National Certificate in Electricity Supply (Metering Technician) (Level 4) with optional strands in Low Voltage Time of Use, and High Voltage Time of Use

Level **4**

Credits **61**

Purpose

The National Certificate in Electricity Supply (Metering Technician) (Level 4) with optional strands in Low Voltage Time of Use, and High Voltage Time of Use [Ref: 1314] is awarded to people who have demonstrated competence in the knowledge and skills required for employment as a metering technician in the electricity supply industry.

It caters for people within this industry whose primary role is carrying out acceptance, installation, commissioning, and maintenance testing of metering equipment installed on an electricity supply system. Optional strands are available for those technicians who specialise in low voltage or high voltage time of use metering.

The qualification covers the installation, testing, and commissioning of electricity supply system metering equipment including:

- installing control relays, single-phase whole current meters, and poly-phase whole current meters for electricity metering;
- installing electricity metering;
- transporting and packaging electricity metering revenue meters and test equipment;
- programming electricity metering data loggers;
- bench testing and adjusting electricity meters.

This qualification builds on the knowledge and skills recognised in either of the two qualifications listed below in the special notes and can lead to the National Diploma in Electricity Supply (Level 5) [Ref: 0674] or the National Diploma in Electricity Supply (Level 6) [Ref: 0675].

Replacement Information

This qualification replaced the National Certificate in Electricity Supply (Metering Technician) (Level 4) [Ref: 1247] and the National Certificate in Electricity Supply (Metering Technician) (Level 5) [Ref: 1248].

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Special Notes

Prerequisite:
National Certificate in Electricity Supply (Electrical) (Level 4) [Ref: 0921], National Certificate in Electricity Supply (Electrical) (Level 4) with strands in Electricity Supply Electrician, Electrical Fitter, and Electrical Technician, or National Certificate in Electricity Supply (Electrical Services Technician) (Level 3) [Ref: 1098], or demonstration of equivalent knowledge and skills.

Credit Range

	Compulsory	**Elective 1**	**Elective 2**
Level 2 credits	2	-	-
Level 3 credits	2	-	-
Level 4 credits	26	0-8	-
Level 5 credits	3	0-13	0-15
Minimum totals	33	13	15
Total	61		

	Optional Low Voltage Time of Use Strand
Level 5 credits	17
Minimum total	17
Qualification total with strand	78

	Optional High Voltage Time of Use Strand	
	Compulsory	**Elective**
Level 4 credits	12	-
Level 5 credits	4	5
Minimum totals	16	5
Qualification total with strand	82	

Requirements for Award of Qualification

This qualification will be awarded to people who have met the following requirements.

- Compulsory standards
- Elective 1 – A minimum of 13 credits as specified
- Elective 2 – A minimum of 15 credits as specified

The following strands are optional
- Low Voltage Time of Use Optional Strand
- High Voltage Time of Use Optional Strand

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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.

Detailed Requirements

Compulsory

The following standards are required

Engineering and Technology > Electricity Supply > Electricity Supply - Metering

Id	Title	Level	Credit
19309	Install electricity metering control relays	3	2
19310	Install electricity metering single-phase whole current meters	4	3
19311	Install electricity metering poly-phase whole current meters	4	3
19312	Transport and package electricity metering revenue meters and test equipment	2	2
19313	Demonstrate knowledge of electricity metering systems and installations	4	10
23784	Describe the electricity metering Codes of Practice	4	10

Humanities > Communication Skills > Writing

Id	Title	Level	Credit
9703	Write job procedures	5	3

Elective 1

A minimum of 13 credits is required

Engineering and Technology > Electricity Supply > Electricity Supply - Metering

Id	Title	Level	Credit
19314	Programme electricity meter data loggers in the electricity supply industry	4	3
19315	Bench test and adjust electricity meters	4	5
19316	Design a current transformer (CT) electricity meter installation	5	12

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Id	Title	Level	Credit
19318	Install and commission electricity current transformer metering	5	10

Elective 2
A minimum of 15 credits at Level 4 or above is required

Field	Subfield	Domain
Engineering and Technology	Electrical Engineering	Any
	Electricity Supply	Any

Low Voltage Time of Use Optional Strand
A minimum of 17 credits is required

Engineering and Technology > Electricity Supply > Electricity Supply - Metering

Id	Title	Level	Credit
19317	Design a high voltage (HV) electricity meter installation	5	5
19320	Calibrate revenue metering current transformers in the electricity supply industry	5	12
19322	Calibrate high accuracy electricity meters in the electricity supply industry	5	12

High Voltage Time of Use Optional Strand
Meet the requirements of all of the following sets
- High Voltage Time of Use Compulsory
- High Voltage Time of Use Elective

High Voltage Time of Use Compulsory
The following standards are required

Engineering and Technology > Electricity Supply > Electricity Supply - Metering

Id	Title	Level	Credit
19319	Install and commission voltage transformer metering in the electricity supply industry	4	12
19655	Demonstrate knowledge of electricity protection systems affecting metering installations	5	4

High Voltage Time of Use Elective
A minimum of 5 credits is required.

Engineering and Technology > Electricity Supply > Electricity Supply - Metering

Id	Title	Level	Credit
19317	Design a high voltage (HV) electricity meter installation	5	5

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Id	Title	Level	Credit
19320	Calibrate revenue metering current transformers in the electricity supply industry	5	12
19321	Calibrate revenue metering voltage transformers in the electricity supply industry	5	12
19322	Calibrate high accuracy electricity meters in the electricity supply industry	5	12

Transition Arrangements

Version 1

This qualification replaced the National Certificate in Electricity Supply (Metering Technician) (Level 4) [Ref: 1247] and the National Certificate in Electricity Supply (Metering Technician) (Level 5) [Ref: 1248].

Summary of differences between the qualifications

- Standards 1206, 2017, 2031, 14287, 15853, 15857, 15866, 15870, 17026, 17028, 19323, and 19950 (compulsory standards from Q1247) and 19472 (compulsory standard from Q1248) were not required in the new qualification.
- Standards 9703 and 23784 have been introduced to the new qualification.
- Optional strands have been added for low voltage time of use, and high voltage time of use.

The Electricity Supply Industry Training Organisation understands that there are no trainees registered under the National Certificate in Electricity Supply (Metering Technician) (Level 4) [Ref: 1247] or the National Certificate in Electricity Supply (Metering Technician) (Level 5) [Ref: 1248], therefore no transition arrangements are required.

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

Anyone who feels they have been disadvantaged may appeal to the Electricity Supply Industry Training Organisation at the address below.

For detailed information see Review Summaries on the NZQA website.

NQF Registration Information

Process	Version	Date	Last Date for Assessment
Registration	1	August 2007	N/A

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Standard Setting Body

Electricity Supply Industry Training Organisation
PO Box 1245
HAMILTON

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	2011

Other standard setting bodies whose standards are included in the qualification

NZQA

Certification

The certificate will display the logos of NZQA and Electricity Supply Industry Training 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	031313	Engineering and Related Technologies > Electrical and Electronic Engineering and Technology > Electrical Fitting, Electrical Mechanics

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.

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