

DRAFT DOCUMENT

Phase	Scope	Type of final connection	Type of Point of Connection	Level of authorization required	Person carrying out work	Method of setting team to work	Management and coordination of Control Person (Persons instructing Control persons to work)	
PHASE 1	OVERHEAD	Connect new radial LV Q/N Line to an existing LV Q/N Line	<p><b>Overhead CONDUCTIONS</b></p> <p>Open with Aluminium</p> <p>Open with Copper</p> <p>AEC (Aerial Bundled Conductor)</p> <p>PVC covered Aluminium</p> <p>PVC covered Copper</p> <p>Shielded LV</p> <p>PVC PVC</p> <p>Head down corner earths (PVC covered &amp; bare)</p>	D7 Lineman; B1B : B3X (DR 4) : C3B : D2E : D2F : D7B	D7 Lineman and accompanied	Work instruction from team manager. Routine live LV work (only if radial). Work in accordance with NE safety rules & ODN&L SECTION 5.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required.	
			<p><b>Overhead CONDUCTIONS</b></p> <p>Open with Aluminium</p> <p>Open with Copper</p> <p>AEC (Aerial Bundled Conductor)</p> <p>PVC covered Aluminium</p> <p>PVC covered Copper</p> <p>Shielded LV</p> <p>PVC PVC</p> <p>PE (Polybutyl) insulated cable, rare and sometimes perished if in place, (will need to replace this with PVC PVC if it is found in poor condition)</p> <p>Head down corner earths (PVC covered &amp; bare)</p>	D7 Lineman; B1B : B3X (DR 4) : C3B : D2E : D2F : D7B	D7 Lineman and accompanied	Work instruction from team manager. Routine live LV work (only if radial). Work in accordance with NE safety rules & ODN&L SECTION 5.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required.	
			<p>PVC cables from TX</p> <p>PE (Polybutyl) insulated cable, rare and sometimes perished if in place, (HV shut down may be required to replace this with PVC PVC if it is found in poor condition)</p> <p>Connection direct into output side of fuse carrier.</p> <p>HSC neutral earth</p>	D7 Lineman; B1B : B3X (DR 4) : C3B : D2E : D2F : D7B	D7 Lineman and accompanied	Work instruction from team manager. Routine live LV work (only if radial). Work in accordance with NE safety rules & ODN&L SECTION 5.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required.	
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PHASE 2	CABLES	In LV Cables	<p><b>Types of LV Cables</b></p> <p>Main cables can be connected to a phase system or single phase system. When a main is connected to single phase system all phase cores are shorted.</p> <p>Waveform 3 core aluminium/copper (multiple sizes)</p> <p>Waveform 4 core aluminium/copper (multiple sizes)</p> <p>Conductor Clear Neutral Cable Aluminium Conductor Conic 3 core aluminium (multiple sizes)</p> <p>Paper Insulated Lead Covered PVC - Aluminium/copper 4 core cable (multiple sizes)</p> <p>Steel wire armour</p> <p>Steel tape armour</p> <p>PVC 3 core LV phase conductors &amp; neutral</p> <p>PVC 5 core Aluminium/copper (5th core for street lighting)</p> <p>PVC 6 core Aluminium/copper (cores for street lighting)</p> <p>Shielded PVC cables - 4 core</p> <p>SB tails (compound boxes with 2 cores) - will need replacing if encountered as no approved joints. Replacement works to maintain supply to existing customers will be non-controllable.</p> <p>5 core PVC cable (single phase/3 phase &amp; separate neutral earth)</p> <p>PVC service cables (single phase/3 phase &amp; separate neutral earth/combined neutral earth)</p> <p>SLPT service cables (single phase/3 phase &amp; separate neutral earth/combined neutral earth).</p> <p>Street lighting cores (usually 6mm service cable lead alongside main)</p>	D7 Joiner; B1C : C1C : D2E : D2F : D7C	D7 Joiner	Work instruction from team manager. Routine live LV work. Work in accordance with NE safety rules.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required.	
			<p><b>Types of LV Joints</b></p> <p>Multi-tension joint / Multi-pot end</p> <p>Straight through joint / Straight through multi (Radial Circuits)</p> <p>Breeches joint (SMB only one cable lead)</p>	D7 Joiner; B1C : C1C : D2E : D2F : D7C	D7 Joiner	Work instruction from team manager. Routine live LV work. Work in accordance with NE safety rules.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required.	
			<p>Steel tape armour LV PVC cables with HV cables in close proximity must be identified as LV due to steel tape armour HV cables also being present on the network.</p> <p>Process for this outlined in SREGS of the NE safety Rules. THIS APPLIES TO ALL PVC CABLES INCLUDING Street SERVICES.</p>	D7 Joiner; B1C : C1C : D2E : D2F : D7C	D7 Joiner	Follow the procedure outlined in SREGS. Will either be team manager or SAP setting pointers to work.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required.	
			<p>When carrying out final joint it is important to ensure the correct cable is connected to, in order to ensure safety and quality of supply for the customer. This means distinguishing between:</p> <p>• Multiple LV cables in the one joint bay</p> <p>• Multiple HV and LV cables in the one joint bay</p> <p>• 3rd party/unofficially connected cables and NE Networks' cables in the one joint bay</p> <p>Cables are not labelled. PVC covered cables are labelled with size and type but this will not be enough to identify a cable. Dimensions of the size and type of cable need a joint bay.</p>	SAP - control person (owner - authorisation person, D7 Joiner; B1C : C1C : D2E : D2F : D7C)	D7 Joiner and SAP	Consult all records. If backfeeds are available use these to load and position the cable and have the joiner measure this to confirm they have opened the correct cable. SAP Required. If no backfeeds are available the signal generator may be used by clamping onto a core of the cable at the substation or transformer and testing.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required. Cables may be identified by someone with suitable experience, authorisation and training, an SAP may be asked to assist if anything is required.	
			<p>Multiple cables in location of joint bay</p>	SAP - control person (owner - authorisation person, D7 Joiner; B1C : C1C : D2E : D2F : D7C)	D7 Joiner and SAP	Consult all records. If backfeeds are available use these to load and position the cable and have the joiner measure this to confirm they have opened the correct cable. SAP Required. If no backfeeds are available the signal generator may be used by clamping onto a core of the cable at the substation or transformer and testing.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required. Cables may be identified by someone with suitable experience, authorisation and training, an SAP may be asked to assist if anything is required.	
PHASE 3	POLE	Min Pillar - Shrouding in place	<p>min pillar</p>	D7 Joiner; B1C : C1C : D2E : D2F : D7C	D7 Joiner and accompanied	Work instruction from team manager. Routine live LV work. Work in accordance with NE safety rules.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required.	
			<p>- No shrouding in place</p>	SAP/LV SAS for isolation	Suitably qualified joiner	LV outage required along side detailed work instruction from team manager.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required. SAP/LV SAS to provide isolation and on site instructions.	
			<p>- Compound units - not leaking</p>	min pillar	D7 Joiner with specific training in compound filled units (ADR B1C : C1C : D2E : D2F : D7C)	D7 Joiner and accompanied	Work instruction from team manager. Routine live LV work. Work in accordance with NE safety rules.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required.
			<p>- leaking</p>	min pillar	SAP/LV SAS for isolation with specific training in compound filled units (ADR B1C : C1C : D2E : D2F : D7C)	Suitably qualified joiner or SAP	LV outage required along side detailed work instruction from team manager.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required. SAP/LV SAS to provide isolation and on site instructions.
			<p>LV Cabinet - Shrouding in place</p>	LV Cabinet	D7 Joiner; B1C : C1C : D2E : D2F : D7C	D7 Joiner and accompanied	Work instruction from team manager. Routine live LV work. Work in accordance with NE safety rules.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required.
			<p>- No shrouding in place</p>	LV Cabinet	SAP/LV SAS for isolation	Suitably qualified joiner	LV outage required along side detailed work instruction from team manager.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required. SAP/LV SAS to provide isolation and on site instructions.
			<p>-Compound units -not leaking</p>	LV Cabinet	D7 Joiner with specific training in compound filled units (ADR B1C : C1C : D2E : D2F : D7C)	D7 Joiner and accompanied	Work instruction from team manager. Routine live LV work. Work in accordance with NE safety rules.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required.
			<p>-leaking</p>	LV Cabinet	SAP/LV SAS for isolation	SAP	LV outage required along side detailed work instruction from team manager.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required. SAP/LV SAS to provide isolation and on site instructions.
			<p>-RB cabinets, ACR 2002/21</p>	LV Cabinet	SAP for isolation	Suitably qualified joiner	LV outage required or TX LV links and all cables into instructions from team manager.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required. SAP completing isolation - testing and testing instructions from team manager.
			<p>LV Feeder Frame - Existing spare LVCT unit in place</p>	LV Feeder frame	D7 Joiner; B1C : C1C : D2E : D2F : D7C	D7 Joiner	Work instruction from team manager. Routine live LV work. Work in accordance with NE safety rules. Shrouding required.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required.
			<p>- New unit to be fitted to frame</p>	LV Feeder frame	SAP/LV SAS for isolation	Suitably qualified joiner	LV outage required along side detailed work instruction from team manager.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required. SAP/LV SAS completing isolation - testing and testing instructions from team manager.
			<p>-Compound unit/not leaking but spare LVCT units in frame</p>	LV Feeder frame	D7 Joiner with specific training in compound filled units (ADR B1C : C1C : D2E : D2F : D7C)	D7 Joiner and accompanied	Work instruction from team manager. Routine live LV work. Work in accordance with NE safety rules. Shrouding required.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required.
			<p>-Compound units, leaking but spare LVCT units in frame</p>	LV Feeder frame	SAP for isolation	Suitably qualified joiner and accompanied	LV outage required along side detailed work instruction from team manager.	Field file including proposal and detailed work instruction from experienced team manager with relevant experience in the role alongside oversight and input from local network access managers & SAPs if any advice is required. SAP/LV SAS completing isolation - testing and testing instructions from team on site.

Note: This applies to work to make the connection at the final point of connection only. All upstream infrastructure works or works to existing NE Networks assets will remain non-controllable.

**AUTHORISATIONS**

**GROUP IS AN AUTHORISED PERSON TO:**

- B1 Apply and remove safety precautions to the instructions of Control Persons.
- B3X Carry out duties allocated to Authorised Persons in specified Safety Rules Instructions.

**CONTROL PERSONS**

**GROUP C AUTHORISED FOR SPECIFIC CONTROL SPHERES OF OPERATION TO:**

- C3 Carry out duties of a Control Person on Plant and/or LV Apparatus and Site Control Duties in Substations.

**COMPETENT PERSONS**

**GROUP IS AUTHORISED AT SPECIFIED LOCATIONS ON SPECIFIED PLANT AND/OR APPARATUS TO:**

- D1 Gain access to Substations containing Plant and Apparatus to perform duties in a manner such that Safety Distances will not be infringed and that System derived hazards will not cause Danger.
- D2 Work as a member of a Working Party on the Northern Inland Electricity System in accordance with the Northern Inland Electricity Safety Rules (Electrical and Mechanical) and the relevant Safety Rules Instructions.
- D3 Receive and clear SWS.
- D7 Work on Live LV Apparatus, in accordance with the relevant Safety Rules Instruction.

**3RD CHARACTER SUBSCRIPTS**

**SCOPE AS APPLIED TO SPECIFY PLANT/APPARATUS FOR AUTHORISATION**

The 3rd character in the Authorisation/Nomination/Assessment Group categories shown as "P" in this Key, are taken from the following list of subscripts "A" to "X".  
Categories with the subscripts "A" to "F" are structured in ascending and inclusive order. Categories "G" and "H" stand alone.  
Where the 3rd character is "K", this indicates that the more specific duties are detailed in the Safety Rules Instruction (S) listed on the Certificate of Authorisation/Nomination/Assessment

**SUBSCRIPT LETTER (APPLIED TO GROUP NO.) SPECIFIED PLANT/APPARATUS**

- A Customer point LV
- B LV Busbars, overhead conductors, underground cables and pole-mounted fuses.
- C LV Isolating Devices and Connections
- D Apparatus normally operating at up to 33kV, excluding substations containing circuit breakers.
- E Apparatus normally operating at up to 33kV, related Plant and Apparatus.
- X Specified in text.