

40374 Define energy production and use in New Zealand

Kaupae Level	2
Whiwhinga Credit	3
Whāinga Purpose	<p>This skill standard is designed to give entry level information regarding the energy and chemical industry in New Zealand.</p> <p>People credited with this skill standard are able to explain upstream and energy production and downstream energy use; and describe types of fuel production, and sustainable energy practices.</p> <p>This skill standard can be used in the New Zealand Energy and Chemical qualifications at Level 2 and above.</p>

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Explain upstream production and downstream energy use in New Zealand.	a. Describe upstream energy production types.
	b. Describe downstream energy uses.
	c. Explain how useable fuel sources are transported from producers to end users.
2. Explain how energy is produced in New Zealand.	a. Identify basic fuel types in New Zealand.
	b. Describe basic processes for converting energy resources into useable fuel sources.
3. Describe sustainable energy practices.	a. Describe renewable and non-renewable energy in terms of their use in New Zealand and impact on the environment.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

- 1a: Upstream energy production types include: Underground (oil, gas, coal, geothermal), on ground (biomass and hydro), in the air (solar and wind), and chemical reaction (Hydrogen).
- 1b: Downstream energy uses include, but are not limited to: Energy for manufacturing (dairy, meat works, raw materials processing) and energy for chemical plant operation (methanol, glue manufacturing).
- 1c: transportation types include: Powerlines, transmission pipelines, and road tankers.
- 2a: basic fuel types include: solid, liquid, gas and electricity.
- 3a: consider the environmental impact of extracting energy resources on its immediate surroundings, including domestic and imported energy resources.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

None

Rauemi | Resources

None

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Manufacturing > Energy and Chemical Plant > Operation of Energy and Chemical Plant
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0079

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	27 March 2025	N/A
Kōrero whakakapinga Replacement information	N/A		
Rā arotake Planned review date	31 December 2029		

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council at qualifications@hangaarorau.nz to suggest changes to the content of this skill standard.