



Certificate of Completion for MV Substation

DTIS-170200-AYC

A formal final inspection of the completed substation building will be made by ESB Networks before acceptance of the building, and before commencing work on the installation of the electrical connection. This inspection requires the substation to be completed in accordance with ESB Company standard Construction Standards for MV Substation Buildings, DOC-280518-DFK, and will take place after the customer has provided this Certificate of Completion covering the workmanship and materials used in the construction of the substation.

This Certificate of Completion must be completed to the satisfaction of ESB Networks and signed and returned prior to work commencing on providing an electrical connection.

- Working conditions on site must comply with the: -
The Safety, Health and Welfare at Work Act 2005.
The Safety, Health and Welfare at Work (General Application) Regulations 2007 and amendments.
Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. 291-2013)
- Scaffolding must not be present over the work area as any excavation nearby for the installation of ducts/cables could undermine it - also there may be a danger in working underneath.
- There must be a clear unobstructed access route in order to safely reach the work-place.

It is critical that these requirements are complied with in order to provide electrical connection on time - delays will be inevitable should ESB Networks be unable to carry out works because of obstructions or unsafe situations on site.

For ESB Networks Use Only	
Substation Name	
Substation Number	
Network Services Area	
C1 Form Received (Y/N)	
Comments	

Substation Location: _____

Tick box as required

1. External Conditions

Item	Clause		Yes	No
1.1	2.12	Has the substation building received full planning permission from the local authority?		
1.2	2.3	Is there a permanent unobstructed access route 3m wide x 4m high?		
1.3	2.3	Is access external to the main building where substation is incorporated?		
1.4	4.8	Has an earth mat been installed in the ground immediately in front of the substation door(s)?		
1.5	2.10	Is ground level drainage satisfactory?		
1.6	General 2.3	Has external ground been re-instated to allow safe access for installation of equipment?		
1.7	4.3	Are all external walls of cavity construction? Or approved solid cast concrete?		
1.8	4.11	Is the roof cast in situ concrete?		
1.9	4.12.6	Are all downpipes external to the building?		

2. Doors

Item	Clause		Yes	No
2.1	2.7 & 4.10	Are ESB standard steel galvanised doors installed?		
2.2	2.7	Do the doors open through a full 180° (Unless otherwise agreed.)?		
2.3	2.7 & Drawing	Are doors adequately secured, and opening and closing freely?		
2.4	2.7	Is there a drip rail at the top of the door if the door is installed flush to a multi storey building?		

2.5	Information from door name plate:
	Manufacturer: _____
	Serial Number: _____
	Year of Manufacture: _____
Please attach delivery docket or invoice from approved door supplier for the substation doors to this certification	

3. Internal Condition

Item	Clause		Yes	No
3.1	2.1	Are the internal dimensions as required?		
3.2	General	Has all excess material been removed?		
3.3	Drawing	Is duct layout in accordance with ESB drawing A3D.205071-16A?		
3.4	2.8 & 4.5	Is reinforcing steel in substation floor isolated from all other structural steelwork		
3.5	4.9	Has the floor been neatly finished with a smooth level surface?		
3.6	Drawing	Is the substation floor 150mm to 250mm above the finished ground level?		
3.7	4.5 and Drawing	Are the bars of the reinforcing steel spanning the ducts at the points indicated in the drawing A3D.205071-16A?		
3.8	4.5 and Drawing	Is all the reinforcing steel welded together including the duct bridging bars?		
3.9	4.5 and Drawing	Are steel mesh testing points provided at the side of the ducts as indicated in the drawing A3D.205071-16A		
3.10	4.6 and Drawing	Are the cable ducts 900mm deep x 450mm wide,		
3.11	Drawing Sheet 17	Are ESB approved GRP cable duct covers properly installed, securely supported and flush with the concrete floor, so that they do not constitute a tripping hazard?		
3.12	4.12.2	Are the walls and ceilings neatly finished and painted white?		
3.13	4.12.2	Has the floor been painted as specified with red or grey single-pack polyurethane paint to give a nonslip finish?		
3.14	4.12.3	Has vertical DPC installed at the door reveal?		

4. Fire Safety

Item	Clause		Yes	No
4.1	2.6	Has a fire risk assessment been carried out ?		
4.2	2.6	Is the substation door more than 3 m from main entrances and exits, fire escapes and air conditioning intakes?		
4.3	2.6	Are the substation doors more than 5 m away from exposed oil pipes, exposed gas pipes, fuel tanks or other similar risks?		
4.4	2.6	Is there a smoke detector fitted if the substation is incorporated into a larger building?		
4.5	2.6	Are windows within a 3 m radius of the substation door frame non openable and fitted with 30 minute fire rated glass?		
4.6	2.6	Are all room vents within a 3 m radius for the substation door frame fitted with alarm activated automatic shut offs?		
4.7	2.11	Is the substation free of all pipes, ducts or services - not required by ESB's specification?		
4.8	Drawing	Are all internal walls leaves block on flat or solid concrete and ceiling poured concrete?		
4.9	4.12.3 & Drawing	Has the cavity at the door reveal been sealed by returning the inner leaf tight to the outer leaf?		
4.10	Drawing Sheet 16	Is the cavity closed at the door lintel?		

5. Working Conditions

Item	Clause		Yes	No
5.1	2.3	Is a safe working environment assured for ESB staff on site by compliance with the Safety, Health and Welfare at Work Act 2005 and subsequent Acts?		

CERTIFICATION

This Certification must be completed and signed by the Chartered Engineer or Architect in charge, and returned to ESB Networks, prior to work commencing on the electrical connection.

I certify that it is my professional opinion that the substation building located at _____ has been constructed in accordance with:

- ESB Networks Company Standard –Standards for MV Substation Buildings DOC-280518-DFK
- Any additional conditions given in customer Connection Agreement dated _____ (if applicable)

Name (block capitals) _____

Professional Qualification _____

Name of Company _____

Position in Company _____

Signature _____

Date: _____