

In Progress

Please note that this Unit Profile is still in progress. The content below is subject to change.



ENEG11009 *Fundamentals of Sustainable Energy*

Term 3 - 2026

Profile information current as at 14/12/2025 09:04 pm

All details in this unit profile for ENEG11009 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview

Sustainable engineering practices and climate change are critical topics in current socio-economic and political settings. Meeting the world's energy demand through renewable energy sources and exploring carbon-free alternative energy sources are the highly sought-after solutions. In this unit, you will learn how to apply fundamental laws of physics related to energy and electricity to solve engineering problems. You will also learn the concepts of voltage, and current and use Kirchhoff's laws to analyse simple direct current (DC) circuits, and learn the fundamentals of alternating currents (AC). This unit also investigates current and future sustainable energy sources comprising solar, wind, hydro, and hydrogen, and relevant production processes. This unit also explores the effects of climate change on using renewable energy and the challenges faced in integrating renewable energy into the primary grid. This unit will promote progress toward the United Nation's Sustainable Development Goal 7 - Affordable and Clean Energy.

Details

Career Level: *Undergraduate*

Unit Level: *Level 1*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

There are no requisites for this unit.

Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the [Assessment Policy and Procedure \(Higher Education Coursework\)](#).

Offerings For Term 3 - 2026

- Online

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website

[This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.](#)

Class and Assessment Overview

Information for Class and Assessment Overview has not been released yet.

This information will be available on Monday 14 September 2026

CQUniversity Policies

All University policies are available on the [CQUniversity Policy site](#).

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the [CQUniversity Policy site](#).

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from SUTE

Feedback

Students are expected to understand and fulfil the unit requirements.

Recommendation

The unit requirements should be emphasised not only in Week 1 but also consistently throughout the term.

Feedback from SUTE

Feedback

Students expected improved Learning Resources.

Recommendation

Learning materials should be linked to practical applications in engineering and energy, providing students with examples of how theoretical concepts are used in practice. The lecture slides and tutorial problems and solutions should be updated to reflect these changes. Where relevant, multimedia resources should be used to enhance engagement.

Feedback from SUTE

Feedback

Students expected to identify the learning opportunities from assessments.

Recommendation

Assessments should be reviewed to explicitly reinforce key engineering and energy concepts by incorporating real-world problem-solving scenarios. The Online Test and detailed markers comments should be implemented to guide students on areas of improvement and ensure that assessments progressively build on prior knowledge.

Feedback from SUTE

Feedback

Students expected more feedback with their graded assessments.

Recommendation

Elaborated feedback should be provided on completed assessment tasks, guiding them on areas for improvement and fostering a deeper understanding of the subject matter.

Feedback from SUTE

Feedback

Students found it difficult to identify the useful knowledge base and skills gained in completing the unit.

Recommendation

Each week's content should be clearly mapped to specific learning outcomes and provide a structured overview at the beginning of the term. A weekly summary highlighting key skills and knowledge gained should be integrated.

Feedback from SUTE

Feedback

Students found it difficult to identify the relevance of this unit to the course they are studying.

Recommendation

Students should be consistently informed about the alignment of unit learning outcomes and assessments with the graduate attributes.

Unit Learning Outcomes

Information for Unit Learning Outcomes has not been released yet.

This information will be available on Monday 14 September 2026

Alignment of Learning Outcomes, Assessment and Graduate Attributes

Information for Alignment of Learning Outcomes, Assessment and Graduate Attributes has not been released yet.

This information will be available on Monday 14 September 2026

Textbooks and Resources

Information for Textbooks and Resources has not been released yet.

This information will be available on Monday 19 October 2026

Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.

This unit profile has not yet been finalised.