

Grid-connected PV Systems, Design and Install (Micro-credential) (Level 4)

Intakes
25/11/2026 (New Plymouth)
10/02/2027 (New Plymouth)
17/03/2027 (New Plymouth)

Duration
3 days

Domestic Fees
$665.00* (+$250 e-textbook or hardcopy)
All fees are GST inclusive

International Fees
$1,910.00 (+$250 e-textbook or hardcopy)
All fees are GST inclusive

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Grid-connected PV Systems, Design and Install (Micro-credential) (Level 4)

Grid-Connected Photovoltaic (GCPV) Systems are becoming a frequently requested option on many homes and in larger, commercial applications.

With climate change being a huge environmental issue worldwide, clean energy to power communities is needed. Solar can help lower our carbon footprint and can make a huge contribution to the environment's health.

It is essential that electrical workers involved with these systems fully understand their operating theory and safety requirements in order to both design and install safe and effective systems as well as fault-find and maintain existing systems.

This is a pre-requisite course for other advanced courses for those wanting to install battery-backup (on grid) or complete standalone (off-grid) systems.

EWRB (Endorsed Mains Parallel Generation Systems) Electricians, Electrical Engineers and Electrical Inspectors

The adequate knowledge, training, skill and experience for registration with the EWRB to work on Mains Parallel Generation Systems can be satisfied by completing:

- Grid-connected PV Systems, Design and Install (Micro-credential) (Level 4)
- Grid-connected Battery Storage Systems, Design and Install (Micro-credential) (Level 4)

Pre-requisite

- All applicants must be registered electrical workers and hold a current practicing licence (proof is required)

Course structure

The delivery of this course is designed for busy tradespeople who do not have the time to attend lengthy face-to-face courses. The online component is fully flexible to allow students to complete the theory in their own time.

Pre-course learning: Online self-directed learning at your own pace, with tutor support (96 hours)

Three day course at the WITT Campus, New Plymouth (24 hrs)

With successful completion of the course, the applicant achieves the following NZQA framework registered micro-credential: Grid-connected PV Systems, Design and Install (Micro-credential) (Level 4)

At the end of this course, participants will know how to:

- Assess a site's suitability for a Grid-Connected PV system and calculate an estimated energy yield for the client.
- Assess a client's energy consumption, create a load vs PV profile and recommend options to improve self-consumption of PV energy.
- Select appropriate components and assess their suitability.
- Design and Install a Grid-Connected PV system.
- Commission and Fault-Find Grid-Connected PV systems.

Topics include

- Solar Geometry
- Photovoltaic modules
- Grid-Connected Inverters
- Mounting Systems
- Balance of System components
- Site suitability and Load assessment
- System Design and Yield calculations
- Regulations, Standards – in particular AS/NZS5033 and AS/NZS4777.1 and examples of lines company connection requirements in New Zealand
- Installation, testing, commissioning and fault-finding of GCPV systems
- Hazards associated with photovoltaic modules and GCPV systems.

NZIHT reserves the rights to withdraw or adjust programmes, alter start date or fee schedules, and make any other changes as it may deem desirable or necessary, without prior notice. All programmes are subject to a sufficient number of enrolments and completion of all approval and accreditation requirements.

NZIHT and this programme are part of Te Pūkenga – New Zealand Institute of Skills and Technology

Last updated: 22 October 2026

- Energy consumption assessment and optimisation strategies.
- Additional grid protection requirements for larger systems.

Who should attend?

- Electricians
- Electrical Engineers
- Electrical Inspectors

All applicants must be registered electrical workers and hold a current practicing licence.

Cancellation policy:

Participant withdrawals must be notified in writing. Any withdrawals after 15 working days of receiving the online login details will be charged the full course fee, including text book fee. If a participant requests to be transferred to a practical course on a different date, or fails to complete the required online modules and WITT is required to transfer the participant to a different date, the participant will be charged an additional fee of $300. Non-attendance of participants on the course date will be charged the full course fee. These cancellation fees are non-transferrable.

Additional Information

(Minimum numbers apply before a course is confirmed)
* Applicants must supply a verified copy of either their NZ Passport, NZ Birth Certificate or Residency Visa, as well as a copy of their current electrical practicing licence

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