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New Zealand

## SEANZ Accreditation scheme

Building a competent and professional small scale renewables industry in New Zealand



SEANZ is introducing a competency based accreditation program for designers and installers of small scale renewable energy systems. The program is designed to enable industry practitioners to demonstrate to potential employers and consumers that they are competent.

Accreditation will be achieved by obtaining recognised industry qualifications and submitting case studies of completed work.

The accreditation scheme will be administered by SEANZ with training provided by independent training organisations.

SEANZ believes that a training and accreditation program is fundamental to growing and developing a professional small scale renewables industry.

- Installers and designers should have access to training on how to conform with relevant New Zealand standards. Small scale renewable energy standards are now referenced in the New Zealand Wiring Rules
- Growing businesses need qualified and competent people
- Consumers need a way to identify competent and professional designers and installers
- There should be a clear career path and training available to those wanting to become part of the industry





## Accreditation categories

Accreditation can be obtained for stand alone power systems or grid connect systems for design and/or installation. Accreditation in both grid connect and SPS can be gained.

**Standalone  
Power Systems**  
Design

**Standalone  
Power Systems**  
Install

**Standalone  
Power Systems**  
Design & Install

**Grid Connect  
Systems**  
Design

**Grid Connect  
Systems**  
Install\*

**Grid Connect  
Systems**  
Design & Install\*

\* As the installation of grid connect systems involves prescribed electrical work only registered electricians may obtain grid connect installation accreditation

Endorsements can be obtained in micro wind, micro hydro and hybrid systems

## When will the scheme become effective?

The scheme will commence at the beginning of 2010.

A period of one year will be allowed for people to obtain the necessary training and/or have prior learning recognised

## Benefits

### Companies and installers

- Demonstrate to clients independently accredited competency
- Use of the SEANZ Accredited logo in all promotional material
- Listed and recommended on the SEANZ website as an accredited installer/designer
- Access to training for new employees or those wanting to up skill
- Disputes process managed by SEANZ

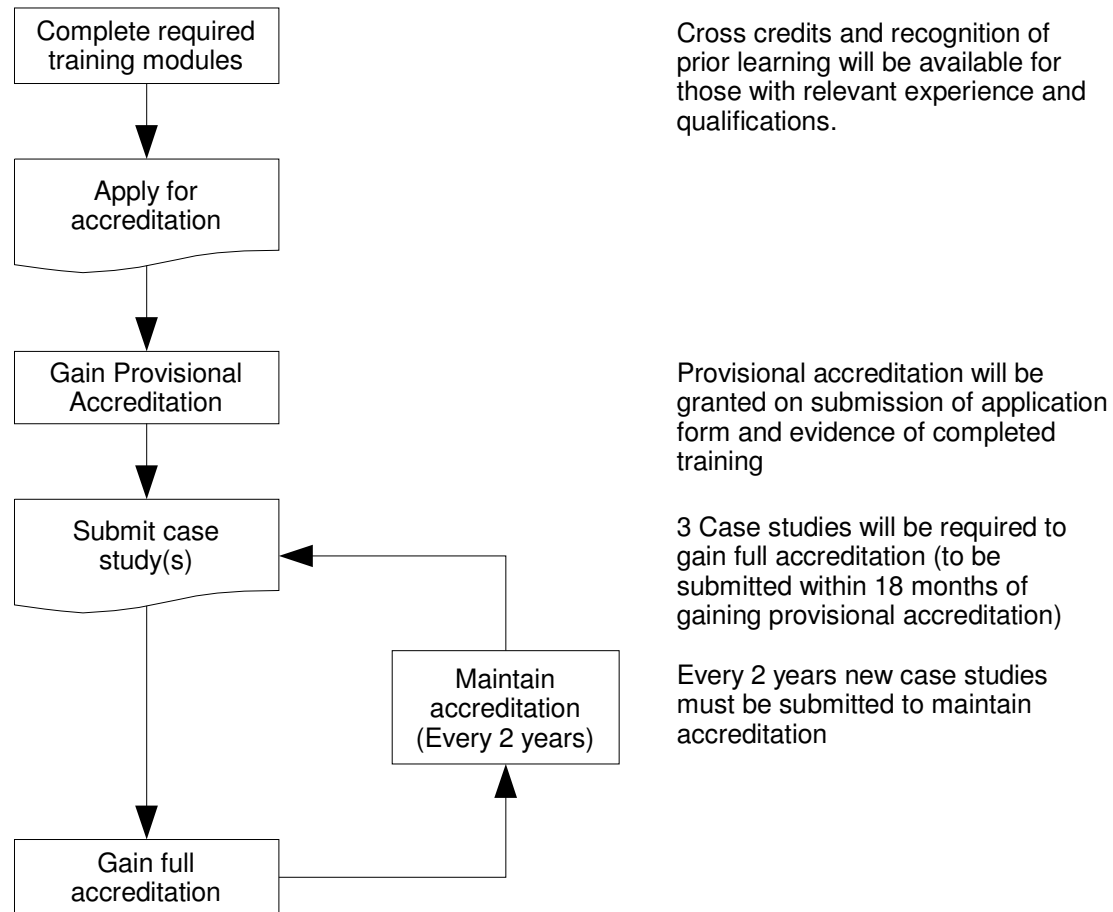
### Consumers

- Identify competent installers and designers
- Disputes process managed by SEANZ
- Design and installation completed to industry standards



## The process of accreditation

Accreditation is competency based. To gain accreditation you must complete SEANZ recognised training or have your prior experience and learning assessed against the competencies that are taught in these training courses.



## Training requirements

To obtain SEANZ accreditation the following training must be completed for the various categories of registration as indicated.

		Stand Alone			Grid connect		
		D	I	D&I	D	I	D&I
<b>General competencies<sup>1</sup></b>							
US15851	Electrical safety and safe working practices for electrical workers	✓	✓	✓	✓	Registered Electrician only	Registered Electrician only
US15847	Mathematics and mechanics for electrical trades	✓	✓	✓	✓		
US25070	Explain the properties of conductors, insulators, and semiconductors and their effect on electrical circuits	✓	✓	✓	✓		
US25071	Electromotive force (e.m.f.) production	✓	✓	✓	✓		
US25072	Electromagnetism theory	✓	✓	✓	✓		
US15861	Direct current (d.c.) power supplies	✓	✓	✓	✓		
US15853	Alternating current (a.c.) theory	✓	✓	✓	✓		
US750	Electrical test instruments and take measurements	✓	✓	✓	✓		
US15845	Draw and explain simple electrical diagrams	✓	✓	✓	✓		
US15854	Draw and interpret electrical diagrams						
US16407	Use and maintain hand and power tools for electrical work	✓	✓	✓	✓		
<b>Renewables competencies<sup>2</sup></b>							
NUER02 (REC122) <sup>3</sup>	PV power systems	✓		✓			
NUER15 (REC122)	Photovoltaic installations	✓	✓	✓	✓	✓	✓
RET003 (REC118)	ELV wiring practice		✓	✓			
NUER01 (REC114)	Introduction to RE	✓		✓			
NUER04 (REC119)	Stand-alone power system components	✓	✓	✓			
NUER03 (REC113)	Electronics for RE	✓	✓	✓			
NE139 (REC150)	Cells and batteries	✓	✓	✓			
NUER19	Grid-connect inverter systems				✓	✓	✓
US15757	Employ fall arrest systems on building and construction sites		✓	✓		✓	✓



<b>Additional endorsements</b>							
NUER06 (RED127)	Wind Energy Conversion Systems 1						
NUER09 (RED130)	Hybrid Energy Systems						
NUER05 (RED129)	Micro Hydro						

<sup>1</sup> Based on New Zealand Unit Standards

<sup>2</sup> Based on Current Australian Units of Competency (Note: GSES will be certifying against new Australian UoC).

<sup>3</sup> Course codes shown in brackets are Southland Institute of Technology equivalent papers

Those currently holding registration as an Electrician or Electrical Service Technician will not be required to complete the general competencies. Other cross credits or recognition of prior learning may also be available to those with previous experience or training. This will be assessed on a case by case basis by the training provider and credits awarded as appropriate.





## Available courses

The following courses will be available in 2009 for those wishing to gain SEANZ accreditation.

In addition SEANZ will recognise equivalent training from any registered training organisation as listed on the BCSE website. <http://www.bcse.org.au/default.asp?id=193>

### **Southland Institute of Technology (SIT):**

SIT will be offering all of the required modules to gain SEANZ SPS or grid connect accreditation through a distance learning program. In addition to the theory a 3 day practical workshop will be held in Invercargill.

SIT have a process of assessing prior learning against the course requirements allowing prior learning and experience to be recognised without completing all of the training courses.

Approximate cost of training: \$2100

#### **Southland Institute of Technology**

Freepost SIT2LRN

133 Tay Street

Invercargill 9840

Contact: Mike Grumball

Head of Faculty for Trades and Technology


Phone: +64 (3) 211 2634

Email: [mike.grumball@sit.ac.nz](mailto:mike.grumball@sit.ac.nz)

### **Global Sustainable Energy Solutions (GSES):**

GSES currently offer an onsite or distance learning course for electricians to gain Clean Energy Council (Australia) grid connect accreditation. In addition GSES will be offering those with 2 or more years experience in the industry a distance learning course to gain SPS accreditation. By completing this course and a number of assignments experienced designers and installers will be able to fast track their accreditation.

Both SPS and grid connect courses will require attendance at a practical workshop (location to be determined)



Approximate cost of training: \$5000

**GSES**

PO Box 57

Ulladulla 2539

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## Case studies

Case studies of work completed are required to obtain and maintain full SEANZ accreditation.

Case studies will be assessed by SEANZ against the requirements of the relevant standards.

### **Provisional to full accreditation:**

Once Provisional accreditation is obtained by completing the necessary training 3 case studies should be submitted before the end of an 18 month period to obtain full accreditation.

### **Maintaining full accreditation:**

To maintain full accreditation 3 new case studies should be submitted every 2 years.