

Requests for Access

Summary

This document supports the Power System Safety Rules and its requirements assembled under Power System Access and Operation – Category 2.

It applies to the preparation, submission and assessment of a Request for Access (RFA) to apparatus in the charge of a Controller.

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1. Purpose

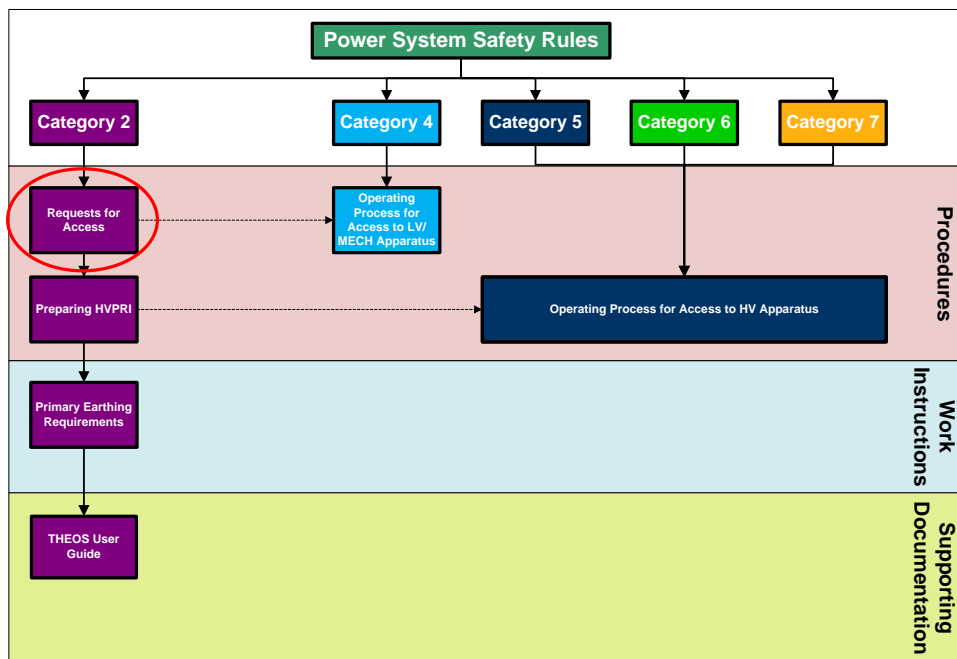
This document supports the Power System Safety Rules and its requirements assembled under Power System Access and Operation – Category 2.

2. Scope

The process applies to the preparation, submission and assessment of a Request for Access (RFA) to apparatus in the charge of a Controller.

2.1 Document Location

The following diagram shows the relationship of this procedure to other Power System Safety Rules documents.



3. Introduction

A Request for Access (RFA) is a form, submitted by field staff and assessed by Network Operations, that details proposed work on apparatus in the charge of the controller. When assessing a request, Network Operations considers worker safety, system security, security of supply, customer impact, criticality of the work and how multiple requests interact with each other. The fields and questions on the form are designed to elicit sufficient information to enable complete assessment and initiate the preparation of a High and/or Low Voltage and Mechanical Preparation and Restoration Instruction (HVPRI/LVMPRI) should one be required.

Requests for access shall be submitted by a person authorised category 2.1 and assessed by a person authorised 2.2. The person submitting the RFA is responsible for ensuring that it accurately reflects the intended work. Partially completed forms shall not be submitted and TheOS includes logic to prevent this.

Once approval is given, a HVPRI is produced (if required) after which the outage process can proceed. HVPRI shall be produced by a person authorised category 2.3.

A HVPRI is required for:

- Out of service work, either High Voltage or Low Voltage/ Mechanical, on apparatus in the charge of the controller; or
- In service work on apparatus in the charge of the controller where system security isolations remain the responsibility of Network Operations.

In accordance with the HVPRI:

- A Low Voltage/ Mechanical Preparation and Restoration Instruction (LVMPRI) shall be used to perform appropriate safety isolations. LVMPRI's are controlled locally in accordance with "Operating Process – Work on Low Voltage or Mechanical Apparatus";
- A Protection Metering Withdrawal Instruction (PMWI) shall be used to perform system security isolations in accordance with the work instruction "Isolation and Restoration of Protection and Metering Equipment".

For work on low voltage or mechanical elements of high voltage apparatus, where the high voltage apparatus may remain in service, a HVPRI will not normally be produced. Rather, a LVMPRI and/or PMWI shall be used to provide local safety isolations and system security isolations as appropriate.

An exception to this is where system security isolations cannot be delegated to the work party. In this case the isolations required will be specified in a HVPRI, for example: Intertrip links for communications work. It is expected that the RFA will contain adequate information to enable Network Operations to determine the required isolation.

Once the HVPRI or LVMPRI/PMWI have been executed an Access Authority will be issued in accordance with Power System Safety Rules procedures for work on the various types of equipment (LV/Mech Apparatus, HV Substation Apparatus, HV Overhead Lines or HV Transmission Cables).

Note: In some circumstances the PMWI is performed after the Access Authority issue.

4. Requirement to Submit a Request for Access

The Power System Safety Rules require that:

2. Power System Access and Operation

An *RFA* is required when *work* is to be performed on or *near apparatus in the charge of a Controller*.

Such work includes work on High Voltage apparatus and LV/Mechanical apparatus that could affect safety of workers or impact on the security of the network.

An RFA shall be submitted to the Network Operations group, when the work:

- Requires HV apparatus to be taken out of service.
- Involves an interruption to controls, protections, alarms or operational data associated with HV apparatus.
- Involves a credible risk of trip to HV apparatus. The risk of trip is determined after control measures have been put in place.
- Involves interruption to auxiliary supplies that impact on HV apparatus or associated secondary systems (e.g. battery chargers, HV apparatus cooling, switchgear and tap-changer motor supplies).
- Involves operation of HV apparatus for non-invasive testing or maintenance (refer section 5.5.6 Verbal Clearance)

An RFA is not required to be submitted when the work does not affect apparatus in the charge of a Controller.

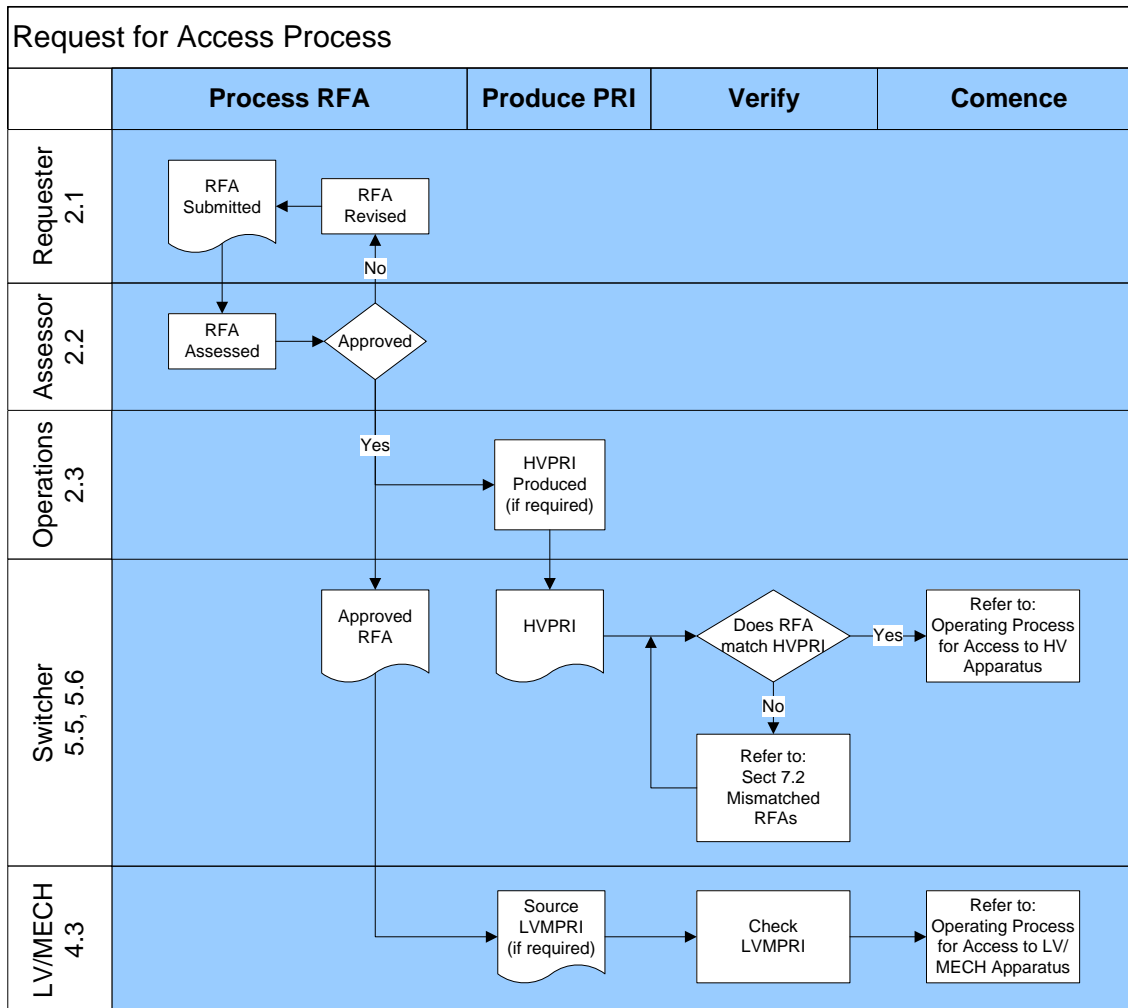
Examples of the types of work when an RFA is not required to be submitted include:

- Pulling/ running in cables and wiring in the yard or relay room.
- Pre termination (work leading up to but not including cutting into an in-service circuit) of wiring in panels, cubicles or kiosks.
- Repair/replacement of panel, cubicle or kiosk equipment such as heaters, physical barriers & doors.
- Work on GPOs and LV services in the yard and relay room, provided LV isolations do not

impact on other services directly related to the operation of HV apparatus (e.g. Transformer cooling)

- Non-invasive retrieval of setting files or fault details from protection relays.
- Non-invasive revenue metering checks

5. RFA Process



6. RFA Submission

This procedure is prepared as a reference for those submitting RFA's. The TheOS manual should also be referred to when submitting RFA's electronically.

- Outage planning, coordination and scheduling shall be carried out in accordance with relevant standards to meet TransGrid requirements and the National Electricity Rules. RFA's shall be submitted in the prescribed format to Network Operations at least 28 days in advance of the proposed work time. Exceptions to the 28 day requirement are detailed in Section 7.2. A separate RFA shall be submitted for each working period.

Where work extends over several days a continuous outage is acceptable when:

- The outage does not result in a load being made radial;
- The outage does not affect system security; and
- The outage is unlikely to invoke penalties under a NEM incentive scheme.

If multiple day work is proposed but the above criteria are not met a continuous outage may be requested, with appropriate justification, if the requesting officer believes it would generate significant advantage. For example:

- A continuous outage would give safety, cost or efficiency benefits;
- A continuous outage would significantly reduce the number of day's work;
- Switching daily presents particular difficulties; or
- Daily outages are impractical due to the nature of the work.

After receiving a request for a continuous outage Network Operations shall consider the cost benefit against the operational risk in the assessment process.

For continuous outages, a single RFA may be submitted for tasks extending over several days. To minimise restoration time in an emergency, equipment left out of service outside working hours shall be left in a serviceable condition unless previously agreed with Network Operations.

When submitting an RFA, consideration should be given to the Access Authority issuing process, the intended designated work area and LVMPRI / PMWI requirements. The listed HV apparatus on the RFA should be populated to suit the intended designated work area to enable automatic generation of the Access Authority. When considering what equipment to include on the RFA, consideration should be given to the ability of the Authorised Person in Charge to manage the works being performed in the designated work area. Note: Refer to the procedure Access for Work on High Voltage Substation Apparatus for Designated Work Area principles and special requirements.

Where work requiring the same access is to be repeated over a number of days the following factors should be considered when preparing the RFA:

- Where a HVPRI is required – multiple access authorities may be issued against a single RFA but each RFA is restricted to a single HVPRI. For work efficiency and reporting requirements each repeating outage is completed on a new HVPRI and will therefore require a separate RFA.
- Where there is no requirement for a HVPRI - multiple access authorities may be issued against a single RFA as long as appropriate LVMPRI controls are in place. Where outage times are not used for reporting purposes, and the equipment is intended to be returned to service daily, a single continuous outage with multiple repeating LVMPRI's is an option to simplify the RFA submission and approval process. In this case the Access Authority would need to be cancelled daily prior to restoration of the LVMPRI.

6.1 RFA generated within The Outage System (TheOS)

RFA's should be submitted by using TheOS, which produces a replica of the form in Appendix A. Refer to the TheOS User Manual for details of using the TheOS system. Such RFA's will have a pending status until approved by Network Operations.

6.2 Hand Written RFA

Hand written requests can be made by using the request form shown in Attachment A. The original paper copy shall be sent to Network Operations for approval.

Paper RFA's should only be used in unusual circumstances such as for emergency work or for work by customers.

6.3 Submission by the System Operator on Requestors Behalf

In an emergency, the System Operator may be utilised to submit an RFA on a requestor's behalf where the requestor does not have the facilities for the submission of an RFA. This is expected to be for common defect work, where templates are available for the System Operator to utilise. The requestor shall review the RFA prior to the issue of any associated Access Authority.

6.4 RFA Approved Templates in THEOS

For various groups in Works Delivery, i.e. Substations, Mains/Lines, Communications, Secondary Systems-Protection, there is a set of approved RFA templates that have been developed in conjunction with Network Operation's planning staff and key planning staff in Works Delivery and are available in THEOS. These are for

use when performing normal maintenance activities e.g. circuit breaker maintenance, transformer protection maintenance, insulator replacements, inter-trip maintenance.

The templates are linked to standard jobs in Ellipse and will automatically load when creating an RFA in THEOS (if the outage in THEOS is generated from a job in Ellipse which is “linked” to one of these RFA templates). The approved templates can also be selected when creating an RFA on an outage that does not have this linkage.

The expectation is that the format and content of RFAs submitted will be consistent with the approved template for the maintenance activity being undertaken. If there is a requirement to submit an RFA not consistent with the approved template, this should be raised with the relevant work group planner and/or Network Operations planning staff in order to initiate a review of the approved template.

6.5 Preparation of an RFA

6.5.1 Network Operations office use

| | |
|---|--|
| <p><i>Assessing officer use only:</i></p> <p>RFA No:</p> | <p>Network Operations will assess valid RFA’s received and give approval as appropriate. An RFA number will be assigned automatically by TheOS, or manually by Network Operations as part of the approval process. A new number will be assigned each time the RFA is returned and resubmitted or when significant changes are made on behalf of the requestor.</p> <p>The HVPRI number will be added to the RFA after the associated HVPRI is prepared and checked.</p> |
|---|--|

6.5.2 Requester’s reference

| | |
|--|---|
| <p>Requesting Officers Ref:</p> | <p>Requesting officers can, optionally, insert their own reference number. This is especially useful prior to Network Operations assigning an RFA number.</p> |
|--|---|

6.5.3 At Location/Call Sign

| | |
|----------------------------|--|
| <p>At Location:</p> | <p>If work is within an electrical station then the station shall be nominated.</p> <p>If work is outside the boundaries of an electrical station then a site location of “Field” shall be used. The tower number, joint bay number or other identifying feature, and vehicle radio number and contact mobile number shall be supplied to the System Operator as part of the Access Authority issue process.</p> |
|----------------------------|--|

6.5.4 Time and date

| | |
|---|--|
| <p>From: ____:____ hrs on ____, __/__/____</p> <p>To: ____:____ hrs on ____, __/__/____</p> | |
|---|--|

Outage times

The outage time entered on the RFA shall be the total time the equipment will not be available for normal service due to the work described, with due allowance for switching. This is required so that Network Operations can assess the total duration of possible reductions in NSW network capability arising from the planned work, make contingency plans and advise AEMO and market participants.

Where there are several simultaneous jobs on the same or related apparatus, workgroups shall liaise during the outage planning and coordination process and determine the time at which the preparation switching is

planned to start and the time at which the restoration switching is planned to finish. Network Operations is to be advised of the overall outage duration and any subsequent changes.

Changes to outage times before the day of the outage

If changes to the dates or times of the outage are proposed or are expected to occur (that is, switching times will be different to those originally indicated), Network Operations shall be informed immediately the changes become known and the RFA(s) shall be amended accordingly.

6.5.5 Apparatus and work description

| | DESCRIPTION OF APPARATUS | DESCRIPTION OF WORK |
|--------------|--------------------------|---------------------|
| HIGH VOLTAGE | | |
| | | |
| | | |
| LV / MECH | | |
| | | |
| | | |

• If HV access is required (this can include LV/Mech work on the listed apparatus), list the HV apparatus and the HV & or LV/Mech work in this section.

• If LV access is required, list the required HV and/or LV/Mechanical apparatus and LV work description here. Note: HV apparatus listed here will be considered for Q1 (Is listed HV Apparatus required O/S?).

If both HV and LV access is required (and it is intended to issue separate Access Authorities), list the HV apparatus and HV work description in the HV section and the LV System and LV work description in the LV section.

Note: it is NOT permissible to list HV apparatus in the LV apparatus under this arrangement due to the ambiguity surrounding what apparatus the HV access is being applied to.

The description of apparatus and work descriptions on the RFA shall be brief, accurate and unambiguous. There is never a requirement to enter the same information in both the HV and LV fields. The work description should be a meaningful description of the significant work activity being performed and will be transcribed onto the Access Authority. The work description is to be used by the assessor to understand the work being performed and validate the remaining information provided on the form (access type, 14 questions, additional information etc.).

TheOS includes functionality that forces the user to complete the ‘Description of Apparatus’ field if the respective HV or LV/Mechanical ‘Description of Work’ field is completed.

The description of apparatus shall:

- Have full nomenclature from the relevant HV Operating Diagram (HVOD) for the first item and operational number for subsequent items.
- For work in the field, include the line number, terminal stations and voltage for the line or cable
- List all the apparatus being worked on explicitly:
 - A line does not imply any apparatus in a substation;
 - A capacitor bank or reactor does not imply the associated circuit breaker;
 - A transformer does not imply the associated circuit breakers or auxiliary transformer; and
 - Access to control and protection shall always be specifically requested.
- List only the apparatus being worked on avoiding the use generic terms such as “bay” or “bay equipment”.
 - Do not list the bus if only working on a bus disconnector; and
 - Do not list the transformer if only working on a circuit breaker.
- List only the apparatus required for the description of work in the given period.

- Where work extends across multiple services (e.g. a Transformer, Capacitor, Line) at a single site or adjacent lines in the field, a single RFA may be submitted which covers all of the equipment.

Each outage in TheOS is restricted to a single service. Therefore in this case the requester will need to create separate outages for each affected service and then submit a single RFA for the work on the most significant outage.

Note: An RFA can only contain equipment that shares the same location (substation or field).

The description of work shall:

- List main components of the work, broadly accepted abbreviations (e.g. CB maintenance or RPM) are acceptable;
- For field work, nominate the structure number(s) where the work is being performed. The section of line (as bounded by the structure/pole numbers) listed on the RFA shall be such that **all** hazards (e.g. undercrossing) associated with this section are able to be managed concurrently.

Where the work is being progressively performed along a section of line the individual Field Access Authority forms shall clearly identify the work location (within the nominated range) based on the application of Field Access Authority earths.

- Avoid the redundant inclusion of the location and/or apparatus;
- Specify reference to current injection diagram (if relevant);
- Specify the test voltage to be applied (if relevant); and
- Include reference to urgent requirement when submitted inside planning criteria.

6.5.6 Type of access

| ACCESS REQUIRED ("X" APPROPRIATE BOXES) | |
|--|------------------------|
| <input type="checkbox"/> | H.V. |
| <input checked="" type="checkbox"/> | L.V. / MECH. |
| <input type="checkbox"/> | FIELD |
| <input type="checkbox"/> | CABLE |
| <input type="checkbox"/> | TESTING – H.V. |
| <input type="checkbox"/> | TESTING – L.V. / MECH. |
| <input type="checkbox"/> | TESTING – CABLE |
| <input type="checkbox"/> | HVEO |
| <input type="checkbox"/> | VERBAL CLEARANCE |

The Access required shall be specified by placing a cross in the box to the left of the appropriate category.

Note 1: HVEO (High Voltage Equipment Outage) is only used by Network Operations staff.

Note 2: High Voltage and Cable categories also provide LV/ Mech access to the listed apparatus. Similarly Testing HV and Testing Cable provide Testing LV/ Mech.

Note 3: Multiple Selection shall only be made if it is intended to issue separate Access Authorities for each of the types chosen. See below for further details on what restrictions apply.

High Voltage: Selected if coming on or near high voltage conductors. Network Operations will apply earths with Do Not Operate tags.

LV/ Mech: For work on low-voltage or mechanical apparatus or on high voltage apparatus where the work does not involve coming on or near exposed HV conductors. Low voltage and/or mechanical isolations will be Do Not Operate tagged under an LVMPRI.

Field: For work on an overhead line outside of a substation. The conductors will be isolated and earthed at all terminal stations with Do Not Operate tags applied.

Cable: For work on a cable from sealing end to sealing end whether inside or outside a substation. The location on the RFA shall always be Field.

Testing High Voltage: For work involving the injection of currents, the application of voltages above limits specified in the Safety Rules or when Access Authority earths are required removed. Access Authority earths

that are required to be warning tagged shall be listed on the RFA either in the work description or additional information fields.

Testing LV/ Mech: For work on low-voltage or mechanical apparatus or high voltage apparatus where the work does not involve coming on or near exposed HV conductors, where LV or mechanical isolations and earths may be removed.

Testing Cable: Earths in the terminal stations may be warning tagged.

HVEO: Network Operations internal use only, for the control of customer isolation and earthing steps.

Verbal Clearance: Verbal clearance is primarily for internal use by Network Operations but may be selected when plant is required in a particular state for non-invasive testing or maintenance. Some examples are:

- Placing plant in-service or on-load for:
 - Thermo-vision inspections; or
 - Noise tests
- Exercising a circuit breaker or disconnecter;
- Exercising a tap-changer (for example to move through centre tap).

It is permissible to select multiple types of access on a single RFA with some exceptions:

- Where Field, HVEO or Verbal Clearance is selected there shall be no other access;
- HV, Testing HV, Cable and Testing Cable are all mutually exclusive (this applies to both a single RFA or multiple RFAs listing common equipment with overlapping durations);
- If LV/ Mech or Testing LV/ Mech is selected with HV, Testing HV, Cable or Testing Cable there must be corresponding text in both the HV and LV parts of the Apparatus and Work description sections of the RFA.

6.5.7 Authorised Person in Charge (APIC)

| | |
|-------------------------------------|---|
| Authorised Person in Charge: | The designation of the authorised person in charge of the work shall be entered. Optionally, the person's name can be inserted. |
|-------------------------------------|---|

When the nominated APIC is a protection technician all system security isolations associated with the request will be delegated in accordance with the requirements of OM412.

Where there are concurrent HV Testing Access Authorities issued on the same conductors, the Access Authorities must be held by the same APIC in accordance with PSSR 5.3.3(g).

6.5.8 Relevant information

This section of the form has 14 questions that must be answered to ensure correct working conditions are provided by the PRI. Nominate either "Yes" or "No" by placing "Xs" in the boxes provided for every question. Additional information section is to be used where insufficient space is available.

List items should be dealt with as indicated:

| | RELEVANT INFORMATION..... | Y | N | |
|---|---|---|---|---|
| 1 | Is listed HV Apparatus required out of service? | Y | N | This refers to the equipment in the HV description of apparatus. Do not write any details against this question – all the necessary information should be in the description of apparatus. If this question is answered No, a HVPRI will not |

| | | | | |
|--|--|--|--|--|
| | | | | generally be prepared (exception is for system security isolations for communications work) and the APIC will be responsible for providing safety isolations (LVMPRI) and system security isolations (PMWI). |
|--|--|--|--|--|

| | | | | |
|---|-------------------------------------|---|---|---|
| 2 | Breaking of HV Conductors Involved? | Y | N | <p>No additional information required</p> <p>For work in a substation, the location of the proposed breaks shall be provided to ensure Access Authority earthing is appropriate. If clearly stated in the work description then 'refer to work description' will suffice.</p> <p>For field access, reference to an approved Work Method Statement which includes specific earthing requirements will be required.</p> <p>If two or more phases are to be disconnected at the same time, assessment is required by the requestor regarding the need for phasing checks (refer Q3).</p> |
|---|-------------------------------------|---|---|---|

| | | | | |
|---|--------------------------------------|---|---|---|
| 3 | Phasing out/rotation check required? | Y | N | <p>No additional information required.</p> <p>Brief details shall be provided of the proposed location of the phase out so that the HVPRI can be written to facilitate the check and include the appropriate steps.</p> |
|---|--------------------------------------|---|---|---|

Phasing checks of HV apparatus must be carried out by trained workers (generally from the infrastructure delivery group). Phase rotational checks of LV apparatus may be carried out by the working party when competent to do so. It is the responsibility of the requesting officer to arrange suitable workers.

| | | | | |
|---|----------------------------------|---|---|---|
| 4 | Operation of Apparatus Required? | Y | N | <p>No additional information required.</p> <p>Full details of operations required on the apparatus shall be provided.</p> |
|---|----------------------------------|---|---|---|

Work could require operation of apparatus located outside the designated work area (e.g. operation of an earthing switch or circuit breaker for the purpose of carrying out current injections). As work will not be carried out on this apparatus, it should not be included in the "Description of Apparatus" box but should be nominated here.

Answering 'Yes' at this question will result in the authorised person using an appropriate Low Voltage/ Mechanical Preparation Instruction (LVMPRI) to enable operation of the listed apparatus. These isolations must be carried out before the issuing of an Access Authority.

| | | | | |
|---|--|---|---|--|
| 5 | Apparatus Required Operational at Start of Work? | Y | N | <p>No additional information required.</p> <p>Full details of operations required on the apparatus shall be provided. Answering yes here and no in question four is incorrect.</p> |
|---|--|---|---|--|

Answering 'Yes' at this question will result in the authorised person completing the above LVMPRI such that the isolation points have been warning tagged but the listed apparatus remains operational.

| | | | | |
|---|-----------------------------|---|---|---|
| 6 | In-Service Checks Required? | Y | N | No additional information required. Full details of checks required on the apparatus shall be provided, including any checks to be carried out on System LV/Mechanical Apparatus associated with in-service HV apparatus. Any HV apparatus to be operated shall be detailed in Q4. |
|---|-----------------------------|---|---|---|

Note: Re-arrangement of the HV system may be required. The proposed checks and any unusual requirements should be discussed first with Network Operations staff and then detailed on the RFA.

| | | | | |
|---|---|---|---|--|
| 7 | In-Service Metering / Communications Services Affected? | Y | N | No additional information required All services affecting operation of the power system shall be listed so that alternative arrangements can be made, as necessary. |
|---|---|---|---|--|

Note: The requester of the work is responsible for making appropriate arrangements for all impacted services not associated with the operation of the power system.

Common examples where this question is answered yes:

- Transducer calibration; or
- Communications equipment outages.

| | | | | |
|---|--|---|---|--|
| 8 | LV Circuits Affecting In-Service Apparatus will be Isolated? | Y | N | No additional information required Isolations the APIC intends to take to prevent in-service apparatus from being affected by the work are to be specified. |
|---|--|---|---|--|

Isolations performed as part of an LVMPRI are not considered at this question unless those isolations affect in-service plant. Predominately this question is used when system security isolations are required as part of the work.

For system security isolations, respond 'Yes' if the APIC will perform them and 'No' if the isolations are to be specified in a HVPRI. When answered 'Yes' the detail should be PMWI: xxx, where xxx are the system security isolations to be undertaken. For example PMWI: LBU and CB Trips.

When this question is 'Yes' and the APIC is a protection technician system security isolations for the work listed on the RFA will be delegated (not included in the HVPRI) as permitted in [OM412](#).

Some examples of answering 'Yes' at this question:

- A transformer differential balance by a protection technician (delegated authority); or
- Work on LV supplies to fans and pumps on an I/S transformer (not system security).

Some examples of answering 'No' at this question:

- Contact resistance measurements on a dead-tank CB by fitters (HVPRI will include appropriate link isolations or direct a protection technician to isolate and earth CT cores); or
- Intertrip checks by communications technicians (HVPRI will isolate intertrip receive links if requested in the additional information section).

| | | | | |
|---|--|---|---|--|
| 9 | Risk of Trip to In-Service HV Apparatus? | Y | N | No additional information required See below. |
|---|--|---|---|--|

Answer YES if a credible risk remains after control measures have been put in place. The originator must advise Network Operations what is at risk of trip and what may initiate tripping.

Network Operations staff will use this information to ascertain whether the risk of trip and the associated operational consequences will be acceptable, or if alternative system arrangements will be necessary.

| | | | | |
|----|--|---|---|--|
| 10 | Undercrossing/ Overcrossing Safety Involved? | Y | N | No additional information required Any lines that might pose a risk to safety shall be detailed so that appropriate arrangements can be made for isolation. |
|----|--|---|---|--|

When this question is no, the requestor is stating that either:

- There are no undercrossing / overcrossing contained within the nominated line section, or
- The assessed work does not involve any undercrossing / overcrossing safety risk

When this question is yes, the requestor shall:

- Identify the relevant span on the TransGrid line, or
- where a feeder of another organisation, liaise with the other organisation’s staff in order to identify the feeder in the other organisation’s terminology
- The following details are to be provided in the additional information section of the RFA to clearly identify the feeder:
 - The name of the organisation, and
 - The organisation’s identifier and voltage for the feeder; and
 - The location of field earths, Network Access Request number and customer field contact (on the customer feeder), or
 - The engineering controls being applied

| | |
|---------|---|
| Example | Endeavour Energy 11 kV Local substation to Smallmine feeder undercrossing TransGrid No.8 Dapto to Marulan 330 kV line between towers 122 & 123. Earths are required at pole 12345. NAR number 4444444, field contact: John Smith OR Engineered hurdles to be applied to enable the work to be completed with the undercrossing alive |
|---------|---|

| | | | | |
|----|--|---|---|---|
| 11 | Amendments to Operating Data/Diagram Required? | Y | N | No additional information required Sufficient details shall be made available to allow operating information in all relevant diagrams to be updated. |
|----|--|---|---|---|

When the answer to Q11 is ‘YES’ an Advice of Alteration form shall be submitted with the RFA.

| | | | | |
|----|--------------------------|---|---|---|
| 12 | Work subject to Weather? | Y | N | No additional information required Appropriate contact details shall be provided to enable confirmation of work arrangements should bad weather prevail. |
|----|--------------------------|---|---|---|

Note: Network Operations is to be advised as soon as any alteration to the proposed outage times is known so that National Electricity Market system security obligations can be met.

| | | | | |
|----|--|---|---|--|
| 13 | Apparatus will be serviceable overnight? | Y | N | <p>If recall > 2 hours a contingency plan may be requested – consult with Network Operations prior to submission.</p> <p>No additional information required</p> |
|----|--|---|---|--|

This question is tightly linked to the outage emergency recall – please read the details associated with ‘Recall times in case of emergency’.

| | | | | |
|----|--|--|--|-----------|
| 14 | Member of work party available to carry out HVPRI? | | | See below |
|----|--|--|--|-----------|

The originating officer is responsible for arranging switchers for TransGrid initiated work. Where the switcher is not from the work party, this question should be answered ‘No’ and details provided as to who will carry out the HVPRI. For work requiring isolation at a remote location the question should be answered ‘Yes’ or ‘No’ based on the situation at the location on the RFA and the details provided as to who will carry out the HVPRI at each required location.

Network Operations will arrange all switching required by customers to facilitate TransGrid work

Recall times in case of emergency: Day.....hours AND Night.....hours

The recall time is the total time it would take to restore equipment to service in an emergency. The recall time must be established because it influences contingency plans for emergency operation of the network until the equipment is returned to service. When equipment is recalled, completion of any unfinished work is only required to the stage necessary to enable the equipment to be safely placed back into service.

For outages longer than one day, emergency recall times must be provided for both Day and Night. Where recall time depends significantly on the progress of the work a recall profile shall be provided.

ADDITIONAL INFORMATION/SPECIAL REQUIREMENTS

Include all instructions requiring specific attention by operating staff or relating to return to service conditions such as:

- Expansion of information supplied in answer to any of the previous questions;
- Reference to an injection path diagram where the work involves primary injection;
- Reference to the approved Work Method Statement which includes specific earthing requirements for field work involving breaking conductors;
- Reference to RFA’s on other apparatus required out of service for the work;
- Nomination of earths that may be removed under a Testing Access Authority (portable earths and earthing switches);
- Confirmation that, on RFA’s for THV access where the APIC is not from the work party, the APIC has agreed to this arrangement;
- Note if the work is not operating expenditure - generally capital or insurance work; or
- Note the urgency of the work for defect repairs and if endorsed by Asset Monitoring Centre (AMC).

6.5.9 Coordinate with other areas/ customers/ sections

| | |
|--|--|
| <p>CO-ORDINATE WITH OTHER AREAS / CUSTOMERS / SECTIONS</p> | Work requirements of all groups working concurrently must be coordinated so that on completion of the work the apparatus is fully serviceable. . |
|--|--|

Note: The requesting officer of the RFA is the planner in charge of the work party. As such, it is that person's responsibility to ensure that working parties will be organised for coordination. All subject groups are to be identified on the RFA. The approving officer and the PRI preparer must ensure that Network Operations processes cover the required coordination of work parties.

6.5.10 Requesting officer

| | | |
|--------------------|-----------|---------|
| REQUESTING OFFICER | DATE | |
| (NAME) | (SECTION) | (PHONE) |

The requesting officer of the RFA should insert the nominated details to allow feedback and follow up by Network Operations. The date on which the request is submitted is to be given.

6.5.11 Assessing officer

| | |
|-----------------------------------|-------|
| <i>Assessing officer use only</i> | |
| Approved by: | Date: |
| Remarks: | |

An officer with the appropriate authority will assess the RFA and sign as approved and insert the approval date. Remarks in relation to any special HVPRI requirements, coordination requirements and contacts, contingency plans, link openings etc that have been investigated and which are material to the outage and HVPRI should be inserted. Additional pages should be attached if required, for example, to detail a contingency plan.

6.6 Documents supporting RFA's

Where the work nominated on an RFA includes the alteration or connection of HV apparatus or associated LV circuits to the HV System a completed "Advice of Alteration" form shall be sent to Network Operations when the RFA is prepared.

Where the work involves primary current injection a marked diagram indicating source, path and earthing requirements is to be submitted with the RFA.

Plans for testing work involving both TransGrid and external customers include location, controller of the source, customer representative and contact details.

7. Processing RFA's

On receipt of an RFA, Network Operations staff shall ensure that a unique identifying number is assigned to every approved RFA.

Network Operations will then confirm details of requested outages with previous outage programme data and ensure relevant information is transferred to AEMO in a timely manner for advice to market participants.

7.1 Assessment of RFA's

Each RFA submitted shall be assessed by an appropriately authorised Network Operations officer and, if valid, shall be processed and approved in accordance with equipment outage and coordination procedures. Several significant points for attention are listed below:

- Network Operations shall ensure that all relevant information is included on the RFA. Incomplete RFA's shall not be approved pending review and resubmission by the originator;
- Each approved RFA shall be signed and dated by the assessing officer;
- When assessing an RFA, the system implications shall be considered. If difficulties are foreseen, the circumstances shall be discussed with the originator and then the RFA shall have specific conditions imposed for the equipment outage or the originator may reschedule or cancel the RFA;
- When specific conditions are imposed for the outage, the assessing officer shall add any explanatory remarks and special system/safety conditions required in the appropriate part of the RFA form;
- For Field Work involving the breaking of conductors, the approving officer shall verify that an approved Work Method Statement which includes specific earthing requirements is referenced to in the RFA.

7.2 RFA received less than 28 days in advance

7.2.1 Application

Where Network Operations receives a new RFA at short notice, that is, less than 28 days in advance of the planned work, the following procedures shall apply:

Note: 'added RFA's' are treated differently, as set out in section 8.2.2.

- Where there is failed, faulty or unsafe equipment then the system and safety risks are to be removed in an appropriately urgent time frame. For defect work, the RFA should include the time-frame for action;
- In circumstances where there is mutual benefit to TransGrid and another NEM participant a short notice RFA may be accepted. An example would be taking advantage of a generator trip to perform maintenance that would otherwise have to wait for the next planned outage;

However, there must be no compromising of any procedures, so there must be sufficient time to coordinate and approve the outage by all required parties and, in particular, to prepare, check and issue a HVPRI;

- A short notice RFA may be processed to correct mismatched RFA's and HVPRI's (refer to 8.2.1) if there is mutual benefit to Works Delivery and Network Operations, provided there will be no compromising of any procedures; or
- For work that does not require any of the following:
 - a HVPRI;
 - AEMO notification; or
 - Customer notification.

RFA's may be accepted with shorter than the 28-day lead-time. Such equipment should be identified during the outage planning and coordination activities and Network Operations outage planners should have given prior agreement to the submission of these short notice requests.

7.2.2 Submitting RFA's in urgent circumstances

When circumstances are urgent and it is agreed that the work can go ahead, the requesting officer may give details of the RFA verbally by telephone or radio if it is not possible to follow normal procedures. Authorised Network Operations staff shall then prepare and process the RFA and send a copy of the RFA back to the requesting officer.

7.2.3 Log Entry Work

Provided there are no hazardous Low Voltage or Mechanical isolations involved and there is no work on or near high voltage exposed conductors and no System implications, the System Operator may accept a verbal request for attention to minor breakdowns of equipment and make a log entry instead of receiving a written RFA.

7.3 Requests for work received from customers

Where the work will involve the issuing of a TransGrid Access Authority, an RFA shall be submitted in accordance with the normal procedures outlined in this document.

In other cases, such as when requesting switching for work on their apparatus, customers may use their own forms or may verbally notify TransGrid. The customer's request form, or an RFA printed from the details entered into TheOS must have sufficient information to allow preparation of the required HVPRI, and shall be attached to the HVPRI.

8. Approved RFA's

Approved RFA's are to be sent to the person in the field in charge of the work by the requesting officer (or other officer assigned by Network Services) unless the work falls into one of the categories outlined in section 6.2.

PRIs may then be prepared for work requirements set out in approved RFA's. Approved RFA's shall be attached to and then form part of the finished HVPRI.

8.1.1 HVPRI's

HVPRI's shall be prepared in accordance with OM 973 - HV Preparation and Restoration Instructions

8.1.2 LVMPRI's

LVMPRI's shall be prepared in accordance with the procedure Operating Process for Access to LV/MECH Apparatus.

8.1.3 PMWIs

PMWIs shall be prepared in accordance with the work instruction Creation of Protection and Metering Withdrawal Instructions – MNA SEC WIN 213.

8.2 Verification of work details

Before issue of an Access Authority, each work party must verify that their intended work matches the work descriptions on the RFA's attached to the PRI (each working party must have their own copy of their RFA, which can be used for verification purposes). The controller under the Power System Safety Rules must be advised if the intended work does not match the work described on the RFA attached to the PRI and no Access Authority shall be issued pending an investigation into the reasons for the discrepancy. Some possible courses of action to cover this case are set out in section 8.2.

8.2.1 Mismatched RFA's

Note: added RFA's are treated differently, as set out in section 8.2.2 below

Where the RFA brought by the work party doesn't match the RFA attached to the HVPRI the HVPRI shall only proceed if the work party agrees that the RFA on the HVPRI correctly represents the work to be carried out. In addition, the following action should be initiated:

- the controller shall direct that the invalid RFA brought by the work party be destroyed to ensure that the correct notations are made on the Access Authority when it is issued
- the work party should advise the originator so that the logistics of RFA distribution can be improved

If the work party requires the copy of the RFA attached to the HVPRI to be modified to match its copy of the RFA the changes shall be advised to the controller and either:

- a) If there are minor changes only (such as typing or nomenclature corrections etc.) and the suitability of the HVPRI is not in question, the RFA copies on the control room and field copies of the HVPRI shall be altered to match the work party's RFA and the HVPRI can proceed; or
- b) If there are major changes (such as equipment designations, Access Authority requirements etc.) a copy of the new RFA shall be sent to the controller so that the HVPRI can be checked for suitability. Then:
 - i) If the HVPRI is suitable the old RFA shall be cancelled and the new RFA attached to control room and field copies of the HVPRI; or
 - ii) If the HVPRI is not suitable it shall be withdrawn and the whole of the request reassessed as if it were a new request for access.

8.2.2 Additional RFA's received after preparation of PRI

RFA's shall be assessed as described in section 6 even if they relate to a PRI that has already been prepared. If approved, the assessing officer shall clearly communicate to the officer writing or amending the HVPRI that this is an "added request".

Field copies of added RFA's shall be forwarded to the switching location prior to the day on which the work is to commence.

When an urgent additional RFA is received, a copy of the form shall be faxed or electronically mailed to the relevant field location after approval. In the absence of fax or e-mail, the controller may provide details via telephone to the switcher at the location, who shall copy them onto a blank RFA form. The copy of the added request shall be attached to the field copy of the HVPRI.

9. Accountability

| Title | Responsibilities and Accountabilities |
|--|--|
| Head of Health, Safety and Environment | > Ownership of this procedure |
| Control Centre Manager | > Maintenance of this procedure |
| Training Manager | > Implementation of training programs associated with this procedure |
| Authorised Persons | > Comply with this procedure |

10. Implementation

This procedure is to be implemented in conjunction with the implementation of TransGrid's Power System Safety Rules. It will be available as a resource, published on the Wire.

11. Monitoring and review

The Head of Health Safety and Environment is responsible for the ongoing monitoring and review of the documents associated with the Power System Safety Rules. This can include but is not limited to:

- (a) Requesting regular feedback on the effectiveness of procedures and work instructions. Appropriate feedback tools include focus groups and online assessments;
- (b) Where a change has occurred in processes; and
- (c) Recommendations arising from incidents.

12. Change from previous version

| Revision no | Approved by | Amendment |
|-------------|--|--|
| 0 | Lionel Smyth, EGM/Network Services & Operations | Revision 0 <ul style="list-style-type: none">• Supersedes GD SR G2 003• RFA process now includes Cable Access Authority Process flowchart included |
| 1 | Lionel Smyth, EGM/Network Services & Operations | Revision 1 Clarified Definitions on information required in section 5.3.5 Apparatus and Work Descriptions and section 5.3.6 Access Types. |
| 2 | Ken McCall, Manager/Health Safety and Environment | Revision 2 <ul style="list-style-type: none">• Full review of document- links, organisation references• Clarified use of single RFA for multiple services. Added expectation to use approved RFA templates for common maintenance activities. |
| 3 | Ken McCall, Manager/Health Safety and Environment | Revision 3 <ul style="list-style-type: none">• Section 3 updated to clarified when an RFA is required• Document reviewed |
| 4 | Ken McCall, Manager/Health Safety and Environment | Revision 4 <ul style="list-style-type: none">• Section 2 & 4 updated clarify the planning considerations when preparing and submitting an RFA with respect to the related Access Authority Sections relating to field access updated |
| 5 | Krista-Lee Fogarty, Head of HSE | > Minor wording changes for clarity. > Document reviewed for currency and updated to latest format |

13. References

Power System Safety Rules

The Outage System (TheOS) user manual

OM973 – Preparing High Voltage Preparation and Restoration Instructions

OM412 – Operation of Low Voltage Links

Operating Process for Work on Low Voltage and Mechanical Apparatus

Access for Work on High Voltage Substation Apparatus

Creation of Protection and Metering Withdrawal Instructions – Work Instruction – MNA SEC WIN 213

Isolation and Restoration of Protection and Metering Equipment – Work Instruction – MNA SEC WIN 374

14. Attachments

Appendix A - Request for Access Form – Sample

Appendix A Request for Access Form – Sample



Request for Access

Assessing officer use only:
RFA No: _____

| | | | |
|---|---------------------------------|--|----------------------|
| At Location: _____ | | From: ____:____ hrs on ____, __/__/____ | HV PRI: _____ |
| | | To: ____:____ hrs on ____, __/__/____ | |
| Authorised Person in Charge: _____ | | | |
| | DESCRIPTION OF APPARATUS | DESCRIPTION OF WORK | |
| HIGH VOLTAGE | _____ | _____ | |
| | _____ | _____ | |
| | _____ | _____ | |
| | _____ | _____ | |
| LV / MECH | _____ | _____ | |
| | _____ | _____ | |
| | _____ | _____ | |
| | _____ | _____ | |

Requesting Officers Ref: _____

Work Order: _____

ACCESS REQUIRED ("X" APPROPRIATE BOXES)

| | |
|--------------------------|------------------------|
| <input type="checkbox"/> | H.V. |
| <input type="checkbox"/> | L.V. / MECH. |
| <input type="checkbox"/> | FIELD |
| <input type="checkbox"/> | CABLE |
| <input type="checkbox"/> | TESTING – H.V. |
| <input type="checkbox"/> | TESTING – L.V. / MECH. |
| <input type="checkbox"/> | TESTING – CABLE |
| <input type="checkbox"/> | HVEO |
| <input type="checkbox"/> | VERBAL CLEARANCE |

Sample

| RELEVANT INFORMATION ("X" APPROPRIATE BOX) | Y | N | DETAILS (Expand below if necessary) |
|---|---|---|-------------------------------------|
| 1. Is listed HV apparatus required out of service | | | |
| 2. Breaking of HV conductors involved | | | |
| 3. Phasing out/rotation check required | | | |
| 4. Operation of apparatus required | | | |
| 5. Apparatus required operational at start of work | | | |
| 6. In-service checks required | | | |
| 7. In-service metering/communications services affected | | | |
| 8. LV circuits affecting in-service HV apparatus will be isolated | | | |
| 9. Risk of trip to in-service HV apparatus | | | |
| 10. Undercrossing/overcrossing safety involved | | | |
| 11. Amendments to operating data/diagram required | | | |
| 12. Work subject to weather | | | Contact: _____ Phone: _____ |
| 13. Apparatus will be serviceable overnight | | | |
| 14. Member of work party available to carry out HVPRI | | | |

Recall times in case of emergency: Day - hours and Night - hours

Additional Information / Special Requirements: _____

Coordinate With Other Areas / Customers / Sections: _____

Requesting Officer: _____ **Date:** _____

(Name) (Section) (Phone)

Assessing officer use only

Approved by: _____ **Date:** _____

Remarks: _____

GD SR G2 120 updated 31/05/2012