

CERTIFICATE I
IN
SUSTAINABLE ENERGY
(ELECTROTECHNOLOGY)



TRAINING RECORD BOOK
SKILLS PORTFOLIO FOR

Name: _____

Address: _____

Post Code: _____

Phone details: _____

Other: _____

Emergency Contacts:

1. Name _____

Relationship: _____

Phone details: _____

2. Name _____

Relationship: _____

Phone details: _____

School Name: _____

Contact: _____ **Phone:** _____

School Address: _____

_____ **Post Code:** _____

Phone: _____ **Fax:** _____

RTO Name: _____

Contact: _____ **Phone:** _____



COPYRIGHT

© Australian National Training Authority (ANTA), 2003
GPO Box 5347BB, MELBOURNE, Victoria 3001, Australia Post

Telephone +61 3 9630 9800
Facsimile +61 3 9630 9888

All rights reserved. This work has been produced initially with the assistance of funding provided by the Commonwealth Government through ANTA. This work is copyright, but permission is given to trainers and teachers to make copies by photocopying or other duplicating processes for use within their own training organisation or in a workplace where the training is being conducted. This permission does not extend to the making of copies for use outside the immediate training environment for which they are made, or the making of copies for hire or resale to third parties. For permission outside of these guidelines, apply in writing to Australian National Training Authority.

The views expressed in this version of the work do not necessarily represent the views of ANTA.

ANTA does not give warranty nor accept any liability in relation to the content of this work.

First published 2003

STOCKCODE: xxxxxx

Printed for:
ElectroComms & EnergyUtilities Qualifications Standards Body of Australia Limited (EEQSBA) trading as EE-Oz Training Standards

Acknowledgments – EE-Oz Training Standards utilised excerpts from several source websites and documents in the preparation of this Training Record Book. In particular, and not diminishing many other contributions made by many practitioners in the Industry and Boards of Studies of which the EE-Oz Training Standards thanks, the EE-Oz Training Standards would like to acknowledge the following: ANTA, DEST, ACT U&LM ITAB, TEUITB, ElectrotecFutures, and PEER TEC.

FOREWORD

The purpose of this Training Record Book is to provide a permanent record of achievements during training for the national *Certificate I in Sustainable Energy (Electrotechnology)*.

This Training Record Book:

- is a guide for learners, employer(s) and teachers regarding the training requirements for completing the Certificate I program
- is a useful tool for keeping records from the various parts of the training program
- where it forms part of a VET in Schools program, is an important part of the Board of Senior Secondary Studies' assessment processes for the issuance of Year 12 Certificates
- provides the learner, college/school/RTO or employer, contact details in case of an emergency.

The various tools provided in this Training Record Book will aid in the evidence collection, required for the Registered Training Organisation (RTO) to validate and assist in the assessment and sign off of the learner's competencies for issuance of the national qualification. Achieving this national qualification will give learners an advantage when seeking employment in the industry. Therefore, commitment and diligence to care for this book and, in particular records of workplace experience is critical.

This Training Record Book outlines the training expected to be undertaken in order to achieve competence. Importantly, it helps provide progressive evidence of the learner's development as relevant workplace skills and knowledge is experienced with each work placement.

Specially designed instruments/proformas for recording workplace experiences, during work placements, have been included in this book for use by RTOs/schools, learners, and employers assisting with workplacement. These instruments detail the appropriate type of evidence that can be gathered to provide proof of experiences and exposures acquired against the training program and respective units of competency.

Note for Learners: This book is your only record of work performance. Measures must be in place to ensure its replication in the case of loss or damage. You must ensure:

- its safe keeping, general presentation and upkeep
- its availability for review by the school, host employer and, the Registered Training Organisation for certification purposes
- it is not lost or misplaced as it will be the only record of evidence you will have available as proof of on the job experiences and reports you achieved.

AN INTRODUCTION TO YOUR TRAINING PROGRAM

Sustainable Energy practitioners and Electrotechnology Industry research has found that prospective employees, need a good base of vocational knowledge and skills before they enter the workforce. The Training Program for Certificate I in Sustainable Energy (Electrotechnology) as outlined in this Training Record Book has been developed to help address this need.

To obtain the Certificate I in Sustainable Energy (Electrotechnology), a Training Program will need to be completed that gives the knowledge, skills, and experience (competencies) to be an effective employee now and into the future. It will be the foundation for a rewarding career path in any area of Renewable and/or Sustainable Energy practices as it applies within the Electrotechnology Industry whether it is in Renewable/Sustainable Energy, engineering, technician, semi-professional, professional, management, trades, marketing, research, sales and support or possibly a combination of these or other emerging vocations.

During your training, you will need to work towards developing a number of competencies and qualities that are fundamental to employment in the industry. These include a commitment to hard work, an equal commitment to safety, a desire to learn, the ability to meet timelines and the resourcefulness and enthusiasm to minimise waste of materials and energy to lower greenhouse emissions.

In the Training Program, learning and real work experiences have been integrated, using an off and on the job model of training, to make sure that you achieve all the specific competencies of the program before you finish. Another feature of the program is that the on the job component can occur within the normal commercial activities of the workplace. This means that the training can actually expose you, the learner to real workplace environmental activities, as long as you, the learner are given the necessary access and support.

Specifically, the Training Program will provide you with the opportunity to develop knowledge of:

- Greenhouse policies and reduction techniques
- Sustainable Energy (work) practices
- Renewable/Sustainable Energy technologies
 - energy conversion
 - photovoltaic
 - solar thermal
 - wind generation
 - hydro-electric
 - ocean
 - biomass
 - energy storage
 - energy efficient building design
- supporting electrical and mathematical concepts

and with this knowledge...

- provide a convincing argument to others on the effects of greenhouse gases and global warming
- use Sustainable Energy reduction strategies in daily activities
- promote these activities to others in the community
- advise on methods of energy reduction in domestic premises
- enter the Electrotechnology industry with prior skills and knowledge in sustainable/ Renewable Energy
- enter higher National Electrotechnology Training Package qualifications in the area of Sustainable/Renewable Energy and/or Electrotechnology specialisations
- gain RPL/RCC credit towards higher National Electrotechnology Training Package qualifications in the area of Sustainable/Renewable Energy and/or Electrotechnology specialisations
- gain a TER/UAI score
- enter University studies in the area of Environmental Management, sustainable/ Renewable Energy and/or Electrotechnology specialisations.

The Training Program works for both you and the host employer. It gives an employer an opportunity to equip you with the required basic entry knowledge and skills needed for working in any area of Renewable and/or Sustainable Energy practices within the Electrotechnology Industry, making sure you are a more potentially effective employee in the future. At the same time, it significantly enhances employment potential, across a range of vocations in the Electrotechnology Industry. These include a range of Renewable/Sustainable Energy techniques and applications that use the medium of electronics, electrical, communications including data and information technology, computer systems, instrumentation, refrigeration, air conditioning and renewable energy.

Sustainable/Renewable Energy principals and practices within Electrotechnology vocations generally cover such work as design, research, assemble, install, construct, diagnose, maintain, commission, program, test or repair of; networks, systems, circuits, equipment, components, appliances, facilities and the like. Career paths in the industry span from a Traineeship to Trades, Diploma in Renewable Energy and Advanced Diplomas in Engineering (electrical, electronics, etc.).

Government and industry training initiatives like the new apprenticeship scheme are value adding and support activities that improve the national and international competitiveness of a business. Your determination to complete the Certificate I Training Program is critical to you starting a new and exciting future and career in Sustainable/Renewable Energy principles and practices. It is also a stepping-stone to further your career in Electrotechnology and other related industries.

Content

FOREWORD	3
AN INTRODUCTION TO YOUR TRAINING PROGRAM	4
INTRODUCTION	7
1. THE QUALIFICATION	8
2. THE TRAINING PROGRAM	10
The recommended Training Program	10
Training Records	10
Technical Educational Experience	10
Workplace Experiences/Activities	11
Structure of the Training Program	11
3. REQUIREMENTS FOR RECORDING OF EVIDENCE FROM WORKPLACE EXPERIENCES – (WORK PLACEMENTS)	14
Introduction	14
Filling out the Work Placement Record	15
4. EVALUATIONS	45
5. COMPETENCY ASSESSMENT SUMMARY	58
6. GENERAL AND OTHER INFORMATION	61
1. List of Acronyms	62
2. Career pathways in the Electrotechnology Industry	63
3. Contacts for more information about apprenticeships	65
Useful Contacts	67
4. Information about Apprenticeships – What are Apprenticeships?	68 68
7. RTO/SCHOOL SECTION	74
8. RECORD WORK SHEETS	75

INTRODUCTION

This Training Record Book outlines the completion requirements for the *Certificate I in Sustainable Energy (Electrotechnology)* and, details the Training Program and other supporting arrangements that will be required for those wishing to gain the qualification.

In this Training Record Book, the following will be covered:

1. **The qualification** – what is it and how is it to be used.
2. **The Training Program** – what training is to be undertaken to gain the qualification.
3. **Requirements for recording of evidence from workplace experiences** – includes four important work placement requirements and activities;
 - (i) details of the work placement
 - (ii) what workplace experiences need to be undertaken and recorded against the competencies making up the qualification (two optional recording systems are included for use)
 - (iii) a work site induction checklist
 - (iv) an on-the-job supervisor/mentor report.
4. **Evaluation by learner, host employer, and RTO/school of work placements** – each party to the training program is given an opportunity to provide feedback of the work placement experiences.
5. **Competency Assessment Summary** – RTO's formal confirmation of competency achievements.
6. **General and Other Information** – Information regarding apprenticeships, career paths, acronyms used in vocational education and training and useful contacts are included.
7. **RTO/School Section** – This section has been left blank for use by the Registered Training Organisation (RTO)/School to include respective materials and information regarding policies, principles, and operational arrangements that apply.
8. **More Work Record Sheets** – Additional Work Record Sheets have been included in this section should there be more Work placements.

1. THE QUALIFICATION

This section outlines the qualification and completion requirements for gaining the *Certificate I in Sustainable Energy (Electrotechnology)*.

A *Certificate I in Sustainable Energy (Electrotechnology)* will be issued by the relevant Registered Training Organisation to a learner, provided the learner successfully completes the ElectroComms, EnergyUtilities Qualifications Standards Body of Australia Ltd (EEQSBA) approved Training Program. The program is comprised of off-the-job and on-the-job training. If competency is not achieved in any of the units then the learner is to receive a transcript (Statement of Results) only for the achieved off-the-job training components (learning strategies – knowledge and skills modules).

Completion requirements for the qualification

A copy of the Certificate I in Sustainable Energy (Electrotechnology) Qualification Structure is included on the next page. This qualification is drawn from the National Electrotechnology Training Package, which has been approved and endorsed by Ministers of Vocational Education and Training across Australia. The qualification therefore, is nationally recognised.

To gain the Certificate I in Sustainable Energy (Electrotechnology), the learner, in agreement with the RTO/school/host employer, will need to undertake training and be confirmed competent by the Registered Training Organisation when the following has been achieved:

1. Compulsory Core units of competency
2. At least two Elective Units must be selected from the list of Group A and Group B Elective Units, of which no less than one must be chosen from Group A.

The decision for which units are to be selected to gain competence in, with relation to the Electives Unit (as required) are a matter for the RTO/school, learner, and/or host employer(s).

At minimum, only the core and two electives need be gained. At maximum, the core, general elective, and the technical units can be gained. The decision is dependent on local requirements.

Sustainable Energy (Electrotechnology) – Certificate 1

Qualification No	UTE 1 02 02
Qualification Specialisation	Not applicable

Core Units - All to be completed

UTE NES061 A	Provide basic Sustainable Energy solutions for energy reduction in domestic premises
UTE NES062 A	Apply Sustainable Energy practice in daily activities
UTE NES065 A	Promote Sustainable Energy practice in the community

Elective Units - At least two Elective Units must be selected from the list of Group A and Group B Elective Units, of which no less than one must be chosen from Group A.

Group A – General Elective Units

UTE NES052 A	Interact with customers/clients for quality service
UTE NES053 A	Participate in job data records collection of the business

Group B – Technical Elective Unit

UTE NES064 A	Undertake computations in an Electrotechnology environment
---------------------	--

End of this qualification

2. THE TRAINING PROGRAM

This section explains the Training Program that will need to be undertaken by you, the learner, for the respective **core and elective units as required**. The applicable Training Program helps guide your development towards competence for achievement of the qualification. Once you have successfully completed the Training Program, the appointed Registered Training Organisation will assess your performance and make a decision as to whether you are competent or not for each of the units of competency, as selected when you commenced the Training Program. If you have achieved all the necessary competencies, the RTO will issue the national qualification - Certificate I in Sustainable Energy (Electrotechnology) to you.

The recommended Training Program

The Electrotechnology Industry prefers an **on-and-off-the-job training approach** to the development of competency. It considers the development of **technical underpinning (or foundation) knowledge and skills** is best carried out in a conducive learning environment – a classroom or equivalent. This is because it is rich in theoretical/technical content. This is the off-the-job component.

In relation to the on-the-job component, the industry considers it essential that application in real workplace activities and experiences is critical as it builds on and reinforces the off-the-job underpinning knowledge and skills learnt. Therefore, this component of training is as important as the off-the-job. When undertaking this on-the-job learning, appropriate workplace experiences need to be confirmed in a formal way. This is discussed in further detail later in this book.

Training Records

As mentioned above, competence in the Electrotechnology Industry is achieved through regular exposure to recurring workplace events where knowledge and skills, developed through technical educational experiences off the job are applied.

Records of all learning activities need to be kept. The way you record your workplace experiences/activities is different to the way your technical educational experiences will be recorded. Each method is described below.

Technical Educational Experience

The recording process for your **off-the-job training** will depend on the way this training is organised by your RTO.

Your technical educational training will be arranged so that the content is logically grouped into manageable topics or subjects. This will make learning easier and more relevant to the practical application of the knowledge/skills in the workplace.

It is the Registered Training Organisation's (RTO's) responsibility to record the results of each of the underpinning knowledge and skills (off-the-job learning strategies or knowledge and skills modules), as achieved.

Workplace Experiences/Activities

The recording process of your training has two main functions. The first is so that your RTO can check if you are getting enough exposure to the required range of practical experiences. During your on-the-job training, you should be exposed to a range of functions that are representative of normal work place activities. Your activities may be associated with plant and equipment, tools, components, electrical and electronic devices and the like.

The second more important function of the records is so that they can be analysed to see if your workplace performance is progressing towards competence or if some changes need to be made. This information, together with the information about your technical educational achievements (ie. learning strategies or modules), can be used to advise on how you are developing and progressing. It may also help determine your readiness for assessment of your competency.

Examples of forms for recording these workplace experiences are shown in Section Three. Your RTO can tell you which relevant recording instrument is required.

Note: The RTO may adopt either one or both the sample instruments included in this Training Record Book. It may also apply its own. Therefore, your RTO's instrument may differ slightly from the examples provided here, however the evidence required will be the same. The RTO may agree to use the Work Records included in this Training Program. Alternatively, the RTO may have a different way in gathering the required information.

Instructions on how and when to fill out the Work Placement Record should be given to you by your RTO in consultation with the work placement. Return the completed form(s), as requested. It is important that you keep in mind the need for accuracy in making your entries.

Structure of the Training Program

(i) Off the job

The off-the-job training component of the Certificate I in Sustainable Energy (Electrotechnology) covers the technical underpinning knowledge and skills (learning strategies - modules) of each selected unit of competency that is to be delivered. This should be within an environment suitable for learning (classroom) either at the school or Registered Training Organisation's Training Centre or other location. A majority of time learning the technical underpinning knowledge and skills for the units of competency will be in this environment.

(ii) On the job

The on-the-job training component of the Certificate I in Sustainable Energy (Electrotechnology) requires the demonstration of the learned underpinning knowledge and skills to **workplace experiences** as related to each applicable unit(s) of competency. Information regarding what is to be demonstrated in work placement is outlined in detail in "Section 3. Requirements for recording of evidence from workplace experiences".

When setting out the competencies to be gained the RTO/School, learner/student and prospective placement employer(s) will initially require the selection of the requisite general elective(s) and if required, technical elective unit of competency.

For example, selecting the requisite units for completion of the qualification will require competence to be achieved in the units of competency applicable:

Sustainable Energy (Electrotechnology) – Certificate 1

Core Units - All to be completed

UTE NES061 A	Provide basic Sustainable Energy solutions for energy reduction in domestic premises
UTE NES062 A	Apply Sustainable Energy practice in daily activities
UTE NES065 A	Promote Sustainable Energy practice in the community

Elective Units - At least two Elective Units must be selected from the list of Group A and Group B Elective Units, of which no less than one must be chosen from Group A.

Group A – General Elective Units

UTE NES052 A	Interact with customers/clients for quality service
UTE NES053 A	Participate in job data records collection of the business

Group B – Technical Elective Unit

UTE NES064 A	Undertake computations in an Electrotechnology environment
---------------------	--

For the above qualification the following Training Program will apply:

1. Off-the-job component

In addition to the on-the-job, the following off-the-job program (learning strategies - technical underpinning knowledge and skills) is to be undertaken in order to meet the respective aspects of the Evidence Guide of the units of competency:

		Nominal duration
NBB002	Occupational Health and Safety	0.5
NUER01	Renewable Energy Technologies	2.0
NUE078	Applied Electrical Science	1.0
NUE058	Electrical Concepts & Applications	1.0
NUER21	Greenhouse Reduction Strategies	1.0
NUE071	Projects for Electrotech Vocations	1.0

Group B – Technical Elective Unit where selected

NUE081	Applied Mathematical Concepts 1	1.5
NUE082	Applied Mathematical Concepts 2	1.5

- ✓ The **Group A Elective Units** do not require additional technical underpinning knowledge & skills as the units relate more to quality assurance measures of the workplace.
- ✓ **Note:** Typically, for the off-the-job component 1.0 module of learning equates to 36-40 hours. 0.5 to 18-20 hours.

Updates in knowledge and skills modules that apply to the core and technical units from time to time refer to the latest National Electrotechnology Module Map, which is available through the **EE-Oz Training Standards** Website – www.ee-oz.com.au.

2. **On-the-job component** – see “Section 3 - Requirements for recording of evidence from workplace experiences”

Core – All on-the-job workperformance modules to be completed

NUEWP061	Provide basic Sustainable Energy solutions for energy reduction in domestic premises – Work Performance
NUEWP062	Apply Sustainable Energy practice in daily activities – Work Performance
NUEWP065	Promote Sustainable Energy practice in the community – Work Performance

Group A – General Electives on-the-job workperformance modules

NUEWP052	Interact with customers/clients for quality service
NUEWP053	Participate in job data records collection of the business

Group B – Technical Elective where selected on-the-job workperformance module

NUEWP064	Undertake computations in an Electrotechnology environment – Work Performance
-----------------	---

3. REQUIREMENTS FOR RECORDING OF EVIDENCE FROM WORKPLACE EXPERIENCES – (Work Placements)

Introduction

This section outlines the techniques and processes which may be followed in coordinating and recording evidence of work placements you have or, are to undertake, following agreement with your RTO/school/host employer.

Typically, three work placements are considered sufficient for evidence towards the Certificate I in Sustainable Energy (Electrotechnology). Your RTO/school should discuss with you how this will occur and where you may be placed.

To assist you and your RTO/school record your experiences, three (3) Work Placement Kits which can be used to record each of the activities you undertake whilst on assignment, are included in the following pages. You or your RTO/school can choose to photocopy these if you do more than three work placements or use the additional ones included at the back of this book.

Recording your experiences is very important as it helps your RTO/school decide whether you are progressing and have achieved the desired results. The RTO/school will use these specially designed kits and your off-the-job results to determine/assess if you have achieved competence for the units and ultimately, the qualification.

For each work placement kit, **there are four parts** that are to be completed as required by your RTO/school and host employer:

1. **Work placement details**
2. **Work site Induction Checklist for Work Placement (where required)**
3. **Work experience (evidence collection) instruments (two options)**
4. **On-the-Job Supervisor's Report**

Each is covered in more detail below:

1. **Work Placement Details (3 forms)**

Proformas are included to record the details related to your first work placement (two similar forms are provided for additional work placements). You and your RTO/school and host employer(s) should complete these forms as required.

2. **Work Site Induction Checklist for Work Placement (3 forms)**

This is a very important form and needs to be completed by you and your supervisor for each work placement, where required. Three forms have been provided for this. The form confirms that you have been, where required, appropriately inducted into the work placement from a '**safety**' point of view. Ensuring a person's safety in the workplace is important and you should be familiar with each item in the 'checklist'.

3. Work Experience (evidence collection Instruments (3 forms-two options)

- (i) **Work Record Sheet (option 1)**
- (ii) **Tasks undertaken on the job (option 2)**

Two specially designed forms have been included to provide you and your RTO/school/host employer with two optional instruments for recording your actual work experiences/activities/exposures. Your RTO/school will advise you which is the preferred instrument to be used.

Irrespective of which one is chosen it is important that you complete it as required, so that a record of what you experienced is established. Not completing either of these forms may jeopardise your opportunity to gain the full qualification.

4. Workplace/On the Job Supervisor's Report

This form is crucial to validating/confirming your work experiences and exposure. It is to be completed by the person appointed as the supervisor or mentor for your work placement. The form confirms and validates your interest, application, experiences, initiative, and understanding of the organisation, as well as your work activities against the units of competency making up the Certificate I qualification.

The workplace supervisor/mentor/host employer's responsibilities in relation to this Training Record Book are to acknowledge and verify your:

- Daily attendance in the workplace
(Daily attendances are endorsed via the Workplace Supervisor's signature and date at the relevant Vocational Placement Details page)
- Work experiences and development
(Formally acknowledging your experiences via the workplace supervisor's signature)

Filling out the Work Placement Record

The Work Record experience instruments/forms (two examples included) are a sample of the kind of evidence-gathering tool you may be required to use to record your workplace experiences/activities. The purpose of this information is to indicate to the RTO/school, the activities you are undertaking against the units of competency and to reveal progress and any trends in your learning process. In particular, information is gathered about the type of work experience/activities, the degree to which supervision is applied, and the standard of all aspects of your work. This can then be used to inform the RTO about your readiness for a final judgement about your performance.

The frequency with which the records are completed will be determined by your RTO in consultation with yourself and the host employer.

The sample work record forms included in the Work Placement Section, show a step-by-step guide to completing the work record. A record of work experiences should be completed with each work placement and should adequately reflect all the day-to-day activities that have occurred during the reporting cycle. Once you complete the form it must be verified, that is, signed off by your supervisor/mentor/host employer. The supervisor/mentor/host employer should have a good understanding of the purpose of the work experience record and should know how to verify and use it correctly. If there is any doubt, the RTO/school and the host employer should be consulted.

Note that the RTO/school as the assessing body will, in addition to the range of equipment, tools, materials and the like you worked on, be looking for three key indicators of progress, which are sought for each unit of competence. Your reports must address each of these:

- **Activity –** For each unit of competence did you: prepare to carry out work, carry out the work, and/or complete the work?
- **Exposure -** For each unit of competence how much time did you spend in preparing, doing and/or completing the whole job?
- **Supervision -** For each unit of competence what level of supervision was applied. Did you:
 - 1 – Observe only,
 - 2 – Assist others, or
 - 3 – Complete the task under direct supervision

In summary – your reports should be against each unit of competence. They should cover a range of representative items of plant, equipment, tools, materials and the like that you have used. They should refer specifically to **Activity, Exposure, and Supervision**. This will give your RTO/school and of course, your host employer(s) valuable information for evaluating your competency progress.

Planning for the Range of Experiences for the on-the-job placement

Planning your Work Placement takes effort and responsibility. Your RTO/school will have had to contact, arrange, and agree with a host employer(s) about your work placement. Your commitment to follow what is required will ensure everyone and those that follow you, have good experiences. So, consider the importance of your placement and what you may learn.

During your work placement, you will encounter a range of experiences. Most importantly, you will be exposed to real life work where you will observe and participate in the use of a wide range of tools, equipment, and materials. You will also encounter terms like safety, legislation, and unique industry jargon. Some of these include the following:

Environment - The area surrounding the work site which can be directly or indirectly affected by occurrences at the work site. It includes the atmosphere, soils, drains, underground water tables, and the ecosystem. Protection of the environment would require the proper disposal of waste materials, restriction of burning off, the correct handling of toxic substances, the containment of CFCs and the like.

The protection of the environment would also include the minimisation of those factors that contribute, directly or indirectly, to the production of *greenhouse gases*.

These contributing factors might include the minimisation of waste materials, the correct use of enterprise vehicles and machinery, the re-use or recycling of trade materials where possible and the overall reduction of energy usage through general awareness and the use of appropriate technologies.

Greenhouse gases - Gaseous components of the atmosphere contributing to the greenhouse effect. These gases are produced, for example, when fossil fuels are burned to produce electricity and in other industrial processes. The greenhouse effect leads to global warming with its ecological and environmental problems.

The minimisation of the use of energy in the workplace, derived from burning fossil fuels, reduces the production of greenhouse gases.

See also environment

Sustainable Energy Principles and Practice - Sustainable Energy Practice refers to workplace actions that contribute to the reduction of greenhouse gases. These are caused by the combustion of fossil fuels such as coal and gas. As most electricity is generated using fossil fuels, a reduction in the unnecessary use of electricity reduces the production of greenhouse gases. Also, most materials used in the workplace are manufactured using electricity or gas, so recycling and reducing the wastage of these materials also helps. There is a worldwide commitment to reducing greenhouse gases, which are considered to contribute to global warming. This User Guide promotes workplace strategies to assist in achieving the same goals.

Sustainable Energy Practice is closely related to the 'environment'. Sustainable energy practice aims to reduce the amount of wastage in electricity and other forms of energy that lead to the production of greenhouse gases. Many of the principles and practices that apply in the workplace also apply in the home and the general environment. These include:

- examining work practices that may use excessive electrical energy
- reducing energy by using energy efficient machines and appliances (eg. star ratings)
- switching off devices such as lights, machines and computers when not in use
- using power-save devices, such as those incorporated in photocopiers, business machines and the like
- replacing incandescent lamps with compact fluorescent lamps
- using natural light to replace artificial light
- regularly cleaning air conditioner filters
- closing windows and doors when climate control units are used
- insulating dwellings, offices and workplaces and preventing draughts
- using reflective curtains to control heat

- using natural or artificial shade to control sunlight
- using solar water heating
- using automatic processes to manage energy usage
- reusing materials used in construction, engineering and manufacturing
- recycling waste materials
- driving motor vehicles and other machines with care
- using natural gas for heating rather than oil or coal based fuels
- using devices to reduce water usage
- checking for leakage in hot water system pressure relief valves and elsewhere in plumbing systems
- sharing information about energy conservation with other workers

An **inspection** is arranged with a prospective host employer, employees, supervisor/mentors, tradesperson, or other appropriate representative(s), to determine site access conditions and work requirements.

Punctuality means the person is 'ready for work' at the designated work site at the allotted times.

Occupational Health and Safety Standards, Statutory Requirements and Codes of Practice are regulatory requirements that are governed by Federal, State/Territory, and/or Local Governments in consultation with industry.

Protective clothing means appropriate safety shoes, hard hat, safety glasses, overalls or trousers and shirt that provide protection from sunburn, chemicals, sparks and equipment debris and emissions.

Materials can refer to drill bits, hole saws, thread taps, sand, cement, aggregate, water, plaster, sealant, emery paper, cleaning solvents, paint, turpentine, rags, bricks, roofing tiles, wall tiles, fixings such as anchor plugs, chemi-anchors, masonry anchors, toggle bolts, bolts, nuts, washers, self tapping/wood/metal thread screws, rivets, clouts and nails, clips, pins, springs, girder and plastic cable brackets, adhesives, adhesive tapes, insulation tape, heat shrink, sleeving, spiral binding, stainless steel strapping, cable mounts, cable mounting ties, cable ties, solder, solder flux, lubricants and/or silicone.

Tools (1) can refer to general hand tools such as picks, shovels, brooms, trowels, spatula, knives, wire brushes, pain brushes, vacuum cleaners, chisels, bolters, star drills, wood saws, hacksaws, plaster saws, multigrips, pliers, side cutters, wrenches, spanners, hammers, mallets, tape measures, squares, spirit levels, clamps, riveting tools, hand drills, Tap-wrenches and soldering torches.

Tools (2) can also refer to portable electrical tools such as drop saws, circular saws, jig saws, pistol drills, battery drills, soldering irons and heat guns.

Tools (3) can also refer to specialist tools such as trenching shovels, chasing machines, concrete cutting machines, bending springs, bending/hickey sticks, stock and dies, cable rollers, cable strapping tools, MIMS cable cutter and MIMS cable benders, optical fibre splicers and pipe cutters.

Test and measurement instruments can refer to voltage testers and insulation resistance/continuity testers, voice and data line test instruments and refrigerant leakage testers, etc.

Work platforms can refer to ladders, scissor lifts, and/or scaffolds.

Mechanical lifting equipment can refer to hand trolleys, slings, ropes, hoists, hydraulic floor tracks, floor/overhead cranes, block and tackles, shackles, trifors, winches, cable socks, come-a-longs, chains and wheel barrows.

Wiring system components refer to wiring and wiring enclosures/support systems.

Wiring can refer to bus-ways, cords and cables such as thermoplastic, elastomer sheathed or unsheathed flat or circular cables, flexible cords, steel wired armoured served cables, MIMS served or unserved cables, communications, ribbon, circuit boards, optical and extra low voltage cables.

Circuits – refers to electrical, hydraulic, pneumatic, optical, magnetic, air flow, hydroptic and refrigerant circuits.

Apparatus/equipment can refer to any equipment forming a component part of an installation used for a particular purpose. *Apparatus* includes, but is not limited to, that contained in the following divisions. It includes new and emerging technologies:

- audio/visual equipment; air conditioning equipment; appliances; business equipment; communications equipment; computer systems; electrical and electronic controllers and control systems; electrical machines and associated drives; energy management and Sustainable Energy equipment; heating equipment; instrumentation/process control devices and equipment; lighting; measuring instruments; medical electronics and equipment; power distribution/transmission systems; refrigeration systems; security and fire detection systems; and telecommunication equipment

Vocational fields of Electrotechnology, refers to:

- **Computer systems:** The adaptation of electrotechnology to the processing and control, communication and storage of information.
- **Electrical:** Encompasses the systems associated with wiring reticulation, distribution centres, utilising devices and electrical machines for the conversion of electrical energy into other forms and conversely for the conversion of other forms of energy into electromotive force.
- **Electronics:** The use of discrete solid state components and integrated circuits and devices and their associated circuits for application within process control systems, communication systems, computers, measurement, entertainment equipment, electro-medical equipment and the like.
- **Instrumentation:** The measurement and control of process system data and parameters for industrial and commercial use. It includes the

calibration and maintenance of instrument and processes in the chemical, energy, biotechnology, environmental, food processing and manufacturing industries.

- **Refrigeration and air conditioning:** Air conditioning is the provision of clean air to an area at proper temperature and humidity. Refrigeration is the cooling of a space or its contents to a lower temperature than that of the surrounding space or of the ambient atmosphere.
- **Data communications:** Encompassing the systems associated with communication distribution equipment, components, and the related devices for the distribution of audiovisual and data between points of transmission and reception.
- **Renewable Energy:** Renewable energy (sources) are those which are derived from the sun or other natural processes. They are also replenishable over relatively short time periods. They include sunlight, wind, falling water, sustainable biomass, wave motion, tides, and geothermal energy. They do not include coal, oil, natural gas or nuclear power.

Repairs may involve brickwork, plaster, roofing tiles, piping and tubing, wall tiles, and/or the cleaning/painting of surfaces.

Sustainable Energy Policies involve domestic climate change policy and the undertaking of Commonwealth programs to take on and implement commitments to reduce emissions of greenhouse gases. The ultimate objective is to achieve stabilisation of greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous human-induced interference with the climate system. Addressing this will require changes for industry, governments at all levels and the community at large.

To assist you and the RTO, a choice of work record forms has been included in this Training Record Book. If additional forms are required, you can photocopy them as required.

From work placement experiences, you will have gained an appreciation of working life. Hopefully, the experiences will be rewarding in that they will assist you to choose wisely and with confidence, to further your interest of a career in Sustainable Energy, Renewable Energy and the Electrotechnology Industry.

Finally

Stay focussed, and listen to instructions given (repeat them back if necessary).

Enjoy the experience.

FIRST WORK PLACEMENT

- 1. Work Placement details (RTO requirement) No. 1**

- 2. Worksite Induction Check-list for Work Placement No. 1
(supervisor/mentor)**

- 3. Tasks undertaken on-the-job in Work Placement No. 1
(supervisor/mentor)**

- 4. On-the-job Trainer/Assessor Report
(supervisor/mentor)**

WORK PLACEMENT DETAILS 1

On Job Work Placement	From	To:
Business Name:		
Address:		
Telephone:		
Worksite Trainer(s)		
Name:		
Name:		

Off-the-job training provider	
Address:	
Telephone:	
Trainer's Names:	
Program Coordinator's Name:	
Telephone:	

WORKSITE INDUCTION CHECK-LIST FOR WORK PLACEMENT 1

Note: This Certificate I in Sustainable Energy (Electrotechnology) Worksite Induction Checklist is a reference tool that can be used by Registered Training Organisations (RTOs) in their assessment process. It does not replace any other formal Worksite induction process that may apply. Furthermore, it does not diminish any duty of care responsibilities that apply to respective parties.

Learner and Supervisor/Trainer tick and initial each item as completed, where required

OH&S POLICY	COMPLETED
1. Employer's role and responsibilities	
2. Employee's/learner's role and responsibilities	

OH&S POLICIES & PROCEDURES	COMPLETED
1. Hazard identification and reporting	
2. Issue resolution procedure	
3. Incident reporting procedure	

BASIC SAFETY	COMPLETED
1. Rules	
2. Use of appropriate footwear, clothing and personal equipment	
3. Orderly conduct on site	
4. Drug & Alcohol policy	
5. Evidence of colour perception	
6. Standard operating procedures	
7. Safe working procedures	
8. Manual handling procedures	
9. Specific task training on the job	

EMERGENCY PROCEDURES	COMPLETED
1. Fire Safety	
2. Location and suitability of fire extinguishes	
3. Emergency evacuation procedures	

ACCESS & EQUITY ISSUES – including NESB (Non English Speaking Background)	COMPLETED
Requirements that need attention	

KEY PERSONNEL	COMPLETED
1. Health and Safety representative	
2. First Aid attendant	
3. Fire Warden	
4. OHS&W Co-ordinator	

SPECIFIC HAZARDS	COMPLETED
1. Tools and equipment	
2. Manual handling and loading	
3. Hazardous substances	
4. Authority to operate machinery	
5. Electrical safety and danger tags	
6. Walkways and aisles	
7. Smoking	

INDUCTION PROGRAM CONFIRMATION	
I confirm that the learner has completed all the relevant training related to the Induction, where ticked and initialled.	
SUPERVISOR'S NAME: _____	
Signature: _____	Date: _____
I confirm I as "the learner", have completed the training and/or been made aware as provided and related to the Induction, where ticked and initialled.	
LEARNER'S NAME: _____	
Signature: _____	Date: _____

Note: Each column item should be ticked and initialled by learner and supervisor as completed and then confirmed formally by both signing the INDUCTION PROGRAM CONFIRMATION section above

COMPLETED – Means that the learner has completed all of the specific training and/or been made aware of requirements related to each component part of each section of the site induction program.

Work Record Sheet – Placement 1

Certificate I in Sustainable Energy (Electrotechnology)

Student Name: _____
 (If applicable)
 Employee No: _____

 Company Name: _____

 Phone: _____
 Fax: _____

	Placement 1	Placement 2	Placement 3	Placement 4
Hours: _____	Hours: _____	Hours: _____	Hours: _____	Hours: _____
Dates: _____	Dates: _____	Dates: _____	Dates: _____	Dates: _____
	Activity Exposure Supervision	Activity Exposure Supervision	Activity Exposure Supervision	Activity Exposure Supervision
Units of Competency				
Core - Must complete all				
UTE NES061 A Provide basic sustainable energy solutions for energy reduction in domestic premises				
UTE NES062 A Apply sustainable energy practice in daily activities				
UTE NES065 A Promote sustainable/renewable energy practice in the community				
Elective Units – At least two Elective Units must be selected from the list of Group A and Group B Elective Units, of which no less than one must be chosen from Group A				
Group A – General Elective Units				
UTE NES052 A Interact with customers/clients for quality service				
UTE NES053 A Participate in job data records collection of the business				
Group B – Technical Elective Unit				
UTE NES064 A Undertake computations in an Electrotechnology environment				

Reporting Period: Each period can range from 1 day to 1 month. This is a matter for the RTO and Learner to establish. Generally weekly reporting is preferred.

KEY

Work Activity
Did you?
 A - Prepare to work,
 B - Carry out the work or
 C - Complete the work

Exposure
How long did you work on the "Activity"?
 X - Up to 1 day,
 Y - 2 to 4 days, or
 Z - 5 days or more

Supervision:
What level of supervision did you experience?
 1 - Observe only,
 2 - Assist others, or
 3 - Complete task under direct supervision

Range of items as listed below, used in carrying out work for the four (as above) placements:				
Tools				
Plant				
Equipment				
Materials				
Other				



For each of the Range of Items briefly list the types of items used in the carrying out of the related work. For example in relation to tools list the types of tools use d.

I confirm that the above activities were undertaken as documented

Supervisor's Name: _____

Supervisor's signature: _____

Placement 1 Placement 2 Placement 3 Placement 4

Student's signature: _____ Date: _____

Step 1
Enter Learner's details

Work Record Sheet (Sample)

Step 3
Complete details
Start & Finish dates

Certificate I in Sustainable Energy (Electrotechnology)

Student Name: Kim Citizen

(if applicable)

Employee No: 1203

Company Name: JPY Ltd.

Phone: 9999 9999
Fax: 9999 8888

Units of Competency

Core - Must complete all

UTE NES061 A Provide basic sustainable energy solutions for energy reduction in domestic premises

UTE NES062 A Apply sustainable energy practice in daily activities

UTE NES065 A Promote sustainable/renewable energy practice in the community

Elective Units - At least two Elective Units must be selected from the list of Group A and Group B Elective Units, of which no less than one must be chosen from Group A

Group A - General Elective Units

UTE NES052 A Interact with customers/clients for quality service

UTE NES063 A Participate in job data records collection of the business

Group B - Technical Elective Unit

UTE NES064 A Undertake computations in an Electrotechnology environment

	Placement 1			Placement 2			Placement 3			Placement 4		
	Hours: <u>12</u>			Hours: <u>38</u>			Hours: <u>31</u>			Hours: <u>38</u>		
	Dates 23/03/03 27/03/03			Dates 5/05/03 5/09/03			Dates 7/11/03 15/07/03			Dates 1/03/04 1/07/04		
	Activity	Exposure	Supervision	Activity	Exposure	Supervision	Activity	Exposure	Supervision	Activity	Exposure	Supervision
	B	X	1	B	YZ	1	B	X	1	BC	XZ	2
	B	X	1	B	Z	1	BC	X	2	BC	ZX	3
	B	Y	1	B	YZ	2	B	X	2	C	Z	2
	B	X		BC	X	2	BC	X	2	BCA	Z	3
	B	X	1	B	X	2	BC	X	3	BCA	X	3

Reporting Period: Each period can range from 1 day to 1 month. This is a matter for the RTO and Learner to establish. Generally weekly reporting is preferred.

KEY

Work Activity

Did you?

- A - Prepare the work,
- B - Carry out the work or
- C - Complete the work

Exposure

How long did you work on the "Activity"?

- X - Up to 1 day,
- Y - 2 to 4 days, or
- Z - 5 days or more

Supervision:

What level of supervision did you experience?

- 1 - Observe only,
- 2 - Assist others, or
- 3 - Complete task under direct supervision

Step 6
Enter X, Y or Z
As per Key - Exposure

Step 7
Enter 1, 2 or 3
As per Key - Supervision

Step 5
Enter A, B or C
As per Key - Activity

Step 4
Cross out unwanted units

Range of items as listed below, used in carrying out work for the four (as above) placements:				
Tools	hand tools, power tools	calculator	power point - presentation	multimedia
	computer	report production tools	word processing	Internet
	conversion charts	excel spreadsheet	excel spreadsheet	measuring instruments
Plant		hand tools, power tools	hand tools, power tools	excel spreadsheet
		vehicle	ladders	
Equipment	energy meters	overhead projector	presentation equipment	document compiler
	solar hot water system	photovoltaic cells	wind generator	overhead projector
			solar reflector	tracking collectors
Materials	sealants, fixing devices	bonding agents	nuts, bolts, grease	cleaners
		report materials	insulation materials	pens, transparencies, paper
Other	housekeeping	housekeeping	housekeeping	time management
			disposal of materials	



For each of the Range of Items briefly list the types of items used in the carrying out of the related work. For example in relation to tools list the types of tools used.

Step 8
Complete details for each Range

I confirm that the above activities were undertaken as documented

Supervisor's Name:

Lesley Trainer Peter Host Kim Amentor Fred Spark

Supervisor's signature:

[Signatures]
Placement 1 Placement 2 Placement 3 Placement 4

Step 9
Supervisor to sign

Student's signature: *Kim Citizen*

Date: 11-Aug-03 Sheet No: 4

Step 2
Enter sheet number

TASKS UNDERTAKEN ON-THE-JOB IN WORK PLACEMENT 1

(To be completed by On Job Supervisor)

Supervisor/Mentor

Name _____ Sign _____ Date _____

Task Performed & tools, equipment & materials used	Received instruction	Able to perform task with support	Able to perform task independently under direct supervision
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

ON-THE-JOB SUPERVISOR REPORT - 1

For 1st Placement of _____ at _____

PLACEMENT DETAILS			
Branch/ Section	From	To	Main Duties
LEARNER'S PROGRESS			
<p>Quality of work. Make a general comment on the quality of the learner's performance on tasks undertaken up to this stage</p>			
<p>Application. Comment on interest in work, concentration, thoroughness, readiness to learn, rate of working, ability to meet dead lines.</p>			
<p>Personal effectiveness. Comment on such things as ability to work independently under direct supervision, act responsibly, take initiative, analyse situations, notice problems, and propose solutions.</p>			
<p>Understanding of work environment. Comment on learner's understanding of the organisation, and of work requirements including attendance and punctuality.</p>			
Other Comments			
Learner's Comments			
Dates Absent		Date:	
Trainers/Assessors name:		Trainers/Assessors signature:	

-END OF ON THE JOB SUPERVISOR REPORT FOR WORKPLACEMENT 1-

SECOND WORK PLACEMENT

- 1. Work Placement details (RTO requirement) No. 2**

- 2. Worksite Induction Check-list for Work Placement No. 2
(supervisor/mentor)**

- 3. Tasks undertaken on-the-job in Work Placement No. 2
(supervisor/mentor)**

- 4. On-the-job Trainer/Assessor Report
(supervisor/mentor)**

WORK PLACEMENT DETAILS 2

On Job Work Placement	From	To:
Business Name:		
Address:		
Telephone:		
Worksite Trainer(s) _____		
Name:		
Name:		

Off-the-job training provider		
Address:		
Telephone:		
Trainer's Names:		
Program Coordinator's Name:		
Telephone:		

WORKSITE INDUCTION CHECK-LIST FOR WORK PLACEMENT 2

Note: This Certificate I in Sustainable Energy (Electrotechnology) Worksite Induction Checklist is a reference tool that can be used by Registered Training Organisations (RTOs) in their assessment process. It does not replace any other formal Worksite induction process that may apply. Furthermore, it does not diminish any duty of care responsibilities that apply to respective parties.

Learner and Supervisor/Trainer tick and initial each item as completed, where required

OH&S POLICY	COMPLETED
1. Employer’s role and responsibilities	
2. Employee’s/learner’s role and responsibilities	

OH&S POLICIES & PROCEDURES	COMPLETED
1. Hazard identification and reporting	
2. Issue resolution procedure	
3. Incident reporting procedure	

BASIC SAFETY	COMPLETED
10. Rules	
11. Use of appropriate footwear, clothing and personal equipment	
12. Orderly conduct on site	
13. Drug & Alcohol policy	
14. Evidence of colour perception	
15. Standard operating procedures	
16. Safe working procedures	
17. Manual handling procedures	
18. Specific task training on the job	

EMERGENCY PROCEDURES	COMPLETED
1. Fire Safety	
2. Location and suitability of fire extinguishes	
3. Emergency evacuation procedures	

ACCESS & EQUITY ISSUES – including NESB (Non English Speaking Background)	COMPLETED
Requirements that need attention	

KEY PERSONNEL	COMPLETED
1. Health and Safety representative	
2. First Aid attendant	
3. Fire Warden	
4. OHS&W Co-ordinator	

SPECIFIC HAZARDS	COMPLETED
1. Tools and equipment	
2. Manual handling and loading	
3. Hazardous substances	
4. Authority to operate machinery	
5. Electrical safety and danger tags	
6. Walkways and aisles	
7. Smoking	

INDUCTION PROGRAM CONFIRMATION	
I confirm that the learner has completed all the relevant training related to the Induction, where ticked and initialled.	
SUPERVISOR'S NAME: _____	
Signature: _____	Date: _____
I confirm I as "the learner", have completed the training and/or been made aware as provided and related to the Induction, where ticked and initialled.	
LEARNER'S NAME: _____	
Signature: _____	Date: _____

Note: Each column item should be ticked and initialled by learner and supervisor as completed and then confirmed formally by both signing the INDUCTION PROGRAM CONFIRMATION section above

COMPLETED – Means that the learner has completed all of the specific training and/or been made aware of requirements related to each component part of each section of the site induction program.

Work Record Sheet – Placement 2

Certificate I in Sustainable Energy (Electrotechnology)

	Placement 1	Placement 2	Placement 3	Placement 4
Student Name: <i>(If applicable)</i>	Hours: _____	Hours: _____	Hours: _____	Hours: _____
Employee No:	Dates: _____	Dates: _____	Dates: _____	Dates: _____
Company Name:	Activity	Activity	Activity	Activity
Phone: _____	Exposure	Exposure	Exposure	Exposure
Fax: _____	Supervision	Supervision	Supervision	Supervision
Units of Competency				
Core - Must complete all				
UTE NES061 A Provide basic sustainable energy solutions for energy reduction in domestic premises				
UTE NES062 A Apply sustainable energy practice in daily activities				
UTE NES065 A Promote sustainable/renewable energy practice in the community				
Elective Units – At least two Elective Units must be selected from the list of Group A and Group B Elective Units, of which no less than one must be chosen from Group A				
Group A – General Elective Units				
UTE NES052 A Interact with customers/clients for quality service				
UTE NES053 A Participate in job data records collection of the business				
Group B – Technical Elective Unit				
UTE NES064 A Undertake computations in an Electrotechnology environment				

Reporting Period: Each period can range from 1 day to 1 month. This is a matter for the RTO and Learner to establish. Generally weekly reporting is preferred.

KEY

Work Activity
Did you?
A - Prepare to work,
B - Carry out the work or
C - Complete the work

Exposure
How long did you work on the "Activity"?
X - Up to 1 day,
Y - 2 to 4 days, or
Z - 5 days or more

Supervision:
What level of supervision did you experience?
1 - Observe only,
2 - Assist others, or
3 - Complete task under direct supervision

Range of items as listed below, used in carrying out work for the four (as above) placements:				
Tools				
Plant				
Equipment				
Materials				
Other				



For each of the Range of Items briefly list the types of items used in the carrying out of the related work. For example in relation to tools list the types of tools use d.

I confirm that the above activities were undertaken as documented

Supervisor's Name: _____

Supervisor's signature: _____

Placement 1 Placement 2 Placement 3 Placement 4

Student's signature: _____ Date: _____

Step 1
Enter Learner's details

Work Record Sheet (Sample)

Step 3
Complete details
Start & Finish dates

Certificate I in Sustainable Energy (Electrotechnology)

Student Name: Kim Citizen

(if applicable)
Employee No: 1203

Company Name: JPY Ltd.

Phone: 9999 9999
Fax: 9999 8888

Units of Competency

Core - Must complete all

UTE NES061 A Provide basic sustainable energy solutions for energy reduction in domestic premises

UTE NES062 A Apply sustainable energy practice in daily activities

UTE NES065 A Promote sustainable/renewable energy practice in the community

Elective Units - At least two Elective Units must be selected from the list of Group A and Group B Elective Units, of which no less than one must be chosen from Group A

Group A - General Elective Units

UTE NES052 A Interact with customers/clients for quality service

UTE NES063 A Participate in job data records collection of the business

Group B - Technical Elective Unit

UTE NES064 A Undertake computations in an Electrotechnology environment

Activity	Placement 1			Placement 2			Placement 3			Placement 4		
	Exposure	Supervision	Hours	Exposure	Supervision	Hours	Exposure	Supervision	Hours	Exposure	Supervision	Hours
UTE NES061 A	B	X	1	B	YZ	1	B	X	1	BC	XZ	2
UTE NES062 A	B	X	1	B	Z	1	BC	X	2	BC	ZX	3
UTE NES065 A	B	Y	1	B	YZ	2	B	X	2	C	Z	2
UTE NES052 A	B	X	1	BC	X	2	BC	X	2	BCA	Z	3
UTE NES064 A	B	X	1	B	X	2	BC	X	3	BCA	X	3

Reporting Period: Each period can range from 1 day to 1 month. This is a matter for the RTO and Learner to establish. Generally weekly reporting is preferred.

Step 6
Enter X, Y or Z
As per Key - Exposure

Work Activity
Did you?
A - Prepare the work,
B - Carry out the work or
C - Complete the work

Exposure
How long did you work on the "Activity"?
X - Up to 1 day,
Y - 2 to 4 days, or
Z - 5 days or more

Supervision:
What level of supervision did you experience?
1 - Observe only,
2 - Assist others, or
3 - Complete task under direct supervision

Step 7
Enter 1, 2 or 3
As per Key - Supervision

Step 5
Enter A, B or C
As per Key - Activity

Step 4
Cross out unwanted units

Range of items as listed below, used in carrying out work for the four (as above) placements:

Tools	Plant	Equipment	Materials	Other
hand tools, power tools	calculator	energy meters	sealants, fixing devices	housekeeping
computer	report production tools	solar hot water system	bonding agents	housekeeping
conversion charts	excel spreadsheet	photovoltaic cells	report materials	housekeeping
	hand tools, power tools			housekeeping
	vehicle	overhead projector		disposal of materials
		presentation equipment		
		wind generator		
		solar reflector		
		nuts, bolts, grease		
		insulation materials		
		cleaners		
		pens, transparencies, paper		
		document compiler		
		overhead projector		
		tracking collectors		
		time management		



For each of the Range of Items briefly list the types of items used in the carrying out of the related work. For example in relation to tools list the types of tools used.

Step 8
Complete details for each Range

I confirm that the above activities were undertaken as documented

Supervisor's Name: Lesley Trainer, Peter Host, Kim Mentor, Fred Spark

Supervisor's signature: [Signatures]

Step 9
Supervisor to sign

Student's signature: [Signature]

Date: 11-Aug-03 Sheet No: 4

Step 2
Enter sheet number

TASKS UNDERTAKEN ON-THE-JOB IN WORK PLACEMENT 2

(To be completed by On Job Supervisor)

Supervisor/Mentor

Name _____ Sign _____ Date _____

Task Performed & tools, equipment & materials used	Received instruction	Able to perform task with support	Able to perform task independently under direct supervision
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

ON-THE-JOB SUPERVISOR REPORT - 2

For 2nd Placement of _____ at _____

PLACEMENT DETAILS			
Branch/ Section	From	To	Main Duties
LEARNER'S PROGRESS			
<p>Quality of work. Make a general comment on the quality of the learner's performance on tasks undertaken up to this stage</p>			
<p>Application. Comment on interest in work, concentration, thoroughness, readiness to learn, rate of working, ability to meet dead lines.</p>			
<p>Personal effectiveness. Comment on such things as ability to work independently under direct supervision, act responsibly, take initiative, analyse situations, notice problems, and propose solutions.</p>			
<p>Understanding of work environment. Comment on learner's understanding of the organisation, and of work requirements including attendance and punctuality.</p>			
Other Comments			
Learner's Comments			
Dates Absent		Date:	
Trainers/Assessors name:		Trainers/Assessors signature:	

-END OF ON-THE-JOB SUPERVISOR REPORT WORKPLACEMENT 2-

THIRD WORK PLACEMENT

- 1. Work Placement details (RTO requirement) No. 3**

- 2. Worksite Induction Check-list for Work Placement No. 3
(supervisor/mentor)**

- 3. Tasks undertaken on-the-job in Work Placement No. 3
(supervisor/mentor)**

- 4. On-the-job Trainer/Assessor Report
(supervisor/mentor)**

WORK PLACEMENT DETAILS 3

On Job Work Placement	From	To:
Business Name:		
Address:		
Telephone:		
Worksite Trainer(s) _____		
Name:		
Name:		

Off-the-job training provider		
Address:		
Telephone:		
Trainer's Names:		
Program Coordinator's Name:		
Telephone:		

WORKSITE INDUCTION CHECK-LIST FOR WORK PLACEMENT 3

Note: This Certificate I in Sustainable Energy (Electrotechnology) Worksite Induction Checklist is a reference tool that can be used by Registered Training Organisations (RTOs) in their assessment process. It does not replace any other formal Worksite induction process that may apply. Furthermore, it does not diminish any duty of care responsibilities that apply to respective parties.

Learner and Supervisor/Trainer tick and initial each item as completed, where required

OH&S POLICY	COMPLETED
1. Employer's role and responsibilities	
2. Employee's/learner's role and responsibilities	

OH&S POLICIES & PROCEDURES	COMPLETED
1. Hazard identification and reporting	
2. Issue resolution procedure	
3. Incident reporting procedure	

BASIC SAFETY	COMPLETED
19. Rules	
20. Use of appropriate footwear, clothing and personal equipment	
21. Orderly conduct on site	
22. Drug & Alcohol policy	
23. Evidence of colour perception	
24. Standard operating procedures	
25. Safe working procedures	
26. Manual handling procedures	
27. Specific task training on the job	

EMERGENCY PROCEDURES	COMPLETED
1. Fire Safety	
2. Location and suitability of fire extinguishes	
3. Emergency evacuation procedures	

ACCESS & EQUITY ISSUES – including NESB (Non English Speaking Background)	COMPLETED
Requirements that need attention	

KEY PERSONNEL	COMPLETED
1. Health and Safety representative	
2. First Aid attendant	
3. Fire Warden	
4. OHS&W Co-ordinator	

SPECIFIC HAZARDS	COMPLETED
1. Tools and equipment	
2. Manual handling and loading	
3. Hazardous substances	
4. Authority to operate machinery	
5. Electrical safety and danger tags	
6. Walkways and aisles	
7. Smoking	

INDUCTION PROGRAM CONFIRMATION	
I confirm that the learner has completed all the relevant training related to the Induction, where ticked and initialled.	
SUPERVISOR'S NAME: _____	
Signature: _____	Date: _____
I confirm I as "the learner", have completed the training and/or been made aware as provided and related to the Induction, where ticked and initialled.	
LEARNER'S NAME: _____	
Signature: _____	Date: _____

Note: Each column item should be ticked and initialled by learner and supervisor as completed and then confirmed formally by both signing the INDUCTION PROGRAM CONFIRMATION section above

COMPLETED – Means that the learner has completed all of the specific training and/or been made aware of requirements related to each component part of each section of the site induction program.

Work Record Sheet – Placement 3

Certificate I in Sustainable Energy (Electrotechnology)

	Placement 1	Placement 2	Placement 3	Placement 4
Student Name: <i>(If applicable)</i>	Hours: _____	Hours: _____	Hours: _____	Hours: _____
Employee No:	Dates: _____	Dates: _____	Dates: _____	Dates: _____
Company Name:				
Phone: _____				
Fax: _____				
Units of Competency				
Core - Must complete all				
UTE NES061 A Provide basic sustainable energy solutions for energy reduction in domestic premises				
UTE NES062 A Apply sustainable energy practice in daily activities				
UTE NES065 A Promote sustainable/renewable energy practice in the community				
Elective Units – At least two Elective Units must be selected from the list of Group A and Group B Elective Units, of which no less than one must be chosen from Group A				
Group A – General Elective Units				
UTE NES052 A Interact with customers/clients for quality service				
UTE NES053 A Participate in job data records collection of the business				
Group B – Technical Elective Unit				
UTE NES064 A Undertake computations in an Electrotechnology environment				

Reporting Period: Each period can range from 1 day to 1 month. This is a matter for the RTO and Learner to establish. Generally weekly reporting is preferred.

KEY

Work Activity
Did you?
A - Prepare to work,
B - Carry out the work or
C - Complete the work

Exposure
How long did you work on the "Activity"?
X - Up to 1 day,
Y - 2 to 4 days, or
Z - 5 days or more

Supervision:
What level of supervision did you experience?
1 - Observe only,
2 - Assist others, or
3 - Complete task under direct supervision

Range of items as listed below, used in carrying out work for the four (as above) placements:				
Tools				
Plant				
Equipment				
Materials				
Other				



For each of the Range of Items briefly list the types of items used in the carrying out of the related work. For example in relation to tools list the types of tools used.

I confirm that the above activities were undertaken as documented

Supervisor's Name: _____

Supervisor's signature: _____

Placement 1 Placement 2 Placement 3 Placement 4

Student's signature: _____ Date: _____

Step 1
Enter Learner's details

Work Record Sheet (Sample)

Step 3
Complete details
Start & Finish dates

Certificate I in Sustainable Energy (Electrotechnology)

Student Name: Kim Citizen

(If applicable)
Employee No: 1203

Company Name: JPY Ltd.

Phone: 9999 9999
Fax: 9999 8888

Units of Competency

Core - Must complete all

UTE NES061 A Provide basic sustainable energy solutions for energy reduction in domestic premises

UTE NES062 A Apply sustainable energy practice in daily activities

UTE NES065 A Promote sustainable/renewable energy practice in the community

Elective Units - At least two Elective Units must be selected from the list of Group A and Group B Elective Units, of which no less than one must be chosen from Group A

Group A - General Elective Units

UTE NES052 A Interact with customers/clients for quality service

UTE NES063 A Participate in job data records collection of the business

Group B - Technical Elective Unit

UTE NES064 A Undertake computations in an Electrotechnology environment

	Placement 1			Placement 2			Placement 3			Placement 4		
	Hours: __12__			Hours: __38__			Hours: __31__			Hours: __38__		
	Dates 23/03/03 27/03/03			Dates 5/05/03 5/09/03			Dates 7/11/03 15/07/03			Dates 1/03/04 1/07/04		
	Activity	Exposure	Supervision	Activity	Exposure	Supervision	Activity	Exposure	Supervision	Activity	Exposure	Supervision
UTE NES061 A	B	X	1	B	YZ	1	B	X	1	BC	XZ	2
UTE NES062 A	B	X	1	B	Z	1	BC	X	2	BC	ZX	3
UTE NES065 A	B	Y	1	B	YZ	2	B	X	2	C	Z	2
UTE NES052 A	B	X	1	BC	X	2	BC	X	2	BCA	Z	3
UTE NES063 A	B	X	1	B	X	2	BC	X	3	BCA	X	3

Reporting Period: Each period can range from 1 day to 1 month. This is a matter for the RTO and Learner to establish. Generally weekly reporting is preferred.

KEY

Work Activity
Did you?
A - Prepare the work,
B - Carry out the work or
C - Complete the work

Exposure
How long did you work on the "Activity"?
X - Up to 1 day,
Y - 2 to 4 days, or
Z - 5 days or more

Supervision:
What level of supervision did you experience?
1 - Observe only,
2 - Assist others, or
3 - Complete task under direct supervision

Step 6
Enter X, Y or Z
As per Key - Exposure

Step 7
Enter 1, 2 or 3
As per Key - Supervision

Step 5
Enter A, B or C
As per Key - Activity

Step 4
Cross out unwanted units

Range of items as listed below, used in carrying out work for the four (as above) placements:

	hand tools, power tools	calculator	power point - presentation	multimedia
Tools	computer	report production tools	word processing	Internet
	conversion charts	excel spreadsheet	excel spreadsheet	measuring instruments
		hand tools, power tools	hand tools, power tools	excel spreadsheet
Plant		vehicle	ladders	
Equipment	energy meters	overhead projector	presentation equipment	document compiler
	solar hot water system	photovoltaic cells	wind generator	overhead projector
			solar reflector	tracking collectors
Materials	sealants, fixing devices	bonding agents	nuts, bolts, grease	cleaners
		report materials	insulation materials	pens, transparencies, paper
Other	housekeeping	housekeeping	housekeeping	time management
			disposal of materials	



For each of the Range of Items briefly list the types of items used in the carrying out of the related work. For example in relation to tools list the types of tools used.

Step 8
Complete details for each Range

I confirm that the above activities were undertaken as documented

Supervisor's Name: Lesley Trainer Peter Host Kim Mentor Fred Spark

Supervisor's signature: [Signatures]

Placement 1 Placement 2 Placement 3 Placement 4

Step 9
Supervisor to sign

Student's signature: [Signature] Date: 11-Aug-03 Sheet No: 4

Step 2
Enter sheet number

TASKS UNDERTAKEN ON-THE-JOB IN WORK PLACEMENT 3

(To be completed by On Job Supervisor)

Supervisor/Mentor

Name _____ Sign _____ Date _____

Task Performed & tools, equipment & materials used	Received instruction	Able to perform task with support	Able to perform task independently under direct supervision
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

ON-THE-JOB SUPERVISOR REPORT - 3

For 3rd Placement of _____ at _____

PLACEMENT DETAILS			
Branch/ Section	From	To	Main Duties
LEARNER'S PROGRESS			
<p>Quality of work. Make a general comment on the quality of the learner's performance on tasks undertaken up to this stage</p>			
<p>Application. Comment on interest in work, concentration, thoroughness, readiness to learn, rate of working, ability to meet dead lines.</p>			
<p>Personal effectiveness. Comment on such things as ability to work independently under direct supervision, act responsibly, take initiative, analyse situations, notice problems, and propose solutions.</p>			
<p>Understanding of work environment. Comment on learner's understanding of the organisation, and of work requirements including attendance and punctuality.</p>			
Other Comments			
Learner's Comments			
Dates Absent		Date:	
Trainers/Assessors name:		Trainers/Assessors signature:	

-END OF ON THE JOB SUPERVISOR REPORT WORKPLACEMENT 3-

4. EVALUATIONS

Evaluation by Host Employer, Learner and RTO/school of Work Placements

This section provides each party (host employer, you and the RTO's/schools) to the training program, an opportunity to provide feedback of their experiences.

Where required, an appraisal form for each should be completed after each work placement. Feedback is important and you should endeavour to complete each Appraisal so that each work placement and the full Training Program can be assessed for relevance. Again, three forms are provided for each work placement as well a section for the whole Training Program.

**ELECTROTECHNOLOGY VET WORK PLACEMENT 1
HOST EMPLOYER'S APPRAISAL OF LEARNER**

At the completion of the learner Work Placement please fill in the following questionnaire and return to the appropriate officer/person/VET Coordinator. **This questionnaire will assist the EE-Oz Training Standards and the respective RTO/school in making improvements to the program to suit the needs of host employers and learners.**

Workplace Supervisors Name: _____

Placement Business: _____

Type of Business: _____

Placement Dates: _____

Learner's Name: _____

Tick the appropriate responses to each question and add a comment where appropriate.

	Yes	No
Are you aware of the term "Competency"?		
Do you use competencies for job selection, employee promotion, training needs, etc.?		
Did the learner experience on job training relevant to all of the competencies for the Certificate I in Sustainable Energy (Electrotechnology) qualification?		
If not, What areas did the learner not experience?		
Did you understand the role of the Training Record Book?		
Did you understand what was required to fill out the Training Record Book?		
Were you present with the learner daily?		
Does the workplace have an accredited person with training and assessment qualifications that may be involved in the training?		
Was a company induction program provided?		
Would you have the learner return to your business for work placement?		
Why/why not?		

**ELECTROTECHNOLOGY VET WORK PLACEMENT 1
HOST EMPLOYER'S APPRAISAL OF LEARNER (Cont.)**

	Yes	No
Would you have any other learner return to your business for work placement?		
Are you likely to be employing apprentices/trainees in the near future?		
What type of apprenticeship/traineeship would you require?		
Was the time period suitable to achieve the competencies?		
Did your learner attend every day?		
Was the learner punctual?		
If not, what reasons were given?		
Any other comments?		

Thank you for taking the time to fill out this questionnaire. Your information will enable us to make quality improvements to the program. The improvements to the program will benefit you and future learners involved in the program.

**ELECTROTECHNOLOGY VET WORK PLACEMENT 1
LEARNER'S SELF ASSESSMENT OF THE TRAINING PROGRAM**

At the completion of your Work Placement please fill in the following questionnaire and return to the appropriate officer/person/Vet Coordinator. **This questionnaire will assist the EE-Oz Training Standards and the respective RTO/school in making improvements to the program through changes to the Training Record Book and selection of host employers for placement.**

Learner's Name: _____

School / RTO: _____

Placement Business: _____

Placement Dates: _____

Tick the appropriate responses to each question and add a comment where appropriate.

	Yes	No
Did you carry out work against the required competencies for the qualification?		
If not, why?		
Did you carry out work activities that were in addition to those required for the qualification?		
What were they?		
Did you understand the role of the Training Record Book?		
Did you know how to fill out the various parts of the Training Record Book?		
If not, why?		
Did you attend the workplace for each day of workplacement?		
If not, what was the problem?		

**ELECTROTECHNOLOGY VET WORK PLACEMENT 1
LEARNER’S SELF ASSESSMENT OF THE WORKPLACE (Cont.)**

	Yes	No
Would you return to this business for placement?		
Why/Why not?		
Was an induction program provided to you?		
Was the supervision suitable?		
Were the skills of the people at the work place relevant to the units of competency being developed?		
Was the workplace environment able to provide you with the full range of skills – the right jobs for the units of competency?		
Did the workplace supervisor understand their role?		
Was the time period suitable to achieve competencies?		
Did the off the job training instructor encourage participation and explain/demonstrate concepts and techniques in an easily understood manner?		
Is/was the structure and purpose of the training course easy to follow?		
Is/was the course material easy to read and understand?		
Is/was the RTO venue comfortable and the operation of equipment satisfactory?		
Would you be looking for an apprenticeship/traineeship in this area?		
Any other comments		

Thank you for taking the time to fill out this questionnaire. Your information will enable us to make quality improvements to the program. The improvements to the program will benefit you, future learners and other host employers involved in the program.

**ELECTROTECHNOLOGY VET WORK PLACEMENT 2
HOST EMPLOYER’S APPRAISAL OF LEARNER**

At the completion of the learner Work Placement please fill in the following questionnaire and return to the appropriate officer/person/Vet Coordinator. **This questionnaire will assist the EE-Oz Training Standards and the respective RTO/school in making improvements to the program to suit the needs of host employers and learners.**

Workplace Supervisors Name: _____

Placement Business: _____

Type of Business: _____

Placement Dates: _____

Learner’s Name: _____

Tick the appropriate responses to each question and add a comment where appropriate.

	Yes	No
Are you aware of the term “Competency”?		
Do you use competencies for job selection, employee promotion, training needs, etc.?		
Did the learner experience on job training relevant to all of the competencies for the Certificate I in Sustainable Energy (Electrotechnology) qualification?		
If not, What areas did the learner not experience?		
Did you understand the role of the Training Record Book?		
Did you understand what was required to fill out the Training Record Book?		
Were you present with the learner daily?		
Does the workplace have an accredited person with training and assessment qualifications that may be involved in the training?		
Was a company induction program provided?		
Would you have the learner return to your business for work placement?		
Why/why not?		

**ELECTROTECHNOLOGY VET WORK PLACEMENT 1
HOST EMPLOYER'S APPRAISAL OF LEARNER (Cont.)**

	Yes	No
Would you have any other learner return to your business for work placement?		
Are you likely to be employing apprentices/trainees in the near future?		
What type of apprenticeship/traineeship would you require?		
Was the time period suitable to achieve the competencies?		
Did your learner attend every day?		
Was the learner punctual?		
If not, what reasons were given?		
Any other comments?		

Thank you for taking the time to fill out this questionnaire. Your information will enable us to make quality improvements to the program. The improvements to the program will benefit you and future learners involved in the program.

**ELECTROTECHNOLOGY VET WORK PLACEMENT 2
LEARNER'S SELF ASSESSMENT OF THE TRAINING PROGRAM**

At the completion of your Work Placement please fill in the following questionnaire and return to the appropriate officer/person/Vet Coordinator. **This questionnaire will assist the EE-Oz Training Standards and the respective RTO/school in making improvements to the program through changes to the Training Record Book and selection of host employers for placement.**

Learner's Name: _____

School / RTO: _____

Placement Business: _____

Placement Dates: _____

Tick the appropriate responses to each question and add a comment where appropriate.

	Yes	No
Did you carry out work against the required competencies for the qualification?		
If not, why?		
Did you carry out work activities that were in addition to those required for the qualification?		
What were they?		
Did you understand the role of the Training Record Book?		
Did you know how to fill out the various parts of the Training Record Book?		
If not, why?		
Did you attend the workplace for each day of workplacement?		
If not, what was the problem?		

**ELECTROTECHNOLOGY VET WORK PLACEMENT 1
LEARNER’S SELF ASSESSMENT OF THE WORKPLACE (Cont.)**

	Yes	No
Would you return to this business for placement?		
Why/Why not?		
Was an induction program provided to you?		
Was the supervision suitable?		
Were the skills of the people at the work place relevant to the units of competency being developed?		
Was the workplace environment able to provide you with the full range of skills – the right jobs for the units of competency?		
Did the workplace supervisor understand their role?		
Was the time period suitable to achieve competencies?		
Did the off the job training instructor encourage participation and explain/demonstrate concepts and techniques in an easily understood manner?		
Is/was the structure and purpose of the training course easy to follow?		
Is/was the course material easy to read and understand?		
Is/was the RTO venue comfortable and the operation of equipment satisfactory?		
Would you be looking for an apprenticeship/traineeship in this area?		
Any other comments		

Thank you for taking the time to fill out this questionnaire. Your information will enable us to make quality improvements to the program. The improvements to the program will benefit you, future learners and other host employers involved in the program.

**ELECTROTECHNOLOGY VET WORK PLACEMENT 3
HOST EMPLOYER’S APPRAISAL OF LEARNER**

At the completion of the learner Work Placement please fill in the following questionnaire and return to the appropriate officer/person/Vet Coordinator. **This questionnaire will assist the EE-Oz Training Standards and the respective RTO/school in making improvements to the program to suit the needs of host employers and learners.**

Workplace Supervisors Name _____

Placement Business: _____

Type of Business: _____

Placement Dates: _____

Learner’s Name: _____

Tick the appropriate responses to each question and add a comment where appropriate.

	Yes	No
Are you aware of the term “Competency”?		
Do you use competencies for job selection, employee promotion, training needs, etc.?		
Did the learner experience on job training relevant to all of the competencies for the Certificate I in Sustainable Energy (Electrotechnology) qualification?		
If not, What areas did the learner not experience?		
Did you understand the role of the Training Record Book?		
Did you understand what was required to fill out the Training Record Book?		
Were you present with the learner daily?		
Does the workplace have an accredited person with training and assessment qualifications that may be involved in the training?		
Was a company induction program provided?		
Would you have the learner return to your business for work placement?		
Why/why not?		

**ELECTROTECHNOLOGY VET WORK PLACEMENT 1
HOST EMPLOYER'S APPRAISAL OF LEARNER (Cont.)**

	Yes	No
Would you have any other learner return to your business for work placement?		
Are you likely to be employing apprentices/trainees in the near future?		
What type of apprenticeship/traineeship would you require?		
Was the time period suitable to achieve the competencies?		
Did your learner attend every day?		
Was the learner punctual?		
If not, what reasons were given?		
Any other comments?		

Thank you for taking the time to fill out this questionnaire. Your information will enable us to make quality improvements to the program. The improvements to the program will benefit you and future learners involved in the program.

**ELECTROTECHNOLOGY VET WORK PLACEMENT 3
LEARNER’S SELF ASSESSMENT OF THE TRAINING PROGRAM**

At the completion of your Work Placement please fill in the following questionnaire and return to the appropriate officer/person/Vet Coordinator. **This questionnaire will assist the EE-Oz Training Standards and the respective RTO/school in making improvements to the program through changes to the Training Record Book and selection of host employers for placement.**

Learner’s Name: _____

School / RTO: _____

Placement Business: _____

Placement Dates: _____

Tick the appropriate responses to each question and add a comment where appropriate.

	Yes	No
Did you carry out work against the required competencies for the qualification?		
If not, why?		
Did you carry out work activities that were in addition to those required for the qualification?		
What were they?		
Did you understand the role of the Training Record Book?		
Did you know how to fill out the various parts of the Training Record Book?		
If not, why?		
Did you attend the workplace for each day of workplacement?		
If not, what was the problem?		

**ELECTROTECHNOLOGY VET WORK PLACEMENT 1
LEARNER'S SELF ASSESSMENT OF THE WORKPLACE (Cont.)**

	Yes	No
Would you return to this business for placement?		
Why/Why not?		
Was an induction program provided to you?		
Was the supervision suitable?		
Were the skills of the people at the work place relevant to the units of competency being developed?		
Was the workplace environment able to provide you with the full range of skills – the right jobs for the units of competency?		
Did the workplace supervisor understand their role?		
Was the time period suitable to achieve competencies?		
Did the off the job training instructor encourage participation and explain/demonstrate concepts and techniques in an easily understood manner?		
Is/was the structure and purpose of the training course easy to follow?		
Is/was the course material easy to read and understand?		
Is/was the RTO venue comfortable and the operation of equipment satisfactory?		
Would you be looking for an apprenticeship/traineeship in this area?		
Any other comments		

Thank you for taking the time to fill out this questionnaire. Your information will enable us to make quality improvements to the program. The improvements to the program will benefit you, future learners and other host employers involved in the program.

5. COMPETENCY ASSESSMENT SUMMARY

This section has been included as a final document that confirms your achievement of the respective competencies that make up the qualification.

This 'Competency Assessment Summary' needs to be completed by your RTO/school and be signed off by them to confirm your achievements. It can be used to trigger the issuance of the qualification and, as a record by you to show future employers what you achieved.

Additionally, a 'verification' form has been included should your school wish to formally verify all of your records in this Training Record Book.

COMPETENCY ASSESSMENT SUMMARY

Learner
Name: _____

Learner No: _____

Certificate I in Sustainable Energy (Electrotechnology)

Unit No	Unit Title	Achieved	Signature
Core Units (all must be completed)			
UTE NES061A	Provide basic Sustainable Energy solutions for energy reduction in domestic premises		
UTE NES062A	Apply Sustainable Energy practice in daily activities		
UTE NES065A	Promote Sustainable/Renewable Energy practice in the community		
Elective Units – At least two Elective Units must be selected from the list of Group A and Group B Elective Units, of which no less than one must be chosen from Group A.			
*Group A – General Elective Units			
UTE NES052A	Interact with customers/clients for quality service		
UTE NES053A	Participate in job data records collection of the business		
*Group B – Technical Elective Unit			
UTE NES064A	Undertake computations in an Electrotechnology environment		

* *Strike out those units not chosen*

Registered Training Organisation signing off this assessment report:

Learner name: _____

Company/Business
Name: _____

RTO Registration
Number: _____

Signature: _____

Date: _____

VERIFICATION

This is to certify that this Training Record Book is a true and accurate record of the units of competency and elements of competency that have been attained at the date shown below by:

(Student name)

of

(School)

While participating in Certificate I in Sustainable Energy
(Electrotechnology)

Over the period: ____/____/____ to ____/____/____



(School Stamp)

Principal's signature: _____

Date: ____/____/____

6. GENERAL AND OTHER INFORMATION

This section covers the following:

1. A glossary of common acronyms used in Vocational Education and Training.
2. Career pathways in the Electrotechnology Industry
3. Whom can you contact if you want more information or career advice about the Sustainable/Renewable Energy practices in the Electrotechnology Industry.
4. Information about a Career in Sustainable/Renewable Energy Practices and Electrotechnology Apprenticeships –
 - What are they?
 - Whom can you contact?
5. Enclosure for your records of off-the-job achievements/results and other related information.

1. List of Acronyms

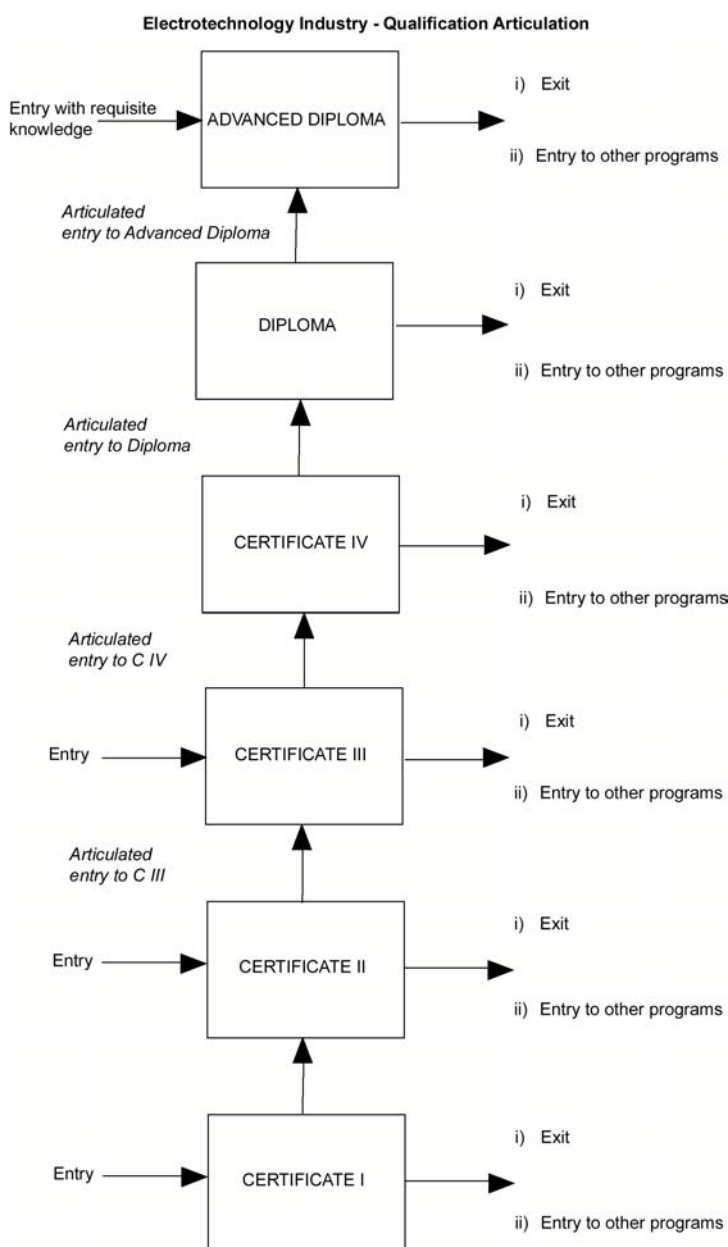
AAA	Affirmative Action Agency
ACCI	Australian Chamber of Commerce and Industry
ACTU	Australian Council of Trade Unions
AGO	Australian Greenhouse Office
AIRC	Australian Industrial Relations Commission
ABS	Australian Bureau of Statistics
ANTA	Australian National Training Authority
AQTF	Australian Quality Training Framework
AQF	Australian Qualifications Framework
AVETMISS	Australian VET Management Information Statistical Standard
CBT	Competency Based Training
DEST	Department of Education, Science and Training
DIMA	Department of Immigration and Multicultural Affairs (Federal)
EA	Employment Assistance
EE-Oz TS	EE-Oz Training Standards
EdNA	Education Network Australia
EEO	Equal Employment Opportunity
ELT	Entry-level Training
ESB	English Speaking Background
EWP	English in the Workplace
FOI	Freedom of Information
GTC	Group Training Company
ILO	International Labour Organisation
ITAB	Industry Training Advisory Body
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
MINCO	Ministerial Council (ANTA)
NAC	New Apprenticeship Centre
NCVER	National Centre for Vocational, Education and Research
NESB	non-English speaking background
NOHSC	National Occupational Health and Safety Commission
NOOSR	National Office of Overseas Skills Recognition
NTQC	National Training Quality Council
NTIS	National Training Information Service
NTP	National Training Package
OEA	Office of Employment Advocate
OECD	Organisation for Economic Cooperation and Development
RPL/RCC	Recognition of Prior Learning/Current Competencies
RTO	Registered Training Organisation
SEIA	Sustainable Energy Industry Association
SRA	State/Territory Recognition Authority
STA	State/Territory Training Authority
TAFE	Technical and Further Education
TAP	Training for Aboriginals and Torres Strait Islanders Program
TER/UAI	Tertiary Entrance Ranking/University Admittance Index
VET	Vocational Education and Training
WELL	Workplace English Language and Literacy

2. Career pathways in the Electrotechnology Industry

Entry and exit arrangements are based on the specific training and education requirements endorsed by the industry. See over the page for specific pathways. If you think that a career in Electrotechnology sounds terrific, then you're right.

There is such a diverse selection of work opportunities that the sky really is the limit. In order to plan your future you will need to assess all options and then set your approach. To do this you will need an idea of the specifics. That is, what are the major career pathways? Which jobs are in demand now and, which are future growth areas? Finally, what is the money like?

Choosing a job in Electrotechnology with specific Sustainable/Renewable Energy principles and practices can lead to a rewarding career. The unique vocational outcomes with a defined career pathway within the industry sectors are shown below. Plus you can become qualified in one area and then move on to others by developing your skills and undertaking further training.



VARIOUS CAREER OPTIONS

Associate Electrical Engineers
 Associate Electronic Engineers
 Associate Computer Engineers
 Associate Instrumentation Engineers
 Associate Communications Engineers

Engineering Technologist - Electrical
 Engineering Technologist - Electronics
 Engineering Technologist - Instrumentation
 Engineering Technologist - Computer Systems
 Engineering Technologist – RACM

Engineering Technologist - Renewable Energy

Special Class Electrician/Instrumentation T/Person
 Special Class RACM Tradesperson
 Communications Technician
 Radar/Scanning Technician
 IT Computer Technician
 Entertainment and Servicing Technician
Renewable Energy Officer
 Own Business – Manager, Supervisor, etc.
 Technical Officer /Estimator
 Technical Sales Representative

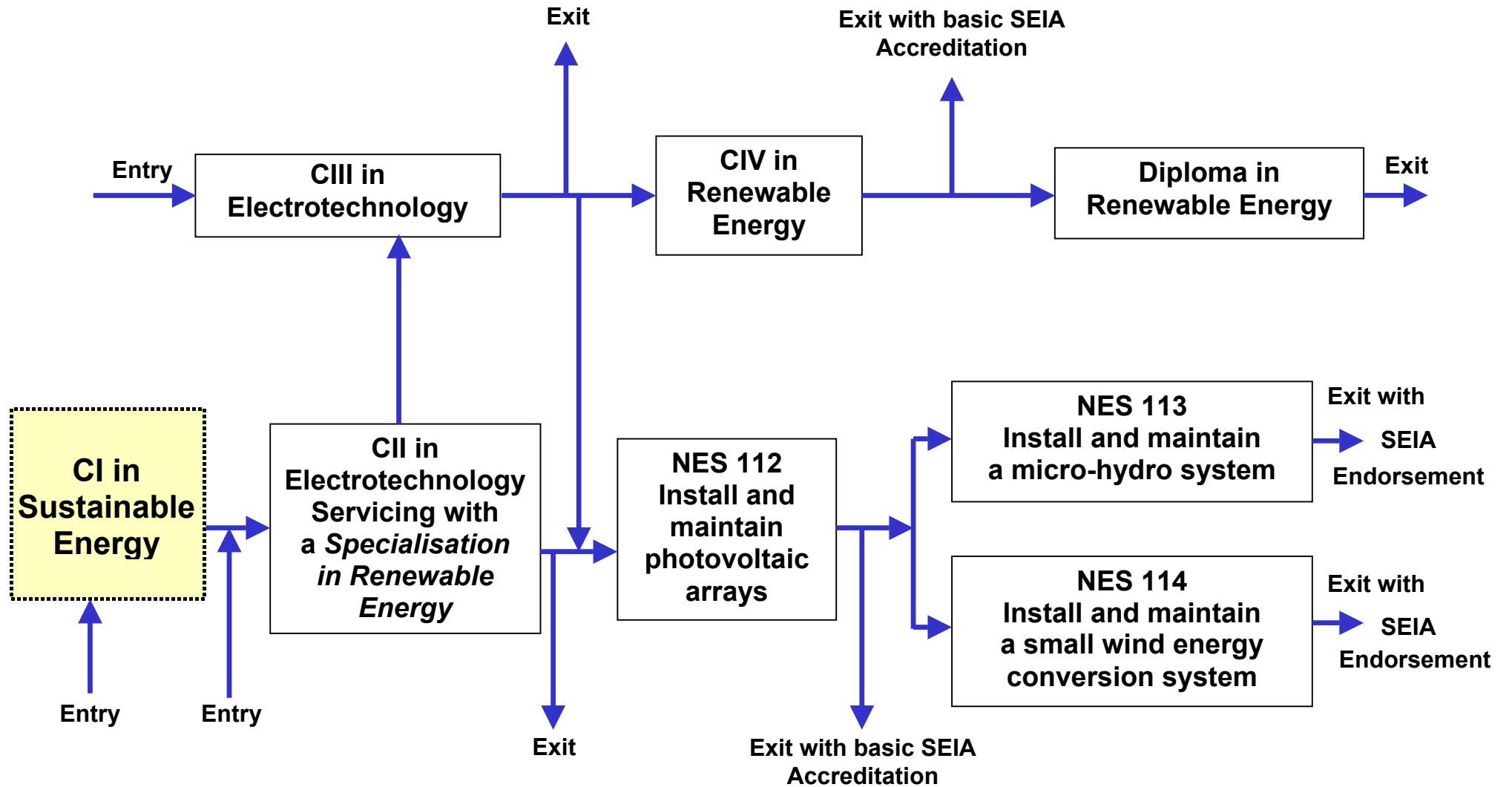
Electrician/Electrical Mechanic/Electrical Fitter
 Refrigeration & Air/Conditioning Mechanic (RACM)
 Data Communications Technician
 Broadcast Specialists Tradesperson
 Communications Tradesperson
 Computer Tradesperson
 Fire Protection and Security Tradesperson
 Entertainment and Servicing Tradesperson
 Business Equipment Technician

Computer Assembly
 Electronics Servicing and Assembly worker
 Antennae Installer
 Security Systems & Fire Protection Installer
 Data Communications Installer
 Appliance Servicing and Repair
 Business/Gaming Equipment Servicing
 Trades Assistant

Renewable Energy worker

Electrical/Electronic Wholesaler
 Assistant in the Electrotechnology Industry -
Renewable Energy, Sustainable Energy,
 Electrical, Electronics, Refrigeration and Air
 Conditioning, Instrumentation, Data
 Communications, Computer Systems

Pathways in Renewable Energy



3. Contacts for more information about apprenticeships

Australian National Training Authority

ANTA is the peak national training authority. It works closely with related government agencies, industry, and other stakeholders in providing advice to the Ministerial Council of Vocational Education and Training to develop a strategic focus and recommend on national policies and strategies. ANTA has established a web page especially for young people called, **Take Off**.

It is a guide to vocational education and training pathways and is available at the following Website: www.anta.gov.au/takeoff/

Apprenticeships

For information regarding all aspects of Apprenticeships as advised by Governments.

Apprenticeship hotline: 1800 639 629

Website: www.newapprenticeships.gov.au

Apprenticeship Centres

Apprenticeship Centres throughout Australia provide Apprenticeship information and services to employers and people interested in becoming an Apprentice.

NAC Info hotline: 1800 338 022

Website: www.nacinfo.com.au

Australian Greenhouse Office

For information regarding related information, careers, and relevant qualifications for employment connected to the AGO.

Telephone: (02) 62741888

Website: www.greenhouse.gov.au

E-mail: communications@greenhouse.gov.au

Department of Education, Science and Training (DEST)

For information regarding training careers and links to relevant training and career sites.

Telephone: (02) 6240 8111

Website: www.dest.gov.au

The Source: www.thesource.gov.au

Job Guide: www.jobguide.dest.gov.au

The Jobs Pathway Program: www.jpp.dest.gov.au

Australian Careers Directory: www.dest.gov.au/ty/careers/

ElectrotecFutures

For more information about the Electrotechnology Industry, which has been developed by the National Electrical and Communications Association (Neca) and sponsored by the Commonwealth Government, visit the following website:

Website: www.electrotecfutures.com.au

Group Training Companies (GTCs)

Group Training Companies contract and manage the employment and training of many Apprentices. For information about group training and to locate a local, Group Training Company contact Group Training Australia. A list of **Electrotechnology** Group Training Companies is detailed below.

Website: www.gtaltd.com.au

Industry Associations**SEIA - Sustainable Energy Industry Association**

Tel: 02 6230 0271

Fax: 02 6230 0273

Neca – National Electrical and Communications Association

Tel: 03 9645 5566

Fax: 03 9645 5577

CEPU – Communications, Electrical and Plumbing Union

Tel: 02 9597 4499

Fax: 02 9597 6354

Electrotechnology Group Training Companies**ELECTRICAL GROUP TRAINING LTD – WA**

Tel: 08 9240 4877

Fax: 08 9240 4866

ELECTRO-TECH GROUP TRAINING - NSW

Tel: 02 9736 1777

Fax: 02 9736 1950

ELECTRO-TECH GROUP TRAINING - QLD

Tel: 07 3216 9266

Fax: 07 3216 9276

NECA GROUP TRAINING - NSW

Tel: 02 9744 2754

Fax: 02 9715 1009

PEER TRAINING - SA

Tel: 08 8371 5541

Fax: 08 8371 5543

VICTEC - VIC

Tel: 03 9381 1922

Fax: 03 9380 9513

Useful Contacts

**EE-Oz Training Standards
State and Territory Industry Training Advisory Boards (ITABs)**

<p>EE-Oz Training Standards/Lift-Skills Australia Address: Ground floor, 68 Campbell Street SURREY HILLS NSW 2010 Tel: (02) 9280 2566 Fax: (02) 9280 1600 Email: ee-oz@ee-oz.com.au Website: www.ee-oz.com.au</p>	<p>ACT Utilities & Light Manufacturing Industry Training Advisory Board (ACT U&LMITB) Address: Canberra Business Centre, Bradfield St DOWNER ACT 2602 Tel: (02) 6241 8259 Fax: (02) 6241 8295 Email: utilight@cit.act.edu.au Website: www.ulmitb.com.au</p>
<p>New South Wales Utilities & Electrotechnology Industry Training Advisory Body (NSW U&EITAB) Address: Level 5, 339-341 Pitt St SYDNEY NSW 2000 Tel: (02) 9350 6231 Fax: (02) 9350 6319 Email: itab@ozemail.com.au Website: www.ozemail.com.au/~itab</p>	<p>Electrical, Electrotechnology, Energy & Water Training Board (SA) Inc Address: 312 South Road RICHMOND SA 5033 Tel: (08) 8234 2130 Fax: (08) 8352 1711 Email: admin@eeewtb.asn.au Website: www.eeewtb.asn.au</p>
<p>Queensland Utilities & Services Industry Training Advisory Board (QUSTAB) Address: 45 Berwick St FORTITUDE VALLEY QLD 4006 Tel (07) 3252 0370 Fax: (07) 3252 0375 Email: qusitab@powerup.com.au Website: nil</p>	<p>Tasmanian Electrotechnology and Utilities Industry Training Board (TEUITB) Address: 2/94 Central Avenue DERWENT PARK TAS 7009 Tel: (03) 6273 4445 Fax: (03) 6273 4446 Email: teuitb@bigpond.com Website: www.teuitb.com.au</p>
<p>EPIC Industry Training Board (Victoria) Address: 29 Drummond Street CARLTON VIC 3053 Tel: (03) 9381 1366 Fax: (03) 9381 1427 Email: epic@eisa.net.au Website: www.esia.net.au/~epic</p>	<p>Major Industries Training Advisory Council (MITAC) Address: 1st floor, Winlow House, 75 Wood St DARWIN NT 0800 Tel: (08) 8981 0077 Fax: (08) 8941 7470 Email: mitac@mitac.org.au Website: www.mitac.org.au</p>
<p>WA Utilities, Electrical, Electronics & Information Industries Training Council Address: Suite 3, 201 Balcatta Rd BALCATTWA WA 6021 Tel: (08) 9240 2688 Fax: (08) 9240 2930 Email: waueeiitc@inet.net.au Website: www.ieu.com.au</p>	<p>Engineering Skills Training Board (Vic) PO Box 1276 Suite 7, 25 Argyle Street, Fitzroy COLLINGWOOD VIC 3054 Ph: (03) 9417 2277 Fax: (03) 9416 2662 Email: general@estb.com.au Website: www.estb.com.au</p>

4. Information about Apprenticeships –

- What are they?
- Whom can you contact?

What are Apprenticeships?

Apprenticeships also including Traineeships are a great career option.

Apprenticeships combine practical work with structured training to give you a nationally recognised qualification and the experience you need to get the job you want.

Apprenticeships are now available in over 500 occupations in an increasing range of industries, like those listed below.

Building on the success of apprenticeships and traineeships, Apprenticeships are a great way to land a good job and get the training you need to build your career – in almost any industry you can think of. Apprenticeship qualifications are nationally recognised. So, even if you undertake a school-based Apprenticeship in your local area your qualification will be recognised across Australia.

The ANTA Website www.anta.gov.au/takeoff/training/newapprentic.htm provides introductory information on how Apprenticeships work, the benefits for you and where to get more information including pamphlets in languages other than English.

What is an Apprenticeship?

In the past, apprenticeships were only available in traditional industries and formally called '*declared vocations*'. This meant Vocational Education and Training Government Ministers in each State and Territory approved certain apprenticeships, such as plumbing, carpentry, mechanic, electrician, welder, cook and so on. Now they are available in a wider range of occupations, industries and industry sectors, which may include:

- Computing
- Electrotechnology - *includes electronics, electrical, communications (inc. data) and information technology, computer systems, instrumentation, refrigeration and air conditioning, and sustainable energy practice*
- Electricity Gas and Water
- Hospitality
- Tourism
- HealthCare
- Childcare
- Metals and Engineering
- Sport and Recreation
- Rural
- Retail
- Telecommunications
- Multimedia
- Business

- Horticulture
- Building and Construction

Apprenticeships and traineeships are also available to more people and there are fewer age restrictions. Apprenticeships are open to anyone who has reached Year 11 or 12.

National Industry Training Packages include the qualifications you will get when completing an Apprenticeship and more detailed information about how Apprenticeships work in the particular industry.

More Apprenticeships will be offered in other industries in the future, as Training Packages are developed for all major industry sectors. Employers in your local community will also have the chance to offer Apprenticeship opportunities for people like you.

So, what's the deal with Apprenticeships?

When you start an Apprenticeship, you'll enter a formal agreement known as a 'Training Agreement or Contract of Training'. This agreement basically covers the training, support and supervision the employer will provide.

But you've got to put in your side of the deal too...

When you enter the 'Training Agreement', you are basically agreeing to learn all aspects of the occupation or area of training and to work for the employer for a set amount of time. The combination of this 'productive work' and training can vary to suit your employer's needs and your needs. It'll be sorted out before you start an Apprenticeship.

When you finish an Apprenticeship, you will receive a nationally recognised qualification. This means you can, if you wish, move on to your next employer with a record of your achievements in hand.

Under an Apprenticeship, the time you have to complete the training is generally flexible. While maximum periods are set, there is an opportunity to learn at your own pace to make sure that you have the skills you need before you move on to the next level.

Part-time traineeships are also being developed in several industries under the guise of Apprenticeships. These types of traineeships provide entry-level job opportunities, which may lead to higher level programs after further training.

There are some differences in what happens in Apprenticeships between States and Territories. You can find out more information by visiting the respective websites listed further down in this section, headed - **For further information and assistance**.

So, what's in a 'Training Agreement' and what terms apply?

Governments around Australia have agreed to establish a National Code of Good Practice for New Apprenticeships. This code outlines the particular responsibilities that apply when signing up to do one. The following details the content of that code.

National Code of Good Practice for New Apprenticeships

New Apprenticeships, which may be referred to as apprenticeships and traineeships in some States and Territories, offer many benefits to employers and New Apprentices. Employers can develop a New Apprentice who is trained to understand the specific requirements of their workplace and has the skills that match business objectives. New Apprentices have the chance to gain valuable work experience, develop skills and acquire a nationally recognised qualification.

This Code of Good Practice has been developed to assist both parties entering into a Training Contract with a clear understanding of each other's obligations and expectations.

A copy of this Code should be retained by the employer and the New Apprentice.

Both Parties

Both parties understand that there is a formal agreement to train the New Apprentice known as the Training Contract, that sets out the legal obligations binding on the employer and the New Apprentice.

Both parties enter into the employment and training arrangement with a commitment to mutual respect, honesty and fairness.

Both parties agree to determine the qualification and the competencies that the New Apprentice is working to attain.

Both parties have a clear understanding of their contractual obligations including the duration of the Training Contract. Both parties are clear about available dispute resolution avenues and understand what is required to terminate the Contract.

The Employer will:**Meet legal obligations**

This involves:

- conforming with relevant Commonwealth and State/Territory legislation, including that relating to New Apprenticeship arrangements.

Provide a safe working environment

This involves:

- providing a safe workplace, free from workplace, verbal, physical, racial and sexual abuse.
- ensuring that all occupational health and safety requirements are addressed.
- provision of an appropriate introduction to the workplace, stressing those core occupational health and safety requirements essential to workplace safety.

Support structured training

This involves:

- providing opportunities to develop knowledge and skills.
- lodging Training Contract documentation with the relevant authorities and selecting a Registered Training Organisation to enrol the New Apprentice with, within the timeframe determined by your State/Territory Training Authority.
- participating in the development of the training plan and providing facilities and expertise to assist in the training of the New Apprentice in the agreed qualification (this may include on-the-job training, supervision from competent people, mentoring, or time off for off-the-job training).
- ensuring that a record of training is maintained.
- ensuring that the relevant authorities are notified on the completion of the training contract, or advising them in instances where the Training Contract is in danger of not being completed.

Provide supervision and support

This involves:

- providing the New Apprentice with a nominated workplace supervisor and could involve a coaching or mentoring arrangement, especially for New Apprentices with little experience of work.
- being mindful that New Apprentices under the age of 18 are minors, and that their parents or guardians have legal responsibility for them.

Advise new Apprentices of their rights and responsibilities

This involves:

- ensuring that New Apprentices are encouraged to raise issues and problems both in the workplace and with the Registered Training Organisation.
- advising them of entitlements, such as wages, conditions etc..
- ensuring that the New Apprentice is aware that help and assistance is also available from the relevant State/Territory Training Authority.
- providing comprehensive induction processes for commencing New Apprentices to ensure that they are aware, from the time of commencement, of the proposed training program, workplace safety requirements and their rights and responsibilities.

The New Apprentice will:

Be aware of and make a commitment to fulfil work responsibilities

This involves:

- attending and performing work in a professional and courteous manner in accordance with the employer’s requirements.
- taking care of workplace property and resources.
- respecting the rights of other New Apprentices and employees in the workplace.
- remembering that information obtained from the employer must be kept confidential and not disclosed without approval from the employer.
- consent from a parent or guardian, if you are less than 18 years of age.

Be aware of and make a commitment to fulfil training responsibilities

This involves:

- making all reasonable efforts to achieve the competencies specified in the training plan and undertaking any training and assessment required.
- participating in the development of the training plan.
- attending training sessions or supervised workplace activities and taking advantage of learning opportunities.
- maintaining a record of training such as a training record book.

Wage Enquiry websites and contact numbers

Apprentices and trainees are generally paid in accordance with Federal and State Awards. These awards detail the conditions and applicable remuneration for each year/stage of employment/apprenticeship. Information on wages rates under Federal and State Awards is available by visiting the websites listed below.

State/Territory	Federal Awards	State Awards
New South Wales	www.wagenet.gov.au	http://www.dir.nsw.gov.au/awards/index.html
Queensland	www.wagenet.gov.au	http://www.detir.qld.gov.au/ir/wgeline/wageline.htm
Victoria	www.wagenet.gov.au	www.wagenet.gov.au
South Australia	www.wagenet.gov.au	www.eric.sa.gov.au
Western Australia	www.wagenet.gov.au	www.doplar.wa.gov.au
Tasmania	www.wagenet.gov.au	http://www.wsa.tas.gov.au/w&c/
ACT	www.wagenet.gov.au	Only Federal Awards Apply
Northern Territory	www.wagenet.gov.au	Only Federal Awards Apply

For further information and assistance

New Apprenticeships Centres in each State and Territory can provide further information on New Apprenticeships. Their contact details can be obtained by:

Calling: 1800 639 629

Or visiting: www.newapprenticeships.gov.au

State and Territory training authorities can also provide further information.

<p>Australian Capital Territory Office of Training and Adult Education 5th Floor, 40 Allara Street, Canberra PO Box 985, Civic Square ACT 2608 Phone (02) 6205 8555 Fax (02) 6205 8448 Web: www.decs.act.gov.au/services/training.htm</p>	<p>New South Wales Vocational Training Board PO Locked Bag 53 Darlinghurst NSW 2010 Ph: (02) 9266 8007 Fax: (02) 9266 8059 Web: www.det.nsw.edu.au/apprentice</p>
<p>Northern Territory Northern Territory Employment and Training Authority 1st Floor Harbourview Plaza, 8 McMinn St Darwin NT 0800 Ph: (08) 8999 4396 Fax: (08) 8999 4300 Web: www.nt.gov.au/nteta</p>	<p>Queensland Department Of Employment, Training And Industrial Relations Ph: 1300 369 935 Web: www.detir.qld.gov.au/vetinfo/home.html</p>
<p>South Australia Office of Employment and Youth GPO Box 1152, Adelaide SA 5001 Ph: 1800 673 097 Fax: (08) 8463 5654 Web: www.dete.sa.gov.au/employ</p>	<p>Tasmania Office of Vocational Education and Training GPO Box 301C, Hobart TAS 7001 Ph: 1800 655 846 Fax: (03) 6234 4358 Web: www.ovet.tas.gov.au</p>
<p>Victoria Office of Post Compulsory Education, Training and Employment PO Box 266D, Melbourne VIC 3001 Ph: (03) 9412 6600 Fax: (03) 9412 2520 Web: www.ette.vic.gov.au</p>	<p>Western Australia WA Department Of Training and Employment Level 2, 151 Royal Street, East Perth WA 6004 Ph: (08) 9235 6222 Fax: (08) 9235 6223 Web: www.apprenticeships.training.wa.gov.au/</p>

7. RTO/SCHOOL SECTION

This section has been left blank for use by the Registered Training Organisation (RTO)/School to include respective materials and information regarding policies, principles, and operational arrangements that apply to the Training Program.

8. RECORD WORK SHEETS

Additional Work Record Sheets have been included in this section should the more Work placements be undertaken.