



Sustainable Energy Development Authority Malaysia (SEDA Malaysia)

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COURSE INFORMATION

The Design and Installation of Grid Connected Photovoltaic (PV) System Training

This course is offered to people who want to learn how to:

- Design Grid Connected PV systems that include solar PV modules, inverter and associated equipment.
- Install the above systems up to the inverter. (Note: the electrical connection between the inverter and loads can only be undertaken by licensed electricians).

The course is based on the manual: "Design and Installation of Grid Connected PV Systems". To successfully complete the course, each participant must show that they are competent in all skills and tasks as defined by the Australian Business Council for Sustainable Energy (BCSE) Task Analysis 101 and 102. A copy of these is provided in the course manual. All participants are required to obtain and use only original copies of the training materials.

The assessment of the participant includes:

- active participation in exercises conducted in the class during the 10 day training course;
- active participation in the physical work conducted during the 10 day training course;
- completion of assignments and exercises which must be submitted upon request by the trainers; and
- completion of a post examination assessment (PEA) to be submitted within one (1) week from the examination result.

Passing requirements

To pass, each candidate must satisfactorily pass **BOTH** theoretical and practical examinations. The breakdown of the theoretical and practical examination marks is as follows:

Theoretical

<u>Marks (%)</u>	<u>Status</u>	<u>Outcome</u>
0 to 49	Fail	Recommended to retake entire course
50 to 59	Fail	Eligible to request a re-sit of the exam only
60 to 99	Provisional pass	Eligible to be given a PEA*
100	Provisional pass	Eligible for award of an ISPQ certificate

*Post Examination Assessment (PEA) – this is a set of unique assignments based on questions the participants get wrong. The PEA is unique for each individual participant and they are given one week to complete and submit them to the examiners. The PEA's are then marked, and the final marks for the relevant participants are recalculated. The PEA's are only given to candidates who pass the practical examination.

Practical

The assessment is done based on a set of acquired skills obtained during the course. The candidates will be assessed based on these skills and each candidate will be given a status of “PASS” or “FAIL”. This status is given to each candidate by the evaluators when the evaluators are satisfied that the candidate has met the minimum criteria for passing, covering:

- Design
- Installation
- Testing & Commissioning
- Acceptance

Post Examination Assessment (PEA)

To obtain a PASS on the PEA, marks are defined as follows:

<u>Marks (%)</u>	<u>Status</u>	<u>Verdict</u>
70 to 89	Pass	Eligible for award of ISPQ certificate
90 to 100	Pass	Eligible for award of ISPQ certificate and apply to become trainer

Final verdict

To get a full certificate, each candidate must obtain a PASS in BOTH the theoretical and practical examinations.

Confidential Report

Lastly, the trainer-examiner submits a complete report comprising: full details of the marks, details of where each participant did wrong, summary of the practical assessments, summary of the performance and participation of each participant and recommendations for the award of ISPQ certificates.

Pre-requisites for Course Admittance

Pre-requisites for participants:

- i. be above 21 years of age;
- ii. holder of any Physical Science or Engineering or Electrician Certificate; and
- iii. is proficient in English and Mathematics.

As a minimum all course participants should have the following skills:

- some knowledge of safe work practices;
- mathematics for solving standard problems; and
- reading for comprehending technical subject matter.

All course participants must be able to read, understand and converse comfortably in English.

It is preferred that the participants already have knowledge and skills in:

- electricity, electrical terms and common formulae;
- working knowledge of tools and meters used in the installation and maintenance of electrical systems; and
- basic customer education and service practices.

Although having these skills is preferred, the participants can learn these skills during the course or with extra work prior to attending the course.

If there are some potential participants who would like to attend the training but do not have these skills, the potential participants must discuss this with the organiser before being allowed to attend the course.

How is the course organised?

If you have responded to an advertised course then you must complete the attached application form and send it to the organiser (address on the form) and you will then be notified if you have been successful in the application. The course date will be announced when 12 participants have registered for the course. If the training date is fine with you, you should make a payment to confirm your registration. During the course all lunches and morning/afternoon teas will be provided by the organiser.

Requirements of the Participant

Each participant shall:

- bring a notebook and/or paper, writing paraphernalia and calculator for taking notes and doing exercises; and
- wear suitable attire and correct footwear for physical activities.

***Note:** A participant can bring his/her own multi-meter and other tools if needed.*

For the details of course fee and mode of payment, please refer to the Application Form.