

GREEN SKILLS AGREEMENT IMPLEMENTATION PLAN

2010-2011

for
**MINISTERIAL COUNCIL FOR TERTIARY EDUCATION AND
EMPLOYMENT**

JUNE 2010

GREEN SKILLS AGREEMENT IMPLEMENTATION PLAN

2010-2011

A NATIONAL COMMITMENT

A Green Skills Agreement Implementation Group (GSAIG) has been convened to develop a Green Skills Agreement Implementation Plan for the Ministerial Council for Tertiary Education and Employment (MCTEE) in June 2010.

Membership of the GSAIG comprises representatives from the Australian Government and state and territory governments, TAFE Directors Australia, the Australian Council of Trade Unions, the Australian Industry Group, the Australian Chamber of Commerce and Industry, Adult Learning Australia, the Australian Council for Private Education and Training, and Universities Australia.

This group is responsible for developing, in consultation with other stakeholders, the strategies and actions that will be implemented across Australia to prepare employers, communities and workers to meet the challenges and benefit from the opportunities available in transitioning to a sustainable, low carbon economy.

A lot of foundational work has already been done by government, researchers, the TAFE and higher education sectors and by other education providers. This Plan represents yet another significant step on a transformational journey.

WHY AUSTRALIA NEEDS A GREEN SKILLS AGREEMENT

Both the Australian Government and the Council of Australian Governments (COAG) are developing policies and programs to help the nation respond to the challenges of climate change. These initiatives are important to protect the future productivity of the Australian economy, the continuing prosperity of Australian businesses and industries and continuing employment opportunities for Australians.

Our future prosperity is reliant on the skills that workers gain on their path through vocational education and training and/or higher education. To meet the challenges of climate change, existing workers will need to upgrade their skills or develop new ones; and learners in both the vocational education and training (VET) and higher education sectors will need to be equipped with skills for sustainability.

Industries will need workers with these skills to meet the demands for clean, green, environmentally sustainable products and services from their clients and to maintain their international competitiveness. Professions such as architecture, engineering, town planning, economics and the environmental sciences will need to understand and apply sustainable practices. Individual households want skilled tradespeople who can advise them on the selection, installation, maintenance and repair of energy efficient housing, appliances, IT equipment and vehicles. Many in business and industry have already recognised that training the workforce in skills for sustainability is not only better for the environment, it's also better for the bottom line.

The *Green Skills Agreement* brings together the Australian Government and state and territory governments, employers and employees, public and private VET providers, community and adult learning providers, and the higher education sector in a spirit of collaboration to provide nationally consistent and coordinated responses to these needs.

The *Green Skills Agreement* will promote the development of skills for sustainability across the VET and higher education sectors. In this first phase of implementation, the focus is on enabling the VET workforce to provide high quality teaching and facilitation in skills for sustainability and ensuring that the qualifications and products available in the marketplace are responsive to industry needs. Under the Agreement, strategies will also be developed to assist workers most likely to need upskilling as Australia transitions to a low carbon economy, as well as supporting communities and industries for which the transition will be most challenging.

Skills for sustainability defined

The *Green Skills Agreement* defines skills for sustainability in the following terms:

Skills for sustainability, also known as green skills, are the technical skills, knowledge, values and attitudes needed in the workforce to develop and support sustainable social, economic and environmental outcomes in business, industry and the community.

Skills for sustainability are already at work in Australia's trades and professions. New approaches to manufacturing, building and construction, energy efficiency, environmental sustainability and lowering carbon emissions and water management are demanding new skills to be applied across all businesses and occupations. For example: Plumbers are installing rainwater tanks and grey water recycling systems to help consumers use precious water resources more wisely. Architects are specifying materials made from more sustainable resources and are designing homes and buildings to use fewer resources in their construction. Builders have been learning and applying sustainable practices for the last decade. Many land use management and farming practices are also emerging that are environmentally more sustainable.

Those individual businesses and industry sectors – both in Australia and overseas – that have been 'early adopters' of green technologies and green skills are reporting benefits right across their enterprises: from reduced input costs, to higher productivity of workers and, importantly, growing markets and higher profits.

THE IMPLEMENTATION PLAN

The Implementation Plan sets out agreed actions to achieve the objectives of the *Green Skills Agreement* for the period 2010-11.

In providing a national framework for the development of skills for sustainability within the VET sector (and considering how these skills can effectively be incorporated into the higher education sector), this Plan aligns the efforts of all parties, allows for the identification and sharing of best practice and assists in avoiding duplication and wasted resources (a sustainability goal in itself).

Plans for the life of the Agreement will be developed each year; the GSAIG will report to MCTEE annually on progress in achieving the objectives of the Agreement.

The actions proposed for the next 12-18 months focus on the VET sector but foreshadow the closer relationship that must be developed between VET and higher education and are consistent with reforms proposed in both sectors. In order for Australia to continue to prosper, we need to adapt to the impacts of climate change. We need to do this by fostering a skilled, flexible, workforce, strengthening our competitive industries and ensuring that our communities are resilient and able to benefit from the transition to a newer, greener economy. Australians need to learn new ways of living, working and consuming.

Over time, the Plan will help forge new relationships and greater collaboration between the institutions, teachers, students and graduates of our tertiary institutions. It will help those individuals and communities who may be especially vulnerable to the impacts of climate change by linking them to resources available in their own communities, including both formal and informal opportunities for acquiring new skills.

BENEFITS OF THE *GREEN SKILLS AGREEMENT*

In the short term

- Revision of Training Packages to incorporate skills for sustainability across the national training system, to position Australia to develop the skills needed for a successful transition to a low carbon, sustainable economy.

In the long term

- State, territory and federal governments, employer and employee representative bodies, VET and higher education providers, VET and higher education practitioners, unions and communities will prepare Australia's workforce to meet the future skills needs of a low carbon economy by collaborating to develop and provide quality teaching and facilitation in skills for sustainability.
- Teaching staff in both VET and higher education will have the capacity and the knowledge to impart skills for sustainability to their students in trades, professions and other relevant occupations.
- Students will have clear pathways to help them attain the qualifications they need to gain meaningful employment in a changing economy; and they will be able to more easily move between VET and higher education and back again, in pursuing their career goals.
- People and communities experiencing vulnerability as Australia adapts to the challenges of climate change will be supported through targeted and flexible support relevant to their particular circumstances.

OBJECTIVES OF THE *GREEN SKILLS AGREEMENT*

The Agreement has four primary objectives. These are to:

1. develop national standards in skills for sustainability within the requirements of the National Skills Framework (the Australian Quality Training Framework, the Australian Qualifications Framework and National Training Packages);
2. upskill VET practitioners so they can provide effective training and facilitation in skills for sustainability;
3. review and revise Training Packages to incorporate skills for sustainability; and
4. implement strategies to reskill vulnerable workers in the transition to a low carbon economy.

In addition, the Agreement aims to achieve six secondary outcomes:

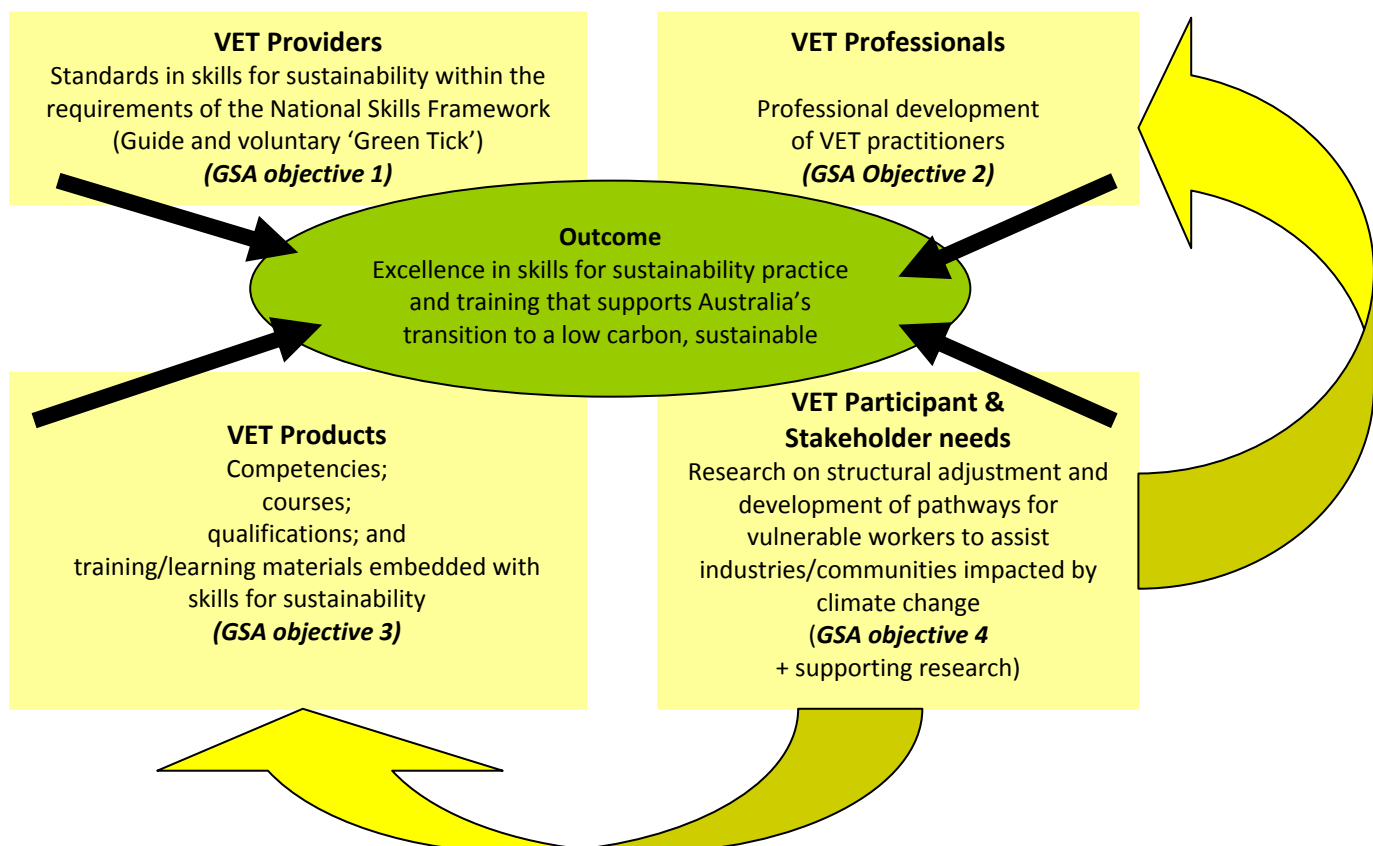
- stronger collaboration and coordination between governments, employer and employee representatives, the VET sector, universities, schools and community organisations;
- improved linkages and collaboration between schools, VET and higher education to provide integrated learning pathways for students and to support careers and jobs pathways for the Australian workforce;
- clear pathways and supportive networks so that vulnerable workers and communities can reskill and participate in the opportunities created by a low-carbon economy;
- graduates and learners understand and promote business practices and innovations that support the transition to a sustainable, low-carbon economy;
- business and community have better awareness of the VET sector’s capacity to support Australia’s transition to a low-carbon future through relevant skills and shared knowledge about sustainable ways of working;
- the existing workforce is upskilled/re-skilled in skills for sustainability.

FROM OBJECTIVES TO OUTCOMES

The transition of Australian industries, businesses and households to a low carbon, energy efficient and socially and environmentally sustainable economy will be achieved more effectively when tertiary education providers have the capacity to deliver the requisite knowledge and skills for sustainability to new and existing workers in both trades and professions, and to the wider Australian community. In its first year of implementation, the focus of the Green Skills Agreement is on the VET sector, although work has begun on promoting collaboration between VET and higher education.

The necessary relationships and interactions that will give effect to the *Green Skills Agreement* objectives in its first year are illustrated in the following diagram.

Fig. 1 Schematic Framework: *Green Skills Agreement* objectives and outcomes 2010-11



To achieve this, the following is required within VET.

1. Develop national standards in skills for sustainability within the requirements of the National Skills Framework (GSA Objective 1)

Industry Skills Councils (ISCs) have reviewed all relevant Training Packages (TPs) to identify units and qualifications that require the addition of skills for sustainability. The next phase is for the ISCs to make necessary amendments to TPs and submit them to the National Quality Council for endorsement. In 2011, TPs will be available to public and private registered training organisations (RTOs) for integration into their course offerings. The revised TPs should start to become available to learners from mid-2011 onwards. The National Quality Council's work on the development of quality standards, including the Guidelines, for training providers delivering skills for sustainability will be advanced.

2. Upskill VET practitioners so they can provide effective training and facilitation in skills for sustainability (GSA Objective 2)

When this objective is fully met:

- VET practitioners in relevant subject areas will be able to deliver, assess, facilitate learning and equip learners with sustainability skills and competencies to meet demand from those industries that need these skills; and
- most VET practitioners will have skills in education for sustainability.

These skills will be appropriate to the provision of all training, allowing learners to engage in sustainable practice even in the absence of formal sustainability units of competency. VET learners (new and existing workers) should acquire:

- the specific skills and competencies to contribute to a sustainable workplace and community;
- behavioural skills that will help an enterprise, business or community to reduce its environmental footprint while maintaining its competitive advantage;
- values and attitudes to advocate for the implementation of business practices that provide employers and clients with opportunities to operate more sustainably.

To achieve these educational outcomes, VET practitioners will require both:

- vocational competence in the knowledge, skills and competencies being taught in industry-relevant training
 - plus the recognition of, and ability to respond quickly to, innovation in relevant environmentally sustainable services, products and technologies;
- education skills to deliver learner-based change strategies towards sustainability (*Education for Sustainability*), including
 - advanced facilitation skills that foster creativity, innovation and problem solving (these skills are essential if workers are to remain adaptable and employable in a period of significant industrial transition)
 - strategies that allow transformational, experiential and reflective learning.

3. Review and revise Training Packages to incorporate skills for sustainability (GSA Objective 3)

The GSAIG will develop an evaluation framework to monitor and improve the implementation of the revised Training Packages on the following basis:

- i. Once all relevant Training Packages have been reviewed and skills for sustainability incorporated, they are made available to practitioners and learners.
- ii. Adequate resources to promote the effective uptake of skills for sustainability within Training Packages are provided
- iii. The trialling of revised Training Packages includes collecting relevant data on participation, completion and satisfaction rates of learners and employers.
- iv. After trialling the revised Training Packages, indicators of their positive impact on those intended to benefit (learners, employers, industries, and communities) are derived, including: success in employment; learner satisfaction; customer satisfaction; rate of articulation to further study.

4. Implement strategies to reskill vulnerable workers in the transition to a low carbon economy (GSA Objective 4)

To do this the VET sector will need to have access (e.g. through research and the work of the Industry Skills Councils) to intelligence on existing and emerging sustainability skills and other needs of its stakeholders (GSA Objective 4 + research capability).

The Garnaut Report found that the most severe impacts of climate change in the Australian economy would be in agriculture, infrastructure, biodiversity and ecosystems, affecting resource based industries and communities and tourism. Additional risks for Australian enterprises include impacts on international trade and the possibility of political instability for some of our trading partners. Ultimately all businesses and industries will need to factor adaptation to climate change into their future business decisions. Many, if not all, enterprises will need to draw from a workforce that understands and can apply skills for sustainability so that productivity and profitability are protected.

Enterprises recognise that skills for sustainability are important for future prosperity, but few are ready to make the necessary changes in their own business practices.

In Australia some communities (such as those within the Murray-Darling Basin) are already grappling with the environmental impacts of climate change.

A significant proportion of the working age population lacks language, literacy and numeracy skills, which is a significant barrier to their employment prospects. In addition, research on the employment opportunities available as Australia adapts to climate change suggests that some jobs will be replaced through adaptation and upskilling, and many new jobs will be created. Vulnerable workers and people who have been unemployed for a long time, or who are at risk of becoming unemployed, cannot be left behind as Australia transitions to a greener economy. Clear skills pathways need to be developed for up-skilling and reskilling vulnerable workers that

are matched to identified job opportunities. Vulnerable industries at risk of structural adjustment will need to be identified and targeted to ensure that workers can transition into future employment that encompasses their existing skills, or can be up-skilled to improve their employment prospects.

When considering the impacts on and needs of vulnerable people of working age and communities most affected by climate change, it is important that actions under the *Green Skills Agreement* complement efforts by governments in existing environmental, educational and workforce policies and programs.

Skills Australia's *Workforce Futures* report articulates the challenges for the VET sector in meeting the workforce needs of the future and training new candidates to fill the skills shortages being experienced now and in the future. These shortfalls – in relevant skills and in finding workers to fill the green jobs of the future – present opportunities for vulnerable workers and communities. Objective 4 of the *Green Skills Agreement* Implementation Plan aims to facilitate access to some of those opportunities.

Strategies and actions under each GSA objective will be informed by relevant existing and/or sponsored research and analysis.

EVALUATION AND REPORTING

The evaluation process and performance measures to be reported against are still under consideration. The GSAIG will develop the evaluation and reporting framework for this Plan during the first quarter of the 2010-11 financial year.

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***With respect to the Green Skills Agreement Implementation Plan:
our greatest challenge is to ensure all learners commit to sustainable practice in
their workplace and community;
our greatest opportunity is to empower our practitioners,
to ensure our learners actively embrace sustainable practice.***

**Dr Garry McDonald
TAFE Directors Australia and Manager, National Centre for Sustainability,
Swinburne University of Technology, Melbourne**

GREEN SKILLS AGREEMENT IMPLEMENTATION PLAN: OBJECTIVES AND ACTIONS 2010-2011

OBJECTIVE 1: To embed skills for sustainability practices in vocational education and training, within the requirements of the National Skills Framework (Training Packages and the Australian Quality Training Framework, as underpinned by the Australian Qualifications Framework) to meet the existing and emerging skills needs of industry.	
PURPOSE: <i>This objective aims to ensure that the VET sector responds to the effects of sustainability issues on industry and the community and meets regulatory requirements, where these apply. Actions under this objective will be consistent with other standards and requirements applying to non-education and training industry regulation.</i>	
ACTIONS	
1.1	Provide input, through national Industry Skills Councils, to the Review of the Australian Quality Training Framework so the new Framework contains specific criteria or amendments to current standards to reflect sustainability practices and teaching in vocational education.
1.2	National Industry Skills Councils work with the National Quality Council to develop a new Guide for sustainable practice that RTOs may use to assist them in understanding and delivering skills for sustainability. This may later align with the development of 'Green Tick' recognition to providers of quality training and facilitation in skills for sustainability.
1.3	DEEWR will follow up the roundtable of university academics and associated organisations to discuss the integration of sustainability knowledge into university curricula and teaching practice, and to promote an integrated approach to skills for sustainability across the tertiary sector, with appropriate policy recommendations for Government.
1.4	Australian Training Awards 2010 recognise excellence in sustainability practice by VET providers.

PROPOSED FUTURE DEVELOPMENTS:

- Develop and promote pathways in green jobs with the aim of promoting policy options that will encourage the uptake of skills for sustainability as well as encouraging students to pursue skills development in both the VET and higher education sectors.
- Develop a research proposal that examines the impact of sustainability practice and teaching on an ageing VET workforce and the need to attract and retain new practitioners to VET.
- States and territories develop and trial new qualifications and resources.
- Collect data to provide benchmarks about the extent of green skills training, practitioner capability, employer actions and delivery of green qualifications so as to be able to measure change over time.

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CASE STUDY: *Refrigeration and Air Conditioning Contractors Association of NSW (RACCA NSW): Taking Natural Refrigerants to Regional NSW*

The aim of the Taking Natural Refrigerants to Regional NSW project was to upskill regional refrigeration technicians to service new, more environmentally responsible refrigeration technology being implemented globally.

In the late 2000s, multinational food and beverage companies such as Coca Cola and Unilever (Streets) started to replace self-contained cabinets using synthetic refrigerant with systems that could run on the natural refrigerants Carbon Dioxide (CO₂) and Hydrocarbons (HC). These emit less greenhouse gas and use less energy. In Australia, the industry has seen the need to upskill refrigeration maintenance contractors, especially in regional areas, to expand implementation of this technology. In the absence of trained operators, equipment suppliers were unwilling to distribute the technology because of the significant safety risks if used wrongly. The industry association, RACCA NSW, held that refrigerants should only be used where equipment is manufactured for their use and is manufacturer approved. They have a 'no retro-fitting' policy and were keen for the whole refrigeration/air conditioning industry to receive appropriate training.

The project was distinctive and innovative in several respects.

- By August 2009 equipment using natural gas refrigeration systems was available in all regional TAFEs delivering refrigeration / air conditioning training, through generous industry donations.
- By mid 2010, 700 technicians in the nine NSW regions have participated in orientation sessions for the natural refrigerants CO₂ and HC, aligned to the new national units of competency.
- By September 2009, 24 TAFE NSW teachers in regional TAFEs have received professional development to deliver safety awareness and systems training in natural refrigerants.
- New training programs and resources, including Refrigerants: Appliances and Heat Pump Systems Using CO₂ and a DVD have been developed.
- In-depth training programs have been delivered to regional refrigeration technicians across the State (over 300 by end 2009).

The key to green training and assessment is making it easy for businesses and ensuring that training dovetails closely with where a business and the industry is heading in terms of environmental changes.

Training can't lead change, but it can facilitate and reinforce the adoption of new technologies, products and work processes and add value to sustainability strategies.

Dr Caroline Alcorso, Manager, Workforce Development, Industry Programs, NSW Department of Education and Training

GREEN SKILLS AGREEMENT IMPLEMENTATION PLAN: OBJECTIVES AND ACTIONS 2010-2011

OBJECTIVE 2: To upskill VET practitioners to provide effective training and facilitation in skills for sustainability	
PURPOSE: <i>For VET learners to acquire the highest quality and right mix of skills for sustainability now demanded by business and industry, VET practitioners must have the knowledge, skills and values for effective delivery and assessment, including facilitation of learning of skills for sustainability and required learning support.</i>	
ACTIONS	
2.1.	Scoping study by Innovation and Business Skills Australia (IBSA) to identify a preferred model for training VET practitioners to deliver and assess skills for sustainability training.
2.2	Identify and then pilot a training model in all segments of VET (public, private, community and adult education) that offer transformational teaching principles for practitioners as well as technical skills for learners.
2.3	Pilot the Skills for Sustainability Standards Framework.
2.4	Develop case study examples of sustainable work practices and training for sustainability among private training providers, including examples of both unaccredited and accredited training and how unaccredited training can be mapped to Training Package qualifications.
2.5	Evaluate ACPET SA pilot among private providers to create sustainable practice for and approaches to training for sustainability, for potential application to private providers in other states.
2.6	Identify leading VET practitioners who can model best practice for others and foster the development of communities of practice, including champions of skills for sustainability, amongst VET practitioners. These initiatives should be industry-specific and draw on the expertise of particular industry leaders to act as mentors to practitioners participating in professional development.
2.7	Build on existing web-based resources to create an accessible, authoritative repository of teaching and learning materials in skills for sustainability. Determine how the proposed <i>MySkills</i> project could support this aim. Promote awareness of resources such as SMExcellence (http://www.smexcellence.com.au) and the Green Skills NSW course finder http://coursefinder.greenskills.nsw.gov.au/ . Establish forums (web-based virtual or real) to generate awareness among RTOs and instructors of the value of and need and opportunities for acquisition of key skills required to deliver and assess skills for sustainability that is responsive to needs of industry and other stakeholders. Inform industry via key stakeholder groups of changes as they occur in training programs for apprentices and existing workers.
2.8	Promote uptake of a range of currently available VET courses that focus specifically on sustainability education and training.
<i>Actions supporting this objective will be consistent with existing initiatives such as:</i>	
<ul style="list-style-type: none"> <i>. Living Sustainably, which promotes education for sustainability</i> <i>. the Quality Skills Incentive, an element of the Skills for Sustainable Growth package announced in the Federal Budget 2010-11.</i> 	

GREEN SKILLS AGREEMENT IMPLEMENTATION PLAN: OBJECTIVES AND ACTIONS 2010-2011

PROPOSED FUTURE DEVELOPMENTS:

- Public, private, industry and community training providers adopt the successful, tested model for professional development of their own workforces.
- Individual institutions collaborate to develop communities of practice, so that VET practitioners can share learning and develop new skills.
- Skills for sustainability training is incorporated into ongoing professional development programs for VET staff.
- Build links with schools sector, using tools such as the *Sustainability Curriculum Framework 2010* [Department of the Environment, Water, Heritage & the Arts]

CASE STUDIES

Integrating sustainability into teaching practice

The TAFE Development Centre (TDC) in conjunction with the National Centre for Sustainability (Swinburne University) has developed and is implementing a professional development model for integrating sustainability into teaching practice for VET Practitioners.

The first phase of this model entails a one day interactive workshop that offers participants an opportunity to discuss and explore the nature of sustainability and review current learning and assessment materials, to plan for the inclusion of sustainability principles as part of overall program delivery. Tools and strategies are provided to assist the modification of current learning and assessment materials and to ensure that sustainability principles can be specifically addressed in delivery. This program has been funded by Skills Victoria and 450 practitioners will have completed the program by 30 June 2010. A Community of Practice, based on the program attendees, is currently being established, supported by a TDC portal. The portal provides a reference point as well as a discussion forum for the attendees to continue their discussions.

The second phase of the model is still under development but aims to establish 'Sustainability Champions' within each TAFE Institute through the completion of the Vocational Graduate Certificate in Education and Training for Sustainability (EfS) and a range of supporting activities and initiatives. The program will provide participants with an opportunity to review current teaching practice to determine whether the approach supports sustainability, i.e. do teaching methods support people to develop capacities and opportunities to engage with sustainability issues.

Plumbing Industry Climate Action Centre (PICAC)

The Victoria Government provided \$2.1 million to help establish the Plumbing Industry Climate Action Centre in Brunswick, Melbourne. This innovative \$9 million Centre is the result of a successful green partnership with industry, unions and governments. The Centre offers training in state-of-the-art green plumbing techniques, supplementing the skills delivered in current VET plumbing courses. The Centre's focus on sustainability, energy saving, waste reduction and water conservation will support Victoria's transition to greener modes of water use and the growth of the green plumbing industry.

In April 2010, the Australian Government agreed to provide \$2,193,000 to allow completion of two state-of-the-art plumbing facilities at PICAC. One is a purpose-built 5-star green building, and the other is an existing building which is being refurbished and retrofitted as a facility for training in skills for sustainability.

A Sustainable Eden at Byron Region Community College

At Byron Region Community College the staff and tutors don't just teach sustainability skills. Their business approach and philosophy is underpinned by sustainable practices. The College is currently in the process of refurbishing their buildings with funding from the Infrastructure for Community Education and Training program to be a model sustainable workplace and showcase for visitors and learners, including a large array of solar panels to generate power for the grid.

They have undertaken a broad range of programs and initiatives for industry integrating green skills into training packages. They also have around 20 sustainability related courses and workshops for the general public each term. Overseeing all this is a Sustainability Officer whose job it is to ensure sustainability practices and develop sustainability programs across the College.



GREEN SKILLS AGREEMENT IMPLEMENTATION PLAN: OBJECTIVES AND ACTIONS 2010-2011

green
skills



'Green Skills' – sustainable practice in Vocational Education & Training (VET)

NSW is providing professional development and support for VET practitioners working for a Registered Training Organisation (RTO) to build Green Skills capability in VET, via the GreenSkills Workshops. The course is designed for practitioners, trainers and assessors responsible for delivery & assessment of 'green skills'; RTO managers responsible for green skills training & assessment strategy & services; or practitioners responsible for supporting green skills implementation. The workshops support the NSW BVET Green Skills strategy by developing the capacity of training providers to meet environmental awareness and skills development needs in key industry sectors, namely: Construction & Property Management; Manufacturing ; Energy and Water. The workshops are designed to meet the needs of both experienced and new practitioners and provide a solid foundation, plus tools and resources for practitioners to start their own professional development in skills for sustainability.

The workshops help participants to critically reflect on their current practice by considering:

- *the RTO as a 'Green Skills' provider*
- *the VET trainer/assessor as a Green Skills role model*

By the end of the program participants should be able to:

- *identify key drivers, impacts and barriers to sustainable practice in VET.*
 - *describe good practice in sustainability in VET, including rethinking current approaches to learning and assessment by engaging through experience, reflection & critical thinking.*
 - *apply the 'green skills' model to the planning and implementation of sustainable practice in VET.*
 - *discuss strategies to engage, promote and communicate sustainability practice in VET amongst VET colleagues, RTO management, industry partners and learners.*
 - *discuss the role and capabilities of the VET practitioner, committed to sustainable practice in VET.*
 - *discuss approaches to professional development as VET practitioner to ensure currency in this area of practice.*
 - *identify networks, tools and resources to support professional currency and future planning in this area.*
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Case study from the Canberra Institute of Technology

The Diploma of Sustainability was initially developed by the Swinburne University of Technology funded through the Department of Innovation, Industry and Regional Development, Victoria. In order to minimise the carbon footprint of this program, the Canberra Institute of Technology has adapted the program to be delivered fully online with individual tutorial support and where appropriate, online group tutorial sessions. The program is presently delivered to existing students, graduates and VET trainers and practitioners

By offering the Diploma of Sustainability, CIT has taken a proactive approach towards educating and promoting for an environmentally sustainable economy. The course explores the relationships that balance the natural environment with the economy and society and takes into account the National Minimisation and Recycling Strategies, the National Greenhouse Response Strategy and the National Strategy for Ecologically Sustainable Development.

The Diploma of Sustainability is designed to be studied concurrently with an existing Diploma and equips students with knowledge and skills to recognise and implement sustainable practice in their chosen field of study and work. Where possible, students are exposed to real work environments, examples and case studies. Students who have already completed a diploma or higher level qualification can use their previous study or workplace experience to apply the sustainability elements to practical exercises and projects. Students concurrently studying another qualification are encouraged to apply sustainability elements to this knowledge. Students are provided with Learners Guides, web links and other material through CIT's online learning platform.

The Diploma of Sustainability is supported by online learning guides which can be continually updated with new developments and resources. In addition there is a range of teacher resource material and a train the trainer package. This program is most suitable for upgrading the skills of VET instructors and teachers.

GREEN SKILLS AGREEMENT IMPLEMENTATION PLAN: OBJECTIVES AND ACTIONS 2010-2011

OBJECTIVE 3: Undertake a strategic review of Training Packages to embed sustainability knowledge, skills and principles	
PURPOSE: <i>To fulfil this objective, all Industry Skills Councils are reviewing Training Packages for their industries, to ensure that for all units or courses of study where it is relevant to do so, skills for sustainability are incorporated.</i>	
ACTIONS	
3.1	All Industry Skills Councils (ISCs) review Training Packages to identify those that should but do not yet include knowledge, skills, principles or units of competency in support of skills for sustainability.
3.2	ISCs amend Training Packages to include elements, competencies and or qualifications that require skills for sustainability relevant to the vocational area.
3.3	Develop and trial new skill sets, qualifications and training materials required to implement skills for sustainability training via Training Packages.
3.4	DEEWR develop a coordinated communications strategy, in consultation with the National Quality Council, ISCs, and major industry stakeholders, about the availability of the revised Training Packages.

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OBJECTIVE 4: Implement a transition strategy to reskill vulnerable workers in the transition to a low carbon economy	
PURPOSE: <i>Research indicates that while responding to climate change will present many new opportunities in the workplace, there will be individuals, occupations and communities who may be disadvantaged. This objective aims to provide policy settings and programs that will minimise the negative impacts on people so affected, to allow them to participate fully in the opportunities available as the economy adapts to the challenge of climate change.</i>	
ACTIONS	
4.1	Commission research to help determine where vulnerable workers and communities are and to identify interventions that will assist them to deal with the impacts of climate change on their environment and on local job opportunities. This research is to explore how working age people and their communities might experience vulnerability in different scenarios. This research should collect information and recommendations from individuals and communities, from affected businesses or sectors of industry, including unions, from Industry Skills Councils and from public and private providers of both formal and informal educational programs that are in a position to assist.
4.2	Institute research into the capacities of the volunteer sector and the adult & community education sector, working together, to provide effective interventions to assist vulnerable working age people and the communities they live in. Investigate the effectiveness of programs where volunteers learn and apply green skills to combat environmental degradation (for example, Conservation Volunteers work with Alcoa). Investigate how such programs can: <ul style="list-style-type: none"> ▫ mobilise communities already facing the impacts of climate change; ▫ engage marginalised, excluded persons or communities in gaining skills for sustainability; ▫ improve the employability skills of vulnerable working age people; ▫ open pathways to the pursuit of formal, accredited training relevant to the needs of businesses and industries.
4.3	Conduct research to determine the lessons for this strategy from previous structural adjustment challenges and make recommendations for strategies to be trialled. Trial recommended strategies for cohorts of vulnerable workers, communities, industries, in each jurisdiction. Evaluate trial outcomes and make recommendations on preferred strategies.
4.4	Research project to map sustainable employment and training opportunities for Indigenous Australians in the Murdi Paaki region of NSW.
4.5	Closer consultation with Commonwealth and State governments to ensure that this strategy is targeted towards those industry sectors and workers who are most vulnerable and to facilitate whole-of-government service responses to vulnerable working age people and their communities.

PROPOSED FUTURE DEVELOPMENTS:

- Identify Australian Government programs and initiatives related to skills for sustainability, focusing on their effectiveness in supporting vulnerable workers.
- Provide baseline research into the learning challenges in communities with high concentration of vulnerable workers.
- Develop materials and coordination for community based learning initiatives for communities with high concentrations of vulnerable workers.

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RESEARCH AND PROJECTS TO SUPPORT GSA OBJECTIVES 1-4		
<i>Research and modelling of skills needs, deficits and gaps</i>		
<p>R.1 Skills for the Carbon Challenge</p> <ol style="list-style-type: none"> 1. IBSA project on teacher training and assessment 2. Employer survey in emissions intensive industries to identify current and future requirements for staff with skills for sustainability 3. Upskilling existing workers project – with MSA, C&PS and EEOZ Industry Skills Councils and an evaluation by KPMG 4. Skills for Green Jobs (University of Sydney for the ILO) – an Australian case study 5. Research by NCVET to determine demand for and take up of skills for sustainability by students in both the VET and higher education sectors 6. Study of the impact on future skills needs of moving to a low carbon economy 7. Sustainability in Higher Education web-based survey project 8. Energy Efficiency and Renewable Energy teaching unit pilot project 9. Indigenous Concepts of Country and Sustainability module pilot project 	<p>Australian Government funding to organisations with relevant expertise</p>	<p>2010</p>
<p>R.2 Workforce Innovation Program</p> <ol style="list-style-type: none"> 1. Development of skills for sustainability in the Transport and Logistics Sector 2. Study of the quality of teaching in VET by the Australian College of Educators 3. Develop Certificate IV course for Business Sustainability Assessors working in commercial sector 		<p>2010</p>

FUTURE DEVELOPMENTS

- Monitor progress and outcomes of the Productivity Commission’s study of issues affecting the VET workforce (April 2010-April 2011).

RESOURCES

- *Garnaut Climate Change Review*, 2008, http://www.garnautreview.org.au/domino/Web_Notes/Garnaut/garnautweb.html
- *Environmental Sustainability: An Industry Response*, Industry Skills Councils, 2009, www.isc.org.au
- *Skills for Sustainability: Sustainability Skills Stocktake and Gap Analysis*, Precision Consultancy for the National Quality Council, 2009
- *Skills for Sustainability Standards Framework*, Ithaca Group for the National Quality Council, 2009
- *Australian Industry Group and Deloitte, National CEO Survey: Skilling Business in Tough Times*, October 2009
- *National VET Sector Sustainability Action Plan*, 2009
- *VET Products for the 21st Century*, 2009
- *Skills for a Low Carbon Economy: a literature review*, Lista Consulting for DEEWR, 2010
- *Australian Workforce Futures*, Skills Australia, 2010
- *Scoping Skills for Sustainability*, Alexander Toohey for the Innovation and Business Skills Australia, February 2010
- *Go Green – Looking for sustainability training resource*: <http://www.bsv.org.au/contents/Careers/Careers/Go-green-resource.aspx>
- *Creating Jobs – Cutting Pollution: The roadmap for a cleaner, stronger economy, ACT and ACTU*, May 2010