

Stage 1

Initial supply restoration steps

(OpenLV Substation **XXXXXX** – in commissioning stage 1 with LV NOP OPEN)

NOTE: the ALVIN devices fitted at this substation are inhibited from automatically reclosing after a fault.

1. Confirm if any of the individual phase supplies to this feeder have tripped:



On any of the three single phase ALVIN units:

- Busbar voltage detected;
- ALVIN circuit breaker is OPEN;
- Fault passage indicator is lit;
- Red LED indicating 'No Voltage' detected on feeder cable.

2. Attempt to reclose the ALVIN circuit breaker on each phase that is tripped – see quick start guide:
 - a) If all phases successfully close AND cable voltages are indicated, follow standard procedures to confirm successful restoration.
 - b) If any phase/ALVIN device closes, but no cable voltage is indicated, re-open the Alvin device, check the ALVIN in-line fuse and replace if necessary.
 - c) If any phase/ALVIN device does not successfully reclose after fuse-check/replacement, this indicates an active fault remains on this feeder:
 - i. Open ALVIN Control Isolation Switch; and
 - ii. Commence standard fault finding procedures (including removal of the ALVIN units).



ALVIN Reclose™ Isolation Switch

3. Once all repairs have been completed and all supplies restored, please contact the OpenLV project team to arrange return to project operating state.

If you are in any doubt, contact _____ (_____)

Stage 2

*(To be completed on-site
once site allocations are
determined.)*

Initial supply restoration steps at

(OpenLV Substation _____ – in commissioning stage 2 with LV NOP CLOSED and LV Feeder ____ from this substation and LV Feeder ____ at substation _____ both supplied from substation _____.)

NOTE: the ALVIN devices fitted at this substation are inhibited from automatically reclosing after a fault.

1. If no-supplies are reported associated with this feeder, confirm if any of the individual phase supplies to this feeder have tripped:



On any of the three single phase ALVIN units:

- Busbar voltage detected;
- ALVIN circuit breaker is OPEN;
- Fault passage indicator is lit; and
- Red LED indicating 'No Voltage' detected on feeder cable.

2. Attempt to reclose the ALVIN circuit breaker on each phase that is tripped – see quick start guide:
 - a) If all phases successfully close AND cable voltages are indicated, follow standard procedures to confirm successful restoration.
 - b) If any phase/ALVIN device closes, but no cable voltage is indicated, re-open the Alvin device, check the ALVIN in-line fuse and replace if necessary.
 - c) If any phase/ALVIN device does not successfully reclose after fuse-check/replacement, this indicates an active fault remains on this interconnected LV feeder:
 - i. Follow standard procedures to open links at NOP (_____).
 - ii. Return to this substation (_____) and attempt to close ALVIN devices to restore supplies:
 - If all phases successfully close AND cable voltages are indicated, follow standard procedures to confirm successful restoration.
 - If any phase/ALVIN device does not successfully reclose after fuse-check/replacement, this indicates an active fault remains on this feeder:
 - Switch ALVIN Control Isolation Switch to OFF position;
 - Commence standard fault finding procedures (including removal of the ALVIN units).
 - iii. Proceed to link box (location) and verify status, then go to substation _____ and attempt to close ALVIN devices to restore supplies to _____ Feeder _____, following the instructions at that site.



ALVIN Reclose™ Isolation Switch

3. Once all repairs have been completed and all supplies restored, please contact **local team representative** to confirm the state equipment should be felt in.

If you are in any doubt, contact _____ (_____)

Initial supply restoration steps at _____

(OpenLV Substation _____ – in commissioning stage 2 with LV NOP CLOSED and LV Feeder _____ from this substation

and LV Feeder _____ at substation _____ both supplied from _____.)

NOTE: the ALVIN devices fitted at this substation are inhibited from automatically reclosing after a fault.

1. This feeder is connected to _____ Feeder _____ via closed LV NOP (_____). The ALVIN devices here (_____) are expected to be OPEN. If the NOP (_____) is open, the jump to step 4.
2. If no-supplies are reported associated with this feeder, one or more ALVIN devices may show no cable voltage detected.



On any of the three single-phase ALVIN units:

- ALVIN circuit breaker is OPEN; and
- Red LED indicating 'No Voltage' detected on feeder cable.

3. Go to substation _____ and follow initial restoration steps at that site.
4. If restoration has been attempted at _____, AND links are removed at NOP (_____) then attempt to close ALVIN devices at this substation (_____) to restore supplies.
 - i. If all phases successfully close AND cable voltages are indicated, follow standard procedures to confirm successful restoration.
 - ii. If any phase/ALVIN device closes, but no cable voltage is indicated, re-open the Alvin device, check the ALVIN in-line fuse and replace if necessary.
 - iii. If any phase/ALVIN device does not successfully reclose after fuse-check/replacement, this indicates an active fault remains on this feeder:

- Switch ALVIN Control Isolation Switch to OFF position;
- Commence standard fault finding procedures (including removal of the ALVIN units).



ALVIN Reclose™ Isolation Switch

5. Once all repairs have been completed and all supplies restored, please contact **local team representative** to confirm the state equipment should be felt in.

If you are in any doubt, contact _____ (_____)

Stage 3

*(To be completed on-site
once site allocations are
determined.)*

Initial supply restoration steps at

(OpenLV Substation _____ – in Automatic Operation State with LV NOP CLOSED. The interconnected LV feeders may be supplied from _____ only, or from _____ AND _____)

NOTE: the ALVIN devices fitted at this substation are inhibited from automatically reclosing after a fault.

1. If no-supplies are reported associated with this feeder, confirm if any of the individual phase supplies to this feeder have tripped:



On any of the three single-phase ALVIN units:

- ALVIN circuit breaker is OPEN;
- Fault passage indicator is lit; and
- Red LED indicating 'No Voltage' detected on feeder cable.

2. Attempt to reclose the ALVIN circuit breaker on each phase that is tripped – see quick start guide:
 - a) If all phases successfully close AND cable voltages are indicated, follow standard procedures to confirm successful restoration.
 - b) If any phase/ALVIN device closes, but no cable voltage is indicated, re-open the Alvin device, check the ALVIN in-line fuse and replace if necessary.
 - c) If any phase/ALVIN device does not successfully reclose after fuse-check/replacement, this indicates an active fault remains on this interconnected LV feeder:
 - i. Open ALVIN Control Isolation Switch...
 - ii. Follow standard procedures to open links at NOP (_____).

- iii. Return to this substation (_____) and attempt to close ALVIN devices to restore supplies:

- If all phases successfully close AND cable voltages are indicated, follow standard procedures to confirm successful restoration.
- If any phase/ALVIN device does not successfully reclose after fuse-check/replacement, this indicates an active fault remains on this feeder:
 - Switch ALVIN Control Isolation Switch to OFF position;
 - Commence standard fault finding procedures (including removal of the ALVIN units).



ALVIN Reclose™ Isolation Switch

- iv. Proceed to link box (_____) and verify status, then go to substation _____ and attempt to close ALVIN devices to restore supplies to _____ Feeder ____, following the instructions at that site.

3. Once all repairs have been completed and all supplies restored, please contact **local team representative** to confirm the state equipment should be felt in. NOTE: the ALVIN Control must remain isolated while the NOP is in an OPEN state.

If you are in any doubt, contact _____ (_____)

Initial supply restoration steps at _____

(OpenLV Substation _____ – in Automatic Operation State with LV NOP CLOSED. The interconnected LV feeders may be supplied from _____ only, or from _____ AND _____)

NOTE: the ALVIN devices fitted at this substation are inhibited from automatically reclosing after a fault.

1. This feeder is connected to _____ Feeder ____ via closed LV NOP (**link box location**). The ALVIN devices here (_____) may be either OPEN or CLOSED in automated operation. If the NOP (_____) is open, then jump to step 5.
2. If no-supplies are reported associated with this feeder, one or more ALVIN devices may show no cable voltage detected OR may show cable no-voltage indication AND fault passage indicator.



On any of the three single phase ALVIN units:

- ALVIN circuit breaker is OPEN;
- Fault passage indicator is lit;
- Red LED indicating 'No Voltage' detected on feeder cable.

3. Go to substation _____ and follow initial restoration steps at that site.
4. If restoration has been successfully attempted at _____ with LV NOP CLOSED (_____), follow standard procedures to confirm successful restoration has occurred.
5. If restoration has been attempted at _____, AND links have been removed at NOP (_____) then:
 - i. Switch ALVIN Control Isolation Switch to OFF position
 - ii. Attempt to close ALVIN devices at this substation (_____) to restore supplies
 - iii. If all phases successfully close AND cable voltages are indicated, follow standard procedures to confirm successful restoration.
 - iv. If any phase/ALVIN device closes, but no cable voltage is indicated, re-open the Alvin device, check the ALVIN in-line fuse and replace if necessary.
 - v. If any phase/ALVIN device does not successfully reclose after fuse-check/replacement, this indicates an active fault remains on this feeder:
 - Confirm ALVIN Control Isolation Switch is in the OFF position;
 - Commence standard fault finding procedures (including removal of the ALVIN units).



ALVIN Reclose™ Isolation Switch

6. Once all repairs have been completed and all supplies restored, please contact **local team representative** to confirm the state equipment should be felt in. NOTE: the ALVIN Control must remain isolated while the NOP is in an OPEN state.

If you are in any doubt, contact _____ (_____)