Northpower
Electricity Network

Customer Initiated Works (CIW) Standard

Document summary

This document details Northpower's Standard for managing Customer Initiated Works, where a Customer connection requires works to amend or upgrade the electricity distribution network to enable their connection to the distribution network.

***Note** – This does not include the LV Service Connection process which is covered separately.*

Document approval

Version	4
Document Owner	Rachel WANSBONE General Manager - Customer and Community
Document Approver	Rachel WANSBONE General Manager - Customer and Community
Date Published	1/02/2024
Date for Next Review	31/01/2026

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1.0 Introduction

1.1 Purpose

This document details Northpower's approach for managing Customer Initiated Works ("CIW") - where a Customer requires works to amend, extend or upgrade the electricity distribution network to enable their connection to the distribution network.

1.2 Scope

The scope of the Customer Initiated Works process involves the management of requests from Customers for extensions or modifications to Northpower electricity network assets (defined as Customer Initiated Work[1]).

The process incorporates all activities from the initial application, preliminary and detailed design stages, network approvals and conditions (including technical, commercial and legal requirements), construction of works, quality assurance and property/easement matters.

This scope of this Standard includes Network reticulation or assets for:

- Subdivisions
- Network Extensions
- Network Modifications
- Where proposed changes to existing connections require investment/changes to network assets or configuration (e.g. increases in demand, capacity, phasing, etc.).
- Where relevant, the connection of Distributed Generation that impacts the network.
- Customer Service Mains - Isolations & Disconnections (where Northpower requires works)

Excludes:

- Connecting/livening new **LV Customer service connections** (including creating ICPs) – these are enabled via the CIW process detailed in this document. The requirements for applying for a new service connection (and livening connections) is managed in *New LV Service Connections.*
- Works carried out through Northpower's dispatch / reactive process (i.e. fault calls).
- Subdivision / Resource Consent Clearance process and approval of activities around Critical Electricity Lines. The process for this is detailed in *Resource Consent Clearance Process (including Critical Electricity Lines).*
- Street and road lighting.

1.3 Application

The requirements of this standard shall be followed by Northpower staff, Contractors, and Customers (including their agents).

[1] Refer to the definition section of *Network Capital Contributions Policy*

2.0 References

Internal References	Detail
Supporting Documents to Customer Initiated Works standard	
Network Approval of CIW – Preliminary Design	Approval Form
Network Approval of CIW – Detailed Design	Approval Form
Network Approval to Construct	Approval Form
Network Approval to Liven	Approval Form
Resource Consent Clearance Process (including Critical Electricity Lines)	Process for approvals for Resource consent and CELs.
Resource Consent Requirements letter	Set's out Resource Consent requirements for subdivision and works near CELs.
Resource Consent Clearance letter	Provides Northpower Resource Consent Clearance if requirements have been met.
Asset Ownership Agreement	Agreement for taking ownership of assets, related to customer initiated works (CIW) and other privately constructed assets which are to be transferred to Network ownership.
Standards relating to Design Planning and Asset Ownership	
Network Approved Materials List	List of approved materials on Northpower's network
Overhead Line Design Standard	This standard provides Northpower's requirements for overhead line design on Northpower's Distribution and Sub Transmission Network.
Legal Protection Requirements for Electricity Reticulation Standard	This Standard summarises the legal protections for Northpower's electricity Assets; and details Northpower's requirements for implementing and using those legal protections.
New LV Service Connections Standard	This document outlines Northpower's core processes and technical requirements for low voltage service connections to Northpower's network.
Network Approved Contractor Status Agreement (NACSA)	Agreement between Northpower Network and an approved contractor
Network Approved Contractor Standard	Requirements for contractors obtaining Network Approved Contractor Status, allowing specifically approved work activities on (or in close proximity to) the Northpower electricity network.
VARIOUS TBC	Standard Construction Drawings
Deed of Agreement – Easement in Gross	Deed of Agreement
Easement Instruments	A range of instruments to be registered against the Record of Title to land to protect Northpower assets constructed as part of the Customer Initiated Works process. including (but not limited to):

Internal References	Detail
	• Easement in Gross – Electricity and Telecommunications • Easement in Gross – Electricity and Telecommunications (including Buildings)
Voltage Drop Determination Standard	Northpower's requirements for Voltage Drop Determination
Network Capital Contributions Policy	Sets out what developers, subdividers and other customers seeking a new connection to the network should contribute towards the cost of providing their new connection, and existing consumers should contribute when they want to upgrade the capacity of their connection.
Distribution As Built Records Standard	Northpower networks requirements for all as built documentation including as built plans, data capture forms, test records and photographs
"Preliminary Design Study Agreement"	*To be prepared* – An agreement for costs/works involved in Preliminary Design Study

External References	Details
N/A	

3.0 Definitions

Terminology	Definition
Asset Planning Team	Northpower's team responsible for administering the Electricity Asset Planning Process.
As Builts	Drawings and information/data as required to satisfy Northpower's requirements for asset information and alterations to the network.
Bond	For Major works, a bond is payable. This will be calculated as per below: 10% of the value of the works
Capital Contribution	As defined in the *Network Capital Contribution Policy*: A Capital Contribution is an amount payable to an Electricity Distribution Business (such as Northpower) when new electricity distribution assets need to be constructed to facilitate a supply of electricity to a premise or premises.
CIW Construction Works	Works approved and to be undertaken by the NAC, in accordance with their NAC Status Agreement. CIW Construction Works are defined in *Network Approved Contractor* standard. This ***generally*** includes work such as De-energised works, cable laying and installation of LV equipment.
Construction Plan	A Northpower issued Construction Plan (drawing) of the Network 'approved design', which is then used as the basis for construction and As-Built Construction Plans.

Terminology	Definition
Northpower's Network Standards	Northpower's suite of Network Standards – including: policy, standards, drawings, processes, guidelines and legal agreements. These provide the detail which all contractors must adhere to when accessing, operating, maintaining, constructing or connecting to Northpower's electricity distribution network.
Customer	For example, people, organisations, agencies, and companies, such as the general public, local Councils, Transit, developers, and commercial & industrial businesses other than Northpower Limited, request or require Customer Initiated Work to be undertaken.
Customer Experience Team	The team is responsible for administering the Customer Initiated Work process. The Customer Works Engineer (a CIW role) is typically part of the Customer Experience Team.
Customer Initiated Work (CIW)	**Customer Initiated Work** means work to construct new assets that would form part of Northpower's network (and be owned by Northpower) and work to upgrade, alter or relocate existing Northpower assets for any of the following purposes: • The extension of the Northpower network including new subdivisions; • The modification of the Northpower network to meet the electrical capacity needs for new or existing Customer connections. • The moving, relocating or altering of the existing Northpower network assets for an existing Customer or a third party interested in relocating the assets.
Customer Initiated Works Category (CIW Category)	There are three (3) defined categories of Customer Initiated Works, as detailed in **section 4.4** of this document: Standard, Medium or Complex.
Customer Initiated Work Database (CIW Database)	Northpower's Customer management database for the internal tracking and reporting on CIW status.
Customer Works Engineer (CWE)	An allocated role (not a position) within Northpower, typically within the Customer Connections Team. The CWE role liaises with Customers, Network Approved Contractors, and Field service Providers for Customer Initiated Work.
Detailed Design	Complete design details of intended work, showing sufficient detail to confirm the design meets Northpower's Network Standards.
Engineering Delivery Team	The team within Northpower is responsible for administering or delivering network design and works programmes.
Field Service Provider(s)	A contractor with the health & safety, competency and delivery frameworks that enable them to provide complex services on the network (such as construction or maintenance activities) including Northpower's contracting division. ***Note** – Only these contractors are approved to undertake 'Major Works'.*
Major Works	Major Works are defined in *Network Approved Contractor* Standard and require high levels of competency and approval to undertake. Major Works **generally** include live electrical works, installation of HV equipment such as switchgear or transformers, jointing and terminations.

Terminology	Definition
Network Approved Contractor (NAC)	Businesses that Northpower has approved to perform design, construction or maintenance work on, or close to, Northpower's Network and have a current Network Approved Status Agreement executed with Northpower.
Network Approval of CIW	Northpower's formal approval detailing Northpower's technical and commercial conditions for the CIW works to comply with. A Network Approval of CIW is issued for each stage of CIW design: • ***Network Approval of CIW - Preliminary Design*** – this provides a preliminary approval on the conceptual design and associated network conditions for CIW works/connection. • ***Network Approval of CIW - Detailed Design*** - this provides a formal approval on the final/detailed design and associated network conditions for CIW works/connection.
Network Approved Contractor Status Agreement (NACSA)	An agreement between Northpower and a Network Approved Contractor describing the requirements for performing work, including liability for defects in materials and workmanship. Refer to *Network Approved Status Agreement*
Network CIW Charges	The Customer must pay the charges Northpower determines for the CIW and to connect to the network. This includes (but is not limited to) charges such as Capital Contributions, Network upgrade costs, Major Works costs, including; bonds (as relevant to the CIW).
Network Upgrade Work	Work required on the network as a result of the Customer request but not included in the CIW.
Northpower	Northpower Network, the owner and operator of the electricity distribution network.
Permanent Disconnection	Permanent disconnection and removal of a customer's service from the network, resulting in the decommissioning of an ICP.
Planning Engineer	A member of the Northpower Asset Planning Team
Preliminary Design	Preliminary design and details of the intended work, providing sufficient detail for preliminary assessments, reviews and cost estimates to be prepared by the relevant parties.
Preliminary Scope and Study *(Applicable to Complex CIW only)*	High-level scope of proposed works to allow basic study of proposals general viability both technically and financially. The "*Preliminary Design Study Agreement*" covers the scope and costs involved with undertaking the study and preparing the Preliminary Design Study report. Northpower costs incurred are recoverable from the Customer.

4.0 Overview

This document details Northpower's Customer Initiated Works ("CIW") management process. There are different levels of involvement required depending on the category and complexity of the works requested by the Customer.

This document has been structured around the key stages and types of works:

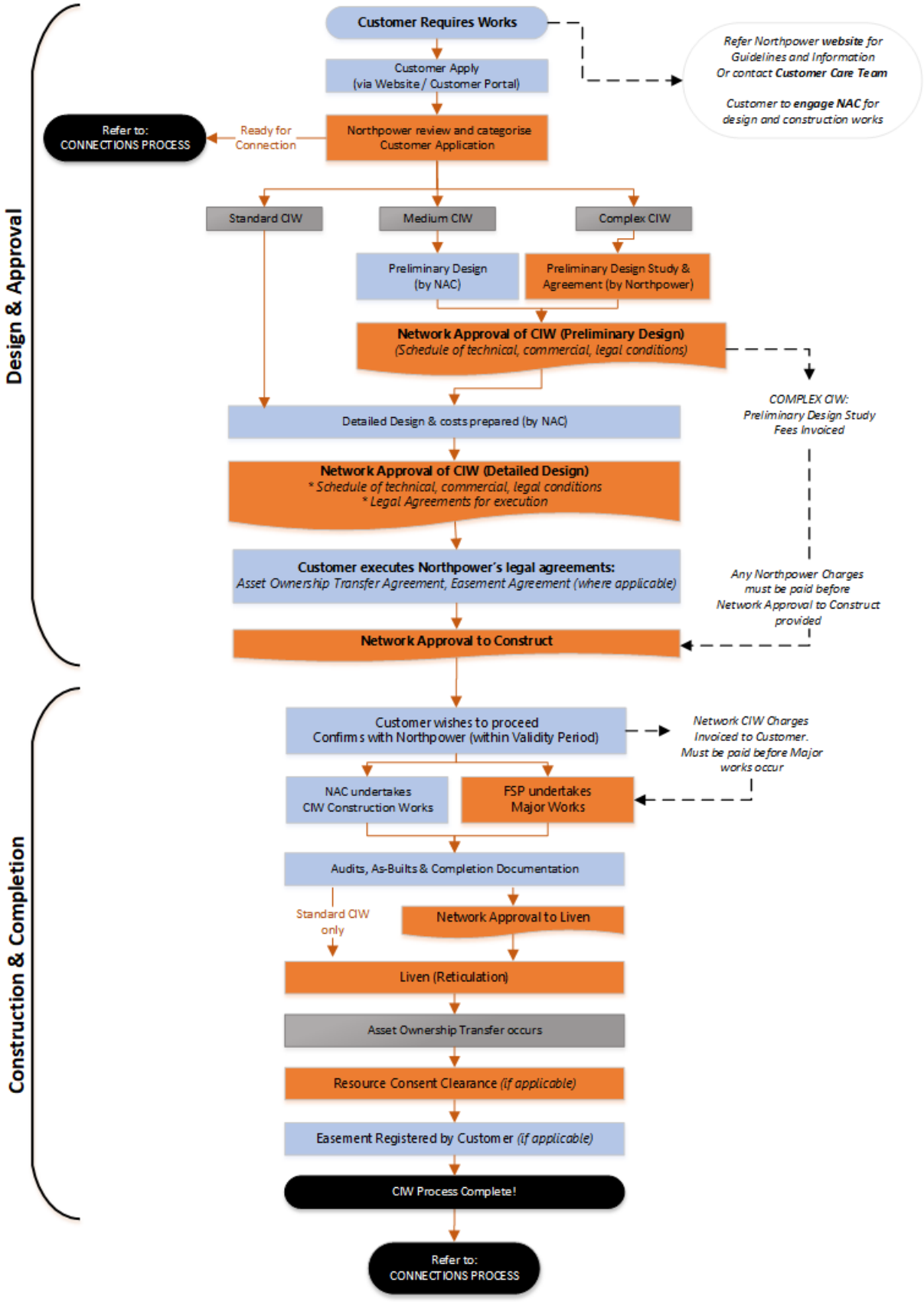
- Design & Approval - specific for each category of CIW:
    - Standard CIW
    - Medium CIW
    - Complex CIW
- Construction & Completion

A high-level summary is provided in the following sections, with further detail in the relevant sections of this document.

4.1 High-Level CIW Process Diagram

A high-level CIW process is provided below in *Diagram 1*, with further descriptions of the stages provided in the following sections.

Diagram 1: High Level CIW Process



4.1.1 CIW Stage 1: Design & Approval

Step	Details
The Customer requires information on how to initiate the process	The Customer may seek guidance and further information by: • contacting Northpower Customer Care Team: *email*: Customercare@northpower.com *phone:* 0800 NORTHPOWER (0800 667 847) • visiting Northpower's website for more information • contacting a Network Approved Contractor (NAC) that has been approved for CIW by Northpower. *(Refer to Northpower website for more information)*
Connection Application made by Customer	The Customer initially submits a **Connection Application** by completing an online application on Northpower's website: www.service.northpower.com A conceptual design/drawing or scheme plan is generally required to support the application.
Initial Review of the Connection Application	The Northpower Customer Care Team will review the Connection Application to determine: • the type of works and the relevant process (CIW or Connections process) • If there is further information required to progress the application
CIW category and process - overview	Northpower's requirements vary depending on the category of CIW and the impact on the network: **Standard CIW** applications generally: Consist of relatively small and simple works that can be designed and constructed by a Network Approved Contractor (NAC) in accordance with Northpower's network standards, with minimal design review required by Northpower. Have a detailed design prepared by the Customer's selected Network Approved Contractor, which is then reviewed and approved by a Northpower Customer Works Engineer.
	Medium CIW applications generally: Consist of larger but common works, which requires Northpower design reviews at both the *Preliminary Design* and *Detailed Design* stages. The designs are prepared by the Customer's selected Network Approved Contractor and are reviewed and approved by a Northpower Customer Works Engineer.
	Complex CIW applications generally: Have a significant impact on Northpower's distribution network, including dedicated or upstream assets. Require upfront specialist network planning and engineering design input from Northpower's Asset Planning and Engineering Delivery teams.

Step	Details
	Typically require a detailed *Preliminary Design Study* to be completed by Northpower to determine the effects of the proposed Customer Initiated Work on the existing network. The costs of Northpower completing the *Preliminary Design Study* are recoverable from the Customer. Require site-specific commercial modelling to determine the *Network CIW charges* payable by the Customer. This includes the capital contribution payable by the Customer towards the dedicated assets and shared upstream assets (e.g. substation, sub-transmission, 11kV feeder, etc.). Have the *Detailed Design* prepared by the Customer's selected Network Approved Contractor, which is then reviewed and approved by Northpower.
Network Approval of CIW (and Conditions)	Northpower will provide a Network *Approval of CIW*, outlining the network technical, commercial and legal requirements for the CIW Application to be approved. • A specific network approval is provided for each stage of design – Preliminary Design and Detailed Design. • Each Network Approval of *CIW* is valid for 6 months.
Customer enters into Northpower's Asset Ownership Agreement	The Customer will be required to enter into Northpower's legal agreement(s), which typically will be an *Asset Ownership Agreement*. The Asset Ownership Agreement will describe conditions that must be met before Northpower takes ownership of the new asset, including any Easement Instruments that are required to protect the new asset). This must be executed before Northpower will approve the Customer to commence construction of electrical works.
Network Approval to Construct	Northpower will provide a Network Approval to Construct once all specified conditions have been met.

4.1.2 CIW Stage 2: Construction & Completion

Step	Details
Customer preparing to proceed with pre-approved works	Once the Customer is ready to proceed with the CIW, they must contact Northpower to confirm details, including: their planned works schedule and the Network Approved Contractor(s). The Customer will need to re-apply if: • They wish to make changes to their approved design, or • The validity period has expired on their Network Approval of CIW When confirmed as proceeding, Northpower will invoice the Customer for the specified Network CIW Charges. The Customer is also responsible for all costs incurred using their Network Approved Contractor(s).
CIW Construction Works & Major Works	Construction of CIW can commence in accordance with the Network Approval to Construct and Northpower's Network Standards. *Network Approved Contractors* - can undertake CIW Construction Works as specified in the Network Approval of CIW.

Step	Details
	Field Service Providers - are to undertake the Major Works (as specified in the Network Approval of CIW), such as the installation of HV switchgear and Transformers.
Quality Assurance & Works Completion Documentation	To ensure that all assets and works can be verified as compliant with Northpower requirements, site inspections may need to be organised to occur during construction. This is generally required for underground cables and trenching. On completion of the works, the Contractor(s) must prepare and provide all required works completion documentation as specified in *Distribution As Built Records Standard*. Once accepted as accurate and complete, Northpower will then: • use this information for updating asset management systems. • issue the Customer with a *Network Approval to Liven.* ***Note*** - for Standard CIW, an *Approval to Liven* will not typically be required. Refer to sections 9 and 10 for more details.
Livening of reticulation and asset ownership transfer	A Field Service Provider (or authorised Network Approved Contractor) can now liven the CIW assets to the distribution network. Upon livening, the ownership of the CIW assets (built by the Customer) transfers to Northpower for ongoing operation and maintenance.
Resource consent clearance *(If Applicable)*	Where relevant (e.g. subdivisions), Northpower will provide the Customer with a *Resource Consent Clearance* letter, allowing the landowner to gain new property title(s). Where Easement Instrument(s) are required, Northpower requires a copy of the land Survey plans to be provided **before** a Resource Consent Clearance will be provided and clearance will be on the condition the Easement Instruments are registered.
Easement(s) Registered by Customer *(If Applicable)*	If applicable, the Customer must complete the surveying and registration of any Easements Instruments in accordance with the terms of the executed *Asset Ownership Agreement*.
CIW Process Complete	The CIW process has now been completed once the above requirements have been completed.
New Service Connections	If a new service connection(s) to the network is required, the Northpower *New LV Service Connections* process is then followed. This includes the process for creating new ICPs and livening customer service mains.

4.2 Contractors

4.2.1 Network Approved Contractors (NAC's)

Network Approved Contractors ("NAC's") are businesses that Northpower has authorised to undertake certain activities around the Northpower network - which may include design, construction, and/or maintenance works.

Network Approved Contractors are bound by a Network Approved Contractor Services Agreement (NACSA) with Northpower. The NACSA binds the Network Approved Contractor to all of Northpower's standards for working on the electrical network (including construction requirements and work type competency) defined in Northpower's Network Standards.

A Network Approved Contractor must have specific approval for undertaking CIW - refer to Northpower's website for full NAC list and approved work category(s).

4.2.2 Field Service Providers (FSP's)

Field Service Providers ("FSP's") are businesses that have been engaged directly by Northpower to undertake to provide field services and works – for example, design, construction, and/or maintenance and repair works.

Field Service Providers are managed under Northpower's suite of service agreements (such as Service Level Agreements).

4.3 Summary of key responsibilities for Customers and NAC's

A summary of key responsibilities of the Customer and their NAC is detailed below, including:

Item	Party(s) Responsible
Follow this CIW Standard to ensure CIW can progress smoothly	All
Submitting a Connection Application to Northpower. Customers can nominate agents/representatives to liaise with Northpower during the process.	Customer
Engage and manage a Network Approved Contractor(s), including: • Preparation of preliminary and detailed designs, • Construction of the approved design • All associated costs of engaging the NAC(s) and their works	Customer
Executing Northpower Asset Ownership Agreement	Customer
Payment of any Northpower invoiced amounts – including Network CIW Charges and Preliminary Design Study Costs (where applicable)	Customer
Design and/or construct any works to meet all Northpower network requirements, standards as applicable to the works. Must use competent workers and network approved materials.	NAC (for Customer)
Comply with all relevant Acts, Regulations, codes of practice and safety standards, District Council's and/or NZTA's requirements	NAC (for Customer)
Preparing and submitting works completion documentation, including as-builts, drawings, asset data and site inspections	NAC

Item	Party(s) Responsible
Defects in workmanship, materials or assets, as set out in the *NAC Status Agreement* (NACSA).	NAC
Surveying and registering Easement(s), where applicable	Customer
Ongoing operations and maintenance, once ownership has transferred to Northpower	Northpower
Request a new connection/ICP – following the *New LV Service Connection* process	Customer

4.4 CIW Categories – Standard / Medium / Complex

Customer Initiated Work is classified into three categories as detailed below. Each CIW category has a defined set of requirements and processes for managing the CIW Application during its design and approval stage. These are detailed further in the relevant sections of this document.

- **Standard CIW -** shall be evaluated and managed by the Customer Works Engineer(s).
- **Medium CIW-** shall be evaluated and managed by the Customer Works Engineer(s). The Customer Works Engineer will inform (for information purposes) the Asset Planning team where a Medium CIW application has been made.
- **Complex CIW** – shall be coordinated by the Customer Works Engineer. Complex CIW requires evaluation by the Asset Planning & Engineering Delivery Teams, including preparing a Preliminary Design Study (chargeable service).

Table 1 - CIW Categories

CIW Category	Definitions / Items
Standard CIW	Work that requires involvement by a Customer Works Engineer, and that has: • Residential Subdivisions (urban area) of 4 lots or less; or • Minor alterations and extensions to network, including pole top connections, overhead to underground conversions, and fusing upgrades; or • Permanent disconnections; or • Electrical loads less than 50 kVA (70 Amps @ 400 volts); and • Will be supplied at 230/400v; and • Will be on a metered supply; and • **No easements are required**
Medium CIW	Work that requires involvement by a Customer Works Engineer, and that has: • Industrial estate subdivision; or • Rural subdivisions of greater than 2 lots; or • Urban subdivisions of 5 or more lots; or

CIW Category	Definitions / Items
	• Electrical loads (Urban areas) equal to or greater than 50kVA, up to 300kVA; or • Distributed generation, embedded generation or injection/export systems with a capacity **greater than 50KW**; or • **Easements required**; and • Supplied at 230/400v; and • Will be on a metered supply • Input from an external industry such as Kiwirail, Transpower, DOC and Ministry for Primary Industries
Complex CIW	Work that requires involvement by a Customer Works Engineer, Asset Planning team, Engineering Delivery team and Commercial team, and that has: • Electrical loads greater than 300kVA in Urban areas; or • Electrical loads greater than 50kVA in Rural areas; or • Motor loads (individual or aggregate) greater than 50KW; or • Distributed generation, embedded generation or injection/export systems with a capacity **greater than 300KW**; or • Unmetered load (except streetlights owned by NZTA or District Council); or • Supply at voltages greater than 230/400v; or • Requests for relocation of network assets; or • Requests for undergrounding of overhead network assets; or • Works that impact on 33kV assets; or • Development proposals which would result in overhead lines crossing over a residential home or other buildings

5.0 Application for CIW

5.1 Customer to initiate / query

Customers who make initial contact with Northpower via the 'Customer Care' team regarding Customer Initiated Work (CIW) shall:

- Have their proposed works reviewed to determine if they are **CIW** or **Connections** related and which process applies:
    - This document, for works deemed Customer Initiated Works (CIW), **or**
    - *New LV Service Connections* process for Connections works
- Have their proposed works assessed into a CIW Category (as per section 4.4):
    - **Standard CIW** works - the Customer shall be referred to the list of Network Approved Contractors who can prepare a detailed design. The design is required for the Connection Application and subsequent approval process.
    - **Medium CIW** works - the Customer should have their details taken and passed to a Customer Works Engineer and referred to the list of Network Approved Contractors who can prepare a preliminary design for the Connection Application to Northpower.
    - **Complex CIW** works - Customers (or their nominated agent) with Complex works requirements should have details taken and passed to a Customer Works Engineer. The Customer will have the requirements for preliminary design study and associated costs highlighted.
- Be referred to Northpower's website for:
    - **Guides and documents** which detail Northpower's CIW process.
    - Northpower's list of **Network Approved Contractors**

5.2 Connection Application

5.2.1 Submission of Connection Application

The Customer (or their nominated NAC) shall prepare and submit a Connection Application (online), including supporting information, data and drawings as relevant.

If required, additional information such as drawings may then be emailed separately to the Customer Works Engineer.

Note: There will be times when the Customer (or Network Approved Contractor) wishes to communicate with the Customer Works Engineer prior to submitting the Connection Application and design. This is acceptable but any comments or advice would be made without prejudice to Northpower.

5.2.2 Northpower processing and review of Connection Application

The Customer Works Engineer will review if the submitted Connection Application and other required documentation are complete. Failure to provide all the necessary information will

result in the Connection Application being returned to the Customer (or their nominated NAC) for resubmission.

The Customer Works Engineer will review the Connection Application and:

- assign it to a CIW Category (Standard, Medium or Complex).
- ensure the Connection Application is registered on the CIW Database and issued with a unique reference number. A copy of all submitted CIW Application forms and any other documentation is to be retained electronically; and.
- will respond to the applicant (Customer or nominated NAC) within the target timeframes (refer to Section 6.8), including details on:
    - If the CIW Application is complete or further information is required to be able to progress into the **design and approval stage**
    - The relevant CIW Works Category (Standard/Medium/Complex).
    - The next steps/requirements for the CIW process.

5.2.3 Preliminary Design Study Requirements & Charges [For Complex CIW only]

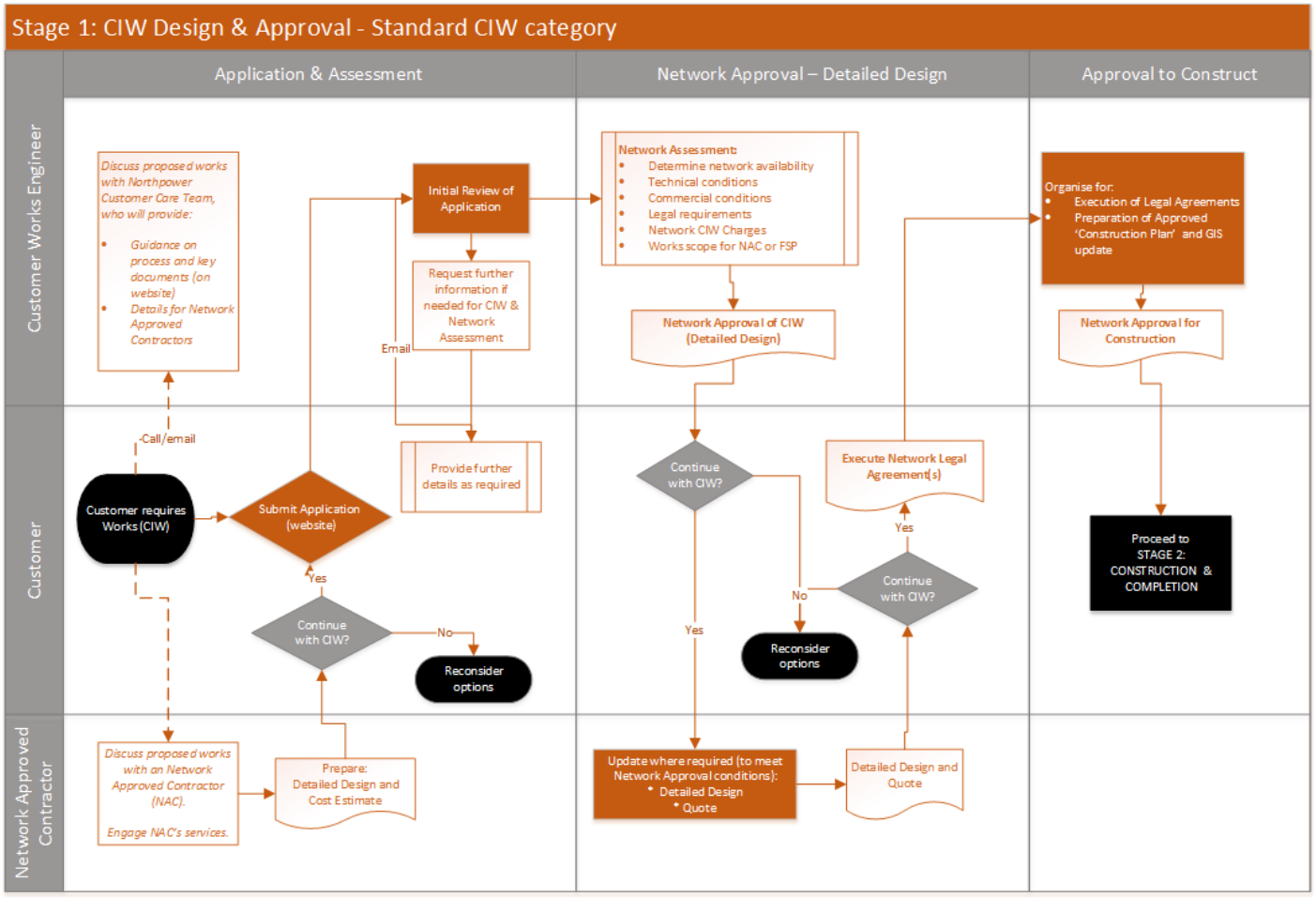
For **Complex CIW**, a *Preliminary Design Study* is required to be undertaken by Northpower. The level of involvement and associated cost will vary depending on the CIW project involved.

- An indicative cost estimate of the Preliminary Design Study Charges will be provided at the time of entering into a *Preliminary Design Study Agreement* (based on an agreed scope), prior to the study being commenced.
- On completion of the Preliminary Design Study, an invoice will be prepared (and invoiced/billed) for on the actual time incurred to undertake the Preliminary Design Study and report.
- Further charges may be applicable if the Customer/Agent requires additional works to be completed by Northpower.

6.0 Design & Approval - Standard CIW

For **Standard** Customer Initiated Works, the following process steps shall apply.

6.1 Process Diagram – Standard CIW: Design & Approval



6.2 Northpower assessment of CIW Application

The Customer Works Engineer shall:

- Undertake an initial review of the CIW Application and arrange for completeness
- Evaluate the CIW Application and attached designs in accordance with Northpower's Network Standards. If further information is required, this shall be requested from the Customer (or nominated Network Approved Contractor) and logged on the CIW Database.
- Keep the CIW Database updated throughout the process (application approval status, key details, correspondence, documents, contracts etc.).
- Determine if any technical conditions need to be applied to the work requested. If any technical conditions are required, then these shall be noted on the *Network Approval of CIW* and may include items such as:
    - Where design or construction modifications are required; or
    - Details of 'Major Works' and any Northpower supplied equipment; or
    - Where the design or proposed construction have elements outside those covered in Northpower's Network Standards.
    - Any area across the Northpower Network that may have special conditions imposed, for example, to system constraints unique to that area. The Customer Works Engineer, as required, will advise the Network Approved Contractor of these.
- Determine the commercial conditions applicable to the work requested:
    - Calculate the Capacity Charge payable under Northpower's *Capital Contribution Policy.*
    - Advise the Commercial Team where there is a change to an existing connection. The Commercial Team will then determine the new pricing plan which will apply to the connection.
    - Prepare the **Network CIW Charges** (the combination of costs/charges determined above)
- Prepare the *Network Approval of CIW (Detailed Design)* which will detail Northpower's requirements and conditions on the CIW, including: technical conditions, commercial conditions and any legal requirements.

6.3 Network Approval of CIW

The Customer Works Engineer shall also:

- Provide the Customer with the Network Approval of CIW (Detailed Design), including:
    - Conditions of approval
    - Prepared *Asset Ownership Agreement* for execution by the Customer –
    - Update the CIW Database with the necessary information related to the CIW Application and Approval status.

Note – A copy of the Network Approval of CIW shall also be sent to the Customer's NAC/Agent where nominated by the Customer.

6.4 Validity Period

The *Network Approval of CIW* (and any quoted charges, technical or commercial conditions), unless specified otherwise, will stand for a period of **6 calendar months** only. Each *Network Approval of CIW* is site-specific and not transferable unless specified otherwise.

6.5 Execute and return Legal Agreements

The Customer must execute and return the *Asset Ownership Agreement* in accordance with the Network Approval of CIW (Detailed Design).

Northpower shall then organise to countersign and return.

6.6 Construction Plan for Approved Design

Following the execution of the *Asset Ownership Agreement*, Northpower will organise for a *Construction Drawing* to be prepared and returned. The *Construction Drawing* will form Northpower's approved design and be used for verification of the works being constructed in accordance with the Network Approval of CIW.

Northpower will also amend the Network GIS to show the proposed CIW works, identified in the GIS.

6.7 Approval to Construct

The Customer (and their NAC) is not authorised to undertake any electrical works relating to the CIW assets before receiving an *'Approval to Construct Form'* from Northpower. Any works completed before this may not be approved or accepted by Northpower.

Before Northpower provides the '*Approval to Construct*', the Customer must have returned executed legal agreement(s) as per the conditions of their *Network Approval of CIW.*

At the time of issuing the *Approval to Construct*, the CWE shall also organise for the *Network CIW Charges* to be invoiced to the Customer for payment.

The next steps in the CIW process are detailed in *Section 9 – Construction of CIW.*

6.8 Service Level Targets / Application review & processing time

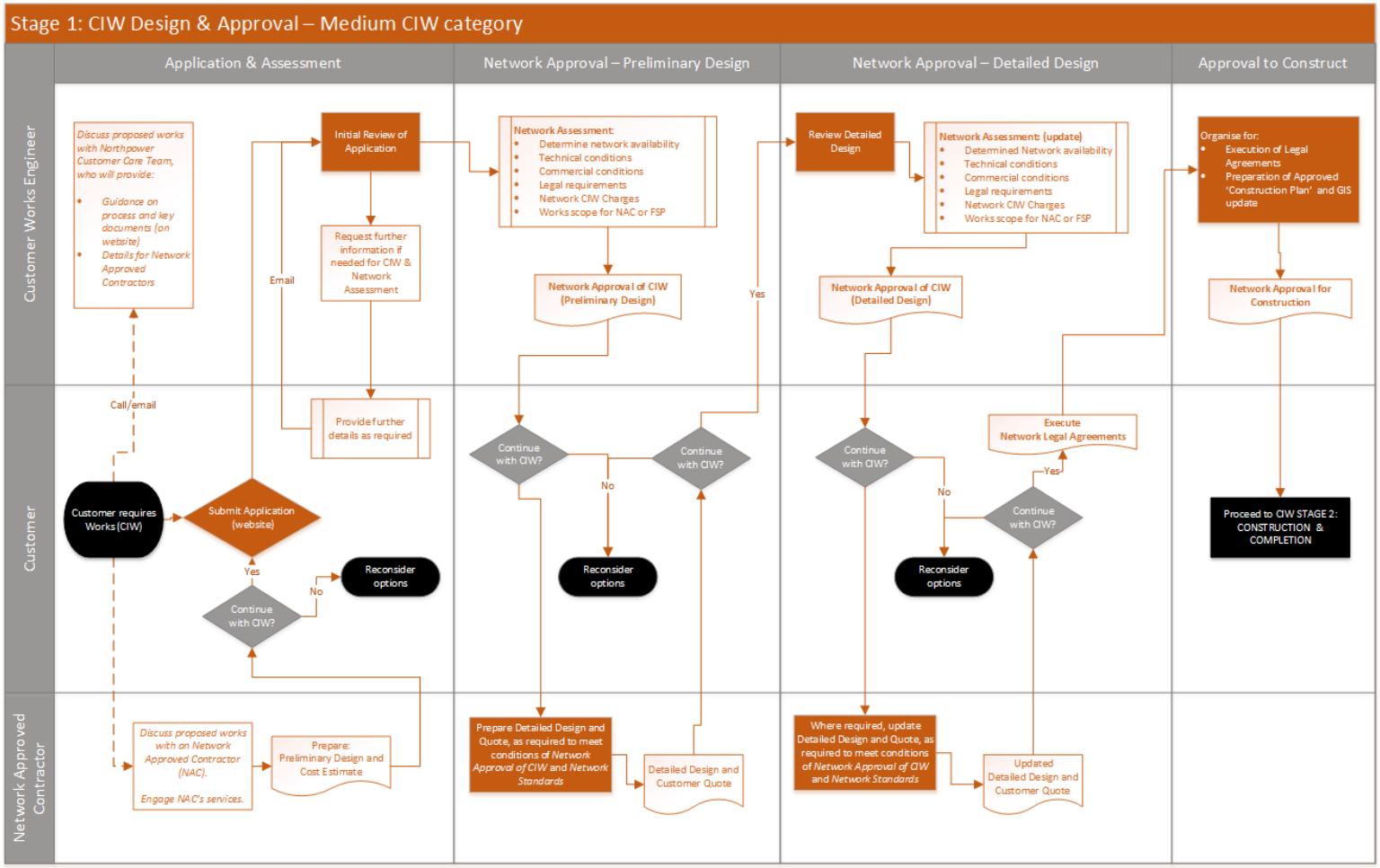
Northpower's service level targets are to:

- Undertake an initial review of the CIW Application for completeness within **5 working days**, and respond to the Customer (or nominated NAC) if there is further information required to undertake an assessment; and then
- Provide a *Network Approval of CIW* to the Customer (and cc NAC) within **5 working days,** provided that all necessary information has been provided and the CIW Application meets all network requirements.

7.0 Design & Approval - Medium CIW

For **Medium** Customer Initiated Works, the following process steps shall apply.

7.1 Process Diagram – Medium CIW: Design Approval



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7.2 Northpower receives CIW Application

The Customer Works Engineer shall:

- Undertake an initial review of the CIW Application
- Evaluate the submitted CIW Application and *Preliminary Design* or *Detailed Design* (whichever has been submitted) in accordance with the process set out below and the network criteria in Northpower's Network Standards. If further information is required, this should be requested from the Customer (or nominated Network Approved Contractor) and logged on the CIW Database.
- Keep the CIW Database updated throughout the process (application approval status, key details, documents etc.).

7.3 Preliminary & Detailed Designs

The design process for Medium CIW has two stages of design and approval:

1. *Preliminary Design* – is the indicative design submitted as part of the initial CIW Application.
2. *Detailed Design* – is the comprehensive design submitted for approval and will be used to prepare the approved Construction Plan.

Note - Where a Preliminary Design is submitted, Northpower's approval will be only of the preliminary design provided. This shall not be taken by the Customer (or Network Approved Contractor) as approval to commence the Customer Initiated Works. Any risk and cost implications associated with Northpower rejecting the Detailed Design (when submitted) are the Customer's responsibility.

7.4 Preliminary Design – Network Assessment

The Customer Works Engineer shall:

- Determine if any technical conditions need to be applied to the work requested. If any technical conditions are required, then these shall be detailed on the *Network Approval of CIW (Preliminary Design).*
- Items that require additional technical conditions over the CIW include the following:
    - That only Preliminary design approval is being given (i.e. the approval is subject to the Detailed Design being submitted and approved); or
    - Where design or construction modifications are required; or
    - Details of 'Major Works' and any Northpower supplied equipment; or
    - The design or proposed construction has elements outside those covered in Northpower's Network Standards; or
    - Non-standard ownership arrangements are required; or
    - An easement is required, and work cannot proceed until a Deed of Agreement has been signed by a third party; or

- Any area across the Northpower Network may have special conditions imposed for example, to system constraints unique to that area. The Customer Works Engineer, as required, will advise the Network Approved Contractor of these conditions when applied.

- Determine the commercial conditions applicable to the work requested:
  - Calculate the Capacity Charge payable under Northpower's *Capital Contribution Policy.*
  - Advise the Commercial Team where there is a change to an existing connection. The Commercial Team will then determine the new pricing plan which will apply to the connection.
  - Determine whether there are any amounts payable in respect of Northpower's costs for easements. **Note** - The cost of obtaining easements is treated the same as the other CIW costs, and *in most cases, will be borne by the Customer.*
  - Prepare the **Network CIW Charges** (the combination of costs/charges determined above)
- Once the technical, commercial and legal requirements have been established:
  - Prepare the *Network Approval of CIW (Preliminary Design)* which will detail Northpower's requirements and conditions for the CIW, including: technical requirements, commercial conditions and any legal requirements.

7.5 Preliminary Design - Network Approval

- Provide the Customer with the Network Approval of CIW (Preliminary Design), including:
  - The technical and commercial conditions of approval
  - *Asset Ownership Agreement*.
- Update the CIW Database with the necessary information related to the CIW Application and Approval status.

***Note** – A copy of the Network Approval of CIW shall also be sent to the Customer's NAC/Agent where nominated.*

7.6 Detailed Design prepared by NAC

The Customer's NAC shall prepare a Detailed Design that meets the conditions set out by Northpower in the *Network Approval of CIW (Preliminary Design)* and Northpower's network standards.

***Note** - It is not the role of the Customer Works Engineer to provide detailed design advice.*

The NAC shall also provide their customer with a detailed cost estimate/quote for the proposed works.

7.7 Detailed Design – Network Assessment

The Customer (or nominated NAC) must submit a Detailed Design to Northpower for Network Assessment.

- The Detailed Design shall be reviewed following the process outlined in *Section 7.4 Preliminary Design – Network Assessment*.
- The network assessment shall determine the associated Network technical, and commercial and legal requirements (and shall supersede any conditions established in the Preliminary Design approval).
- A *Network Approval of CIW (Detailed Design)* will be prepared to reflect the submitted Detailed Design, which supersedes any approvals provided for earlier Preliminary Design(s).

7.8 Detailed Design–Network Approval

The Customer Works Engineer shall:

- Provide the Customer with the Network Approval of CIW (Detailed Design), including:
    - The technical and commercial conditions of approval
    - Executable *Asset Ownership Agreement*
- Update the CIW Database with the necessary information related to the CIW Application and Approval status.

***Note** – A copy of the Network Approval of CIW shall also be sent to the Customer's NAC/Agent where nominated.*

7.9 Validity Period

The *Network Approval of CIW* (and any quoted charges, technical or commercial conditions), unless specified otherwise, will stand for **6 calendar months** only.

Each *Network Approval of CIW* is site-specific and not transferable unless specified otherwise.

7.10 Execute and return Legal Agreements

The Customer must execute and return the *Asset Ownership Agreement*, in accordance with the Network Approval of CIW (Detailed Design). Northpower shall then organise to countersign and return.

7.11 Construction Drawing for Approved Design

Following the execution of the legal agreements, Northpower will organise for a *Construction Plan* to be prepared and returned. The *Construction Plan* will form Northpower's approved design and be used for verification of the works being constructed in accordance with the network Approval of CIW.

Northpower will also amend the Network GIS to show the proposed CIW works so these are identified in the GIS.

7.12 Approval to Construct

The Customer (and their NAC) is not authorised to undertake any electrical works relating to the CIW assets prior to having received an *'Approval to Construct'* from Northpower. Any works completed before this may not be approved or accepted by Northpower.

Before Northpower provides the '*Approval to Construct*', the Customer must have:

- Returned executed legal agreement(s) as per the conditions of their *Network Approval of CIW*

The next steps in the CIW process are detailed in *Section 9 – Construction of CIW.*

7.13 Service Level Targets – Application review & processing time

Northpower's service level targets are outlined below for the two design stages of Medium CIW:

7.13.1 Preliminary Design stage (10 working days)

- Undertake an initial review of the CIW Application for completeness within **5 working days**, and respond to the Customer (or NAC) if there is further information required to undertake an assessment; and then
- Provide a *Network Approval of CIW (Preliminary Design)* within **10 working days** of the CIW Application being submitted. All necessary information has been supplied, and the CIW Application meets all network requirements).

7.13.2 Detailed Design stage (15 working days)

- Undertake a review of the Detailed Design within **10 working days** of receipt, providing that all necessary information has been supplied; and then
- Provide a *Network Approval of CIW (Detailed Design)* within **5 working days** of the Detailed Design review being completed

When these service level targets are not possible, the CWE will liaise with the Customer (or NAC) to provide an update/detail on achievable timelines.

7.14 Network Upgrade Works – separate from CIW works

As part of the CIW request evaluation, it may become necessary to perform some additional Network Upgrade Work that is not considered part of the Customer Initiated Work. In this situation, the Customer Works Engineer shall prepare a Preliminary Design for the work required and forward this to the Planning Team. The Network Upgrade Work would be managed as a normal network project outside of this CIW process.

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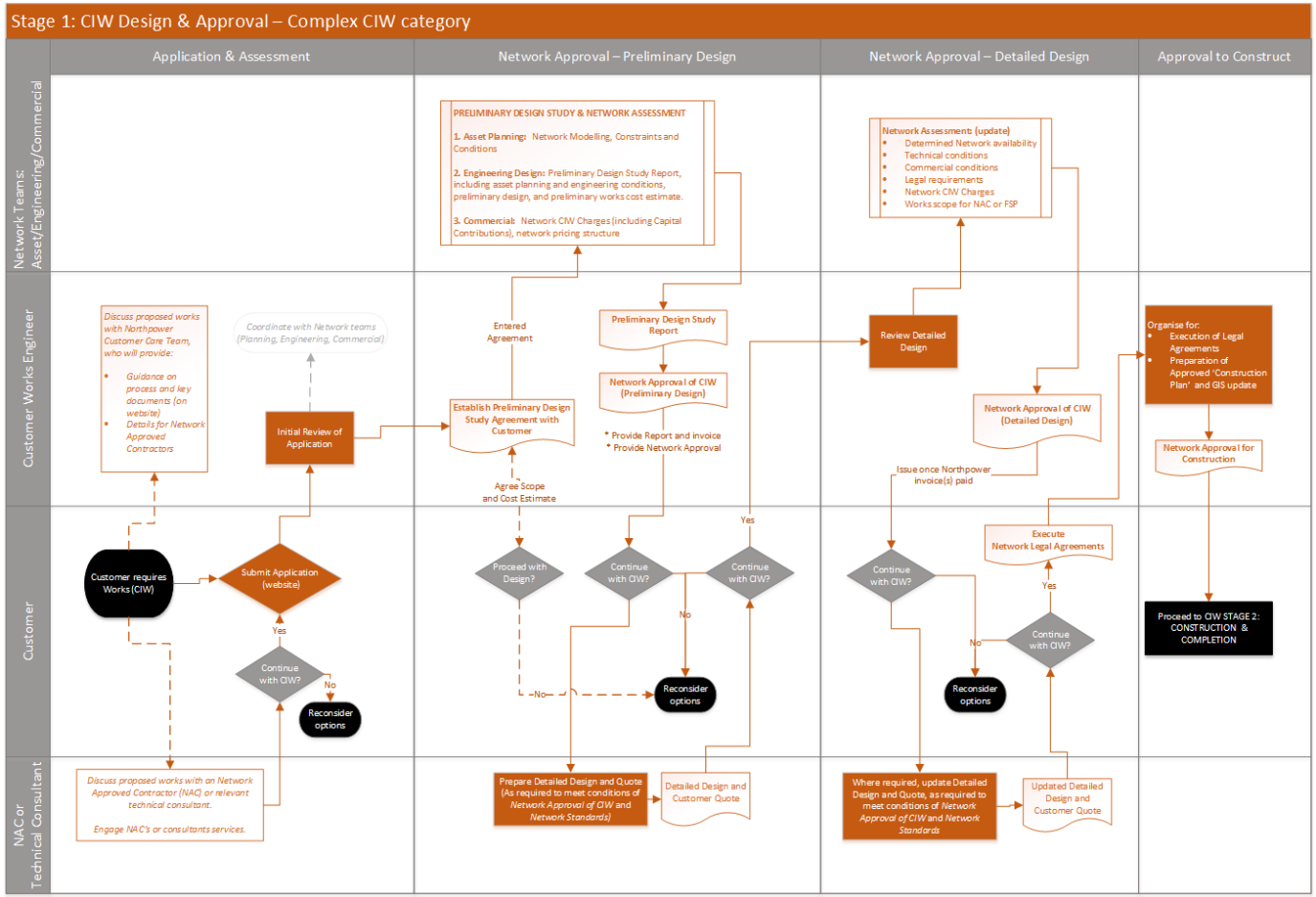
8.0 Design & Approval - Complex CIW

For **Complex** Customer Initiated Works the following process steps shall apply.

8.1 Process Diagram – Complex CIW: Design & Approval



8.2 Customer Works Engineer to Coordinate

The Customer Works Engineer shall:

- Undertake an initial review of the CIW Application for completeness and to identify any further key information required to allow the CIW application to progress into a Preliminary Design Study.
- Coordinate with the Customer (or their nominated NAC/Consultant) while preparing the scope for Northpower to undertake a *Preliminary Design Study.*
- Provide an indication/guideline on the **Preliminary Design Study Charges** (as per section 5.2.3).
- Act as the customer liaison
- Coordinate the necessary internal work between the relevant teams within Northpower to complete the Preliminary Design Study.
- Ensure the Customer job/reference is created in the CIW Database for tracking and managing the project and customer liaison.
- Keep the CIW Database updated throughout the process (application approval status, key details, documents etc.).
- If required, delegate these CWE duties to an appropriate person to coordinate and maintain the customer project's oversight.

8.2.1 Decision to convert Customer Initiated Work to an Internal Project

At any point in the process for complex works, a decision may be made to convert the Customer Initiated Work to an internal project. This will necessitate a formal contractual agreement between the Customer and Northpower to undertake the work. If this approach is taken, the work will be managed by a member of the Operations & Engineering Delivery team, and the Customer Initiated Work Process will no longer apply.

The Operations & Engineering Delivery Manager will appoint a project manager for the work. The appointed project manager will work with Northpower's legal and commercial teams to prepare an appropriate agreement (e.g. a New Investment Contract or similar) with the Customer.

When the agreement (e.g. New Investment Contract) has been executed, the Project Manager will proceed with the work execution. In this situation, the work would be managed as normal Northpower initiated work and no longer as Customer Initiated Work. A formal handover shall take place from the Customer Works Engineer to the project manager. A project ID shall be raised under the current Capex Delivery Programme.

8.3 Preliminary Design – Network Assessment

The CWE will: notify the Asset Planning, Engineering Delivery and Commercial teams that a Complex CIW Application has been received; and initiate the process to undertake a **Preliminary Design Study**.

8.3.1 Preliminary Design Study

The purpose of the Preliminary Design Study (and associated report) is to document a high-level preliminary (conceptual) design for the proposed works. Where CIW is categorised as Complex, there may be significant effect on the existing network that needs to be modelled in order to fully quantify the extent of the work required. Upon completion of the required network modelling and Preliminary Design preparation, decisions can be made on the viability of the proposed works both technically and financially.

8.3.2 Preliminary Design Study Agreement – Agreed Scope and Indicative Costs

Before proceeding with the Preliminary Design Study, the CWE shall liaise with the Customer/Agent to enter into a *Preliminary Design Study Agreement* which will cover:

- The scope of the works for the study - including network modelling, preliminary design preparation, preliminary works cost estimate, and preparation of a Preliminary Design Study Report.
    - *Note* - The Asset Planning and Engineering Delivery teams shall work with the CWE to prepare the scope based on the CIW Application.
- Recovery of costs – Northpower shall on-charge costs for the time and resources used to complete the Preliminary Design Study and associated Report.

8.3.3 Preliminary Design - Network Modelling

As part of the Preliminary Design study process, the **Asset Planning team** shall:

- Determine where the demarcation shall be between the Customer Initiated Work and any Network Upgrade Work that is not considered to be part of the Customer Initiated Work. Works on existing shared assets will broadly be Network Upgrade Work, and works on assets which are or will be dedicated to the customer or new development will be Customer Initiated Works.
- Separate (and define) the Preliminary Designs for the Customer Initiated Work from any associated Network Upgrade Work (where applicable).
- Undertake the network modelling of the CIW, with output including the impact of the network viability of the CIW, and the associated upstream works that may be required.
- Follow Northpower's Asset Planning and network modelling processes.
- Prepare the network modelling information, and document the technical conditions that need to be applied for inclusion into the formal Preliminary Design Study Report
- Liaise with the Engineering Delivery team around the preparation of a Preliminary Design
- Record the actual time incurred in completing the Preliminary Design works and provide these to the Commercial team for invoicing as part of the Preliminary Design Study Charges.

***Note** - The Customer or their agent is required to supply all relevant information in a timely manner to allow the network modelling and commercial evaluation to take place.*

8.3.4 Preliminary Design & Preliminary Works Cost Estimate

As part of the Preliminary Design study process, the **Engineering Delivery team** shall:

- Undertake the preparation of a Preliminary Design utilising the CIW Application and network modelling information prepared by the Asset Planning team.
- Prepare a preliminary cost estimate for the CIW works
- Prepare the formal Preliminary Design Study Report, including all technical conditions that need to be applied and the preliminary cost estimate for the works
- Record the actual time and costs incurred in completing the Preliminary Design Study works, and provide these to the Commercial team for invoicing as part of the Preliminary Design Study Charges.
- Provide the Preliminary Design Study Report to the CWE and Commercial team, and assist as required with Customer discussions.

8.3.5 Preliminary Design - Commercial conditions

The **Commercial team** will review the findings of the Preliminary Design Study to ensure the CIW proposal fits within an existing network pricing structure. If there is no suitable network pricing structure available, the Preliminary Design or Customer requirements may need to be amended.

Where it is determined that the pricing plan will be IND (i.e. individually priced) the Commercial team may opt to negotiate an agreement where it invests in some or all of the CIW and recoups the cost through lines charges over the life of the investment. This will be taken into account in the calculation of the Capital Contribution.

The Customer Works Engineer team shall:

- Determine the commercial conditions applicable to the work requested:
    - Calculate the Capacity Charge payable under Northpower's *Capital Contribution Policy.*
    - Advise the Commercial Team where there is a change to an existing connection. The Commercial team will then determine the new pricing plan which will apply to the connection.
    - Determine whether there are any amounts payable in respect of Northpower's costs for easements.
    - Other charges as relevant
    - Prepare the **Network CIW Charges** (the combination of costs/charges determined above)

8.4 Preliminary Design – Network Approval

Upon confirmation that any design fees have been paid, the Customer Works Engineer shall:

- Provide the Customer with the Network Approval of CIW (Preliminary Design Approval Form), including:
    - The technical and commercial conditions of approval
    - *Asset Ownership Agreement*.
- Provide the Preliminary Design Study Report
- Arrange for the invoicing of Preliminary Design Study Charges (actual costs as per the Preliminary Study Agreement) to the Customer/Agent. The Commercial team shall invoice the customer, applying the actual time and costs incurred by the Northpower teams in preparing the Preliminary Design Study and report.
- Update the CIW Database with the necessary information related to the CIW Application and Approval status.

***Note** – A copy of the Network Approval of CIW shall also be sent to the Customer's NAC/Agent where nominated.*

The *Network Approval of CIW (Preliminary Design)* conditions shall include (but are not limited to):

- That only Preliminary approval is being given (i.e. the approval is subject to a Detailed Design being submitted and approved); and
- Preliminary CIW cost estimates are provided for budgetary purposes only. The Customer is responsible for obtaining detailed pricing and works contacts from their Agent/Network Approved Contractor; and
- Non-standard ownership arrangements where these are required; and
- Details of Major Works and any Northpower supplied equipment; and
- Legal agreement requirements; and
- Any area across the Northpower Network may have special conditions imposed due for example, to system constraints unique to that area; and
- Any other conditions stipulated by Northpower as relevant to the proposed CIW.

8.5 Preliminary Design Study Report – further works requested by Customer

Should the Preliminary Design Study Report and/or Preliminary Design not be accepted (or require alterations) by the Customer, further amendments could be required at the Customer's request. This may necessitate further analysis and design as per *section 8.3* above (*Preliminary Design Assessment*). Further works will generally incur additional costs and be on-charged to the Customer.

8.6 Detailed Design and Works Costs

Following completion and acceptance of Preliminary Design Study (and Report), the Customer (via their nominated Network Approved Contractor or Agent) can proceed with preparing a Detailed Design. The purpose of this Detailed Design step is to document precisely the proposed works and enable firm cost estimates to be prepared by the Customer's chosen Network Approved Contractor.

Note: The Customer shall be required to fund the cost of the Detailed Design preparation fully. The Customer may elect to contract directly to a Network Approved Contractor (or use appropriately qualified consultants) to prepare the Detailed Design.

8.7 Detailed Design – Submission

The Customer (or their nominated NAC) shall submit the Detailed Design and all relevant information (such as data and drawings) electronically via Northpower's online portal or email directly to the Customer Works Engineer.

8.8 Detailed Design - Network Assessment

The NAC must submit a Detailed Design to Northpower for Network Assessment.

- The Detailed Design shall be reviewed following the process as outlined in *section 8.3 Preliminary Design – Network Assessment*.
- The network assessment shall determine the associated Network technical, commercial and legal requirements (superseding any conditions established for the Preliminary Design).
- A *Network Approval of CIW (Detailed Design)* will be prepared, reflecting the Detailed Design and associated network requirements. **Note**, this supersedes the *Network Approval of CIW (Preliminary Design)* and associated conditions.

8.9 Detailed Design – Network Approval

The Customer Works Engineer shall:

- Organise the invoicing of any additional costs incurred by Northpower (if required for costs incurred that were out of scope of the Preliminary Design Charges).

Once any outstanding fees have been paid:

- Provide the Customer with the *Network Approval of CIW (Detailed Design Approval Form)*, including:
    - The technical and commercial conditions of approval
    - Executable Legal Agreement(s) - Asset Ownership Agreement
- Update the CIW Database with the necessary information related to the CIW Application and Approval status.

***Note** – A copy of the Network Approval of CIW shall also be sent to the Customer's NAC/Agent where nominated*.

8.10 Validity Period

Each *Network Approval of CIW* (and any quoted charges, technical or commercial conditions), unless specified otherwise, will stand for **6 calendar months** only. Each *Network Approval of CIW* is site-specific and not transferable unless specified otherwise.

Should the detailed design and evaluation not be accepted, further amendments could be required at the Customer's request. This may necessitate further analysis and design as above in *section 8.3 Preliminary Design – Network Assessment*.

8.11 Execute and return Legal Agreements

The Customer must execute and return the required legal agreements in accordance with the Network Approval of CIW (Detailed Design).

Northpower shall then organise to countersign and return.

8.12 Construction Drawing for Approved Design

Following the execution of the legal agreements, Northpower will organise for a *Construction Drawing* to be prepared and returned. The Construction Drawing will form Northpower's approved design and be used to verify the works being constructed according to the network Approval of CIW.

Northpower will also amend the Network GIS to show the proposed CIW works so these are identified in the GIS.

8.13 Approval to Construct

The Customer (and their NAC) is not authorised to undertake any electrical works relating to the CIW assets prior to having received an *'Approval to Construct'* from Northpower. Any works completed before this may not be approved or accepted by Northpower.

Before Northpower provides the '*Approval to Construct*', the Customer must have returned executed legal agreement(s) as per the conditions of their *Network Approval of CIW.*

The next steps in the CIW process are detailed in *Section 9 – Construction of CIW.*

8.14 Service Levels Targets - Application review, Design Study & Approvals

8.14.1 Preliminary Design (25 working days)

Northpower's service level targets are to:

- Liaise with the Customer/Agent to prepare and enter into an agreed scope and agreement for a *Preliminary Design Study Report ("Preliminary Design Study Agreement")* within **5 working days** of the CIW Application being submitted; and
- Undertake the Preliminary Design Study Report within **15 working days** of executing the *Preliminary Design Study Agreement*, providing that all necessary information has been supplied; and then

- Provide to the Customer/Agent within **5 working days** of completing the Preliminary Design Study Report, a CIW Network Approval Schedule (Preliminary Design) and the Preliminary Design Study Report.

If these service level targets are not possible, then the CWE will liaise with the Customer/Agent to provide an update/detail on achievable timelines.

8.14.2 Detailed Design (15 working days)

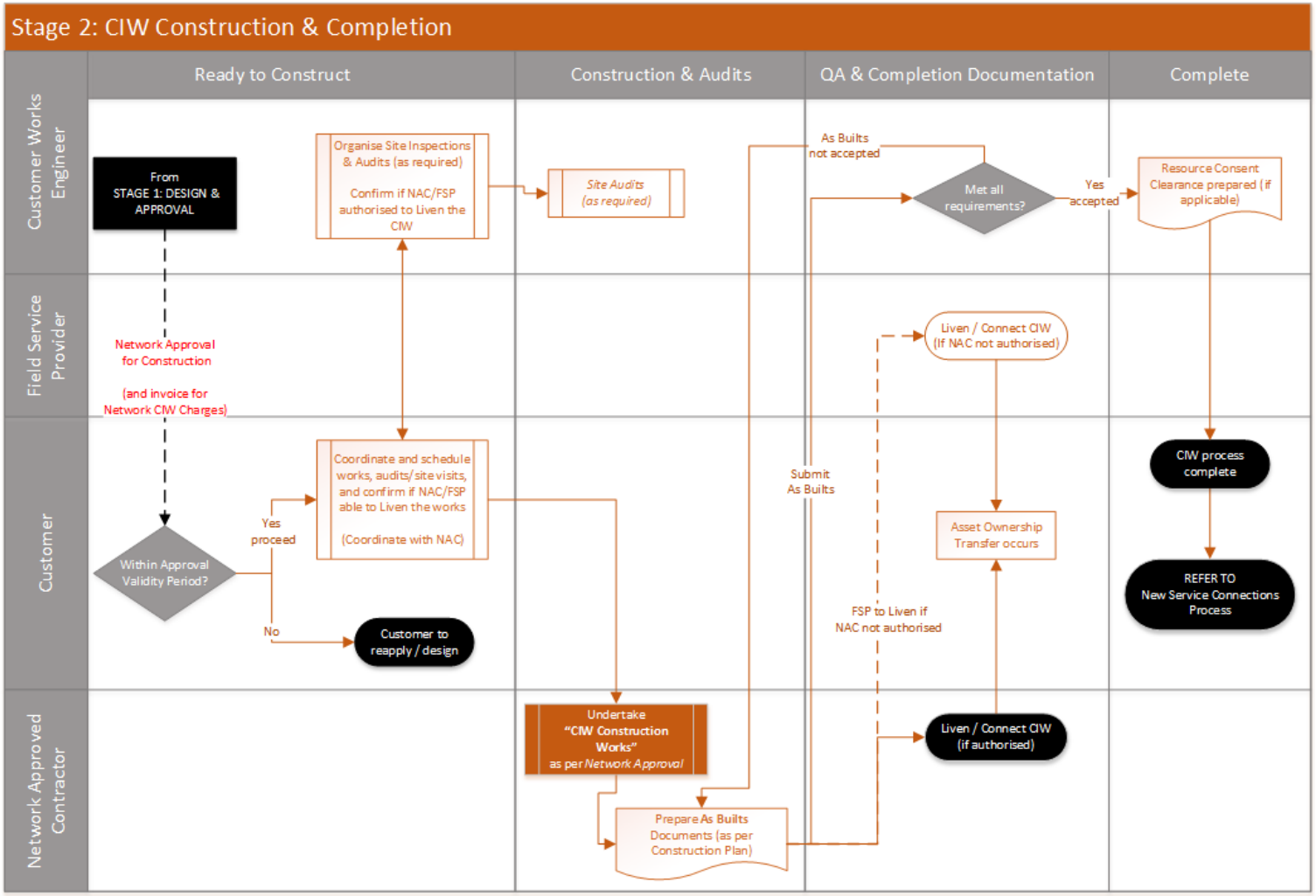
Northpower's service level targets are to:

- Review the Detailed Design within **10 working days** of receipt, providing that all necessary information has been supplied; and then
- Provide a CIW Network Approval Schedule (Detailed Design) within **5 working days** of the Detailed Design review being completed

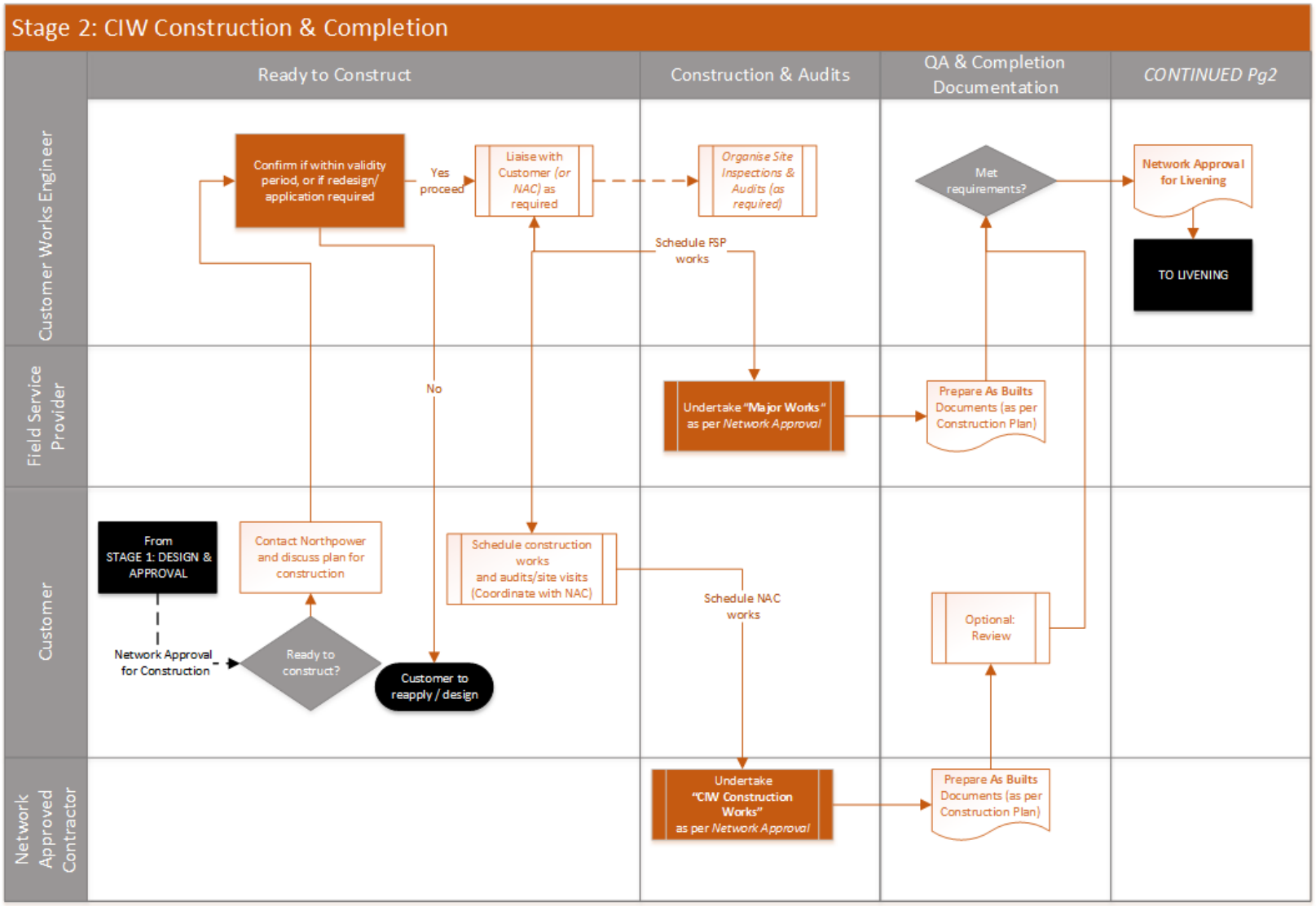
In situations where these service level targets are not possible, the CWE will liaise with the NAC to provide an update/detail on achievable timelines.

9.0 Construction of CIW

9.1 Process Map – Construction & Completion (Standard CIW)



9.2 Process Map – Construction & Completion (Medium and Complex CIW)



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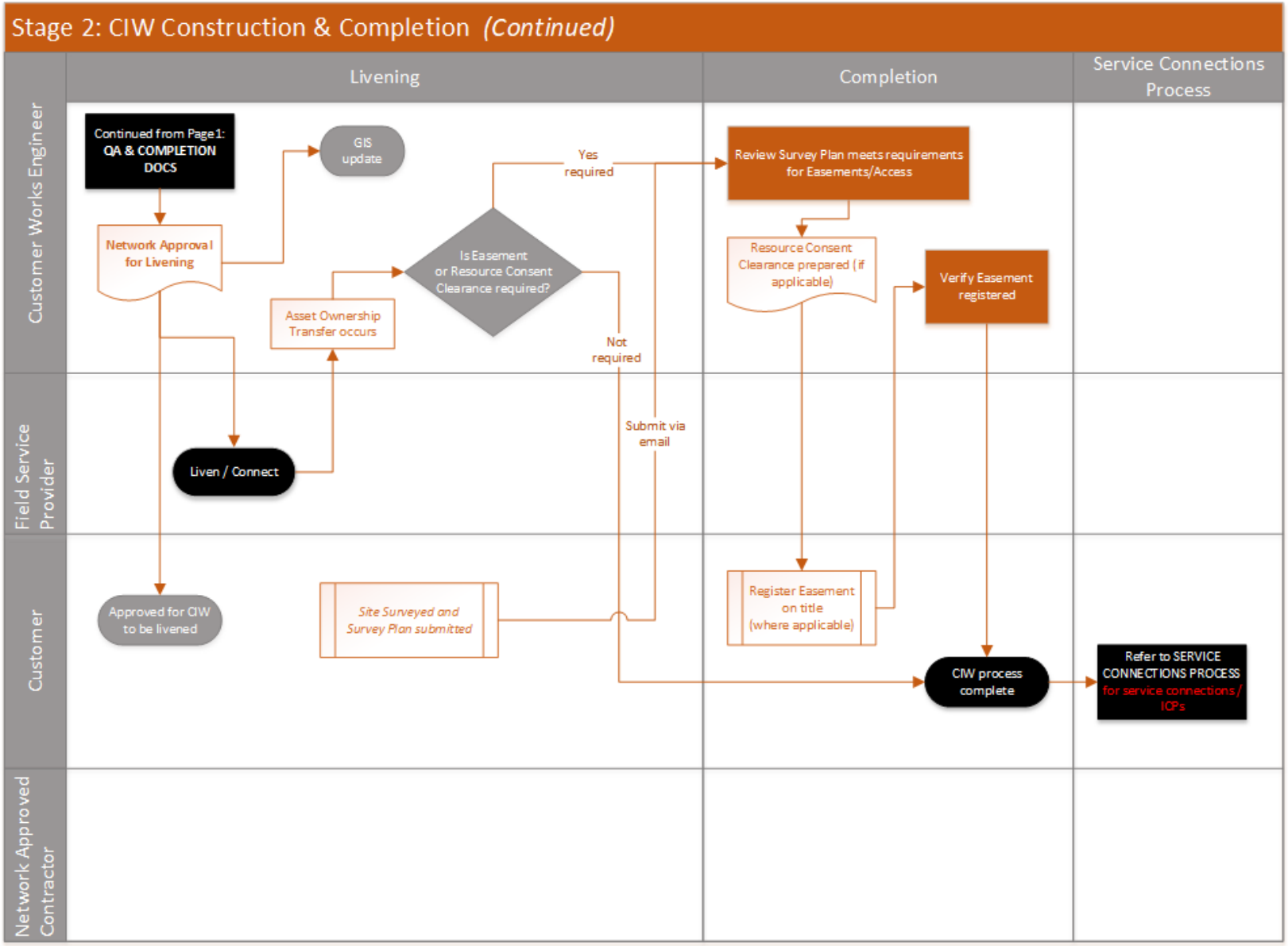

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9.3 Approval to Construct

Before any construction of CIW assets can commence, Northpower must have provided the Customer with the *Approval to Construct*, as outlined earlier in the relevant sections.

9.4 Customer wishes to proceed with CIW

(This step is not required for Standard CIW, the next step is section 9.5)

Once the Customer is ready to proceed with CIW, the Customer (or nominated Network Approved Contractor) shall advise the Customer Works Engineer:

- That the Customer is ready to proceed with CIW (as per the *Network Approval of CIW)*
- If the *Network Approval of CIW* is within its specified Validity Period
- Details of the NAC which has been selected/engaged to undertake the CIW works
- The intended/scheduled timeline for the CIW works (start date and estimated completion date).

A new CIW Application (and Approval) may be required if:

- The expected completion of works is an extended timeframe (for example >6 months)
- There are any amendments or revisions to the approved design and works

Once the Customer has advised they wish to proceed, the Customer Works Engineer shall:

- Confirm that the *Network Approval of CIW* is within its Validity Period (6 months), so that it can proceed without requiring further review. If the Validity period has lapsed, then a new CIW Application shall be required.
- Organise for the **Network CIW Charges** (as per the Network Approval of CIW) to be invoiced to the Customer (to be invoiced by the Commercial team).
- Liaise with a FSP to arrange for any “Major Works” that are required to be scheduled.

9.5 Network Approved Contractor - carry out the ‘CIW Construction Works’

Once engaged by their Customer, the Network Approved Contractor shall undertake the Customer Initiated Work in accordance with:

- This document (*Customer Initiated Works* standard)
- Any specific conditions set by Northpower in the *Network Approval of CIW,* including the specified *“CIW Construction Works”*
- The NAC’s approved work types, in accordance with the *NAC Standard*
- The Network Approved Contractor’s *NACSA* with Northpower
- Northpower’s Network Standards
- Any conditions set by controlling authorities

- Any statutory or regulatory requirements
- Any conditions set by Northpower's Network Operations Centre

9.5.1 Quality Assurance requirements during construction

The NAC is responsible for completing works in accordance with Northpower's requirements (as set out in Northpower's Network Standards). This is required to enable Northpower to accept ownership of assets (where relevant).

Site inspections may be required to audit or verify the works meet Northpower's requirements.

The primary site inspection during construction includes auditing of the underground trenching (or drilling), ducting and cable layouts, as these cannot easily be verified once the trench has been filled in.

The CWE will let the NAC know of the specific CIW audit requirements and refer them to any audit forms or standards (currently being developed at the time of this document).

9.5.2 Works Completion Documentation

The Customer (or their NAC) shall submit all required works completion documentation, including:

- As-built documentation/forms, as detailed in Northpower's *Distribution As Built Records Standard.*
- copies of commissioning and pre-energisation test results and COC for work (as relevant)

It is necessary for Northpower to obtain all of this documentation to verify that checks and tests have been undertaken.

The Customer Works Engineer shall review that all required as-built documentation has been submitted and is complete.

For Standard CIW: This can be completed and submitted after livening of the CIW assets but must be in accordance with the *Distribution As Built Records Standard* (as a separate *Approval to Liven* is not required).

For Medium and Complex CIW: This must be completed before Northpower will approve the livening of the CIW assets (refer to *section 10 Livening of CIW and Completion Actions*).

9.6 Field Service Provider(s) - carry out 'Major Works' for CIW

Works specified in the *Network Approval of CIW* as "Major Works", will be undertaken by a Field Service Provider.

These works relate to specific activities (or assets) that NACs are not approved to undertake – including, for example: undertaking live works, HV cable joints, or HV terminations onto Distribution Switchgear and Transformers.

The scope and associated charges for these works will be detailed within the *Network Approval of CIW* (where relevant).

Major Works will not be undertaken by the FSP until the Customer has paid the Network CIW Charges.

9.6.1 Works Completion Documentation (Northpower installed assets)

The Field Service Provider(s) will be responsible for the works completion and Quality Assurance requirements (as per Northpower's Network Standards) associated with the works they undertake (and assets they install or commission).

9.7 Next steps: Livening of CIW & Completion Actions

After the construction works and documentation requirements are completed, the next steps in the process are outlined in S*ection 10 – Livening of CIW and Completion actions*.

10.0 Livening of CIW and Completion actions

10.1 Customer Survey of assets for Easements (if applicable)

Where the Customer has agreed to provide an Easement Instrument(s) covering electricity assets that have been installed on private land, the Customer shall engage a Surveyor to prepare final and detailed survey plans as required for the registration of the Easement Instrument(s).

Northpower requires a copy of these survey plans to be provided prior to providing Resource Consent Clearance. *(Refer to Resource Consent Clearance Process)*

10.2 Approval to Liven

(This step is not required for Standard CIW, the next step is section 10.3)

Northpower shall provide the Customer with the '*Approval to Liven Form*' the new reticulation (CIW works) once the Customer Works Engineer has confirmed that all requirements have been met, including:

- All Northpower design fees (as applicable) and Network CIW charges have been paid in full
- All asset inspections, audits and quality assurance requirements have been met satisfactorily
- All asset and works completion information and documentation (including as-builts and asset data) has been submitted and has been accepted by Northpower as complete.
- Any Easement surveying and registration has been committed to by the Customer and their Solicitor (as relevant)
- The Customer has executed the Northpower *Asset Ownership Agreement*

Once approved, the livening of the CIW assets will be undertaken by a Field Service Provider (or an NAC if they have prior authorisation to do so).

10.3 Northpower System Updates - Network Information Systems & GIS Updates

The Customer Works Engineer will forward all completed asset documentation to the Network Information Team to update the Northpower systems, including the GIS and status of the assets. This includes providing:

- The As Built Plans and Asset Data Sheets (as per *Distribution As Built Records Standard*)
- The executed *Asset Ownership Agreement*

The Commercial team shall also be notified to ensure any related systems are updated *(**Note** – we are not connecting ICPs at this stage).*

10.4 Transfer of Asset Ownership to Northpower

Upon livening of the CIW assets, the ownership of these assets legally transfers from the Customer to Northpower, in accordance with *Asset Ownership Agreement subject to all conditions being met, including the registration of any Easement Instrument(s)* (in the case of a subdivision, the asset vesting date may post-date livening if the Records of Titles are created after livening).

10.5 Resource Consent Clearance & Critical Electricity Line Approvals

Where relevant to the CIW (i.e. subdivisions), Northpower will provide Resource Consent Clearance (and Critical Electricity Line Approvals) to the Customer once satisfied that:

- All Northpower technical, legal and commercial requirements have been met (as outlined in this document and Northpower's Network Standards).
- All fees or charges have been paid to Northpower
- A copy of the survey plans have been provided where Easement(s) is required

***Note** - Resource Consent Clearance is required where new DP/titles are to be issued by Council.*

For further details refer to:

- *Resource Consent Clearance process*
- *Resource Consent Requirements letter*
- *Resource Consent Clearance letter*

10.6 Easement Registration by Customer

Where applicable, the Customer shall register the Easement Instrument(s) once the property title is available (typically requires Council to issue new title where subdividing).

11.0 Service Connections Process

Once the CIW works process has been completed (as outlined in Section 10 above), the Customer is able to seek the connection of customer service mains (and ICPs) to the network. This process is detailed in standard *New LV Service Connections.*

12.0 Document Review History

Version Number	Date	Revision Notes (reason for change)
1.0	27/08/2020	Introduction of first formal standard/process for Customer Initiated Works (separate from Service Connections). Replaces: ENS 05.02.010 Conditions for Network Construction by Contractors
2.0	19/10/2021	Section 4.4 table 1 CIW categories. Changed the distributed generation capacity in complex works from 50KVA to 300KVA and add distributed generation in medium works for 50KVA to 300KVA
3.0	18/01/2022	Section 4.4, Table 1 CIW Categories - Medium CIW updated to include “Input from an external industry such as Kiwirail, Transpower, DOC and Ministry for Primary Industries”. New document ID code assigned (changed from CST.S.00.03 to **CST.S.601.01**). Replaces • ENS 02.01.050 Guidelines for Third Party Initiated Network Alterations • ENS 02.01.100 Reticulation Constructed by Other Parties
4.0	31/01/2024	Next scheduled review cycle. No changes.