

Title	Explain and implement load management on an electricity network		
Level	4	Credits	6

Purpose	<p>This unit standard is for people working as control room controllers in a distribution electricity network.</p> <p>People credited with this unit standard are able to explain and implement load management on an electricity network.</p>
----------------	--

Classification	Electricity Supply > Electricity Supply - Power System Management
-----------------------	---

Available grade	Achieved
------------------------	----------

Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable legislative and industry requirements.
- 2 Legislation, regulations, and/or industry standards relevant to this unit standard include but are not limited to:
 - Electricity Act 1992
 - Health and Safety at Work Act 2015
 - Electricity supply industry codes of practice and documented enterprise procedures, including *Safety Manual – Electricity Industry* (SM-EI) and relevant EEA guides available from <https://www.eea.co.nz/> and any subsequent amendments and replacements.
- 3 Definitions

Asset owner refers to a participant who owns or operates assets used for generating or conveying electricity.

Industry requirements include all asset owner requirements; manufacturers' specifications; and enterprise requirements which cover the documented workplace policies, procedures, specifications, and business and quality management requirements relevant to the workplace in which assessment is carried out.

SCADA is the Supervisory Control and Data Acquisition system.

System Operator Rolling Outage Plan (SOROP) is a schedule for planned network outages used to save energy during a security of supply emergency, and is available at transpower.co.nz.

Outcomes and performance criteria

Outcome 1

Explain load management on an electricity network.

Performance criteria

1.1 The Transpower System Operator Rolling Outage Plan (SOROP) is explained.

1.2 Methods of achieving network load management within asset owner's requirements are explained.

Range includes but is not limited to – selected customer voluntary load shedding, enforced customer load shedding, automatic load shedding, recognised medical alert and community sensitive power supplies preserved where possible, ripple control system.

Outcome 2

Implement load management on an electricity network.

Performance criteria

2.1 The amount of load required to sustain customer needs is identified.

Range may include but is not limited to – nominal load, seasonal variations and periods.

2.2 The procedures to implement and manage network loads in the event of a grid emergency are used in accordance with asset owner's requirements.

2.3 Maximum demand variations in the network electricity demand level are noted and documented.

Range may include but is not limited to – peak load by time of day and date, weather reference, special factors.

2.4 Load of network transformer, network equipment and network feeders is monitored to ensure maximum load levels are not exceeded as specified by asset owner's load management policies.

Range may include but is not limited to – maximum current, maximum temperature, special de-rating features.

2.5 Load is shed in accordance with asset owner’s requirements when maximum demand levels for electricity are exceeded.

Range may include but is not limited to – selected customer voluntary load shedding, enforced customer load shedding, automatic load shedding, recognised medical alert and community sensitive power supplies preserved where possible, ripple control system.

2.6 SCADA pre-set procedures are applied to shed load within timeframe specified by asset owner’s requirements.

Range may include but is not limited to – selected network feeders being programmed for tripping at pre-set load levels on the whole network, extent of load loss.

2.7 Trends in demand for electricity are noted and documented.

Replacement information	This unit standard replaced unit standard 16275.
--------------------------------	--

Planned review date	31 December 2027
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	28 September 2017	31 December 2024
Review	2	2 March 2023	N/A

Consent and Moderation Requirements (CMR) reference	0120
--	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Waihangā Ara Rau Construction and Infrastructure Workforce Development Council at qualifications@WaihangāAraRau.nz if you wish to suggest changes to the content of this unit standard.