



National Certificate in Electricity Supply (Field Switcher) with optional strands in distribution networks, transmission networks, and operational and co-ordination planning

level of qualification: 4

credit total: 84

Purpose and content of the National Certificate

Purpose:

This National Certificate caters for trainees within the industry whose primary role is carrying out switching and electrical isolations in the field of power system plant and equipment. Skills covered by the qualification include; applying earths to and removing earths from electrical conductors, plant and equipment; carrying out switching operations on metal clad switchgear; and responding to sub station secondary systems alarms and indications.

Content:

Compulsory unit standards

core skills

		level	credit
12296	Apply earths to and remove earths from electrical conductors, plant and equipment	3	2
16283	Remove electricity supply field network equipment from service for access to work (Field Operations)	4	8
17027	Demonstrate the requirements for holding access permits on high voltage electrical lines	3	2
17028	Demonstrate the requirements for holding permits on high voltage electrical equipment	3	2
18028	Demonstrate knowledge of earthing in high voltage (HV) electricity network installations and works	3	2
19323	Demonstrate knowledge of single and three phase transformers used in the electricity supply industry	3	2
19324	Demonstrate knowledge of the theory and operation of switch gear in the electricity supply industry	3	2
19950	Use test instruments and carry out electrical testing in the electricity supply industry	3	3
20090	Carry out switching operations on metal clad switchgear	4	3
20091	Read and interpret single line diagrams in the electricity supply industry	3	3
20092	Demonstrate knowledge of electricity transmission and distribution plant and equipment	2	4
20093	Develop and action an operating sequence in the electricity supply industry	4	4
20095	Respond to substation secondary systems alarms and indications in the electricity supply industry	4	4



		level	credit
power system maintenance			
14328	Carry out in-service visual inspections on substation equipment for safe operation	3	4
14331	Carry out in-service visual inspection checks on substation auxiliary plant and equipment	3	4
14700	Apply and remove safety measures in an electricity supply environment	3	3
power system management			
16281	Maintain and update operating log for electricity supply operational purposes	3	3
testing			
14287	Use and maintain test instruments used within the high voltage electrical industry	3	4
occupation health and safety practice			
17602	Apply hazard identification and risk assessment procedures in the workplace	3	4
elective			
a minimum of 21 credits at level 4 or above is required from anywhere on the National Qualifications Framework			
distribution networks optional strand			
core skills			
10509	Climb and work on electricity network structures	3	6
distribution networks			
10526	Operate ground and structure mounted electrical equipment associated with electric lines up to 66kV	3	4
12295	Apply earths to and remove earths from overhead electric line conductors	3	4
transmission networks optional strand			
core skills			
20094	Receive and return transfer of control in the electricity supply industry	4	4
power system maintenance			
14701	Manage electricity supply work control systems	4	4
operational and co-ordination planning optional strand			
power system management			
16276	Respond to electricity supply external system operations communications	4	5



		level	credit
16280	Compile and action switching plans to maintain electricity supply network security	4	9
16285	Plan for scheduled work on electricity supply power system equipment	4	10
19477	Demonstrate knowledge of the national electricity grid	4	5
19481	Demonstrate knowledge of electricity supply protection equipment	4	5