

Field Engineering and Technology**Review of *Renewable Energy Systems* unit standards**

Subfield	Domain	ID
Renewable Energy Systems	Renewable Energy Systems - Design	27427-27429
	Renewable Energy Systems - Generic	27426
	Renewable Energy Systems - Installation and Maintenance	27430-27444, 28196

The Skills Organisation has completed the review of the unit standards listed above.

Date new versions published

October 2019

Planned review date

December 2024

Summary

These unit standards were reviewed by industry experts to reflect currency. Although there is no need for the Renewable Energy Systems (RES) qualifications, industry feedback indicates that there is still a need for RES unit standards.

At present, key AS/NZS standards are under review in the field of RES; the industry would like to see a full review undertaken when this has been completed.

Main changes

- All 20 unit standards were reviewed and update to use the latest unit standard template.
- Guidance information was updated to match the Electricity (Safety) Regulations and current legislation and standards. Where there are more current versions of standards than in the Electricity (Safety) Regulations, the version in the Regulations is cited.
- Some minor amendments to titles were made.

The last date for assessment of superseded versions of these Category B unit standards is December 2020

Detailed list of unit standards – classification, title, level, and credits

All changes are in **bold**.

Key to review category	
A	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
B	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
C	Major changes that necessitate the registration of a replacement standard with a new ID
D	Standard will expire and not be replaced

Engineering and Technology > Renewable Energy Systems > Renewable Energy Systems - Design

ID	Title	Level	Credit	Review Category
27427	Demonstrate and apply knowledge of Extra-Low Voltage requirements and testing for small scale Renewable Energy Systems Demonstrate and apply knowledge of extra-low voltage requirements and testing for small scale renewable energy systems	4	15	B
27428	Demonstrate knowledge of grid-connected photovoltaic system components, distributor requirements and metering	4	7	B
27429	Demonstrate knowledge of Micro-Hydro Systems Demonstrate knowledge of micro-hydro systems	4	15	B

Engineering and Technology > Renewable Energy Systems > Renewable Energy Systems - Generic

ID	Title	Level	Credit	Review Category
27426	Demonstrate knowledge of d.c. and a.c. machines used for small scale Renewable Energy Systems Demonstrate knowledge of d.c. and a.c. machines used for small scale renewable energy systems	4	5	B

Engineering and Technology > Renewable Energy Systems > Renewable Energy Systems - Installation and Maintenance

ID	Title	Level	Credit	Review Category
27430	Design Wind Energy Conversion Systems Design wind energy conversion systems	4	20	B
27431	Design Photovoltaic Power Systems Design photovoltaic power systems	4	20	B
27432	Demonstrate knowledge of photovoltaic arrays mounting requirements	4	5	B
27433	Demonstrate knowledge of Renewable Energy concepts and technologies Demonstrate knowledge of renewable energy concepts and technologies	4	10	B
27434	Demonstrate and apply knowledge of Renewable Energy design requirement assessment Demonstrate and apply knowledge of renewable energy design requirement assessment	4	7	B
27435	Demonstrate and apply knowledge of Data Communications and Logging for Renewable Energy Systems Demonstrate and apply knowledge of data communications and logging for renewable energy systems	4	5	B
27436	Demonstrate and apply knowledge of stand-alone Renewable Energy System components and operation Demonstrate and apply knowledge of stand-alone renewable energy system components and operation	4	15	B
27437	Install, commission and maintain Micro-Hydro Systems Install, commission and maintain micro-hydro systems	4	25	B

ID	Title	Level	Credit	Review Category
27438	Design Micro-Hydro Systems Design micro-hydro systems	4	15	B
27439	Demonstrate knowledge of photovoltaic technology	4	10	B
27440	Install, commission and maintain grid-connected photovoltaic power systems	4	15	B
27441	Install, commission and maintain Wind Energy Conversion Systems Install, commission and maintain wind energy conversion systems	4	25	B
27442	Install, commission and maintain stand-alone Photovoltaic Power Systems Install, commission and maintain stand-alone photovoltaic power systems	4	20	B
27443	Demonstrate knowledge of Wind Energy Conversion Systems Demonstrate knowledge of wind energy conversion systems	4	15	B
27444	Demonstrate knowledge of requirements for connecting photovoltaic arrays	4	3	B
28196	Solve basic problems in photovoltaic apparatus and systems	4	5	B