

Course Information and Policies

Stand Alone Power Systems – Design Only

We at GSES send you a warm welcome and thank you for choosing us.

This document contains important information about your course and relevant GSES policies. Please contact the GSES office on 02 9024 5312 if you have any questions or concerns regarding the content.

1 Course Details

The Stand Alone Power Systems Design Only course is available in three variants, termed “Fast Track” “GCPV Accredited” and “Full Course” in this document. You will enrol in only one of these streams, so please ensure you refer to the correct sections. **This course is not classified as Nationally Recognised Training.**

1.1 Prerequisites

This course is designed for engineers or those who have equivalent basic electrical knowledge and wish to further their skills by also being able to design stand-alone photovoltaic power systems. The course can be undertaken by electricians who only want to design and not install systems. While there are no formal prerequisites to complete this course, there is heavy use of computer, calculator and mathematical equations. For this reason it is strongly recommended that students have prior knowledge of mathematics, as well as computer and calculator skills.

Anyone wishing to apply with the Clean Energy Council for the Design of Stand-alone Power Systems Accreditation upon course completion will need to:

- hold an electrical or renewable energy engineering degree recognised by the Washington Accord (www.ieagreements.org/accords/washington), or
- hold an electrician’s licence, or
- have completed the Units of Competency:
 - One of:
 - UEECD0043 Solve problems in direct current circuits
 - Both of:
 - UEECD0044 Solve problems in multiple path circuits
 - UEECD0046 Solve problems in single path circuits
 - One of:
 - UEECD0025 Lay wiring/cablings and terminate accessories for extra-low voltage (ELV) circuits
 - UEEL0023 Terminate cables, cords and accessories for low voltage circuits
- have successfully completed the GSES Electrical Basics examination (www.gses.com.au/product/electrical-basics).

1.1.1 Full Course

There are no additional prerequisites for this course variant.

1.1.2 GCPV Accredited

This course variant builds on the knowledge of the Grid-Connected PV Systems Design Only course, so a prerequisite for enrolment is a Statement of Attainment in, or certificate of completion equivalent to, the following Units of Competency:

- UEERE0025: Solve basic problems in photovoltaic energy apparatus and systems
- UEERE0011: Design grid-connected photovoltaic power supply systems

1.1.3 Fast Track

This course variant builds on the knowledge of the Grid-Connected PV Systems Design Only course and the Battery Storage Systems for Grid-Connected PV Systems Design Only course, so a prerequisite for enrolment is a Statement of Attainment in, or certificate of completion equivalent to, the following Units of Competency:

- UEERE0022: Solve basic problems in photovoltaic energy apparatus and systems
- UEERE0011: Design grid-connected photovoltaic power supply systems
- UEERE5001: Design battery storage systems for grid-connected photovoltaic systems

1.2 Training Outcome

Successful completion of this Stand Alone Power Systems Design Only course will result in the award of a certificate of completion equivalent to the following Units of Competency:

- UEERE0025: Carry out basic repairs to renewable energy (RE) apparatus
- UEERE0022: Solve basic problems in photovoltaic energy apparatus and systems.
- UEERE0046: Solve problems in stand-alone renewable energy (RE) systems
- UEERE0031: Design stand-alone renewable energy (RE) systems

These unit codes have recently been superseded, but are still valid for enrolment and training until 19th December 2023. The superseded and new unit codes are equally valid for Clean Energy Council accreditation. GSES is developing a transition plan for students who wish to transfer to the new unit codes later in 2023.

Upon successful completion of the course, students who have the necessary prerequisite knowledge (i.e. recognised electrical engineering degree or pass mark in the GSES Electrical Basics examination) will be eligible to apply to the Clean Energy Council of Australia for the Design of Stand-alone Power Systems Accreditation. The Clean Energy Council has information on their website indicating their requirements to apply a Clean Energy Council Accreditation:

www.cleanenergycouncil.org.au/industry/installers/accreditation-process.

Note that GSES cannot guarantee successful completion of this course, which is dependent on the effort of the individual student. GSES assesses the Language, Literacy and Numeracy skills of students upon enrolment and may offer a refund to students whose results are below the levels recommended for

successful completion of the course. GSES does not provide entry level Vocational Education Training (VET) sector training.

When your course is completed, and all requirements have been met, you will be issued with certification within 14 days.

1.3 Delivery Method and Duration

This course is delivered online at students' own pace. The Stand Alone Power Systems Design Only course is nominally 200 hours of training, including the online assessments and design task. Students may take more or less time than this to complete the course. The work may be completed at any time during the student's enrolment period, which is valid for 12 months.

GSES has a team of tutors who mark the online work and as necessary supply feedback or additional technical information to the students. GSES's tutors are also available to be contacted by phone (02 9024 5312) during business hours or email (tutor@gses.com.au).

1.4 Materials and Equipment

Students are supplied with a copy of the GSES publication *Stand Alone Power Systems: Design and Installation 8th Edition* as part of enrolment; the cost of the publication and shipping is included in the course price.

Students will require a current copy of the following standards:

- AS/NZS 5033 - Photovoltaic arrays
- AS/NZS 4777.1 - Grid connection of energy systems via inverters
- AS/NZS 4509.1 - Stand Alone Power Systems - Safety and installation
- AS/NZS 4509.2 - Stand Alone Power Systems - System design
- AS/NZS 5139 - Electrical installations - Safety of battery systems for use with power conversion equipment
- AS/NZS 3010 - Electrical installations - Generating sets

These are not supplied by GSES; they can be purchased from the Techstreet or SAI Global websites (www.techstreet.com or infostore.saiglobal.com/store) and are available at some local libraries. TAFE students or members of NECA or Master Electricians may be able to access the standards through their respective institutions.

It is assumed that the student will, as an electrical engineer or equivalent, have and be familiar with current copies of the following:

- AS/NZS 3000 - Wiring Rules
- AS/NZS 3008.1.1 - Electrical installations - Selection of cables

The following standards are not required, but are recommended reading:

- AS/NZS 2676.1 - Guide to the installation, maintenance, testing and replacement of secondary batteries in buildings - Part 1: Vented cells

- AS/NZS 2676.2 - Guide to the installation, maintenance, testing and replacement of secondary batteries in buildings - Part 2: Sealed cells
- AS/NZS 3011.1 - Electrical installations - Secondary batteries installed in buildings - Part 1: Vented cells
- AS/NZS 3011.2 - Electrical installations - Secondary batteries installed in buildings - Part 2: Sealed cells
- AS/NZS 3017 - Electrical installations - Verification guidelines
- AS/NZS 3100 - Approval and test specification – General requirements for electrical equipment

Due to the online nature of the course platform, students will require access to a computer and the Internet in order to complete the course. Students will also need a scientific calculator, and access to Microsoft Excel or OpenOffice Calc (freeware) spreadsheet program is recommended.

2 Student Rights and Responsibilities

2.1 Code of Practice

As a registered training organisation (RTO) GSES complies with the Standards set out by the regulator, the Australian Skills Quality Authority (ASQA), for Vocational Education Training (VET).

GSES will inform students within 30 days of any changes to services provided to them. This includes any changes to education and support services, any change in the RTO ownership or to third party arrangements.

GSES does not countenance discrimination of any kind in the workplace. We wish to provide a safe and comfortable place of work.

2.2 Behaviour

GSES maintains an adult workplace. We do not countenance any behaviour that is contrary to safe work practice. We do not countenance inappropriate language in all forms of communication. GSES asks that all persons treat others with respect.

2.2.1 Cheating and plagiarism

Cheating will not be tolerated. If detected, sanctions may be implemented at the discretion of GSES.

Students are required to ensure that all responses and/or work they submit is their own work. Any referenced material should be annotated as to its origin. Sanctions may be implemented at the discretion of GSES if plagiarism or fraud is detected, including revocation of certification.

2.3 Complaints and Appeals

GSES has a policy of treating all complaints quickly and professionally. GSES welcomes your feedback.

We ask that you seek to resolve any issue with the GSES staff person who is providing the service. If you are unsure with whom you need to raise your issue, please:

- Call 02 9024 5312
- Write to GSES, Suite 4, Level 3, 44-54 Botany Rd, Alexandria, NSW, 2015
- Email training@gses.com.au

We will attempt to resolve your complaint within 10 working days.

2.3.1 General complaints and further appeals

If you cannot resolve the complaint informally with a staff member, you may lodge the complaint in writing with the RTO Chief Executive Officer (CEO) at geoff@gses.com.au. With your permission the CEO or senior manager will respond in writing within 10 working days. GSES may use mediation and conciliation to resolve the complaint.

2.3.2 Complaints and appeals of training and assessments

All GSES course participants have the right to appeal the results they obtain in assessments and examinations. The appeal should be sent in writing to the RTO Chief Executive Officer (CEO) at geoff@gses.com.au who will review the result and respond in writing. GSES may use mediation and conciliation to resolve the complaint. Students also have the right to engage a suitably qualified independent assessor.

2.4 Student Records

Your records are accessible in your online course. GSES urges you to keep copies of all your work until the course is completed and certificate issued.

3 Cancellation and Refunds

Cancellation of online training courses will be subject to the following conditions:

- If the student's Learning, Literacy and Numeracy (LLN) levels are determined by GSES to be below the standard required to complete the coursework successfully, and the student has not yet submitted coursework for assessment, GSES may offer a full refund of the online course material and practical training component. If the student then opts to continue with the course, the standard cancellation and refund policy applies.
- Cancellation of online training courses made *within fourteen (14) days* of the date of payment **AND before the online course has been accessed**: the student will receive a full refund of the online course payment.
- Cancellation of online training courses made *within fourteen (14) days* of the date of payment **AND after the online course has been accessed AND before any coursework has been submitted for assessment**: the student will receive a refund of the online course payment **less a cancellation fee of \$440**, unless the value of the course is lower than this, in which case the student will receive *no* refund.
- Cancellation *more than fourteen (14) days* after the date of payment **OR after the first coursework (i.e. the Workplace Health & Safety Assessment) is submitted for assessment** (whichever occurs first): the student will receive *no* refund.

- All course refunds are **exclusive** of the price of the supplied course publication as advertised at the time of enrolment, unless the publication is returned to GSES in an undamaged and unused condition. GSES reserves the right to refuse a refund of the publication on the basis that goods are damaged or have been used prior to return.

3.1 Course Validity

Courses are valid for twelve (12) months from the date on which enrolment is finalised, therefore the course must be completed within the expiry date given at the time of enrolment. If any extensions are required after the course expiry date, an administration fee of \$137.50 per month will be incurred to extend the course. Extension fees apply from the date of expiry, and the maximum extension permitted is six (6) months from the date of expiry. After this time (i.e. eighteen (18) months from enrolment), students must be re-enrolled into a new course if intending to continue. Standard enrolment fees will apply in this situation, and Recognition of Prior Learning (RPL) may be available for an additional fee.

If a cancellation/extension/change of date is required, please email or telephone GSES at training@gses.com.au or 02 9024 5312.

4 Recognition of Prior Learning (RPL)

In accordance with the Australian Quality Framework, GSES is committed to providing a quality recognition process to all students that is:

- Fair
- Flexible
- Reliable
- Valid

GSES will on request engage in a recognition of prior learning evaluation. GSES does not offer entry level VET sector training.

4.1 RPL Procedure

If a Unit of Competency (UOC) has been completed as part of an earlier taught course, that UOC will be evaluated to determine if there are any gaps in the previous training and any required training will be provided as part of a higher level or new course.

Should the participant seek RPL, an appropriately skilled staff member will assess the participant's competence against the performance criteria or learning outcomes of the unit or session.

GSES advocates a consultative approach to assessing both prior and current competencies through planning, implementing and evaluating the process.

Participants who are dissatisfied with the outcome of a recognition process are able to lodge an appeal through GSES's Customer Complaints and Appeals process, and participant feedback regarding the recognition process is used as a valuable mechanism to continually improve the process.

Where competence is not established, the applicant will be informed on the training solution that can be offered to prove this competence.

4.2 Cost of RPL

Fees for RPL evaluation will vary based on the extent of assessment and administrative services required. A simple credit transfer will typically incur a once-off administration fee, while a full RPL procedure may be billed at an hourly rate.

4.3 SAPS-Specific RPL

4.3.1 GCPV Accredited

The GCPV Accredited course variant has training and assessment specific to UEERE0022 removed, as students of this variant have already completed the equivalent of this unit. RPL for some components of UEERE0011 has also been applied to part of the course. By providing evidence of their completion of these units, students are granted this RPL automatically at no cost, and do not need to apply separately for RPL based on UEERE0022 or UEERE0011 if they have enrolled in the GCPV Accredited stream.

4.3.2 Fast Track

In addition to the course adjustments specified in 4.3.1, RPL for some components of UEERE5001 has also been applied to part of the course. By providing evidence of their completion of these units, students are granted this RPL automatically at no cost, and do not need to apply separately for RPL based on UEERE0022, UEERE0011 or UEERE5001 if they have enrolled in the Fast Track stream.

5 Intellectual Property

The material on the GSES website is subject to copyright as are the written materials supplied with the GSES name on them.

6 Disclaimer

All material and information provided by GSES is in good faith and is believed to be accurate and current at the date of publication. GSES endeavours to inform all stakeholders of any change in applicable regulations, codes of practice, or standards.

GSES will not be liable for computer viruses or damage resulting from the accessing of third party websites.