



National Certificate in Electricity Supply (Hydro Operator) (Level 4)

Level	4
Credits	77

Purpose

This national certificate is awarded to people who have demonstrated competence in the advanced skills and knowledge required for employment in the Electricity Supply Industry as a Hydro Operator.

This qualification contains standards that build on the knowledge and skills recognised by the National Certificate in Electricity Supply (Operator) (Level 3) [Ref: 1375] or the National Certificate in Electricity Supply (Operator) (Level 3) with strands in Hydro Operations, and Network Operations [Ref: 0889], with the Hydro Operations strand.

Holders of this qualification will be able to operate both hydro-electric generating plants and electricity generating electrical control systems on-site, and operate hydro-electric station auxiliary plants. They will also be able to co-ordinate power system outages, maintain electricity system frequency and voltage within agreed tolerances, and manage water resources for on-site electricity generation. In addition, they will be able to demonstrate knowledge of a.c. generators, water turbine governors, and water turbines for hydro-electric power generation.

This qualification includes an optional unit standard covering electricity system frequency and voltage. Whilst this unit standard is not required to achieve the qualification, it may be considered necessary for some employment contexts in the electricity supply industry.

Replacement Information

This qualification replaced the National Certificate in Electricity Supply (Hydro Operator) (Level 4) [Ref: 0893].

Special Notes

Prerequisite: National Certificate in Electricity Supply (Operator) (Level 3) [Ref: 1375], or National Certificate in Electricity Supply (Operator) (Level 3) with strands in Hydro Operations, and Network Operations [Ref: 0889] with the Hydro Operations strand, or demonstrate equivalent knowledge and skills.

Recognition of prior learning will be carried out by accredited providers or Electricity Supply Industry Training Organisation (ESITO) registered workplace assessors.

Credit Range

Level 4 credits	67
Level 5 credits	10
Total	77

Requirements for Award of Qualification

Award of NQF Qualifications

Credit gained for a standard may be used only once to meet the requirements of this qualification.

Unit standards and achievement standards that are equivalent in outcome are mutually exclusive for the purpose of award. The table of mutually exclusive standards is provided in section 7 of the New Zealand Qualifications Authority (NZQA) Rules and Procedures publications available at <http://www.nzqa.govt.nz/ncea/acrp/index.html>.

Reviewed standards that continue to recognise the same overall outcome are registered as new versions and retain their identification number (ID). Any version of a standard with the same ID may be used to meet qualification requirements that list the ID and/or that specify the past or current classification of the standard.

Summary of Requirements

- Compulsory standards

Detailed Requirements

Compulsory

The following standards are required

Engineering and Technology > Electricity Supply > Electricity Supply - Power System Management

ID	Title	Level	Credit
12385	Operate hydro-electric generating plant on site	4	8
12386	Operate electricity generating electrical control systems on site	4	6
12388	Operate hydro-electric station auxiliary plant	4	8
15568	Coordinate power system outages	5	10
18279	Manage water resources for on site electricity generation	4	8
24691	Demonstrate knowledge of a.c generators for hydro-electric generation	4	15
24692	Demonstrate knowledge of water turbine governors for hydro-electric power plant	4	10
24693	Demonstrate knowledge of water turbines for hydro-electric power plant	4	12

Optional standards

The following standards are optional

Engineering and Technology > Electricity Supply > Electricity Supply - Power System Management

ID	Title	Level	Credit
15578	Maintain electricity system frequency and voltage within agreed tolerances	5	6

Transition Arrangements

Version 2

Version 2 was issued following a revision to improve completion rates for the qualification by making a standard covering maintaining system frequency and voltage optional.

Changes to structure and content

- the total credit value decreased from 83 to 77
- standard 15578 was removed from the Compulsory section but included as an optional standard.

For detailed information see [Review Summaries](#) on the NZQA website.

All existing candidates may either complete the requirements of version 1 of the qualification or transfer to version 2.

All new trainees will be enrolled in programmes leading to version 2 of the qualification.

It is not intended that anyone is disadvantaged by this revision and the above arrangements have been designed for a smooth transition. However, anyone who feels they have been disadvantaged may appeal to the Electricity Supply Industry Training Organisation at the address below.

Previous version of the qualification

Version 1 of this qualification replaced the National Certificate in Electricity Supply (Hydro Operator) (Level 4) [Ref: 0893]. People currently working towards the National Certificate in Electricity Supply (Hydro Operator) (Level 4) [Ref: 0893] may either complete that qualification or transfer their existing achievements to the National Certificate in Electricity Supply (Hydro Operator) (Level 4) [Ref: 1405].

The last date for assessments to take place for the replaced qualification is 31 December 2011. Industry will continue to recognise the former qualification, and there should be no need to 'upgrade' by those who have already achieved it.

NQF Registration Information

Process	Version	Date	Last Date for Assessment
Registration	1	August 2008	December 2012
Revision	2	October 2009	N/A

Standard Setting Body

Electricity Supply Industry Training Organisation
PO Box 1245
Waikato Mail Centre
Hamilton 3240

Telephone 07 834 3038
Facsimile 07 834 8160
Email info@esito.org.nz

Planned Review

Any person or organisation may contribute to the review of this qualification by sending feedback to the standard setting body at the above address.

Next Review	2013
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Certification

This certificate will display the logos of the NZQA, Electricity Supply Industry Training Organisation and the accredited organisation.

Classification

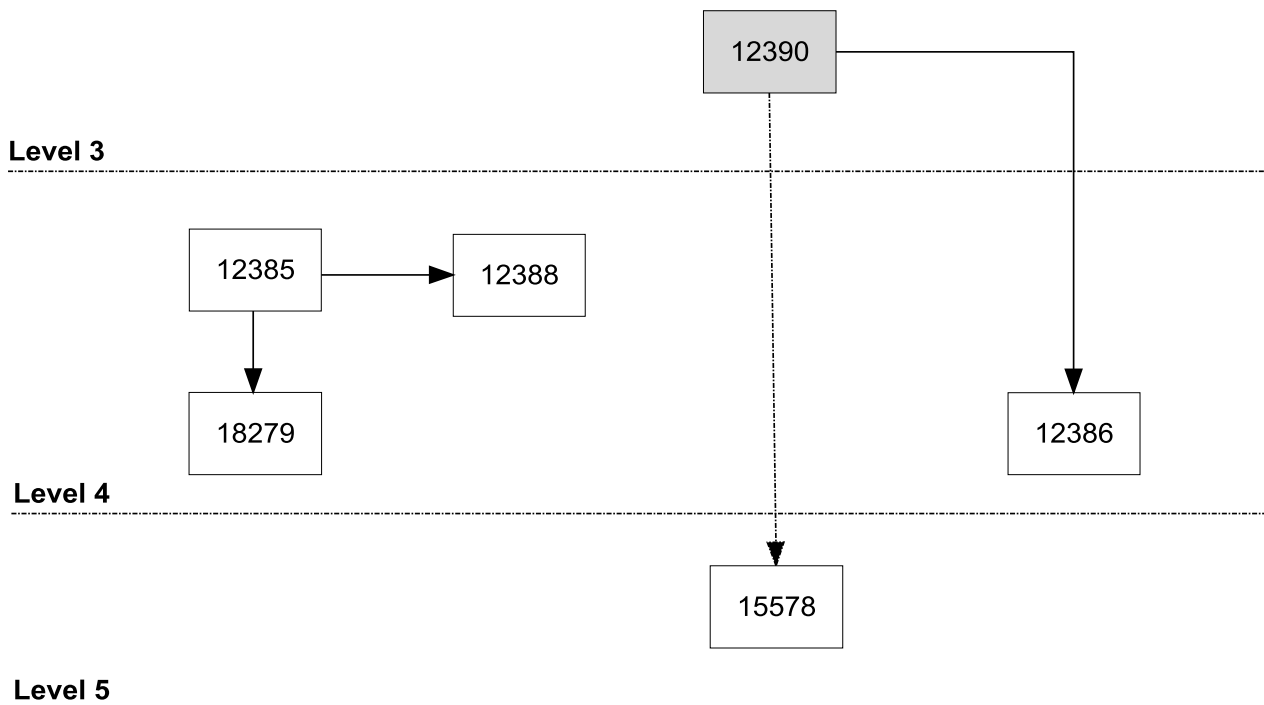
This qualification is classified according to the NQF classification system and the New Zealand Standard Classification of Education (NZSCED) system as specified below.

NQF Classification		NZSCED	
Code	Description	Code	Description
318	Engineering and Technology > Electricity Supply	031399	Engineering and Related Technologies > Electrical and Electronic Engineering and Technology > Electrical and Electronic Engineering and Technology not elsewhere classified

Quality Management Systems

Providers and Industry Training Organisations must be accredited by a recognised Quality Assurance Body before they can register credits from assessment against standards. Accredited providers and Industry Training Organisations assessing against standards must engage with the moderation system that applies to those standards. Accreditation requirements and the moderation system are outlined in the associated Accreditation and Moderation Action Plan (AMAP) for each standard.

Prerequisite Diagram



Key

- in the National Certificate in Electricity Supply (Operator) (Level 3) [Ref: 1375]
- Recommended