

**FIELD ENGINEERING AND TECHNOLOGY****Change of classification, revision, and rollover of *Electricity Supply* unit standards****Existing classification names**

<b>Subfield</b>	<b>Domain</b>	<b>Id</b>
Electricity Supply	Electricity Generation	6974-6978, 6980-6987, 10394-10424, 11577, 12385, 12386, 12388-12392, 15156, 15558-15561, 15563-15565, 17399-17408, 17410-17418, 17420-17449, 17633-17635, 17904-17913, 18200, 18278, 18279, 19323-19326
	Electricity Networks	11578, 14268-14347, 14700, 14701, 15581, 16096, 16274-16282, 16284-16286, 18201, 19483-19486, 19655
	Power System Management	<b>15566-15580</b> , 19475-19482

The unit standards in **bold** are not included in the rollover as their current expiry date is 2007.

**New classification names**

<b>Subfield</b>	<b>Domain</b>	<b>Id</b>
Electricity Supply	Electricity Supply – Business Services	12391, 19483-19486
	Electricity Supply – Core Skills	12390, 12392, 18200, 19323-19325
	Electricity Supply – Design and Commissioning	14279, 14292, 14297-14313, 15560
	Electricity Supply – HVDC	14314-14327
	Electricity Supply – Metering	19655
	Electricity Supply – Power System Maintenance	6974-6978, 6980-6986, 10394-10424, 14328-14347, 14700, 14701, 15156, 15563-15565, 17633-17635, 18278
	Electricity Supply – Power System Management	11577, 11578, 12385, 12386, 12388, 12389, 15558, 15559, 15561, 15566-15581, 16096, 16274-16282, 16284-16286, 18201, 18279, 19326, 19475-19482
	Electricity Supply – Testing	6987, 14268-14278, 14280-14291, 14293-14296
	Electricity Supply – Thermal Operations and Control	17399-17408, 17410-17418, 17420-17449, 17904-17913

At the request of the Electricity Supply Industry Training Organisation (ESITO), the Qualifications Authority has changed the classification of the unit standards referred to above. The domains listed in the 'existing classification names' table have been designated as Lapsing.

**Date changes made February 2004**

**New expiry date December 2007**

Aligning all the unit standards to the same expiry date will allow sufficient time for a thorough review of all unit standards in the intervening period.

### Rationale for the change

The two domains that contained most of ESITO unit standards – Electricity Networks and Electricity Generation were becoming too big and required splitting into classifications that were more appropriate. These large domains were also causing some issues regarding accreditation of training providers. In particular, the accreditation of training providers in Live Line work and Thermal Plant Operations required training providers to have specialist plant and equipment and expertise for the delivery training and assessment.

The new domains were identified by industry focus groups and reflect both current and future categories for the electricity supply industry.

### Impact of the change on unit standards

The following unit standards have been affected by the change. They have been amended to show the new domain name and published as new versions.

The opportunity of the reclassification was taken to amend the special notes section of the unit standards to provide more comprehensive information on relevant legislation.

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>
12391	Electricity Supply – Business Services	Manage operational and or maintenance contracts in an electricity supply environment	4	4
19483	Electricity Supply – Business Services	Conduct a compliance audit on the operating of equipment in the electricity supply industry	4	6
19484	Electricity Supply – Business Services	Conduct a compliance audit of work access systems in the electricity supply industry	4	6
19485	Electricity Supply – Business Services	Conduct a compliance audit of work carried out in the electricity supply industry	4	6
19486	Electricity Supply – Business Services	Conduct a health and safety compliance audit in the electricity supply industry	4	6
12390	Electricity Supply – Core Skills	Demonstrate knowledge of electricity supply systems	3	5
12392	Electricity Supply – Core Skills	Demonstrate knowledge of principles of electricity generation prime movers	3	5
18200	Electricity Supply – Core Skills	Demonstrate knowledge of the New Zealand Wholesale Electricity Market	4	8
19323	Electricity Supply – Core Skills	Demonstrate knowledge of single and three phase transformers used in the electricity supply industry	3	2
19324	Electricity Supply – Core Skills	Demonstrate knowledge of the theory and operation of switchgear in the electricity supply industry	3	2

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>
19325	Electricity Supply – Core Skills	Demonstrate knowledge of the fundamentals of electricity generation in New Zealand	3	3
14279	Electricity Supply – Design and Commissioning	Commission power system equipment from 'end to end'	5	7
14292	Electricity Supply – Design and Commissioning	Commission, service and/or repair communication systems between electricity supply substations	5	7
14297	Electricity Supply – Design and Commissioning	Carry out commissioning and maintenance tests on multiple input protection systems	5	6
14298	Electricity Supply – Design and Commissioning	Identify need and develop plans for power network reinforcement	5	10
14299	Electricity Supply – Design and Commissioning	Design power network substation electrical arrangement up to 72.5kV	5	12
14300	Electricity Supply – Design and Commissioning	Design physical layout for substations up to 72.5kV	5	12
14301	Electricity Supply – Design and Commissioning	Design electrical protection system for power network substation up to 72.5kV	6	15
14302	Electricity Supply – Design and Commissioning	Design power network supervisory control and data acquisition (SCADA) system	6	15
14303	Electricity Supply – Design and Commissioning	Prepare civil and structural design specification documents for substations	5	10
14304	Electricity Supply – Design and Commissioning	Design earthing systems for substations up to 72.5kV	5	10
14305	Electricity Supply – Design and Commissioning	Apply seismic design criteria to substation equipment and structural designs	6	10
14306	Electricity Supply – Design and Commissioning	Design voltage regulation system for power network	6	10
14307	Electricity Supply – Design and Commissioning	Design load control systems for power systems up to 72.5kV	6	15
14308	Electricity Supply – Design and Commissioning	Design power line installation up to 72.5kV	5	10
14309	Electricity Supply – Design and Commissioning	Conduct a line location route survey up to 72.5kV	5	12
14310	Electricity Supply – Design and Commissioning	Prepare civil and structural design specification documents for line and cable design	5	10
14311	Electricity Supply – Design and Commissioning	Design line and cable earthing and insulation coordination system	6	10
14312	Electricity Supply – Design and Commissioning	Design power cable installation up to 72.5kV	5	15
14313	Electricity Supply – Design and Commissioning	Design metering systems for power systems up to 72.5kV	6	15
15560	Electricity Supply – Design and Commissioning	Commission and re-commission electricity generation plant	6	12

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>
14314	Electricity Supply – HVDC	Demonstrate basic knowledge of the fundamental circuits of the New Zealand HVDC transmission system	3	4
14315	Electricity Supply – HVDC	Investigate and analyse common High Voltage Direct Current (HVDC) power system disturbances	5	8
14316	Electricity Supply – HVDC	Setup and operate power system disturbance recording facilities	5	8
14317	Electricity Supply – HVDC	Use and maintain "as built", and modify, HVDC transmission documentation systems	3	4
14318	Electricity Supply – HVDC	Service High Voltage Direct Current (HVDC) transmission control and protection system equipment	5	8
14319	Electricity Supply – HVDC	Demonstrate knowledge of the principles of mercury arc valve (MAV) operation	3	6
14320	Electricity Supply – HVDC	Apply health and safety requirements in a mercury arc valve environment	2	3
14321	Electricity Supply – HVDC	Maintain mercury arc valve (MAV) records	3	3
14322	Electricity Supply – HVDC	Prepare High Voltage Direct Current (HVDC) mercury arc valve (MAV) for renovation	4	10
14323	Electricity Supply – HVDC	Renovate High Voltage Direct Current (HVDC) mercury arc valves (MAV)	4	12
14324	Electricity Supply – HVDC	De-gas and reassemble High Voltage Direct Current (HVDC) mercury arc valve (MAV)	5	9
14325	Electricity Supply – HVDC	Renovate High Voltage Direct Current (HVDC) mercury arc valve (MAV) anodes	3	8
14326	Electricity Supply – HVDC	Carry out scheduled and unscheduled servicing on HVDC mercury arc valves (MAV)	4	6
14327	Electricity Supply – HVDC	Carry out pre-service conditioning and function testing of HVDC mercury arc valves	4	8
19655	Electricity Supply – Metering	Demonstrate knowledge of electricity protection systems affecting metering installations	5	4
6974	Electricity Supply – Power System Maintenance	Service bearings of rotating machines of 100kVA and above	3	3
6975	Electricity Supply – Power System Maintenance	Repair and overhaul bearings of rotating machines of 100kVA and above	4	8
6976	Electricity Supply – Power System Maintenance	Service excitation systems for ac synchronous generators of 100kVA and above	4	5

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>
6977	Electricity Supply – Power System Maintenance	Repair and overhaul excitation systems for ac synchronous generators of 100kVA and above	5	12
6978	Electricity Supply – Power System Maintenance	Service and repair protection systems for rotating machines of 100kVA and above	5	15
6980	Electricity Supply – Power System Maintenance	Repair and overhaul ac generators of 100kVA and above	5	20
6981	Electricity Supply – Power System Maintenance	Service hydro control gates and associated equipment	3	4
6982	Electricity Supply – Power System Maintenance	Repair and overhaul hydro control gates and associated equipment	4	7
6983	Electricity Supply – Power System Maintenance	Service lubrication systems for rotating machines of 100kVA and above	3	3
6984	Electricity Supply – Power System Maintenance	Repair and overhaul lubrication systems for rotating plant of 100kVA and over	4	5
6985	Electricity Supply – Power System Maintenance	Repair and overhaul power transformers of 5kVA and above	5	10
6986	Electricity Supply – Power System Maintenance	Repair and overhaul high voltage switchgear	4	10
10394	Electricity Supply – Power System Maintenance	Service compressed air systems	3	3
10395	Electricity Supply – Power System Maintenance	Repair and overhaul compressed air systems	4	5
10396	Electricity Supply – Power System Maintenance	Service cooling systems	3	3
10397	Electricity Supply – Power System Maintenance	Repair and overhaul cooling systems	4	5
10398	Electricity Supply – Power System Maintenance	Repair and overhaul electrical control, instrumentation, and indication systems	5	15
10399	Electricity Supply – Power System Maintenance	Service fans	3	3
10400	Electricity Supply – Power System Maintenance	Repair and overhaul fans	4	5
10401	Electricity Supply – Power System Maintenance	Service gas turbines	4	8
10402	Electricity Supply – Power System Maintenance	Conduct shop inspections and repairs on free turbines	5	15
10403	Electricity Supply – Power System Maintenance	Service generator compensator hydrogen cooling and seal oil systems	5	8
10404	Electricity Supply – Power System Maintenance	Repair and overhaul generator compensator hydrogen cooling and seal oil systems	6	20
10405	Electricity Supply – Power System Maintenance	Service geothermal energy production and transportation plant	4	10
10406	Electricity Supply – Power System Maintenance	Repair and overhaul geothermal energy production and transportation plant	5	15
10407	Electricity Supply – Power System Maintenance	Service hydro control valves of 450mm diameter and above	3	3

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>
10408	Electricity Supply – Power System Maintenance	Repair and overhaul hydro control valves of 450mm diameter and above	4	5
10409	Electricity Supply – Power System Maintenance	Service condensing plant	3	3
10410	Electricity Supply – Power System Maintenance	Repair and overhaul condensing plant	4	5
10411	Electricity Supply – Power System Maintenance	Service low voltage electric motors 415 volts and below	4	5
10412	Electricity Supply – Power System Maintenance	Repair and overhaul low voltage electric motors 415 volts and below	5	8
10413	Electricity Supply – Power System Maintenance	Service pumps	3	3
10414	Electricity Supply – Power System Maintenance	Repair and overhaul pumps	5	8
10415	Electricity Supply – Power System Maintenance	Service steam turbine governor	4	8
10416	Electricity Supply – Power System Maintenance	Repair and overhaul steam turbine governor	5	15
10417	Electricity Supply – Power System Maintenance	Service steam turbines	4	5
10418	Electricity Supply – Power System Maintenance	Repair and overhaul steam turbines	5	20
10419	Electricity Supply – Power System Maintenance	Service valves up to 450mm diameter	3	3
10420	Electricity Supply – Power System Maintenance	Repair and overhaul valves	4	5
10421	Electricity Supply – Power System Maintenance	Service water turbines	3	6
10422	Electricity Supply – Power System Maintenance	Repair and overhaul water turbines	5	15
10423	Electricity Supply – Power System Maintenance	Service water turbine governor and relief valve systems	3	6
10424	Electricity Supply – Power System Maintenance	Repair and overhaul water turbine governor and relief valve systems	5	15
11577	Electricity Supply – Power System Management	Describe and apply electricity power generation technology	6	15
11578	Electricity Supply – Power System Management	Describe and apply electricity power transmission technology	6	15
12385	Electricity Supply – Power System Management	Operate hydro-electric generating plant on site	4	8
12386	Electricity Supply – Power System Management	Operate electricity generating electrical control systems on site	4	6
12388	Electricity Supply – Power System Management	Operate hydro-electric station auxiliary plant	4	8
12389	Electricity Supply – Power System Management	Conduct risk management in an electricity supply environment	6	8
14328	Electricity Supply – Power System Maintenance	Carry out in service visual inspections on Substation equipment for safe operation	3	4

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>
14329	Electricity Supply – Power System Maintenance	Carry out routine inspection and servicing on distribution power transformers 33kV to 11kV	4	8
14330	Electricity Supply – Power System Maintenance	Install substation earthing and bonding system	3	3
14331	Electricity Supply – Power System Maintenance	Carry out in-service visual inspection checks on substation auxiliary plant and equipment	3	4
14332	Electricity Supply – Power System Maintenance	Carry out routine inspection and service on oil filled distribution power transformers 11kV to 400V	4	8
14333	Electricity Supply – Power System Maintenance	Carry out routine inspection and servicing on transmission power transformers above 33kV	4	8
14334	Electricity Supply – Power System Maintenance	Carry out routine service on transmission instrument transformers 33kV and above	4	7
14335	Electricity Supply – Power System Maintenance	Service and repair high voltage disconnectors, earth switches and other bus structure equipment	3	6
14336	Electricity Supply – Power System Maintenance	Carry out routine inspection and servicing on distribution instrument transformers below 33kV	4	7
14337	Electricity Supply – Power System Maintenance	Carry out routine inspection and servicing on high voltage minimum oil circuit breakers	4	6
14338	Electricity Supply – Power System Maintenance	Carry out routine inspection and servicing on high voltage bulk oil circuit breakers	4	6
14339	Electricity Supply – Power System Maintenance	Carry out routine inspection and servicing on 11kV and 33kV pole mounted re-closer circuit breakers	3	3
14340	Electricity Supply – Power System Maintenance	Carry out routine inspection and servicing on high voltage air blast circuit breakers	4	4
14341	Electricity Supply – Power System Maintenance	Carry out routine inspection and service on high voltage indoor metal clad circuit breakers and bus	4	4
14342	Electricity Supply – Power System Maintenance	Carry out routine inspection and minor servicing on high voltage SF6 outdoor circuit breakers	4	5
14343	Electricity Supply – Power System Maintenance	Carry out routine inspection and servicing on high voltage gas insulated switchgear	4	5
14344	Electricity Supply – Power System Maintenance	Carry out routine inspection and servicing on substation emergency services	3	4
14345	Electricity Supply – Power System Maintenance	Carry out routine inspection and servicing on substation air compressor systems	3	4

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>
14346	Electricity Supply – Power System Maintenance	Carry out routine inspection and servicing on security services at substations	3	4
14347	Electricity Supply – Power System Maintenance	Carry out routine inspection and service of high voltage capacitor banks and signal injection plant	3	3
14700	Electricity Supply – Power System Maintenance	Apply and remove safety measures in an electricity supply environment	3	3
14701	Electricity Supply – Power System Maintenance	Manage electricity supply work control systems	4	4
15156	Electricity Supply – Power System Maintenance	Conduct hydraulic structures safety and surveillance inspections	3	4
15558	Electricity Supply – Power System Management	Investigate and analyse electricity generation plant and system failures	5	6
15559	Electricity Supply – Power System Management	Plan medium and long term electricity generation plant life management	6	8
15561	Electricity Supply – Power System Management	Conduct analysis of electricity generation protection performance	5	8
15563	Electricity Supply – Power System Maintenance	Repair, set up and overhaul coal and ash handling plant	4	15
15564	Electricity Supply – Power System Maintenance	Service and repair water treatment plant process equipment	4	3
15565	Electricity Supply – Power System Maintenance	Repair and calibrate water treatment plant analysis and process control equipment	5	10
15566	Electricity Supply – Power System Management	Manage implementation of power system dispatch instructions	6	10
15567	Electricity Supply – Power System Management	Produce power system dispatch implementation plan	6	6
15568	Electricity Supply – Power System Management	Coordinate power system outages	5	10
15569	Electricity Supply – Power System Management	Manage power system control and optimisation	6	16
15570	Electricity Supply – Power System Management	Respond to emergencies which threaten electricity generation	5	15
15571	Electricity Supply – Power System Management	Manage enterprise offers into New Zealand Electricity Market (NZEM)	6	10
15572	Electricity Supply – Power System Management	Manage company exposure to New Zealand Electricity Market (NZEM)	7	15
15573	Electricity Supply – Power System Management	Manage enterprise bids into New Zealand Electricity Market (NZEM)	6	10
15574	Electricity Supply – Power System Management	Demonstrate knowledge of New Zealand Electricity Market (NZEM) rules, principles and operation	5	16
15575	Electricity Supply – Power System Management	Operate hydro-electric generating plant from enterprise control room	6	16
15576	Electricity Supply – Power System Management	Operate and manage electricity transmission network	6	15
15577	Electricity Supply – Power System Management	Control electricity distribution network	6	15

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>
15578	Electricity Supply – Power System Management	Maintain electricity system frequency and voltage within agreed tolerances	5	6
15579	Electricity Supply – Power System Management	Manage hydrological resources for electricity generation	6	16
15580	Electricity Supply – Power System Management	Manage electricity generation dispatch	6	10
15581	Electricity Supply – Power System Management	Operate frequency injection equipment	4	4
16096	Electricity Supply – Power System Management	Demonstrate knowledge of the control and protection systems of the New Zealand HVDC transmission	5	10
16274	Electricity Supply – Power System Management	Provide staffing services for electricity supply power system operations	3	3
16275	Electricity Supply – Power System Management	Implement electricity supply network asset owner's load management policy	4	10
16276	Electricity Supply – Power System Management	Respond to electricity supply external system operations communications	4	5
16277	Electricity Supply – Power System Management	Evaluate faults on electricity supply network equipment (System Operation)	5	11
16278	Electricity Supply – Power System Management	Evaluate faults on electricity supply network equipment (Field Operation)	4	9
16279	Electricity Supply – Power System Management	Monitor electricity supply power network system	4	10
16280	Electricity Supply – Power System Management	Compile and action switching plans to maintain electricity supply network security	4	9
16281	Electricity Supply – Power System Management	Maintain and update operating log for electricity supply operational purposes	3	3
16282	Electricity Supply – Power System Management	Respond to routine events and minor emergencies on the electricity supply power system	5	15
16284	Electricity Supply – Power System Management	Remove electricity supply network equipment from service for access for work (System Operation)	4	10
16285	Electricity Supply – Power System Management	Plan for scheduled work on electricity supply power system equipment	4	10
16286	Electricity Supply – Power System Management	Respond to major emergencies that threaten the electricity supply power network	5	15
17633	Electricity Supply – Power System Maintenance	Conduct an electrical service on ac generators of 100kVA and above	4	7
17634	Electricity Supply – Power System Maintenance	Conduct a mechanical service on ac generators of 100kVA and above	4	7
17635	Electricity Supply – Power System Maintenance	Isolate and restore electricity generation plant and equipment	4	5
18201	Electricity Supply – Power System Management	Monitor and operate electricity supply site security alarm and sensor systems	3	6
18278	Electricity Supply – Power System Maintenance	Service in-service battery banks in the electricity supply environment	2	2

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>
18279	Electricity Supply – Power System Management	Manage water resources for on site electricity generation	4	8
19326	Electricity Supply – Power System Management	Maintain and modify distributed control systems to control electricity supply plant operations	5	15
19475	Electricity Supply – Power System Management	Manage electricity grid security	6	15
19476	Electricity Supply – Power System Management	Manage electricity market scheduling	6	10
19477	Electricity Supply – Power System Management	Demonstrate knowledge of the national electricity grid	4	5
19478	Electricity Supply – Power System Management	Demonstrate knowledge of HVDC in the role of a power system controller	5	10
19479	Electricity Supply – Power System Management	Use SCADA to manage the power system	3	5
19480	Electricity Supply – Power System Management	Use advanced SCADA functions to manage the power system	5	3
19481	Electricity Supply – Power System Management	Demonstrate knowledge of electricity supply protection equipment	4	5
19482	Electricity Supply – Power System Management	Demonstrate knowledge of the national electricity grid security	5	5
6987	Electricity Supply – Testing	Test and calibrate excitation systems for ac synchronous generators of 100kVA and above	6	10
14268	Electricity Supply – Testing	Conduct acceptance tests on energy meters and demand recording equipment	3	4
14269	Electricity Supply – Testing	Locate faults in distribution and transmission power cables	4	5
14270	Electricity Supply – Testing	Carry out tests on ripple injection equipment	3	5
14271	Electricity Supply – Testing	Carry out tests on transmission power transformers of above 33kV maximum voltage and above 10 MVA	4	6
14272	Electricity Supply – Testing	Carry out maintenance and/or acceptance tests on high voltage circuit breakers	4	6
14273	Electricity Supply – Testing	Carry out maintenance and/or commissioning tests on instrument transformers	4	5
14274	Electricity Supply – Testing	Carry out electrical tests on other high voltage bus connected equipment	3	4
14275	Electricity Supply – Testing	Carry out commissioning and/or maintenance tests on earth mat (grid) and equipment bonding systems	3	3
14276	Electricity Supply – Testing	Carry out maintenance and/or commissioning tests on high voltage power cable and terminals to 220kV	3	4
14277	Electricity Supply – Testing	Carry out maintenance tests on high voltage rotating plant	4	5

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>
14278	Electricity Supply – Testing	Carry out laboratory tests on electrical insulating oil	5	10
14280	Electricity Supply – Testing	Carry out acceptance and maintenance tests on single input protection relays	4	4
14281	Electricity Supply – Testing	Carry out acceptance and maintenance tests on distance protection relays	5	4
14282	Electricity Supply – Testing	Carry out repairs and tests on protection relays	4	5
14283	Electricity Supply – Testing	Carry out tests on distribution oil filled power transformers of 33kV and below 10 MVA	4	5
14284	Electricity Supply – Testing	Carry out soil resistivity tests for high voltage earth system	3	5
14285	Electricity Supply – Testing	Carry out tests on ancillary service (AC and DC) and uninterrupted power supply supplies	3	4
14286	Electricity Supply – Testing	Carry out power surveys for harmonics and quality of supply	5	7
14287	Electricity Supply – Testing	Use and maintain test instruments used within the high voltage electrical industry	3	4
14288	Electricity Supply – Testing	Carry out tests on battery banks and charge systems	3	4
14289	Electricity Supply – Testing	Carry out tests on personal protective equipment used in the electricity supply industry	3	3
14290	Electricity Supply – Testing	Join, terminate, test and commission specialist communication cables systems	4	5
14291	Electricity Supply – Testing	Repair, maintain, test and commission a SCADA system	5	8
14293	Electricity Supply – Testing	Carry out inspection and servicing tests on control instrumentation and indication hardwired system	5	4
14294	Electricity Supply – Testing	Carry out insulating oil sampling and voltage breakdown tests	3	3
14295	Electricity Supply – Testing	Carry out maintenance and commissioning tests on energy metering and demand recording systems	5	7
14296	Electricity Supply – Testing	Carry out thermography inspection on Substation equipment	4	4
17399	Electricity Supply – Thermal Operations and Control	Operate compressed air systems in a thermal electricity generation power station	4	4
17400	Electricity Supply – Thermal Operations and Control	Operate cooling water systems in a thermal electricity generation power station	4	3
17401	Electricity Supply – Thermal Operations and Control	Operate air conditioning in a thermal electricity generation power station	4	3
17402	Electricity Supply – Thermal Operations and Control	Operate auxiliary boiler in a thermal electricity generation power station	4	6

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>
17403	Electricity Supply – Thermal Operations and Control	Operate nitrogen and carbon dioxide systems in a thermal electricity generation power station	3	2
17404	Electricity Supply – Thermal Operations and Control	Operate fuel oil systems in a thermal electricity generation power station	4	3
17405	Electricity Supply – Thermal Operations and Control	Operate fixed fire protection and detection systems in a thermal electricity generation station	4	6
17406	Electricity Supply – Thermal Operations and Control	Operate auxiliary steam systems in a thermal electricity generation power station	4	2
17407	Electricity Supply – Thermal Operations and Control	Operate station drains in a thermal electricity generation power station	4	3
17408	Electricity Supply – Thermal Operations and Control	Operate water treatment systems in a thermal electricity generation power station	4	8
17410	Electricity Supply – Thermal Operations and Control	Operate condensers and condensate systems in a thermal electricity generation power station	4	4
17411	Electricity Supply – Thermal Operations and Control	Operate feed heating systems in a thermal electricity generation power station	4	5
17412	Electricity Supply – Thermal Operations and Control	Operate turbine oil systems in a thermal electricity generation power station	4	5
17413	Electricity Supply – Thermal Operations and Control	Operate and monitor generator and associated systems in a thermal electricity generation station	4	15
17414	Electricity Supply – Thermal Operations and Control	Operate and monitor steam and water cycle chemistry in a thermal electricity generation station	4	4
17415	Electricity Supply – Thermal Operations and Control	Operate turbine control fluid systems in a thermal electricity generation power station	4	5
17416	Electricity Supply – Thermal Operations and Control	Operate boiler feed pump turbine in a thermal electricity generation power station	4	5
17417	Electricity Supply – Thermal Operations and Control	Operate boiler feed pump in a thermal electricity generation power station	4	4
17418	Electricity Supply – Thermal Operations and Control	Operate boiler fuel oil systems in a thermal electricity generation power station	4	3
17420	Electricity Supply – Thermal Operations and Control	Operate boiler steam and water circuit in a thermal electricity generation power station	4	5
17421	Electricity Supply – Thermal Operations and Control	Operate boiler fuel gas and ignition gas systems in a thermal electricity generation power station	4	4
17422	Electricity Supply – Thermal Operations and Control	Operate soot blowing system in a thermal electricity generation power station	3	2

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>
17423	Electricity Supply – Thermal Operations and Control	Operate coal firing in a thermal electricity generation power station	4	6
17424	Electricity Supply – Thermal Operations and Control	Operate boiler electrostatic precipitators in a thermal electricity generation power station	4	2
17425	Electricity Supply – Thermal Operations and Control	Operate boiler circulating pumps in a thermal electricity generation power station	4	2
17426	Electricity Supply – Thermal Operations and Control	Operate auxiliary steam range from a thermal electricity generation control room	4	2
17427	Electricity Supply – Thermal Operations and Control	Carry out a controlled start up of thermal electricity generation plant	6	15
17428	Electricity Supply – Thermal Operations and Control	Operate steam raising equipment from a thermal electricity generation control room	5	7
17429	Electricity Supply – Thermal Operations and Control	Operate vents and drains from a thermal electricity generation control room	4	4
17430	Electricity Supply – Thermal Operations and Control	Operate barring gear and jacking oil systems from a thermal electricity generation control room	4	3
17431	Electricity Supply – Thermal Operations and Control	Operate condensers and vacuum raising equipment from a thermal electricity generation control room	5	6
17432	Electricity Supply – Thermal Operations and Control	Operate control oil systems and steam admission valves from a thermal generation control room	5	8
17433	Electricity Supply – Thermal Operations and Control	Carry out controlled shutdown of thermal electricity generation plant	6	10
17434	Electricity Supply – Thermal Operations and Control	Operate circulated cooling water systems from a thermal electricity generation control room	4	8
17435	Electricity Supply – Thermal Operations and Control	Operate boiler and steam generator draught systems from a thermal generation control room	5	6
17436	Electricity Supply – Thermal Operations and Control	Operate electric feed pumps from a thermal electricity generation control room	5	4
17437	Electricity Supply – Thermal Operations and Control	Operate plant control electrical systems from a thermal electricity generation control room	5	4
17438	Electricity Supply – Thermal Operations and Control	Excite and synchronise thermal electricity generation plant	6	5
17439	Electricity Supply – Thermal Operations and Control	Operate feed heating systems from a thermal electricity generation control room	5	6
17440	Electricity Supply – Thermal Operations and Control	Operate gas firing controls from a thermal electricity generation control room	5	4

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>
17441	Electricity Supply – Thermal Operations and Control	Operate generator cooling and seal oil systems from a thermal electricity generation control room	5	5
17442	Electricity Supply – Thermal Operations and Control	Operate gland steam systems from a thermal electricity generation control room	5	3
17443	Electricity Supply – Thermal Operations and Control	Operate lube oil systems from a thermal electricity generation control room	5	5
17444	Electricity Supply – Thermal Operations and Control	Operate panel controls from a thermal electricity generation control room	6	6
17445	Electricity Supply – Thermal Operations and Control	Monitor and carry out routine operations from a thermal electricity generation control room	5	4
17446	Electricity Supply – Thermal Operations and Control	Control and monitor chemistry conditions from a thermal electricity generation control room	5	5
17447	Electricity Supply – Thermal Operations and Control	Operate during plant trips from a thermal electricity generation control room	5	5
17448	Electricity Supply – Thermal Operations and Control	Monitor turbine supervisory from a thermal electricity generation control room	5	6
17449	Electricity Supply – Thermal Operations and Control	Carry out on load valve tests and simulated trip tests on thermal electricity generation plant	5	3
17904	Electricity Supply – Thermal Operations and Control	Operate coal plant from control room in a thermal electricity generation power station	4	6
17905	Electricity Supply – Thermal Operations and Control	Operate coal handling equipment in a thermal electricity generation power station	3	6
17906	Electricity Supply – Thermal Operations and Control	Store coal in a thermal electricity generation power station	3	3
17907	Electricity Supply – Thermal Operations and Control	Conduct coal sampling in a thermal electricity generation power station	2	1
17908	Electricity Supply – Thermal Operations and Control	Operate a weighbridge in a thermal electricity generation power station	3	3
17909	Electricity Supply – Thermal Operations and Control	Operate coal and ash plant electrical systems in a thermal electricity generation power station	4	5
17910	Electricity Supply – Thermal Operations and Control	Operate an ash plant control room and pump house in a thermal electricity generation power station	4	5
17911	Electricity Supply – Thermal Operations and Control	Conduct ash handling in a thermal electricity generation power station	3	5
17912	Electricity Supply – Thermal Operations and Control	Operate ash ponds in a thermal electricity generation power station	3	2
17913	Electricity Supply – Thermal Operations and Control	Operate a vacuum cleaning plant in a thermal electricity generation power station	2	1

## Impact on existing accreditations

Appropriate extensions to provider accreditations have been negotiated between ESITO and individual providers. This is due to safety and physical equipment requirements for programme delivery within some domains.

## Impact on existing qualifications

ESITO will amend the following qualifications in line with the new domain classifications.

Ref	Qualification Title
0870	National Certificate in Electricity Supply (Cable Joiner) (Level 4)
0888	National Certificate in Electricity Supply (Electrical) (Level 3) with strands in Electrical Fitter, and Electrician
0921	National Certificate in Electricity Supply (Electrical) (Level 4) with optional strands in Electrical Fitter Networks, and Electrical Fitter Hydro
0893	National Certificate in Electricity Supply (Hydro Operator) (Level 4)
0891	National Certificate in Electricity Supply (Mechanical Fitter) (Level 3) with strands in Hydro, Networks, and Thermal
0918	National Certificate in Electricity Supply (Mechanical Fitter) (Level 4) with strands in Hydro, Networks, and Thermal; and an optional strand in Electrical Services
0892	National Certificate in Electricity Supply (Network Operator) (Level 4)
0922	National Certificate in Electricity Supply (Technician) (Level 3) with strands in Control and Instrumentation, Power Technician, and HVDC Technician
0917	National Certificate in Electricity Supply (Technician) (Level 4) with strands in Control and Instrumentation, Power Technician, and HVDC Technician; and an optional strand in Electrical Services

The following qualifications are also affected by the classification changes. The Standard Setting Bodies responsible have been informed.

Ref	Title
0951	National Certificate in Electrical Engineering (Level 5)
0944	National Certificate in Occupational Health and Safety (Coordination) (Level 4)
0801	National Certificate in Occupational Health and Safety (Workplace Safety) (Level 3)
0846	National Diploma in Engineering (Level 6) with strands in Computer Engineering, Electrical Engineering, Electronics, Industrial Measurement and Control, and Telecommunications

## Impact on Accreditation and Moderation Action Plan (AMAP)

AMAP 0120 has been updated to reflect the reclassification changes.