RELEASE PLANNING - OPERATE - AEN

1. General

1.1 Scope

This standard defines the requirements, under the Release Planning process, for accessing the Powerco HV Electricity Distribution Network.

- Urgent applications, that cannot be submitted through the NAPA application process within the defined lead times, must be notified to Release Planning through the 0800 number. Acceptance of such applications shall be at the discretion of NOC.
- Urgent unplanned works, requiring written Switching and Retailer notification (less than 24hrs notice), must be authorised by NOC Control. Applications of this nature are to be submitted using the Urgent Work Notice form, available on the Powerco Restore website.

1.2 Application

This document outlines the requirements where planned work is to be carried out, on or near high voltage conductors or associated equipment on the Powerco network. In all cases an application must be made through the NAPA application process accessed through the Powerco Restore website.

The following aspects shall be considered when applying to access the Powerco network:

- Safety of personnel
- Minimisation of SAIDI and SAIFI
- Outage Notification to affected ICP's under the applicable notification process
- Providing accurate documentation relating to changes on the network
- Network conflict management
- Network Security
- Competency of the recipient

1.3 Intended Audience

- Primary - Powerco Release Planning
- Secondary - Powerco Approved Service Providers

1.4 Objective of this Standard

The objective of this standard is to ensure safe and appropriate practices when working on or near equipment associated with the Powerco High Voltage Electricity Network.

1.5 Referenced Documents

The actions recommended in this document must also comply with the requirements of the latest available edition of the following Statutory Acts, Regulations, Codes and Standards:

1.5.1 Legislation

- Electricity (Safety) Regulations
- Electricity Act

1.5.2 Industry Rules and Standards

SM-EI Safety Manual - Electricity Industry (SM-EI)

AS / NZS 3000:2007 Electrical Installations (known as the Australian / New Zealand Wiring Rules)

1.5.3 Powerco Documents

NAPA NAPA Training Manual (Available through the Powerco NAPA homepage)

100R001	Risk Management Framework
220F002	Access Permit
220F005	Live Line Permit
220F006	Close Approach Consent - Electricity
220F009	Switching Instruction Sheet (Planned)
220F011	SCADA Change Request
220F012	Test Permit
220F013	Outage Switching Request
220F027	Operational Requirements for Commissioning
220F032	Close Approach Consent - Electrical Networks Tree Works
220F039	GXP Parallel Request
390F118	Electrical Equipment – Label Request Form
220S002	Powerco Standard Definitions – Electricity Network
220S004	Network Switching
220S007A	Network Equipment Commissioning Standard – Part A
220S007B	Network Equipment Commissioning Standard – Part B
220S010	Low Voltage Network Operating Procedures
220S012	Secondary Systems
220S023	Close Approach Consent - Electricity
220S026	High Voltage Isolation and Access Procedures
220S028	Network Configuration Change Process
220S029	Switching Instruction Writing
220S035	Proposed Switching Instruction Sheet

240F001	Planned Interruption to Electricity Supply
310S035	Powerco Environmental Management System
393S004	Labelling and Safety Signage Requirements
393S017	Low Voltage Service / Link Boxes

1.6 Definitions

Unless stated otherwise, all words and phrases used in this document shall have the meaning defined in:

- Electricity Act
- Electricity (Safety) Regulations and pursuant Codes of Practice
- AS/NZS 3000 Electrical Installations (known as the Australian / New Zealand as Wiring Rules)
- *220S002 Powerco Standard Definitions – Electricity Network*
- Common English language definitions

Applicant	A Powerco approved contractor that submits an application via NAPA.
Business Management System (BMS)	Powerco's management system for issued, controlled documents regarding Powerco policy and procedure.
Consumer / Customer	This term has the same definition and meaning as defined in the Electricity Act 1992, namely "*…any person who is supplied, or who applies to be supplied, with electricity*."
Contractor	A person engaged by Powerco (otherwise than as an employee) to do any work for gain or reward, including a sub-contractor or any employee of a sub-contractor, in a place of employment.
Customer Fuse	There are two types of customer fuse, either pole mounted or enclosed within distribution pillars. (All customer fuse elements shall be HRC).
Distribution Network	The distribution system controlled by Powerco and includes the 66 kV, 3.3 kV, 33 kV, 22 kV, 11 kV, 6.6 kV and LV portions of this system.
Distribution Transformer	A transformer of maximum rating 2,500 kVA, 3-phase or 833 kVA per limb, 1-phase and a high voltage rating limited to 33kV with ON cooling and without on-load tap-changing.
Electric Line (known in earlier versions of this document as 'Service Main').	Means all conductors (including fittings supporting, or connected to, those conductors), whether above or below ground, that are used or intended to be used in, or in connection with, the supply of electricity from the outgoing terminals of a generating station, a building, enclosure, or other structure to- the incoming terminals of another building, enclosure, or other structure; or an appliance, in any case where the appliance is supplied with electricity other than from a terminal in a building, enclosure, or other structure. (E(S)R 2010 definition)
Electrically Safe	Means, in relation to works, installations, fittings, appliances, and associated equipment, that there is no significant risk that a person or property will be injured or damaged by dangers arising, directly or indirectly, from the use of, or passage of electricity through, the works, installations, fittings, appliances, or associated equipment (E(S)R 2010 definition)
Feeder	A high voltage circuit served by automatic switchgear at 3.3kV and above. Can be either an overhead line or underground cable, of the full load current carrying capacity, used in the

	transmission of electric power. It serves to interconnect generating stations, substations, and feeding points, usually without intermediate connections.
Field switcher	An individual certified with Powerco Competency **Class 10B *Field Switcher*** with competency to operate Network equipment, including ground mounted and zone substation switchgear, equipment and RMU's.
High Voltage	Voltage exceeding 1000 volts a.c. or 1500 volts d.c.
ICP (Installation Control Point)	As defined in the Electricity Industry Participation Code 2010, an ICP means an Installation Control Point being one of the following: a point of connection at which a customer installation is connected to a network other than the grid: a point of connection between a network and an embedded network: a point of connection between a network and shared unmetered load.
Installation	With reference to the Electricity (Safety) Regulations 2010 **installation** 'means an electrical installation as defined in section 2(1) of the Act'. The Electricity Act 1992 '**electrical installation'** - means: (i) in relation to a property with a point of supply, all fittings beyond the point of supply that form part of a system that is used to convey electricity to a point of consumption, or used to generate or store electricity; and (ii) in relation to a property without a point of supply, all fittings that form part of a system that is used to convey electricity to a point of consumption, or used to generate or store electricity; but (b) does not include any of the following: (i) an electrical appliance: (ii) any fittings that are owned or operated by an electricity generator and that are used, designed, or intended for use in or in association with the generation of electricity, or used to convey electricity from a source of generation to distribution or transmission lines: (iii) any fittings that are used, designed, or intended for use in or in association with the conversion, transformation, or conveyance of electricity by distribution or transmission lines.
Interrupter Cables or Bi-pass cable	It is a system whereby cables are run out along the ground and connected into the circuit on either side of a proposed isolation area, to enable to section of overhead line to be work on de-energise, while maintaining uninterrupted supply.
Lines	Means works that are used or intended to be used for the conveyance of electricity (Electricity Act 1992 definition).
Low Voltage	Voltage exceeding 32 volts a.c. or 115 volts d.c. but not exceeding 1000 volts a.c. or 1500 volts d.c.
Low Voltage TX Circuit Plan	Low voltage transformer (TX) circuit plans indicate the low voltage feed from a particular transformer. These are being uploaded to the corresponding transformer FLOC in SAP under the documents Tab.
Mitigation	The use of an alternative means of supply via back feeds, live line techniques, line breaks or additional resources etc to mitigate consumer outage, SAIDI impact and use of diesel generation.
Mobile Transformer	Mobile transformers work by temporarily routing the area's power supply, instead of isolating the section from the distribution network and supplying power by diesel generation.
Network Access Planning Application (NAPA)	Powerco's access application management system, used to manage the submission and approval of electronic applications for access to the HV Network.

Network (The)	Means a collective term commonly used as an abbreviation to mean the whole of the electricity distribution system - i.e., high voltage or low voltage delivery systems. In this document, The Network is taken to mean Powerco's network (or Powerco's Works as defined in the Electrcity Act 1992)
Network Coordinator	A person authorised to co-ordinate switching and to perform switching by remote control. The Network Co-ordinator is the person in charge of network operations and based in the NOC.
Network Operations Centre (NOC)	Powerco's control centre to manage, coordinate and facilitate switching on Powerco's Electricity Networks. (This term is not intended to differentiate between NOC's Helpdesk, Network Control Centre or any other internal sections).
Notable Customers	Refers to customers and customer sites (ICPs) that have been prioritised based on: Operation of essential infrastructure. Provision of emergency, health, education, or other high priority community services. Commercial importance (e.g. based on consumption and/or revenue)
Operational Patrol	A detailed visual inspection of all segments of the HV area in question to determine the location and nature of a fault.
Overhead Line	Means an aerial conductor(s) together with associated supports, insulators and apparatus used for the transmission or distribution of electrical power.
Outage Planner	Outage Planner is a web app, built using ArcGIS Experience Builder. As data is updated in GIS, it becomes available in Outage Planner.
Point of Connection	As detailed in the *Electricity Participation Code 2010,* means a point at which electricity may flow into or out of a Network and, for the purposes of the Technical Code A Schedule 8.3, means a grid injection
Point of Isolation	In this document the Point of Isolation refers to the physical location of a device (e.g., a switch, fuse or link) which enables de-energisation of the connection from the network.
Point of Supply	Defined as "Point of Supply" under the Electricity Act 1992, Pt1, s2 (1): Point of supply in relation to any premises, means the point at which fittings used or intended to be used for the purposes of supplying electricity to those premises. (As defined in 393S107 Low Voltage Service / Link Boxes).
Power Supply	Means a supply of electricity (Electricity Act 1992 definition).
Work	For the purposes of this document, work is deemed to encompass prescribed electrical work, applying effort, labour; to handle, execute and operate on or around network assets.
Works	Any fittings that are used, or designed or intended for use, in or in connection with the generation, conversion, transformation, or conveyance of electricity; but Does not include any part of an electrical installation. (Electricity Act 1992 interpretation).

1.7 Risk Identification and Management

A systematic method of identifying all risks shall be applied to all design, construction, maintenance and operation activities undertaken on Powerco's HV Networks, generally as required by Powerco's *100R001 Risk Management Framework*. Appropriate risk elimination, mitigation or reduction methods shall be implemented before work commences on any network asset.

1.8 Environmental Considerations

Environmental considerations shall be in accordance with the requirements of Powerco's *310S035 Powerco Environmental Management System*.

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1.10 Document Owner

Contact Person: Head of Network Operations

2. Planned Work

A Network Access Planning Application (NAPA) is required to be submitted to undertake planned work on the Powerco High Voltage (HV) electricity network.

Applications must be a complete an accurate account of the work that is to be undertaken. A *Training Manual* is attached on the NAPA Homepage. This should be used as a guide as to the specific requirements of an application.

2.1 Lead Times Applicable to Applications

The table below details the minimum number of clear workdays that are required as notice of proposed work. There is no lead time for work determined to be Urgent. URGENT work may be for public safety, Network Security, Network Reliability, or an Environmental safeguard. Evidence (photos, etc.) may be required to support any urgent application.

Extent of Work	Lead Time (days)
Advertising Required	
Major projects - Consultation with NOC is required for lead times via form 220F027 (Operational Documentation Requirements For Commissioning)	
Advertising greater than 400 customers	20
Advertising less than 400 customers	15
Large geographic area – GXP or Zone Substation – Major Project, Commissioning jobs Note: Projects outside of commissioning standards	20
Unplanned Work – Short Notice Outage (with NOC exemption for advertising time)	10
Vegetation Work	
Close Approach Consent – Transformers are isolated	15
Advertising Not Required	
Access Permit or Work Authority – with Significant Switching (more than 20 operations)	15
Access Permit or Work Authority – Moderate Switching	10
Assurances and Live Line Work	10
Switching only - Network change notice, including SCADA change	10
Vegetation Work	
Close Approach Consent - No switching required (Reclose Block applied)	10

2.2 Acceptable Criteria for Planned Customer Outages

Powerco NOC shall review applications against the criteria given in Guidelines for Acceptable Outages for Customers. Where a proposed outage is contrary to the guidelines, this should be discussed with Release Planning prior to submitting the application.

2.2.1 Guidelines on acceptable Outages for Customers

Description of Customers	Time of Year	Acceptable Outage Times	Acceptable Outage Duration	Acceptable Duration between Outages
Bulk Customers	Anytime *	To be arranged on a case-by-case basis e.g. Transpower Blackouts etc.	To be arranged on a case-by-case basis	To be arranged on a case-by-case basis
Urban Domestic Customer	Anytime*	Weekdays during working hours or between midnight and 6 am	6hrs typical, but large works to be arranged on a case-by-case basis where preadvertising occurs	To be arranged on a case-by-case basis
Urban Commercial Customers	Anytime*	Case-by-case basis preferably Weekends or between midnight and 6 am	6hrs typical, but large works To be arranged on a case-by-case basis where preadvertising occurs	To be arranged on a case-by-case basis
Commercial Customers in Business Areas	Anytime*	Case-by-case basis preferably Out of office hours or retail hours, or between midnight and 6 am	6hrs typical, but large works To be arranged on a case-by-case basis where preadvertising occurs	To be arranged on a case-by-case basis
Rural Customers	Dairy Peak season Non Peak season	Case-by-case basis preferably From 1st August to 31 March, Week Days & Week Ends All other times, or Non Dairy areas, Week Days & Week Ends	6hrs typical, but large works To be arranged on a case-by-case basis where preadvertising occurs	To be arranged on a case-by-case basis

2.2.2 Extended Day or Consecutive Day Outages

When extended day or consecutive day outages will affect customers, please consider the following:

Advanced customer notification (min three weeks prior):

Requires careful planning & Powerco PM facilitation:

- Powerco PM & contractor identify need for extended planned works in advance of application to network
- Early engagement with NOC is key
- Customer communication plan

Customer demographics:

Consider who lives in the area and think about:

- Dairy regions – animal welfare issues
- Seasonal crops / harvest
- Weekend trading times
- Public / school holidays
- Community Events

When multiples outages or outages for an extended time are required the Powerco Project Manager should facilitate a meeting between PM, Contractor, NOC Release Planner and Customer Experience Team to consider:

- Customers notified directly (letter or email), including:
  - detail of work being undertaken
  - approximate date
  - why extended outages are required
  - contact number for further info
- Site notices at or near the location of works detailing info above

2.3 Impact Mitigation and Generation During Planned Outages

As a general rule, Powerco will not provide generation for Commercial or Residential consumers as a supply substitute during planned outages. In addition to the considerations and guidelines in 2.2.1 and 2.2.2 (above), however, it is expected that mitigating options will be explored to reduce the impact of outages for certain types of customers. Refer to Section 4.7 for Mitigation Options checklist.

The nature of these customers' operations is such that closure, due to a planned outage, will have a significant impact on a wider community.

For these customers Powerco's policy on mitigation and provision of generation is as follows:

2.3.1 Education Service Providers

Consideration must be given to the following types of customers:

a) All Schools and Kura (Primary, Intermediate and Secondary), including Public, State-Integrated and Private Schools

b) All Early Childhood Education ('ECE') providers (Kindergartens, Education & Care Services, Kohanga Reo and Play Centres), including both Community-based and Privately-owned ECE providers

Where such sites are affected by a Planned Outage, the Service Provider must explore mitigation options, e.g. scheduling an outage after school hours, during weekends or school holidays. Refer to Section 4.7 for Mitigation Options checklist.

Note: many ECE Providers continue to operate during School holidays.

Additionally the Service Provider should consult with the customer directly, if possible, to assess the impacts of the outage and whether other options are available, or if the customer is happy for the outage to go ahead as planned with no mitigations.

If none of the mitigations options listed in Section 4.7 are feasible, Powerco will provide generation to all Education Service Provers as defined under a) and b) above.

A list of Education Service Providers is maintained by the Customer Team.

Note: Education Service Providers are classified as "Notable Customers" and will receive early planned outage notifications from Release Planning, in addition to standard Retailer notifications. The Notable Customers list (including site contact details) is maintained by the Customer Team.

2.3.2 Community Service Providers and Facilities

Consideration must be given to the following types of customers:

- Healthcare service providers (Hospitals, Medical Centres and GP practices)
- Rest Homes & Aged Care Facilities

Where such sites are affected by a Planned Outage, the Service Provider must explore mitigation options, e.g. scheduling an outage after business hours if appropriate. Refer to Section 4.7 for Mitigation Options checklist.

Additionally the Service Provider should consult with the customer directly, if possible, to assess the impacts of the outage and whether other options are available, or if the customer is happy for the outage to go ahead as planned with no mitigations.

If none of the mitigation options listed in Section 4.7 are feasible, it is the responsibility of the customer to make business continuity arrangements, or other contingencies (including generation), as required.

A list of these Community Service Providers and Facilities is maintained by the Customer Team.

Note: Healthcare Service Providers and Rest Homes are classified as "Notable Customers" and will receive early planned outage notifications from Release Planning, in addition to standard Retailer notifications. The Notable Customers list (including site contact details) is maintained by the Customer Team.

2.3.3 Large Commercial and Industrial Customers

It is assumed that large customers have their own business continuity plans in place (including back-up generation), or have specific contractual arrangements with Powerco, or will otherwise liaise with their Powerco Account Manager in the event of a planned outage. Examples of these customers include (but are not limited to):

- 'Blue Chip', 'Commercial and Industrial' customers (as defined by the Powerco Customer Team)
- Large Public Hospitals
- Large Tertiary Education providers
- Essential Council services and facilities (for example: wastewater and sewage treatment facilities, water and stormwater pumps)

Note: 'Blue Chip', 'Commercial and Industrial' customers, Public Hospitals, and some Council facilities are classified as 'Notable Customers' and will receive early planned outage notifications either from Release Planning or from a Powerco Account Manager, in addition to standard Retailer notifications. The Notable Customers list (including site contact details) is maintained by the Customer Team.

3. Release Planner Duties and Responsibilities - General

The Release Planner shall ensure that all people involved in the release of Network Equipment, understand the scope and extent of the release and that the proposed work is in accordance with SM-EI and *220S026 High Voltage Isolation and Access Procedures*.

The Release Planner shall liaise with the appropriate personnel to ensure network access applications meet Powerco safety and procedural requirements. As part of the application approval process there should be particular regard to the following:

- Safety of personnel is paramount. The Release Planner must ensure that the appropiate safety measures are in place for the work being undertaken. Any concerns relating to potential hazzards must be discussed with the applicant prior to approval of the work.
- The proposed work does not create a network conflict. Network conflict means; work that could impact personnel safety or, a technical issue that would jepodise the normal operation of the network.
- If the proposed work, or its associated switching, will cause a loss of electrical supply to any customer, then the details must be evident in the application and that this information be accurately conveyed through the Retailer Notification process.
- Where an outage will affect customers, idententified by Powerco to be of some significance, then the Release Planner shall inform the appropiate Account Manager with all details relating to that outage. The Accounts Manager is responsible for communicating the outage and any associated risk to the customer and must confirm the acceptance of such risks prior to approval of the application. When operating is required at network interfaces (e.g. Wind farms, Kinleith and McKee) full consulation shall take place with operating staff from all relevant companies.
- That the location of the work is clearly defined by Network location and also, that the work site address is selected using Address Finder whenever possible. GIS (ElectricView or similar) and SCADA tiles (extracted from the Powerco Restore website), should be attached as part of the Supporting Doucments in the application.
- That the correct Voltages, Isolations and Issuer Earthing requirements have been detailed in the application and that the relevant GIS and SCADA documents have been included in the Supporting Documents section.
- That any Secondary Systems isolation requirements have been detailed.
- That potential sources of energisation (generation), including Distributed Generation as depicted on SCADA, are highlighted to the Switching writer.
- Check that the Recipient has a relevant Powerco competency for the date of the planned work.
- Determine that the appropiate Work Type(s) have been selected for the actual work being undertaken and that the information is sufficient for switching to be written, or the relevant permits or concents to be produced.
- Where third party field switching is deemed required, subsequent to the submitting of an application, then the Release Planner shall ensure that the relevant parties are notified.
- Determine if appropiate SAIDI and SAIFI saving measures are being utilised for planned outages. The Release Planner should facilitate options for mitigation where applicable, including the valuation of alternative methodologies.

- That all HV network equipment (including lines and cables), being installed or removed, are tabled in the application in the SCADA & Equipment section. The information must include voltage, asset type (e.g. Recloser, Sectionaliser, etc) and Asset ID where applicable. Any commissioning requirements must be detailed (such as with bi-directional Regulators).
- That any change to network configuration involving the transfer of Load to another feeder must be supported by a NCCR (Network Configuration Change Request) detailing the new Feeder Open point, at the time of application.
- That whenever a new tie point, feeder ring or new cable connection is made, including cable joints and re-terminations, Phasing must be performed at an appropiate location and this location detailed in the application.
- That all new transformers and transformer replacements must have phase rotation testing to ensure correct (clockwise) rotation or the same rotation as the transformer being replaced.
- Where the work is in Substations that have been identified as Arc Flash risk, the appropiate mitigation measures must be defined in the application.
- Where the proposed work will compromise a Feeder, realistic Emergency Recall times that allow for restoration of power in an emergency, must be detailed in the appropiate section of the application.
- That consideration be given to any priority customers (e.g. schools, kindergartens, hospitals, industrial/commercial areas, rest homes, Key Sites, etc) such that their special circumstances are addressed by the appropriate established actions.
- Whenever discrepencies between SCADA and GIS are evident, the inconsistancy should be investigated and notified to the respective Powerco team for correction.
- Load constraints must be considered for all work requiring backfeeds, especially for SubTrans feeder outages. Any instruction in the SCADA Operator Notes should be fundamental to the processing and final outcome of the appplication.
- When major customers with Network supporting generation are involved in a Planned Outage, the allocated Regional Account Manager must be informed of all relevant details including any special requirements involving their required generation load support.
- The Release Planner should facilitate as necessary, to allow the combining of work by Service providers, in an effort to reduce multiple outages.
- The Release Planner shall ensure that any change to SCADA is fully detailed in the allocated section in NAPA along with an attached SCADA Change Request form.

3.1 Access to Equipment Where Permitting Is Required

Permitting is a collective term for access permits, test permits, live line permits and close approach consents.

Under a permit, the recipient's work party is allowed temporary access to defined equipment, which is in a defined state, to enable work to be undertaken. Refer to the following documents applicable to the work to be undertaken:

- *220S026 High Voltage Isolation and Access Procedures*
- *220S023 Close Approach Consent Process*

- *220F002 Access Permit*
- *220F005 Live Line Permit*
- *220F006 Close Approach Consent – Electricity*
- *220F012 Test Permit*
- *220F032 Close Approach Consent – Electrical Networks Tree Works*

3.2 Application for Commissioning of New Works

- For the process/procedure of commissioning and de-commissioning network equipment in all regions of Powerco's electricity networks refer to *220S007A Network Equipment Commissioning Standard – Part A*.
- For Powerco's technical policies and minimum test requirements for the commissioning of network electrical equipment refer to *220S007B Network Equipment Commissioning Standard – Part B*.

3.3 System Alterations

Powerco's *220S028 Network Configuration Change Process* prescribes the process to enable changes to the Master Plan, SCADA, Registry and ENS Records. The process shall be applied to all High Voltage and Sub-transmission Network configuration changes (regardless of whether all the databases are affected).

An *Electrical Equipment - Label Request Form 390F118* is required for all new equipment numbers. A lead time of five (5) working days is required (refer section 3.2 *Lead Times Applying for Applications* Table 1).

For numbering and labelling requirements refer:

- *393S004 Labelling and Safety Signage Requirements*

Any changes to SCADA as a result of Planned Switching shall be notified using Form *220F011 SCADA Change Request (refer* section 3.2 *Lead Times Applying for Applications Table 1 for lead times).*

3.4 Returning an Application (Status 'Returned' in NAPA)

An application shall be returned by the Release Planner when:

- *The information provided by the applicant is inaccurate, deficient or ambiguous.*
- *The job methodology is not aceptable or within Powerco defined standards.*
- *There is other work that would constitute a network conflict on the requested work date.*
- *The Poweco SAIDI approval team have disallowed the SAIDI for the month requested.*

When an application is Returned, the applicant will receive an automated email advising of the Return status of the application. Also, on the NAPA Home page a message will advise the respective applicant of the total number of applications, submitted by them, that are in Status Returned.

When returning an application the Release Planner will select the number of days by which the applicant must re-submit the application. Failure to meet the deadline will result in a forfeit of the requested work date. The application may then be re-submitted, but a new date may be required that complies with the normal allowable lead times.

Where specific action is required by the Applicant to make ammendments to the application, those requirements will be conveyed to the Applicant directly, either by phone or email.

In certain instances, it may be agreed between the Applicant and the Release Planner, that the Release Planner will make the necessary ammendment and re-submit the application. This will be clearly documented in the Returned Status notes.

3.5 Reschedule or Cancellation of Planned Work

Any requirement to reschedule or cancel work when the NAPA application is in status Approved will require acceptance by Release Planning. In all cases, a valid reason must be given, detailing the requirement for the change or cancellation. Where a change in date is accepted, the Release Planner authorising the change, will ensure the following:

- *That the proposed date does not conflict with other existing work on that date.*
- *That the change, or cancellation, is communicated (confirmed) to all affected parties by email (or Fax/Phone to Transpower).*
- *If an Alternate date is available, Release Planning will apply the new date at the request of the Applicant and communicate the new work date to all affected parties by email.*
- *That the network has not been reconfigured (temporary or permanent) such that the existing switching or any Safety measure becomes invalid. If such changes exist, then a new Application for the new proposed date will be necessary.*

3.6 Customer Outage Notification

NOC shall notify retailers, through the Retailer Notification process, of all HV planned outages including any amendments to an already notified planned outage.

In certain situations, LV circuits from outside of the HV isolated area, may be isolated as part of the HV work. In these cases, the applicant must detail the LV isolation in the Additional Information section of the application. Retailer notification of the LV affected customers will be included in the same notification as the associated HV notification.

Where the LV isolated circuit(s) do not constitute the total ICP's for the Transformer then a list of the affected ICP's shall be attached in the Supporting Documents section.

Note: The operational control of the LV network during the shutdown is managed by the contractor in accordance with Powerco's *220S010 Low Voltage Network Operating Procedures*.

3.7 Retention of Documents

All documents relating to planned and unplanned work, where switching has commenced, are to be scanned, and electronically filed in the appropiate file location.

The designated file location is I:\NOC\Control Room\Switching Instructions

The documents related to a specific NAPA and that are combined into one file include:

- The Switching Instruction Sheet inclusive of:
  - Access Permits
  - Test Permits
  - Assurances
  - Live Line Permits or Consents (if applicable)
- Approved NAPA application including:
  - SCADA tiles
  - GIS plans
  - Asset Photos (if applicable)
  - Network Configuration Change Requests (NCCR)
  - Emails & faxes

Other retained documents include:

- Transpower/Line Companies/Customer Outage Request Advice
- Commissioning Programmes (for significant projects)
- Site Meeting minutes
- Hazard sheets

4. Applicant Tasks and Responsibilities

The Applicant is the principal person in the submission of an application (NAPA). When submitting an application, the applicant shall ensure that all details within the application are accurate and sufficient for the Safe and effective completion of the proposed work. It is expected that the applicant will have a clear understanding of the work to be done and that in many cases a site visit will have been carried out.

4.1 Application Limitations

The limitations relating to number of work types and the duration of a consent or permit, are specific to the Work Types within the Application. Any uncertainty relating to the content of an application should be discussed with a Release Planner.

- The duration of Close Approach Consents and Live Line Permits is limited to the day of Issue only. The Safety measure(s) shall apply to only one permit or consent. Multiple permits or consents may be detailed within the same application to cover parts of a day, or days within a calendar week.
- Access Permits along with associated Test Permits for a common job, shall be detailed in one application that may extend over a significant period of time (weeks).
- Assurances are typically one assurance per application but may extend over multiple days.
- Work Authorities are formal notifications in NAPA which are verbally confirmed with the Network Co-ordinator on day of the work. Multiple worksites (e.g. CB's in a substation) may be covered under one Work Authority.

4.2 Scope of Work

The fundamental requirements for every application include:

- Specific location of the work site detailed by postal address wherever possible.
- State the Substation, the relevant Feeder and all voltages directly related to the work.
- Detail of all Work Types, including date(s), times and duration required for the work.
- Reference all HV equipment using standard Powerco terminology and Asset ID.
- Provide sufficient detail relating to the work such that the job requirements are clearly understood by the Release Planner.
- Disclose any system changes, permanent or temporary, made to the Network. Changes that would necessitate a change to SCADA shall be supported by a SCADA "After tile" detailing the network change applicable as at the completion of that day's work.
- Determine the significance of any outage such that customer's interests are considered and Powerco guidelines are adhered to, including whether mitigation options have been considered (refer to Section 4.7 Mitigation Options).
- Detail any hazards specific to the job and provide a plan for the management of any perceived risk to personnel or equipment.

4.3 Work Methods and Special Requirements

Where the job is complex or a systematic progression of work is required, a Proposed Methodology Worksheet must be included in the application. Other documentation should be added to the Supporting Documents such as:

- The specific safety constraints required for the operation of potentially dangerous equipment (i.e. covered by Safety Alert) or when working in a hazardous environment (e.g. Arc Flash Substation).
- Special requirements for Testing such as in new Substation commissioning.
- Detail the requirements when access to equipment (for switching purposes etc.) requires specific action.
- Detail the requirements for Phasing whenever three-phase cables have been added, joined to existing cables, or have been re-terminated on a circuit having potential for supply from both directions of the new connection point.
- The use of cranes and Elevated Platform Vehicles (EPV) that impact the extent of an isolated area.
- Where there are changes to Feeder Open points, Feeder Ring Break points or to the Feeder Configuration, then this change must be supported by documentation from the Powerco Project team. A Network Configuration Change Request (NCCR) is required for all Feeder re-configurations or where distribution transformers change their supply to another feeder.
- Isolation of secondary systems where specific procedures are required.
- Commissioning Plans shall be made available for all new or major Substation upgrades.
- Where switching is complex or considered complicated, the Applicant's preferred order of switching should be included on Powerco's 220S035 Proposed Switching Instruction Sheet.

4.4 Emergency Recall Time

Where an outage compromises the normal configuration of the network, an Emergency Recall Time must be specified in the application. The emergency recall time is the realistic time to safely restore power to the outage area from its most severely compromised state. Consideration shall be given to:

- The available resource (equipment and personnel) to undertake the restoration in a Safe manner.
- The time of the day when a request is made to implement such a restoration. Emergency recall times should be calculated for restoration within normal work hours and for outside of normal work hours.

4.5 Temporary Generation and LV Back feeds

Where temporary generation is to be connected to either the HV or LV:

- The point of connection must be clearly identified.
- An isolation point must be identified that will prevent any possibility of back-feed of electricity from the generator into the proposed work area.
- In cases other than sync on / sync off generation, the power off / generator on, and the generator off / power on times must be detailed.

Where Low Voltage (LV) circuit/s are to be utilised to provide back-feed capability, all the LV isolation points that will prevent back-feed into the work area must be conveyed in the application.

Information on LV circuits can be obtained in Outage Planner, or by accessing completed LV Tx circuit plans (uploaded to the corresponding transformer FLOC in SAP under the documents Tab).

4.6 Availability of Field Switching Crew

Prior to the work start date, the Applicant shall ensure that Field Switchers are available, (including 3rd Party switching requirements), to undertake the prescribed switching, and to allow for the uptake of work permits or consents within the requested times. The confirmation of Field Switcher availability is also applicable for work that is rescheduled to a new date, including an alternate date.

4.7 Mitigation Options

The following is a checklist of options for outage mitigation starting from most preferred:

1. HV Temporary Breaks (Temp Fuses, ABS or Line breaks) – Yes/NA
2. HV Back feed – Yes/NA
3. Use of Mobile Transformers – Yes/NA
4. Use of Interrupter cables or Bi-pass cables– Yes/NA
5. LV Temporary Breaks (Temp Links or Line breaks) -– Yes/NA
6. LV Back feed (for LV information use Outage Planner or LV Tx Circuit Plans) – Yes/NA
7. Plan outside of business hours – Yes/NA
8. Live Line techniques used where possible – Yes/NA
9. Additional field resources to complete works in a shorter duration – Yes/NA
10. Review Rolling Release to piggyback onto existing outages – Yes/NA
11. Temporary Generation (as per Section 2.3)

For notable customers listed in Section 2.3, the Service Provider should consult with the customer directly, if possible, to assess the impacts of the outage and whether other options are available as per listed above, or if the customer is happy for the outage to go ahead as planned with no mitigations.

5. Transpower Outage requests

Transpower have an annual maintenance/construction programme that is presented to NOC.

Transpower provide the following notification:

- Proposed Asset Variation Notification (Pre Advisement sent via email)
- Outage Advice (follows AVN sent via email)
- Detailed Outage Request is sent if isolation switching is required by Powerco on Powerco's Network with specific details.

5.1 Release Planner Duties - Transpower

Release Planning shall create Transpower applications in NAPA using the documentation from Transpower. The following checks shall be made:

- Correct terminology
- Information is complete
- Network Loading
- Network Security
- If any network conflicts exist with Powerco
- If any advertising is required
- If system alterations are required
- Any other operating information as required

5.2 Powerco Outage Requests Requiring Transpower Assurance

Where Powerco require a Transpower asset to be used for operational purposes NOC shall send the following forms to Transpower:

- Form 220F013 Outage Switching Request to Transpower (with all relevant details e.g., isolation points and earthing)
- Form GXP Tie Temporary Parallel Request Email Form (TP.A01 07.110)

Note: All relevant details shall be provided (e.g. isolation points, earthing etc) and communicated in a timely manner.

6. Document Review History:

Version Number	Reviewed By.	Review Date	Reason
1	Unknown	Unknown	First Issue of document into BMS
2	Unknown	Unknown	Unknown
3	Unknown	Unknown	Unknown
4	Unknown	Unknown	Unknown
5	Unknown	19/ 2/2004	Unknown
6	S. Corbitt	22/ 8/2013	Document reviewed as part of *Contract 2014 Standards Review* process. Format and layout updated to comply with latest style. Additional references and definitions. Removed "Section 09" from Title, added metadata. Added new sections 1.4 to 1.10 inclusive BMS reference ID number added to quoted documents. Changes to the following sections: s3.1 forms added. s3.2 Form example replaced with latest version s3.5 clause contents now reflect latest processes. s3.6 clause contents now reflect latest processes. s3.7 clause contents now reflect latest processes. s3.10 clause contents now reflect latest processes. s3.11 table contents replaced with latest version, Note added to table.
7	S. Corbitt	17/ 2/2014	Include reference to *220S012 Secondary Systems* in s*1.5.3* and s*3.1 Planned Outage Work*. Remove references to Access Application Form 220F008 and replace with NAPA application (sections: 1.6, 3.1, 3.3, 3.8, 3.9, 6.11).
8	J. Frederick D. Wood W. Hurlstone S. Corbitt	7/11/2016	Change document title from 'Release Procedures' to 'Release Planning'. Re-defined document scope (section 1.1). Revised wording in section 1.2 Application. Addition of section 1.3 Intended Audience. Additional definition to objectives of the standard (section 1.4). Included reference to Powerco documents:220F005 *Live Line Permit,* 220F032 *Close Approach Consent - Electrical Networks Tree Works,* 220F039 *GXP Parallel Request.* Removed references to the following standards: 393S034 *Substation Switchgear - Maintenance - Kinleith;* 393S063 *Guide to Requesting Electrical Equipment Numbers;* 397S007 *Kinleith Electricity Network Fault First Response;* 397S001 *Contractor Competency Kinleith Site.* Section 3.6 - terminology change from 'Switching operator' to 'Field Switcher' to align with the competency system. 'Field Switcher' defined in section 1.7' 'Fuse' and 'Low Voltage Service Fuse' definitions removed from section 1.7 Removed (previous) section 2 *Switching Instructions'.* Removed (previous) section 3.4 *Network Coodinator Duties*

Version Number	Reviewed By.	Review Date	Reason
			Additional information and some information deleted from sections: 3.1, 3.3, 3.6, 3.7, 3.8, 3.9, 3.12, 4, 5, 6. Updated Table in section 3.2 *Lead Times Applying to Applications.* Checks included in section 3.3 *Release Planner Duties.* Deleted (previous) section 6.1.2 *The Release Planner or Network Coordinator Shall Check the Detailed Outage Request for the Following.*
9	J Frederick W Hurlstone M Reid S. Corbitt	14/10/2019	Document rewritten in accordance with current NOC release planning operations, and as a result of the review of *220S026 High Voltage Isolation and Access Procedures* v9.
10	H. Davies. E. Shires. S. Corbitt.	5/12/2022	Additional definitions in section 1.6. New section 2.3 added to clarify Powerco's policy on providing generation to certain customer segments. Definition of 'Notable Customers' added to Definitions section. Additional information in section 4.5. New section 4.7 added to provide list of mitigation options as per 2.3.

Powerco Standard - Document Change Request

Memo To: **Head of Network Operations**

Junction Street

New Plymouth

Change Details:
(Attach separate sheets as necessary).

Paragraphs Affected:

Priority: **Urgent** ☐ (Within 1 week) **Routine** ☐ (Within 12 months) ☐ (Next Review)

Submitted By (Print Name)	**Date**

Document Change Request - Acknowledgement

Dear .....

Thank you for your suggestion regarding changes to the above mentioned document.

Your request has been noted and added to our works program. Should we require any additional information regarding your notification then we will be in contact with you.

Thank you for your contribution to improving the quality of Powerco's documentation.

Regards,

....

Head of Network Operations **Date**

***220S009* Ends**