

Course Information and Policies

Stand Alone Power Systems – Design and Install

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 and Install 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 variants, so please ensure you refer to the correct sections.

1.1 Prerequisites

An electrical licence is a prerequisite for enrolment in this course. Electrical apprentices may enrol in this course; however, they will need to wait till they are issued their unrestricted licence before being awarded a Statement of Attainment OR show they have completed the prerequisite Units of Competency in their studies already:

- UEEEL0039 – Design, install and verify compliance and functionality of general electrical installations
- UEEEL0012 – Install low voltage wiring, appliances, switchgear and associated accessories

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 and Install course, so a prerequisite for enrolment is a Statement of Attainment in one of the following combinations of Units of Competency:

- Combination 1:
 - UEERE0061 – Design grid-connected photovoltaic power supply systems
 - UEERE0080 – Install photovoltaic power conversion equipment to grid
 - UEERE0081 – Install photovoltaic systems to power conversion equipment
- Combination 2:
 - UEERE0022, UEENEEK125A, UEENEEK025C, or UEENEEK025B – Solve basic problems in photovoltaic energy apparatus and systems
 - UEERE0011, UEENEEK135A, UEENEEK035C, or UEENEEK035B – Design grid-connected photovoltaic power supply systems
 - UEERE0016, UEENEEK148A, or UEENEEK048A – Install, configure and commission LV grid-connected photovoltaic power systems

1.1.3 Fast Track

This course variant builds on the knowledge of the Grid-Connected PV Systems Design and Install course and the Battery Storage Systems for Grid-Connected PV Systems Design and Install course, so the prerequisites for the GCPV Accredited variant specified in 1.1.2 must be met in addition to a Statement of Attainment in one of the following combinations of Units of Competency:

- Combination 1:
 - UEERE0060 – Design grid-connected battery storage systems
 - UEERE0077 – Install battery storage equipment power conversion equipment to grid
 - UEERE0078 – Install battery storage to power conversion equipment
- Combination 2:
 - UEERE4001 – Install, maintain and fault find battery storage systems for grid-connected photovoltaic systems
 - UEERE5001 – Design battery storage systems for grid-connected photovoltaic systems

1.2 Training Outcome

Successful completion of this Stand Alone Power Systems Design and Install course will result in the award of a Statement of Attainment in the current version of the following Units of Competency:

- UEERE0055 – Conduct site survey for off-grid photovoltaic/generating set systems
- UEERE0063 – Design off-grid photovoltaic/generating set systems
- UEERE0078 – Install battery storage to power conversion equipment
- UEERE0079 – Install off-grid power conversion equipment to electrical installation
- UEERE0081 – Install photovoltaic systems to power conversion equipment

Upon successful completion of the course, students will be eligible to apply to Solar Accreditation Australia for the Design & Installation of Stand-alone Power Systems Accreditation. Solar Accreditation Australia has information on their website indicating their requirements to apply for accreditation:

<https://saaustralia.com.au/about-accreditation>.

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 including identity verification, licensing verification and Unique Student Identifier (USI) as required by the Australian Government, you will be issued with certification within fourteen (14) days.

1.3 Delivery Method and Duration

This course uses two delivery methods: online theory completed at students' own pace and the face-to-face component held at a GSES Training Facility. Both components must be successfully completed to receive a Statement of Attainment. Fast Track students need attend only one 3-day practical training session, while GCPV Accredited students must attend one 2-day practical training session and one 3-day

practical session, and Full Course students must attend two separate 2-day practical sessions and one 3-day practical session.

The full Stand Alone Power Systems Design and Install course is nominally 250 hours of training, including the online assessments, design task and practical sessions. Students may take more or less time than this to complete the course.

The online component may be completed at any time during the student's enrolment period, which is valid for twelve (12) months, but some of the assessments must be completed **before** booking or attending the face-to-face component.

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). For the face-to-face component, students will work in small groups and individually. One trainer is assigned to a maximum of ten students for practical activities to ensure focused time with the trainers for any additional questions or advice.

1.3.1 First Face-to-Face Practical (Full Course Only)

The First Face-to-Face Practical component applies only to students enrolled in the Full Course variant. It covers theory relating to the design and installation of PV systems, and may be run in conjunction with a Grid-Connected PV Systems 2-day practical component. Students of the Full Course can book their place in the First Face-to-Face Practical after approximately **20% of the online assessments** (up to and including "PV Array Efficiency and Output") are completed.

1.3.2 Second Face-to-Face Practical (GCPV Accredited and Full Course)

The Second Face-to-Face Practical component applies only to students enrolled in the Full Course and GCPV Accredited variants. It covers theory relating to the design and installation of battery storage, and may be run in conjunction with a Grid-Connected Battery Storage Systems 2-day practical component. Students of the Full Course or GCPV Accredited variants can book their place in the Second Face-to-Face Practical after approximately **30% of the online assessments** (up to and including "Energy Storage") are completed. Students of the Full Course can only attend this practical component after attending the First Face-to-Face Practical.

1.3.3 Final Face-to-Face Practical (all variants)

The Final Face-to-Face Practical component applies to students enrolled in all course variants. Students of can book their place in the Final Face-to-Face Practical after approximately **70% of the online assessments** (up to and including "System Wiring and Protection") are completed. Students of the Full Course or GCPV Accredited variants can only attend this practical component after attending the Second Face-to-Face Practical.

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. This publication is an online-only e-book that can be accessed on the GSES online training platform. You will be given access to the textbook through the GSES training platform with an account linked to your email.

You may not have access to the textbook whenever our online training platform is down, for example during maintenance outages. You will retain access to this version of the e-book even after the expiry of your access to this course.

You can opt to get a **printed hardcopy** of the publication at an extra cost on top of the course price. This option will be available to you when you are purchasing the course.

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

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

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.

1.5 Payment Terms

The following payment structures apply to each course variant:

1.5.1 Fast-Track Variant

Full payment is required at the time of enrolment. Access to course materials and scheduling of any associated training components will only be granted once payment has been received in full.

1.5.2 GCPV Accredited Variant

1. An initial instalment is required at the time of enrolment to secure your place in the course.
2. A final instalment must be paid prior to booking the battery practical component of the course.

1.5.3 Full Course Variant

1. 60% of the total course fee is required at the time of enrolment.
2. 20% of the total course fee is required prior to booking the battery practical component.
3. The remaining 20% must be paid prior to booking the standalone practical assessment.

1.5.4 General Conditions

1. All payments must be completed before access to the corresponding course components is granted.
2. Bookings for practical sessions will not be confirmed until the relevant payment stage has been satisfied.
3. Statements of Attainment will only be issued once:
 - All course fees have been paid in full; and
 - All course requirements have been successfully completed.

The provider reserves the right to withhold certification or completion outcomes until all outstanding balances are paid in full.

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 thirty (30) days of any changes to the RTO ownership or to third-party arrangements.

GSES will provide students a minimum thirty (30) days' notice of any changes to education and support services. Changes in education may refer to additional courses material and/or assessment to reflect changes in Australian Standards, units of competency, and/or other changes within the solar industry.

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 first 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:

- Email training@gses.com.au
- Call 02 9024 5312
- Write to GSES at Suite 301/191 Botany Rd, Waterloo NSW 2017

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

2.3.1 Complaints involving GSES staff, contractors, third-party service providers, or other students

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 rto.ceo@gses.com.au. With your permission the CEO or senior manager will respond in writing within ten (10) working days. We may need to separately interview all involved parties to ensure procedural fairness.

If the complaint is not able to be finalised within sixty (60) calendar days, the CEO or senior manager will notify you of the reasons for this in writing, and regularly update you on the process. If the complaint is unable to be resolved internally, you may request a review by a third-party independent mediator registered with the Australian Mediation Association. The mediation fees will be at the complainant's cost, unless otherwise approved by the CEO or senior manager.

2.3.2 Complaints and appeals of training and assessment results

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 rto.ceo@gses.com.au who will review the result and respond in writing within ten (10) working days.

If the appeal is not able to be finalised within sixty (60) calendar days, the CEO or senior manager will notify you of the reasons for this in writing, and regularly update you on the process. If you are unhappy with the result of the appeal, you have the right to engage a suitably qualified independent assessor. The external assessment fees will be at the complainant's cost, unless otherwise approved by the CEO or senior manager.

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.

In the unlikely event that GSES ceases to deliver training services, all current student records will be transferred to ASQA, who can organise completion of the Units of Competency with another RTO.

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 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.
- The cost of an online training course is **inclusive** of the Practical Training Component (if applicable), as are course refunds.

3.1 Practical Training Component

The confirmed date for a Practical Training Component is only available once a student has completed the necessary online assessments, used the form on the student portal to select a date, and received a confirmation email from GSES. GSES may cancel a scheduled practical session at any time fourteen (14) days or more prior to the starting date: any students enrolled in the cancelled practical will be transferred to another session of their choice. For GCPV Accredited and Full Course variants, each practical session needs to be booked separately, unless otherwise advised by the GSES office.

A student may change the date of their Practical Training Component fourteen (14) days or more prior to the starting date of the Practical Training Component. Changing the date of any GSES Practical Training Component less than fourteen (14) days prior to the scheduled start date will incur an admin fee of \$192.50.

3.2 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, a monthly administration fee 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.

GSES will ensure that an individual's learning and skills are recognised irrespective of how or where they have been acquired. This policy, therefore, recognises that prior study together with work and life experiences may have provided the participant (subject to the provision of suitable evidence) with competence in the outcomes prescribed in a curriculum or Training Package.

Skills recognition assessments and outcomes will be recorded, and Statements of Attainment will be issued to the participant where applicable and appropriate.

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.

If competence is established a Statement of Attainment will be issued, and the student must provide USI and AVETMISS information.

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

RPL for some components of the following Units of Competency have been applied to this course variant:

- UEERE0061 – Design grid-connected photovoltaic power supply systems
- UEERE0080 – Install photovoltaic power conversion equipment to grid
- UEERE0081 – Install photovoltaic systems to power conversion equipment
- UEERE0022, UEENEK125A, UEENEK025C, or UEENEK025B – Solve basic problems in photovoltaic energy apparatus and systems
- UEERE0011, UEENEK135A, UEENEK035C, or UEENEK035B – Design grid-connected photovoltaic power supply systems
- UEERE0016, UEENEK148A, or UEENEK048A – Install, configure and commission LV grid-connected photovoltaic power systems

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 the above units if they have enrolled in the GCPV Accredited variant.

4.3.2 Fast Track

In addition to the course adjustments specified in 4.3.1, RPL for some components of the following Units of Competency have been applied to this course variant:

- UEERE0060 – Design grid-connected battery storage systems
- UEERE0077 – Install battery storage equipment power conversion equipment to grid
- UEERE0078 – Install battery storage to power conversion equipment
- UEERE4001 – Install, maintain and fault find battery storage systems for grid-connected photovoltaic systems
- UEERE5001 – Design battery storage systems for grid-connected photovoltaic systems

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 the above units if they have enrolled in the Fast Track variant.

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.