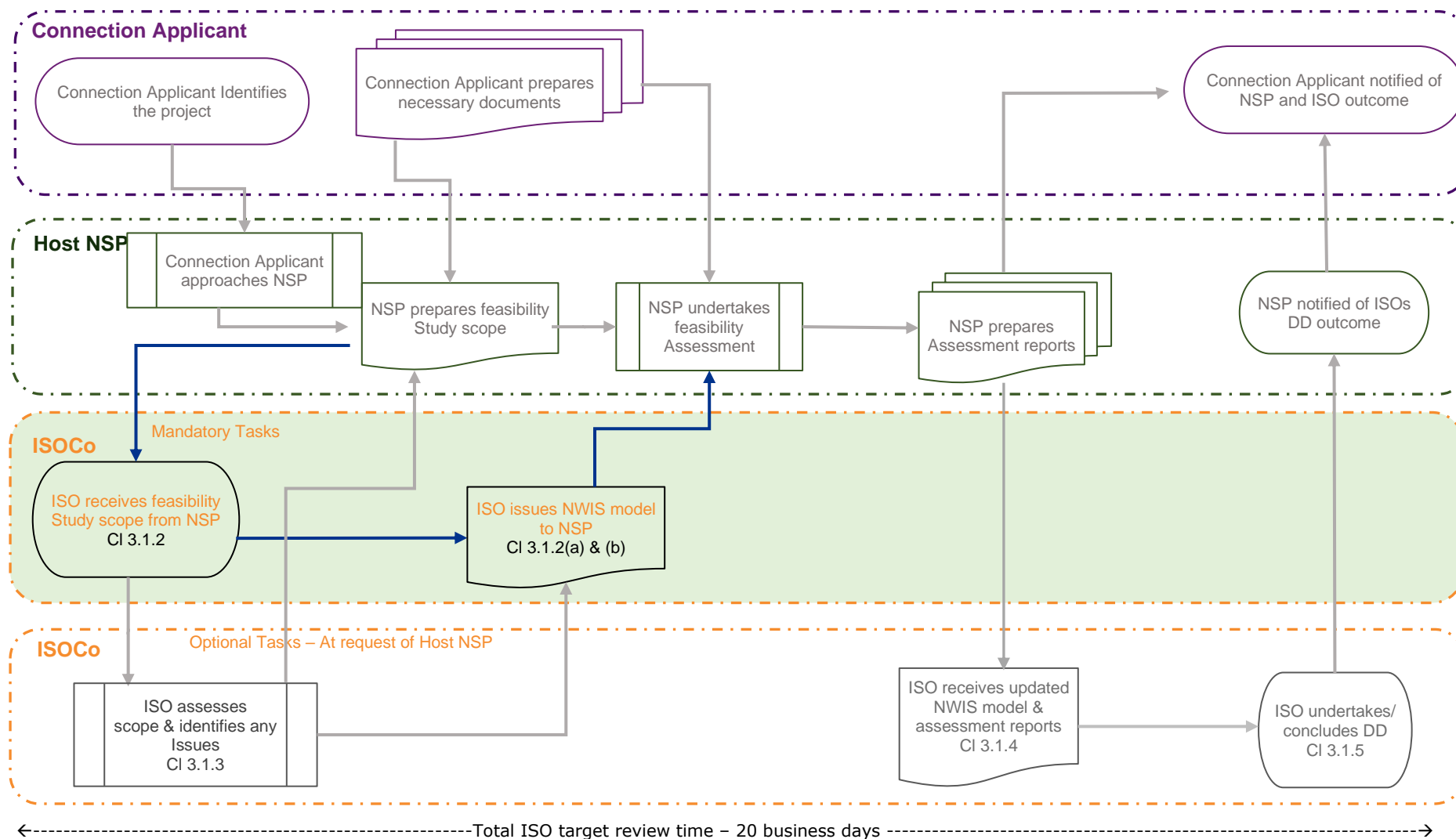
### 3.1 Feasibility assessment – Stage 1

**See Rule [272]**

- 3.1.1 This stage of the access and connection process involves the Connection Applicant conceptualising the project and engaging with the Host NSP to assess, at a high level and using typical project data, the impact of the new connection at the point of connection.
- 3.1.2 The Host NSP is required to provide the ISO with the feasibility study scope and upon doing so, the ISO:
- (a) May provide feedback to assist the Host NSP in determining whether to seek the ISO's endorsement of the study scope; and
  - (b) Must provide the Host NSP with a current NWIS model capable of access and connection studies.
- 3.1.3 If requested by the Host NSP, the ISO must review the feasibility study scope and provide the Host NSP with any observations, constraints, approved projects of interest or to the extent the ISO is aware, the names of proponents of other non-approved projects with whom the Host NSP or Connection Applicant may choose to engage.
- 3.1.4 The Host NSP may provide the ISO with a copy of the feasibility report and may request the ISO to review and undertake due diligence.
- 3.1.5 If requested to do so, the ISO must review the information provided and issue a letter detailing its due diligence findings on:
- (a) suitability of single line diagrams;
  - (b) spot checks of calculations;
  - (c) review of key findings;
  - (d) application of the Rules, HTR and GEIP;
  - (e) network impacts are appropriately covered and the impact on other users is assessed in line with the Rules, HTR and GEIP; and
  - (f) appropriateness of stakeholder engagement.

and whether any further work or consideration is required as part of the application assessment stage.

3.1.6 The Feasibility Assessment Stage 1 flowchart is depicted below. The interactions between the Connection Applicant and the Host NSP are generally guided by the Host NSP's User Access Guide, the representation below is generic and for context only.



## 3.2 Application assessment – Stage 2

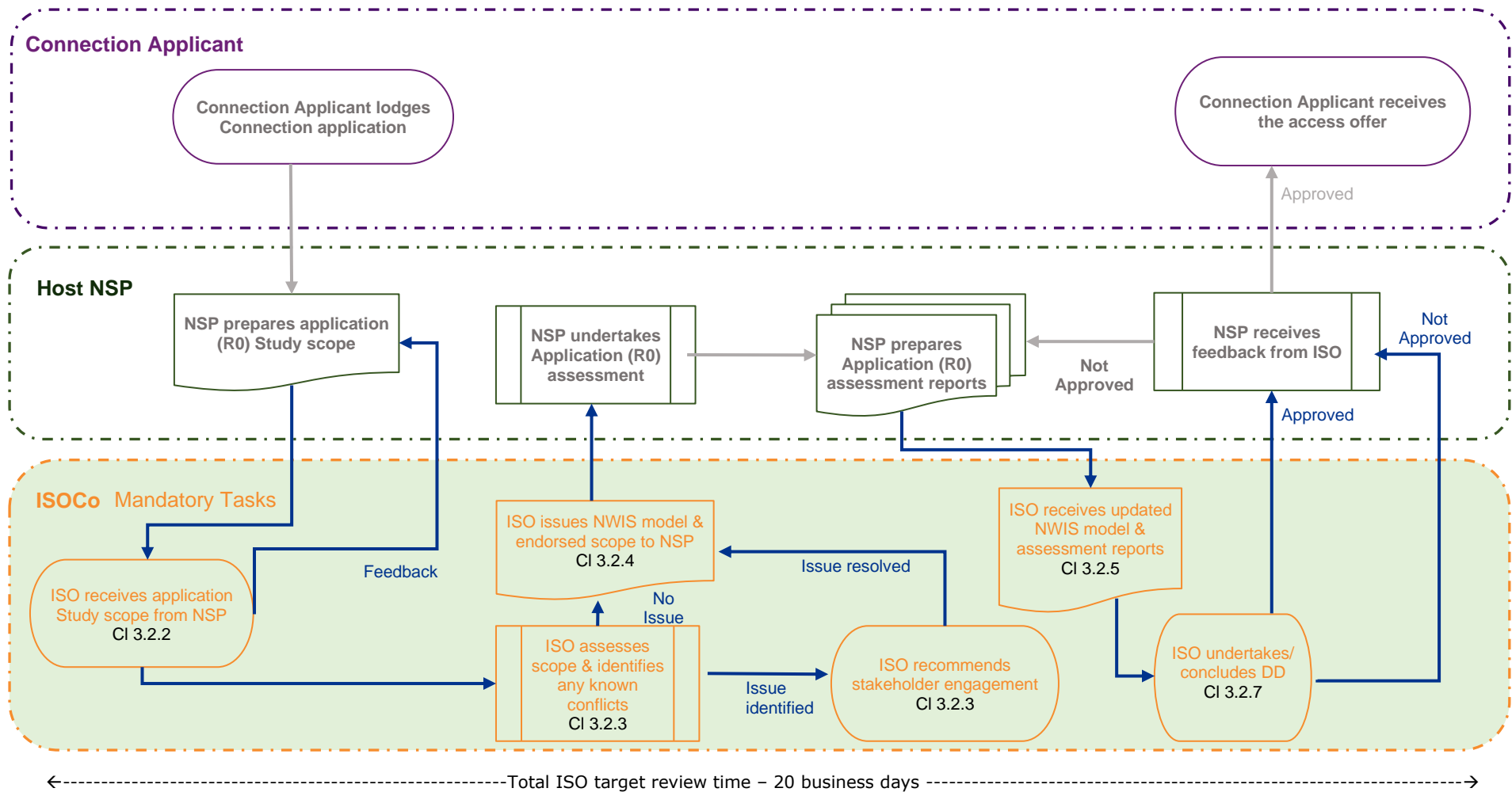
- 3.2.1 This stage of the access and connection process involves the Connection Applicant and Host NSP:
- (a) Identifying the network interfaces
  - (b) Identifying any exemptions from the HTR
  - (c) Determining whether to seek connection point compliance
  - (d) Undertaking high level design
  - (e) Estimating the costs
  - (f) Providing preliminary technical information and the power system model of the project
- 3.2.2 Following lodgement of the access application by the Connection Applicant, it is a requirement for the Host NSP to provide the ISO with the preliminary access study scope using preliminary design data in line with the HTR and GEIP. The scope of work is expected to include:
- (a) Connection details
  - (b) Design parameters
  - (c) Power system models
- {Note: Similar to R0 (Preliminary) studies in the NEM}
- 3.2.3 Upon receipt of the preliminary access study scope the ISO must review the information and provide the Host NSP with any:
- (a) observations including additional study scenarios;
  - (b) constraints;
  - (c) committed projects of interest; and
  - (d) to the extent the ISO is aware, the names of proponents of other non-committed projects where the Host NSP or Connection Applicant may choose to engage.
- 3.2.4 Once the preliminary access scope is agreed, the ISO must issue the current NWIS PowerFactory model capable of access and connection studies to the Host NSP.
- 3.2.5 Following completion of the preliminary access studies, the Host NSP must provide the preliminary access studies report and project specific PowerFactory model to the ISO.
- {Note – only the final version of the preliminary access studies report and associated model (i.e. when the Host NSP is ready to make an access offer) is to be provided to the ISO.}
- 3.2.6 If the Connection Applicant has applied for connection point compliance in accordance with the Rules and the Connection Point Compliance chapter of this procedure, the Connection Point Compliance Measures must be addressed in the preliminary access studies report.
- 3.2.7 Upon receipt of the preliminary access studies report and a project specific PowerFactory model the ISO must undertake due diligence and advise if the access studies report is approved or not approved this includes a review to confirm:

- (a) the study adequately addresses the network scenarios and loading conditions;
- (b) application of the Rules, HTR and GEIP;
- (c) network impacts are appropriately covered and the impact on other users is assessed in line with the Rules, HTR and GEIP; and
- (d) appropriateness of stakeholder engagement.

3.2.8 If the preliminary access studies report is not approved, the ISO must provide reasons and consult with the Host NSP on what further studies or information is required.

3.2.9 Upon approving the preliminary access studies report the ISO must issue a letter, the project will then be included in the NWIS PowerFactory model in accordance with the Modelling Procedure. The model will be updated as more approved studies and information become available.

3.2.10 The Application Assessment Stage 2 flowchart is depicted below. The interactions between the Connection Applicant and the Host NSP are guided by the Host NSP 's User Access Guide, the representation below is generic and for context only.



### 3.3 Connection assessment – Stage 3

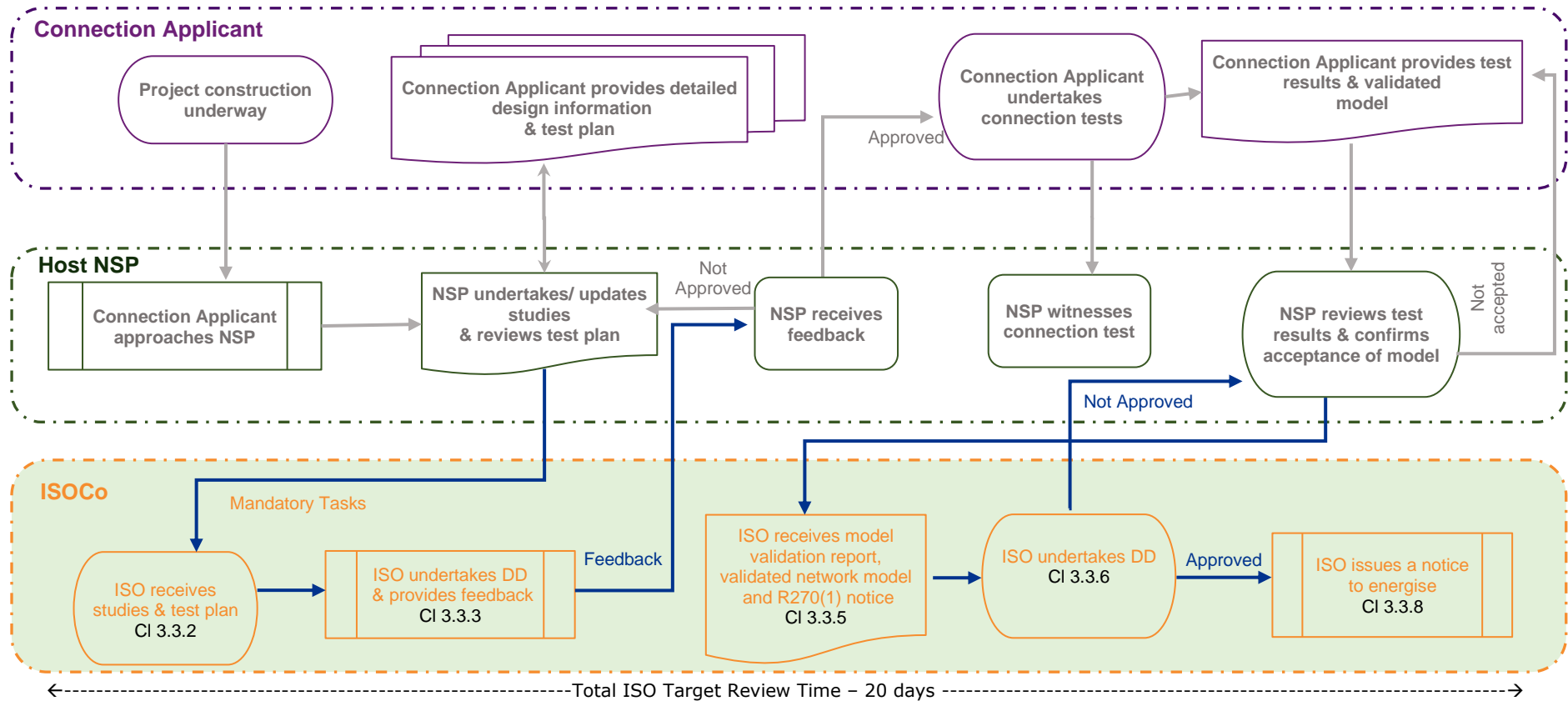
#### See Rules [269; 270]

- 3.3.1 This stage of the access and connection process involves the Connection Applicant and Host NSP:
- (a) providing detailed design information
  - (b) completing construction
  - (c) detailing as built design information
  - (d) performance testing of the facility and validating the power system model
  - (e) assessing connection standards in line with the Rules, HTR and GEIP
  - (f) seeking energisation from ISO.
- 3.3.2 The Host NSP must provide the ISO with the studies report based on the detailed design studies and the test plan in accordance with the HTR and GEIP. This plan is expected to include performance tests required to validate the plant performance and the updated PowerFactory model of the facility.
- {Note – Similar to R1 (pre-connection) studies in the NEM}
- 3.3.3 Upon receipt of the detailed design access studies report and the test plan, the ISO must review the information and advise the Host NSP of the outcome of the review and whether the report and test plan are approved.
- 3.3.4 If the detailed design access studies report or test plan are not approved, the ISO must provide reasons and consult with the Host NSP on what further studies or information is required.
- 3.3.5 Following performance testing, the Host NSP must provide the ISO with:
- (a) model validation report;  
{Note: Similar to R2 (on-system testing after connection) studies in the NEM}
  - (b) validated PowerFactory model of the Host NSP's network which includes the project; and
  - (c) a notice under rule 270(1) of the Rules confirming:
    - (i) all facilities connected, or to be connected, at the new connection comply with the Rules and HTR;
    - (ii) all requirements in the Rules and HTR regarding the approval and connection process for a new connection have been complied with;
    - (iii) determined and updated limit advice;
    - (iv) the Host NSP has consulted with the ISO on any new or revised constraint rules;
    - (v) any requests for exemption by the Connection Applicant have been managed and assessed in accordance with the Rules; and
    - (vi) compliance with this Procedure.

- 3.3.6 Upon receipt of the model validation report (similar to R2), validated PowerFactory network model (including the project model) and a notice under rule 270(1) of the Rules, the ISO must undertake due diligence and advise the Host NSP of the outcome and certify that the new connection may proceed, or notify the Host NSP that the new connection cannot proceed. This includes a review of:
- (a) Host NSP obligations under rule 269 of the Rules;
  - (b) test results confirming plant compliance;
  - (c) the appropriateness of point of connection compliance measures;
  - (d) any deviations, ensuring they are in line with the HTR and GEIP;
  - (e) the power system model to ensure it is validated with site data and there is a reasonable match with plant performance; and
  - (f) necessary stakeholder engagement.
- 3.3.7 In determining whether the connection can or cannot proceed the ISO must have regard to:
- (a) the Pilbara electricity objective;
  - (b) GEIP;
  - (c) the Host NSP's existing obligations under network access contracts and existing contractual entitlements of any potentially affected network users; and
  - (d) the possibility of any exemption being granted.
- 3.3.8 If the ISO determines the new connection may proceed, the ISO must issue a notice under rule 270(2)(a) of the Rules.
- 3.3.9 If the ISO determines that the new connection cannot proceed, the ISO must issue a notice under rule 270(2)(b) of the Rules. The ISO, Host NSP and if applicable the Connection Applicant, must collaborate to find a solution, having regard to Rule 270(3) to address the ISO's concerns. The solution may include a suitable constraint rule.
- 3.3.10 The NSP may give a revised notice under rule 270(1) of the Rules once a suitable solution has been found and the ISO must assess the notice afresh.



3.3.11 The Connection Assessment Stage 3 flowchart is depicted below. The interactions between the Connection Applicant and the Host NSP are generally guided by the Host NSP's User Access Guide, the representation below is generic and for context only.



## 4. Connection Point Compliance Assessments

### 4.1 Overview

**See Rules [64; Subchapter 9.3]**

- 4.1.1 If the connection process identifies non-compliant assets with respect to the HTR or PNR and the Connection Applicant has reasonable grounds to seek amendment to their compliance requirements, the Connection Applicant can apply to the Host NSP for an exemption under Rule 64 or alternatively apply for Connection Point Compliance measures in accordance with Subchapter 9.3 of the Rules and section 4 of this Procedure.
- 4.1.2 “Connection point compliance” means an arrangement in which equipment is found to be non-compliant with the PNR or HTR through the Host NSP connection assessment process is permitted to connect to the NWIS, because the equipment’s controller or the Host NSP, or both, implement measures (CPC Measures) which have been agreed between the equipment controller, the Host NSP and the ISO to ensure that the facility as a whole complies with the PNR and HTR at its connection point, despite the non-compliance of the equipment.

### 4.2 CPC measures

**See Rules [274A; 274E]**

- 4.2.1 CPC Measures have the same effect as an Exemption granted under Rule 64 in that they modify the compliance requirements of a Connection Applicant. The Host NSP must verify the Connection Applicant’s compliance with the agreed measures before allowing a connection to be energised and provide the ISO with appropriate commissioning records that the CPC Measures achieve the desired intent.
- 4.2.2 Should CPC Measures impose obligations on either the Host NSP or the ISO, then those compliance obligations must also be met at any time the CPC Facility is connected to the NWIS.
- 4.2.3 Implemented CPC Measures must be sufficient to ensure that:
  - (a) The CPC Facility poses no credible threat to the NWIS’s security or reliability.
  - (b) They do not adversely affect in any way another participant’s ability to manage in accordance with the PNR and to a GEIP standard a credible contingency or any other credible threat to the NWIS’s security or reliability.

### 4.3 Eligibility requirements

**See Rule [274A(3)]**

- 4.3.1 A collection of equipment is eligible for connection point compliance if together the pieces of equipment:

- (a) are electrically interconnected with each other; and
- (b) are under the control of a single controller; and
- (c) do not include any network component which is covered; and
- (d) include at least one non-compliant component; and
- (e) are connected to the NWIS by a single connection point (unless the ISO determines in its absolute discretion to negate this restriction on a case-by-case basis).

## 4.4 CPC application requirements

### See Rule [64; 274B]

4.4.1 A CPC Application must contain the following:

- (a) Connection Applicant's name and contact details.
- (b) Details of the equipment for which a HTR/PNR non-compliance has been identified.
- (c) The connection study report(s) which identified the non-compliance.
- (d) The CPC Measures proposed to be implemented.
- (e) A written justification demonstrating that the disadvantages of the Connection Applicant complying with the relevant HTR/PNR clause(s) are likely to exceed the advantages to the registered NSPs and network users of the Host NSP and any network in the NWIS of the Connection Applicant complying with the relevant HTR/PNR clause(s) (i.e. consistent with the requirements of Rule 64(7)(c)).
- (f) A written statement from the Connection Applicant confirming that the connection application complies in full to the Eligibility requirements.
- (g) A signed statement from the Host NSP stating that the studies performed are consistent with their connection standards and that they endorse the CPC Application.
- (h) A written Notice of application for CPC Measures in a format suitable for publication, stating:
  - (i) Connection Applicant name; and
  - (ii) The connection point(s) location; and
  - (iii) Summary of the equipment for which a HTR/PNR non-compliance has been identified; and
  - (iv) Which HTR clause the non-compliance relates to; and
  - (v) The proposed CPC Measure (alternative compliance requirements); and
  - (vi) The justification for implementing a CPC Measure in place of implementing measures to become compliant.

## 4.5 CPC application creation process

### See Rule [274A(2)]

4.5.1 In the event that a non-compliance has been identified during the connection assessment process, a Connection Applicant may submit a notice to the Host NSP of its intent to apply for Connection Point Compliance (Notice of Intent for CPC)

- 4.5.2 The Notice of Intent for CPC must contain the elements detailed in clause 0(h).
- 4.5.3 Within 20 business days of receiving the Notice of Intent for CPC, the Host NSP must review the application and advise:
- (a) If the proposal is acceptable to the Host NSP; or
  - (b) If the proposal is acceptable to the Host NSP in a modified form; or
  - (c) If the proposal is rejected.
- 4.5.4 A Connection Applicant may submit a revised Notice of Intent for CPC should their original application be rejected, or the modified form is not acceptable to the Connection Applicant. The process outlined in 4.5.1 to 4.5.4 is to be followed in this instance.
- 4.5.5 Should a Connection Applicant and the Host NSP reach agreement on the content of the Notice of Intent for CPC, the Connection Applicant may consult with other registered NSPs and the ISO to determine whether to progress formerly to the CPC application stage, noting that Rule 274A(2) provides that in ultimately determining whether to agree to CPC measures –
- (a) The ISO’s discretion is absolute;
  - (b) A non-covered NSP’s discretion is absolute; and
  - (c) A covered NSP decision must be made in accordance with the Pilbara Electricity Objective and in accordance with the relevant Access Code.

## 4.6 CPC application assessment process

**See Rule [274B; 274C; 274D; 274E]**

- 4.6.1 A Connection Applicant applies for connection point compliance by providing a Notice of Application in writing to the Host NSP and ISO **See Rule [274B]**, with a completed CPC Application.
- 4.6.2 Within ten business days of receiving a completed CPC Application with the information requested in 4.4.1, the ISO must review the material and advise the Connection Applicant if the application is deemed complete.
- 4.6.3 Should the application be deemed incomplete, the ISO will reject the application, giving reasons for its rejection, and the application process will cease.
- 4.6.4 Should the application be deemed complete, the ISO must within ten business days of making the determination:
- (a) Publish the Notice of Application for CPC Measures on its website and commence consultation using at least the expedited consultation process; and
  - (b) Refer the notice to the Pilbara Advisory Committee for its advice and have regard to any advice provided prior to agreeing to the CPC Measures.

- 4.6.5 Should the consultation process or engagement with the Pilbara Advisory Committee require additional confidential information to be shared in relation to the application, the ISO must have regard to Rule 274B(4) before doing so.
- 4.6.6 The ISO may request the Connection Applicant to commission additional studies in support of their application should the ISO not be satisfied with the adequacy of the content provided in the CPC Application or if the Pilbara Advisory Committee advises it is appropriate to do so. Such studies may include:
- (a) Impact assessments on neighbouring networks for which the Host NSP has a limited role in reviewing.
  - (b) Impact on ISO determined system parameters.
- 4.6.7 Within 15 business days of the consultation under 4.6.4 being completed, and any additional studies performed under 4.6.6 being completed, the ISO must advise the Connection Applicant whether it accepts the CPC application in full or propose alternative CPC Measures.
- 4.6.8 Should alternative CPC Measures be proposed, the ISO in its sole discretion may choose to consult further on the alternative measures.
- 4.6.9 Should alternative CPC Measures be proposed, the Connection Applicant must obtain the Host NSP endorsement of the revised measures before accepting the revised CPC Measures.
- 4.6.10 The Connection Applicant, the Host NSP and the ISO may negotiate in good faith further amendments to the CPC Measures, however:
- (a) a non-Covered NSP's discretion to reject CPC Measures is absolute.
  - (b) the ISO's discretion to reject CPC Measures is absolute.
  - (c) A Connection Applicant is not obligated to accept any proposed CPC Measures and may withdraw their application for CPC Measures at any time in accordance with 4.7.
  - (d) a Covered NSP's decision to reject CPC Measures must be made in accordance with the Pilbara Electricity Objective and in accordance with the relevant Access Code.
- 4.6.11 To prevent the validity of the underpinning studies lapsing, any ISO proposed/endorsed CPC Measures must be accepted by the Connection Applicant within 40 business days, or the Connection Applicant will be deemed to have withdrawn their CPC Application.

## 4.7 Ceasing the CPC application process

### **See Rule [274B(5)]**

- 4.7.1 A Connection Applicant may withdraw an application for CPC Measures at any time via a written withdrawal notice to the Host NSP and to the ISO.
- 4.7.2 The ISO may terminate the process at any time should it form the view that agreement between the ISO, the Host NSP and the Connection Applicant is unlikely to be reached.
- 4.7.3 Within 5 business days of the cancellation of a CPC Application, the ISO must:

- (a) Publish the notice of withdraw on its website along with a brief description of the reason for cancellation (i.e. Connection Applicant withdraw, technical limitations of the request, lack of agreement between parties).
- (b) Cancel any in progress consultation processes.
- (c) Advise the Pilbara Advisory Committee of the withdraw notice.

4.7.4 Connection Applicant is responsible for all ISO costs up to the point of withdrawing the application, as per section 5.1.

## 4.8 Changed circumstances impacting CPC measures

### **See Rule [274K]**

4.8.1 As per Rule 274K, a “potential relevant change” means a change (including a proposed change) to the equipment forming part of a CPC facility (including to its operation, characteristics, configuration, performance, or capacity) that might credibly be expected to:

- (a) Materially and adversely impact the CPC facility’s performance against the standards detailed in 4.2.3; or
- (b) Require an access application or a change to a network access contract; or
- (c) Cause the equipment to cease being eligible equipment in accordance with section 4.3.

4.8.2 All potential relevant changes must be notified to the ISO by either the Connection Applicant or the Host NSP (should they become aware) for determination of CPC Measure review unless the potential relevant change has been declared to not be a relevant change within this procedure.

4.8.3 Circumstances which are declared to be Relevant Changes are as follows. Note that the following list does not limit what the ISO may determine to be a Relevant Change:

- (a) Proposed changes to a CPC Facility which has been determined by the Host NSP to warrant amendments to the CPC Measures.
- (b) A change in law that affects compliance with the agreed CPC Measure.

4.8.4 Circumstances which have been declared to not be Relevant Changes are as follows:

- (a) Complying with the PNR or utilising a right in accordance with the PNR.

4.8.5 Should a Relevant Change occur to a CPC Facility, then:

- (a) The CPC Facility’s controller, or associated Network Access Contract holder, must submit a revised CPC Application to the ISO and the Host NSP. The process detailed in section 4.5 and 4.6 must be followed again.
- (b) The CPC Facility’s controller must not commence or authorise work on the relevant change until revised CPC Measures have been agreed between the Connection Applicant, ISO and Host NSP.

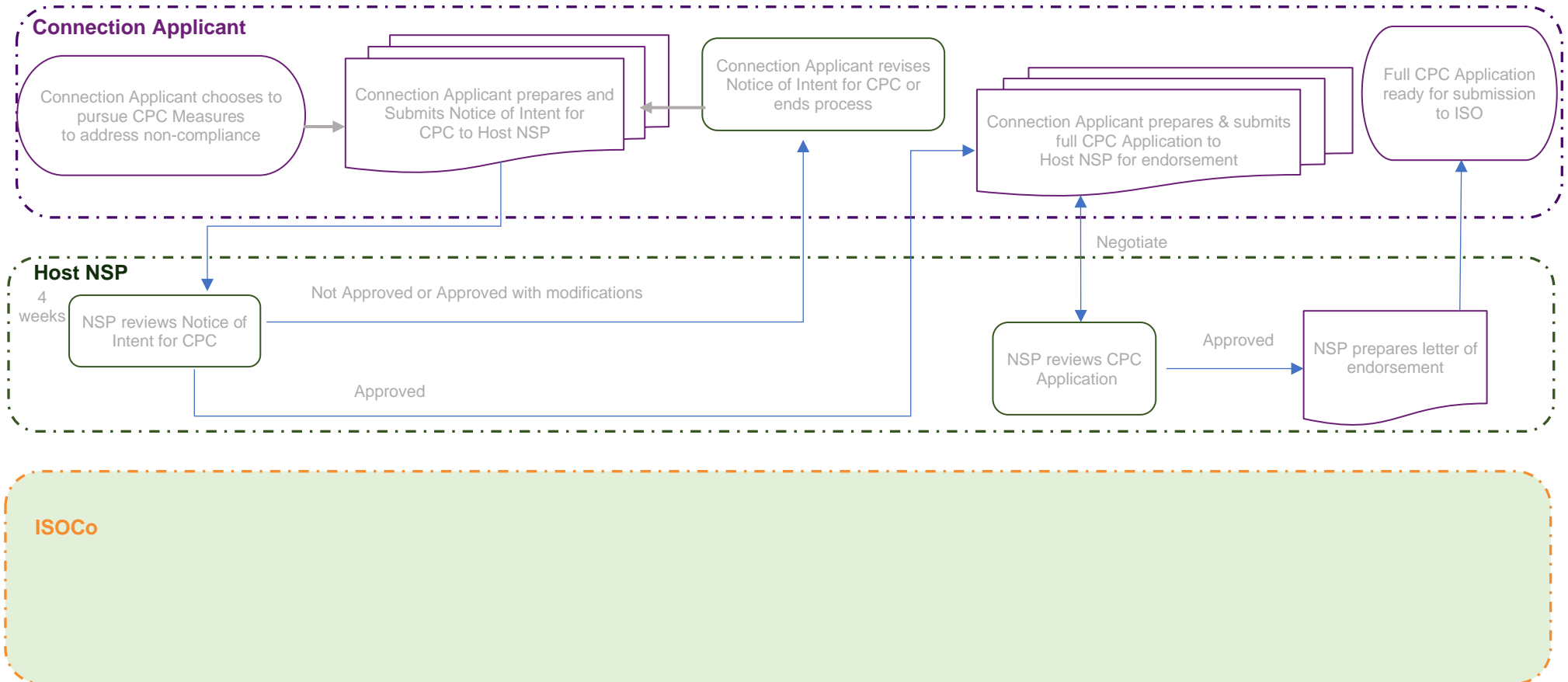
4.8.6 If at any time, equipment for which CPC Measures has been determined no longer satisfy the eligibility requirements detailed in section 4.3, then the ISO will issue a formal notice to the CPC

Facility advising them that the CPC Measures have been revoked for the ineligible equipment. The Connection Applicant must demonstrate compliance with the full HTR / PNR for the ineligible equipment for which CPC Measures have been revoked within 6 months.

- 4.8.7 If at any time a CPC Facility has no eligible equipment for which CPC Measures were originally applied to, the CPC Measures will be deemed to have been withdrawn and the facility will be required to comply with the HTR/PNR in the absence of such CPC Measures.

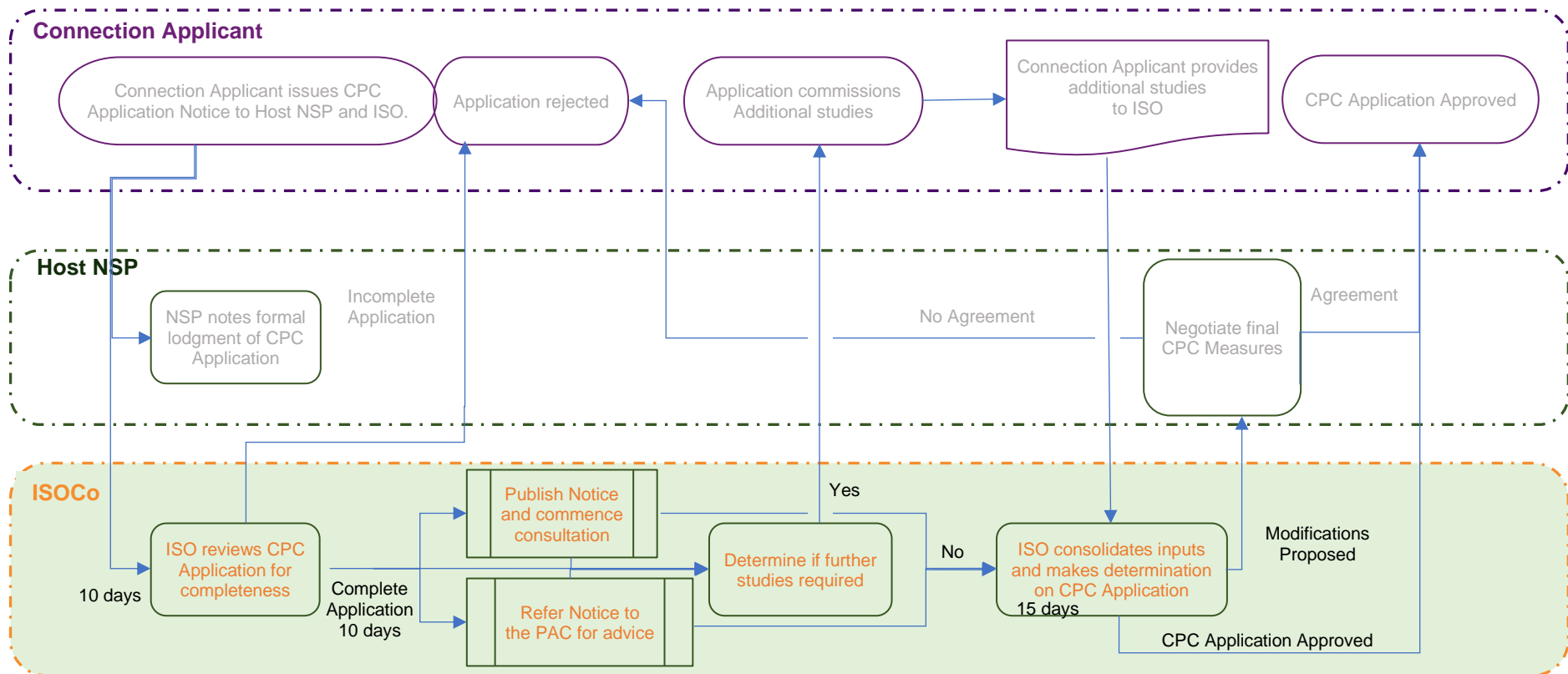
## 4.9 Flowcharts

4.9.1 The CPC Application Creation Process flowchart is depicted below. The interactions between the Connection Applicant and the Host NSP are a general guide only, the representation below is generic and for context only.





4.9.2 The CPC Application Assessment Process flowchart is depicted below. The interactions between the Connection Applicant and the Host NSP are a general guide only, the representation below is generic and for context only.



## 5. Time and cost

### 5.1 Allocation and recovery of access and connection costs

**See Rules [[2740; 274P; 274Q; 274R; 274S]**

- 5.1.1 A Connection Applicant is to bear its own costs of preparing and progressing an Access Application or Application for Connection Point Compliance, including all costs in connection with seeking access under Subchapter 9.2 and 9.3. **See Rule [274P]**
- 5.1.2 A Covered NSP's costs of performing a function under Subchapter 9.2 or Subchapter 9.3, including the payment of ISO costs as per section 5.2 of this Procedure, are to be dealt with in accordance with the Access Code. **[See Rule [274Q]**
- 5.1.3 A Non-Covered NSP's costs of performing a function under Subchapter 9.2 or Subchapter 9.3, including the payment of any ISO costs as per section 5.2 of this Procedure, are to be dealt with:
- (a) NSP and applicant costs are to be recovered as agreed between the NSP and Connection Applicant;
  - (b) ISO costs are to be recovered from the Non-Covered NSP; or
  - (c) Only in exceptional circumstances will ISO costs be recovered direct from a Connection Applicant, and only when agreed prior by the ISO.
- 5.1.4 A contract may vary the allocation of costs for performing a function under Subchapter 9.2 and 9.3. **See Rule [2740]**
- 5.1.5 The Connection Applicant is to bear its own and the Registered NSP's cost of implementing, operating and maintaining a solution which allows it to meet connection standards under Rule 269 and 270. **See Rule [274S]**

### 5.2 Allocation and recovery of costs

**See Rules [274R]**

- 5.2.1 The ISO may charge the covered host NSP a fee "ISO access and connection fee" for costs in respect of a Connection Request.
- 5.2.2 This fee must relate to costs which are directly related to functions or activities undertaken in respect to Subchapters 9.2 and 9.3 of the Rules and this Procedure. These costs include but are not limited to:
- (a) Feasibility Stage - 1
    - i. ISO review and assessment of Feasibility study scope
    - ii. ISO review and assessment of Feasibility study

- (b) Application Assessment Stage - 2
  - i. ISO review and assessment of Application assessment study scope
  - ii. ISO review and assessment of Application study
- (c) Connection Assessment Stage – 3
  - i. ISO review and assessment of detailed design studies and test plan
  - ii. ISO review and assessment of model validation, as built testing results, appropriateness of CPC measures and plant compliance.
- (d) CPC Assessment
  - i. ISO review and consideration of CPC application

- 5.2.3 Administrative costs relating to the provision of the model, attending project management meetings or similar will generally not be charged.
- 5.2.4 Costs will be itemised and agreed in advance by the host NSP and the ISO prior to undertaking work. The ISO will not exceed the upper fee estimate without prior approval from the host NSP.
- 5.2.5 The ISO will invoice costs on a monthly basis or such other time as agreed between the parties.
- 5.2.6 Where part of a function or activity for which the ISO incurs costs is likely to provide a benefit more broadly than for just the Connection Applicant and is a required function of the ISO the costs must be apportioned appropriately between ISO Fees and ISO Access and Connection Fees.
- 5.2.7 Where there are two or more Covered host NSPs the ISO may apportion costs between the host NSPs, noting that these costs will be on charged to the Access Applicant.
- 5.2.8 The Host NSP is entitled to pass the ISO's costs through to the Connection Applicant in accordance with their connection standards and in accordance with any governing Access Code.
- 5.2.9 ISO costs recovered by Host NSPs for undertaking functions under subchapter 9.2 and 9.3 must:
  - (a) be separately identified in Host NSP invoices; and
  - (b) not include any Host NSP mark-up, administrative cost, corporate overhead or other margin unless agreed to by the host NSP and Access Applicant.
- 5.2.10 The ISO may terminate an activity or function if approval is not granted to increase the upper fee estimate limit or if invoices are not paid in accordance with their terms.

## 5.3 Time

- 5.3.1 The ISO will endeavour to perform its activities as expeditiously as possible. It is intended that the ISO will complete:
  - a) each stage of the access and connection process within 20 working days; and
  - b) the CPC assessment within 40 working days

however this will depend on amongst other things - prior engagement with the ISO, complexity of the requirements, response time of the parties, quality of the material provided, conflicts and available resources.

# Appendix A Relevant Rules

Table 1 details the Rules under which this *Procedure* has been developed and where an obligation, process or requirement has been documented in this *Procedure*.

**Table 1 Relevant Rules**

Pilbara Networks Rules
5
64
91
120
Subchapter 9.2
[Rules 267 to 273]
Subchapter 9.3
[Rules 274A to 274M]
Subchapter 9.4
[Rules 274N to 274S]
Subchapter 11.2
[Rules 294 to 305]
A4.14
Sub-appendix 4.14
[Rules A4.75 to A4.79]
Appendix 5

# Appendix B Relevant Power System Studies Required by ISO

This section presents a list of system studies which are proposed as a guideline for undertaking the impact assessment over and above the connection compliance requirements stated in Chapter 3 of the HTR.

The list of studies is indicative only and subject to change depending on the connection type and complexity of the project. The Host NSP shall assess the study requirements in line with HTR, PNR and GEIP suiting the project needs:

## **Steady State and Fault Level Studies**

Undertake the system load flow studies with generation dispatch and load level adjustments for a range of credible scenarios including the most onerous operating conditions. As a minimum, the studies are expected to be undertaken for “peak” and “light” load conditions.

- 1 The study should include N-0 and N-1 credible contingencies to assess the below criteria, as a minimum:
  - Thermal loading of the network primary elements
  - Long term voltage profile
  - Voltage step change range
- 2 Minimum and Maximum fault Level Analysis
  - Assess the impact of new connection on the fault levels and to identify if an upgrade of the elements will be required.
  - Assess any reduction of the fault level which may affect operation of the protection system.
- 3 PV analysis, if applicable
  - Impact of the new connection on the network capacity to supply load due to long term voltage stability
- 4 QV analysis, if applicable
  - Impact of the new connection on the system reactive reserve margin

## **System Dynamic Studies**

Undertake the system dynamic studies with generation dispatch and load level adjustments for a range of credible scenarios including the most onerous operating conditions. The study shall include credible contingencies consisting of fault scenarios on the network primary elements, generation trip and load rejections to assess the below criteria (as a minimum):

- Transient voltage stability
- System frequency stability
- Transient rotor angle stability
- System oscillatory rotor angle stability
- Compliance of the proposed connection with the HTR requirements in response to network events
- Impact on the system spinning reserve requirements above the PNR requirements
- Impact on the event scenarios resulting in operation of the Under Frequency Islanding Schemes detailed in the HTR.
- Impact on the number of events result in separation of the network into Islands

**Power Quality Assessment**

Undertake the power quality assessment to ensure the power quality parameters of the network remains within the HTR criteria following the connection during the new project.