

Victoria: The Green Jobs State

Creating a green, prosperous and
socially inclusive Victoria

Report by The Nous Group on the Summit
held on 24 April 2009

For the Brotherhood of St Laurence and
Environment Victoria



THINKING

DOING

LEADING



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1 Executive summary

The world is at a unique junction in history in environmental, economic and social terms. The imperative of responding to climate change while the world wrestles with a severe and unpredictable economic downturn is both a challenge and an opportunity. In responding to the economic crisis, we have an opportunity to build a future that is environmentally and socially sustainable. The pathway we embark upon now must be one that transforms industry and creates a safe climate for human existence. At the same time, we must ensure that these transformations do not further disenfranchise disadvantaged members of the community.

In April 2009, Environment Victoria and the Brotherhood of St Laurence joined forces to run a one day summit – ‘Victoria the Green Jobs State: creating a green, prosperous and inclusive Victoria’. The summit provided an opportunity to bring together high level stakeholders from across the community, business, media and political spectrum to discuss the methods by which Victoria can move towards a future in which green jobs and industries play a central role.

The term ‘green jobs’ refers to employment that arises from attempts to mitigate the causes and effects of environmental threats. By investing in the creation of green jobs, Victoria can prepare itself for a prosperous and sustainable future that is accessible to all Victorians.

The ‘Green Jobs Summit’ explored possible pathways towards this future, and highlighted some key strategic actions the Victorian Government could take in its pursuit. Analysis of these strategic actions revealed three key themes, from which were developed five recommendations for the Victorian Government’s green jobs agenda. These themes and recommendations are detailed in Table 1 below.

Key themes		Recommendations	
1	A governance model to deliver green jobs	1	Establish a ‘Green Jobs Council’
2	Stimulation of demand for green jobs	2	Provide investment and leadership to stimulate green jobs
		3	Provide information and regulation to stimulate demand for green jobs
3	Meeting the skills and training needs for green jobs	4	Develop and set social and environmental employment targets
		5	Identify a green skills development agency for Victoria

Table 1: Key themes and recommendations

The three high level themes that emerged from the day bracketed the need for effective governance of the State’s green jobs agenda, which would enable the implementation of strategies to encourage the generation of green jobs, enable the supply of suitably trained ‘green employees’ and ensure all Victorians are able to participate in the shift to a lower carbon economy. The stimulation of a green jobs economy can be achieved through



forward thinking and ambitious policy, regulation, targets and standards that reduce the carbon emissions of our economy and create strong signals for investment by industry.

In order to meet this increased demand, the state must ensure an adequate supply of appropriately skilled and trained 'green employees'. The manner in which skills needs are identified and addressed must be both fair and responsive. Training and skills development at all levels is essential including the development of pathways into sustainable employment for lower skilled or disadvantaged job seekers. The centrality of green skills to Victoria's future prosperity should be recognised by the creation of a green skills development agency to direct and monitor the state's progress in this essential field.

These key themes and recommendations are explored in greater detail in section 3.

2 The challenge

The challenge posed to society in responding to climate change – whether we phrase this challenge as an economic challenge around substantial industry transformation, a challenge for society in terms of mobilising as well as protecting individuals, or a fundamental challenge of maintaining a safe climate for human existence – is one with which we are all currently grappling.

This challenge is at the forefront of thinking worldwide, by citizens and governments, by progressive business leaders and by innovators. Even in a period of economic downturn, questions of how the changes we require to respond effectively to climate change are central to our thinking – witness the focus which the American, South Korean and to a lesser extent Australian Governments have given to investment in 'green' infrastructure as part of their programs of economic stimulus.

At the same time, there remains a danger that the interlinked questions of how we will respond to the environmental challenges that face us and how we will address the sustainability of our economic systems will be seen as conflicting. This need not and should not be so. Indeed, if we are short sighted and retain a simplistic 'green versus brown' perspective, we can also lose sight of a third question – that of equity and the needs of the disadvantaged members of our society.

The recognition of and pursuit of a clear agenda around Green Jobs is one way of ensuring that we do not fall into this trap. For its part, the Victorian Government has signalled its intention to develop 'Green Jobs and Economy Action plans' in its annual statement of intentions for 2009.

It was against this background that the Brotherhood of St Laurence and Environment Victoria hosted 'Victoria – the Green Jobs State', providing a forum to identify economic opportunities for Victoria in the future green economy, while ensuring that equity was maintained and disadvantaged job seekers were able to take advantage of employment opportunities.

The United Nations Environment Program (UNEP) defines Green jobs as jobs which are 'aimed at alleviating the myriad of environmental threats faced by humanity' and identifies areas such as restoration of ecosystems, reducing energy consumption, decarbonisation and waste and pollution reduction as sources of green jobs¹.

¹ United Nations Environment Program, 2008, 'Background Paper on green Jobs'



Australia has seen a number of studies recently which have examined the potential for Green Jobs. The study by the ACF and ACTU, 'Green Gold Rush: How Ambitious Environmental Policy Can Make Australia a Leader in the Global Race for Green jobs', examined 30 industries globally and identified a range of sectors in which Australia has the opportunity to create 500,000 jobs by 2030². A CSIRO study for the Dusseldorp Skills Forum, 'Growing the Green Collar Economy', found that 'well developed policies can substantively decouple economic growth from environmental pressure' and that a transition to sustainability could be achieved with substantial employment growth³.

For release at the Green Jobs Summit, Environment Victoria prepared a report entitled 'Victoria- the Green Jobs state: seizing the opportunities'. This report profiled five different industries in Victoria: solar water heating, rail manufacturing, energy and water efficiency, recycling and wind power. It found that while these industries are already significant contributors in terms of employment, economic activity and environmental benefits, there is great scope to expand these industries. In these five industries alone the report finds that 26,000 jobs could be created, largely through improvements or minor amendments to current regulations, policy and programs. Importantly many of these jobs would suit low or semi-skilled job seekers, particularly in the fields of energy and water efficiency and recycling.⁴

Most recently, the Victorian Government commissioned a report entitled 'Victoria's Greenhouse Opportunity Set: New Growth Prospects in a Carbon Constrained World', which identified up to \$25 billion of greenhouse opportunities over the next two decades including:

- \$4.6 billion in water infrastructure and technology
- \$2.25 billion in green building and construction services; and
- \$3.3 billion in energy storage and technology⁵.

The summit heard from a range of speakers and included workshop sessions which sought to address and identify ways forward in five key areas: increasing Victoria's competitive advantage, green jobs in water and energy efficiency, involving disadvantaged job seekers, greening manufacturing and ensuring we will have the skills we need.

The key challenges identified at the summit related to the development of green jobs in Victoria include:

- The need to identify key developing industries, jobs and skills needs in the green economy and to provide appropriate investment and demand signals to industry and the training sector to invest in these skills.

² ACF and ACTU, 2008, 'Green Gold Rush: How Ambitious Environmental Policy Can Make Australia a Leader in the Global Race for Green Jobs'

³ CSIRO, 2008, 'Growing the Green Collar Economy: Skills and labour challenges in reducing our greenhouse emissions and national environmental footprint'

⁴ Environment Victoria, 2009, 'Victoria- the Green Jobs State: seizing the opportunities'.

⁵ Allen Consulting Group 2009, 'Victoria's Greenhouse Opportunity Set: New growth prospects in a carbon constrained world'



- The need to adopt a sophisticated approach to environmental policymaking, for example using a variety of tools to unlock water and energy efficiencies rather than relying on a diffuse and sometimes obscured price signal.
- Ensuring we take a proactive approach to addressing equity of employment in green jobs – ensuring that disadvantaged job seekers are able to access real long-term jobs in the green economy, and that specific regions are not disadvantaged.
- The development of participatory models for the greening of industry, engaging with the workforce to drive change in existing industries and the development of new industries.

3 Key themes and recommendations

Examining these challenges, the workshop sessions generated many strong ideas to set Victoria on the pathway to a green jobs future. These ideas can be distilled into three key themes:

1. **A governance model to deliver green jobs** – bringing key players together to work towards a green economy and better jobs and ensure all Victorians are able to benefit from the shift to a lower carbon economy.
2. **Stimulation of demand for green jobs** – forward thinking and ambitious policy, regulation, targets and standards that reduce the carbon emissions of our economy need to be implemented to create strong signals for investment by industry. Government has a particular role to play in investing in areas with market failure such as energy efficiency in low income households. This, coupled with clear and pointed information for consumers to help them make decisions which enhance sustainability, will help stimulate green jobs.
3. **Meeting the skills and training needs for green jobs** – helping ensure that the skills needed for the green economy are able to be met in a manner which is both fair and responsive. Training and skills development at all levels is essential including the development of pathways into sustainable employment for lower skilled or disadvantaged job seekers.

Each of these themes, and recommendations against them, are discussed briefly below.

Theme one: A governance model to deliver green jobs

Throughout the day, participants expressed a strong sense that it was time for government to 'pick winners' and to provide these industries, technologies or organisations with appropriate support. Participants also saw a need for wide engagement involving participation of groups not currently part of the conversation around climate change policy making. In particular, engagement with both the trade union movement and the community sector was seen as crucial.

Recommendation 1: A Green Jobs Council

A Green Jobs Council should be established to advise on the green economy and the development of green jobs. The Council should be supported by government, industry and unions, engage the community sector and have the capacity to sponsor thorough research and analysis.

One key early role for the Council would be to identify and advise Government around



Victoria's competitive advantages in green jobs and how these industries should be supported.

The Council would also coordinate with relevant stakeholders (at state and federal level) to ensure pathways for unemployed and disadvantaged jobseekers to access the new employment opportunities.

Theme two: Stimulation of demand for green jobs

Much discussion through the day focused on how to increase demand for green jobs, whether through appropriate and targeted government regulation and programs, or through innovation to develop the industries of the future green economy. Industry has a key role to play in creating innovative and profitable solutions which reduce emissions and create jobs in sustainable industries.

A number of recommendations emerged which are detailed in the body text including information for consumers, direct expenditure by government (State or Federal) and industry, and leadership by Government and innovative industries.

Recommendation 2: Investment and leadership to stimulate green jobs

Building on the sustainability elements of the Rudd Government's stimulus package, the Victorian Government should develop a one million household energy and water retrofit program, aiming to retrofit one million houses in next five years. Priority should be given to low income and disadvantaged households and private renters who face persistent market failures and other barriers to improving their energy efficiency.

The program could be achieved by seeking to partner with a range of innovative industries (for example in the finance, design and construction sectors) and building on and coordinating existing state and federal energy and water efficiency programs.

Recommendation 3: Information and regulation to stimulate demand for green jobs

Governments should review existing environmental and sustainability regulatory approaches to ensure that these support the growth in demand for green jobs – for example, regulatory approaches to carbon pricing (e.g. the CPRS) should provide a real signal for change. Governments should also consider retaining approaches beyond the CPRS where these improve demand side efficiency and generate a variety of green jobs.

Governments should develop regulatory and non-regulatory approaches to providing consumer information to enhance consumers' capacity to choose sustainable products. Immediate examples would include:

- Improve consumer information about products – for example energy and water use associated with product use and running costs.
- Mandatory disclosure of energy and water performance of buildings at time of sale or lease.
- Development of proforma 'green contracts' for tenants and investors.



Theme three: Meeting the skills and training needs for green jobs

Hand in hand with discussion at the summit around the need to stimulate demand for green jobs was an extensive conversation around our capacity to deliver the necessary skills for the future green economy – and to do this in a way that delivers pathways to employment for disadvantaged Victorian job seekers as a key plank in the Government’s commitment to a fairer Victoria. Two key recommendations emerge from this conversation – one around employment targets and the other around the management of skills training and supply.

The Victorian Government’s reform in vocational training and skills development marks a significant step in advancing the skills and training agenda. However, reliance on a market model to ensure workers and job seekers across all skill levels are able to take up green jobs is unlikely to be sufficient. Specific measures and approaches will be required to support disadvantaged job seekers to gain skills and work experience that enable them to participate in emerging green industries..

The summit workshop sessions acknowledged the importance of the social imperative in the current context of the global economic downturn and urgency of climate change policy responses. Participants recognised the importance of ensuring low skilled and local community job seekers are able to fully participate in emerging green jobs.

Recommendation 4: social and environmental employment targets

The Victorian Government should develop and legislate for social and environmental employment targets to ensure that disadvantaged sections of the community are able to participate in the emerging green jobs market.

The targets should be supported by socially focused government procurement strategies that build on current approaches which support regional industry. These ‘social procurement’ strategies should be utilized to commit a portion of environmentally focused tenders to social enterprises, which are business that trade for a social purpose. Such an approach will enable social enterprises to provide training, support and employment pathways for the long-term unemployed and disadvantaged jobseekers.

Targets will help ensure ongoing attention and commitment to the issues of employment equity and environmental sustainability.

Recommendation 5: identify a green skills development agency for Victoria

The Victorian Government should:

- Provide up-to-date and accurate supply and demand data for green skills, undertaking a skills audit for Victoria with a focus on regions and disadvantaged groups.
- Develop regional green jobs plans.
- Work with professional industry bodies and associations (for example CPA Australia) to include sustainability in their qualification and accreditation requirements.
- Develop a networking / exchange mechanism for training and professional development in green skills.



4 The green jobs forum

In April 2009, Environment Victoria and the Brotherhood of St Laurence joined forces to run a one day summit on green jobs – ‘creating a green, prosperous and inclusive Victoria’. The questions at the heart of the summit, which was also supported by Sustainability Victoria and facilitated by The Nous Group, were:

- How can we create a green, prosperous and inclusive Victoria?
- How can Victoria jump on board the biggest economic opportunity of the 21st century?
- How can we ensure disadvantaged job seekers can take advantage of employment opportunities in the ‘green economy’?

The summit brought together over 180 key stakeholders from across the community, business, media and political spectrum to discuss the methods by which Victoria can move towards a future in which green jobs and industries play a central role.

During the morning, participants heard from speakers from a range of key organisations and industries, in order to stimulate ideas and generate discussion. The afternoon sessions of the summit built on this by exploring possible pathways towards green jobs growth in Victoria. Five parallel sessions focused on five different aspects of green jobs:

1. Increasing Victoria’s competitive advantage in green jobs
2. Unlocking the potential of energy and water efficiency, and creating green jobs in these industries
3. Ensuring that disadvantaged job seekers are involved in the emerging green jobs market
4. Greening manufacturing – taking the next steps in greening the manufacturing sector
5. Ensuring we have the skills we will require in the green jobs economy.

The groups followed a carefully facilitated process, in which they explored key enablers and challenges in their topic area and then considered strategies to leverage the enablers and overcome the challenges.

Each group was asked to consider a broad range of issues, then focus to bring forward three key strategies: one significant strategy that would require wholesale change over a sustained period, one strategy that could be implemented relatively quickly and easily, and one that could be implemented at little or no cost.

Sections 4.1 to 4.5 below capture the key ideas from each session stream.

4.1 Increasing Victoria’s competitive advantage in green jobs

4.1.1 Framing

The ACF and ACTU study, ‘Green Gold Rush: How Ambitious Environmental Policy Can Make Australia a Leader in the Global Race for Green Jobs’ identifies six key sectors in which 500,000 jobs can be created by 2030: renewable energy, energy efficiency, sustainable water systems, biomaterials, green buildings and waste and recycling. The



report suggests that by 2030 these six sectors could be generating \$US243 billion in investment for Australia and employing 847,000 workers.

In these industries Australia has existing competitive advantages which include:

- A history of scientific and innovation capacity
- Access to Asian markets
- Natural resource base
- Highly urbanised, yet dispersed population
- Harsh climate and geographic isolation has driven innovation.

'Green Gold Rush' identifies the competitive advantages of each sector as:

1. Renewable Energy – Wind capacity factors, sunlight hours, intensity of solar radiation and prospective geothermal resources; there is also advanced research in these areas by existing renewable businesses.

2. Energy Efficiency – Although currently Australia lags in world's best practice and currently has limited manufacturing and services capacity, supportive measures can quickly transform the industry.

3. Sustainable water systems – Australia has an impressive track record of water sector innovation, with strong research and development capabilities.

4. Biomaterials – Although Australia only has a small market value for biomaterials (such as biodegradable packaging and plastics, bio-based chemicals, metallurgical and fossil fuel product substitutes) there is considerable potential for growth in Australia, including strong research and development capabilities and efficient natural resource and agricultural production.

5. Green buildings – This has the largest potential of any single sector. Australia is set to invest \$AUD158 billion in new construction, while in the period to 2030 over half the world's new buildings will be in China, providing a valuable export market for Australian expertise.

6. Waste and recycling – Australian companies are already strongly placed in competition for waste and recycling contracts worldwide, while the market for secondary raw materials continues to grow.

In opening the session on Victoria's competitive advantage, guest speakers Tim Piper (from the AIG) and Erwin Jackson (from The Climate Institute) both emphasised the interconnectedness of environmental issues with the economy. Both speakers emphasised Victoria's vulnerability in terms of carbon efficiency, and highlighted the importance of Victoria taking a pro-active position in the transition to a low carbon economy. The potential for Victoria to position itself strongly as a green economy will require planning processes and policies to fast-track the transition and provide policy certainty for businesses.

4.1.2 Key challenges

Building on the framing provided by Tim Piper and Erwin Jackson, the group identified the following six key challenges in increasing Victoria's competitive advantage in green jobs:

1. **Skills** – Government and business need to lead development and understanding of



future skills needs. Information and analysis is required to anticipate the areas of greatest skills needs and thereby enable investment in the provision of appropriate training. Current training programs need to be adapted to respond to skills requirements and assist trainers in providing these. The development of skills and training methodologies needs to be mainstreamed to take advantage of current and continuing reforms.

2. **Investment** – Clear signals are required to provide organisations with enough stability to invest with certainty. Incentives are a less powerful tool than regulation, and the policy choice between these will affect the range of outcomes. Victoria has a strong advantage in research, development and demonstration, but capitalising on this will require government programs to refocus on sustainability (for example the CPRS, the MRET and the National Energy Efficiency Plan).
3. **Consumer perception** and mainstreaming both at community and corporate level.
4. **Adjustment to the green economy** will not occur without assistance and will therefore require accelerated investment to gain benefits. This accelerated investment can be facilitated through providing information and creating certainty for individuals. This adjustment must take into account regional needs.
5. **Leadership** – There is a role for government to take risks and use its considerable buying power. Appropriate policy settings will assist in creating necessary clarity.
6. **Brown coal legacy** – Victoria has strong gas and renewable resources but there is a ‘brown coal legacy’ that hampers development. This issue will be difficult to resolve and will take some time. It should not be overstated but it must be acknowledged and addressed. If Victoria does not remove barriers to transformation it will lose significant investment opportunities.

4.1.3 Strategic responses

The group brainstormed possible strategic responses to these challenges and evaluated these to determine the following key strategies:

1 significant idea:

‘Bite the bullet’ – pick some green jobs winners and back them. Decide what Victoria’s competitive advantage is and then support those sectors.

1 strategy that can be implemented quickly:

Conduct a skills audit and region by region specific industry audits assessing opportunity for greening jobs and skills/training required. Develop regional green jobs plans.

1 strategy that can be implemented at little or no cost:

Improve consumer information about products – for example running costs associated with energy and water use of consumer products to accompany existing information about water and energy use. Current information is not clear and is not significantly affecting consumer decisions at the time of purchase. Inefficient products should also be regulated out of the market.



4.2 Unlocking the potential of energy and water efficiency, and creating green jobs in these industries

4.2.1 Framing

The ACTU report 'Green Gold Rush' earmarks water and energy efficiency as two areas with great potential for green jobs. Energy efficiency has the potential to deliver low cost emissions reductions and ensure future energy security. The report suggests that Australia should aim for five percent of the world market by 2030, or \$US50 billion of additional market volume per year. This has the potential to create an additional 75,000 jobs in Australia.

Australia is already experiencing water shortages, and a growing water deficit is expected world-wide. Australia's water sector is valued at \$18 billion, and constitutes five percent of the global market. Less than 20 percent of this is directed towards sustainable water systems. Australia's advantages in this sector include strong existing research and development capability, innovation in water efficiency use and treatment technologies, and recognised skills in asset management.

The Environment Victoria report 'Victoria- the Green Jobs state: seizing the opportunities' modelled a mass retrofit program to undertake a water and energy efficiency retrofit of one million Victorian homes (roughly half the housing stock). The modelling found that such an effort would create 6900 new jobs, reduce annual greenhouse gas emissions by three million tonnes, save 32,500 ML of water annually and reduce energy and water bills. Such a program is estimated to cost an additional \$186 million per year above existing committed state and federal efficiency programs.

When introducing the session, speaker Paul Murfitt (CEO of the Moreland Energy Foundation Ltd) emphasised that the necessary tools have been available for a long time. He suggested that the five star building regulations show how regulation can drive skill development. These regulations are highly cost effective and provide social, greenhouse and economic benefits.

Murfitt observed that the current approach to energy and water efficiency is fragmented and overly political, lacking a focused strategic view from government. The outcomes of current kneejerk reactions will not be sustainable. Sustainability will require commitment to significant targets and timeframes, and a concerted effort to identify the path to meet them.

4.2.2 Key challenges

Following Murfitt's introduction, the group identified the following five challenges as the most significant facing the building of green jobs in the energy and water sectors:

1. Government unwillingness to regulate – reflecting a general preference for non-intervention even where the costs of regulation are small and the returns large.
2. Lack of integrated national strategy – for energy and water efficiency in the built environment in particular – creating confusion and uncertainty in investment patterns.
3. Government reliance on a single solution – such as a carbon price, with consequent lack of attention being given to more targeted interventions which will in many cases have multiple benefits – such as green jobs creation through building retrofit programs.
4. Landlord/tenant relationships – leading to inefficient market signals and lack of investment in building efficiency.



5. Behaviour change – which is difficult to generate in the short term and requires both market signals and better information and education.

4.2.3 Strategic responses

The group considered a range of possible strategic responses before determining the following key strategies:

1 big idea:

Commit to a significant building energy and water retrofit target –aiming for retrofit of one million Victorian households in the next five years. This would be undertaken in partnership with a range of innovative industries (for example in the finance, design and construction sectors) and the Federal Government.

2 strategies that can be implemented quickly:

Mandatory disclosure of existing energy and water performance – at the point of sale or lease of a building, followed by minimum energy performance standards for properties at the time of sale or lease.

Create a green template for contracts for tenants and investors (noting that some pilots are already in progress).

2 strategies that can be implemented at little or no cost:

Retrofit Parliament House and other key Victorian Government buildings with water and energy efficiency technologies.

Mobilising support for regulation and public information programs.

4.3 Ensuring that disadvantaged job seekers are involved in the emerging green jobs market

4.3.1 Framing

The creation of a green jobs future for Victoria must take account of the most disadvantaged job seekers in particular geographical areas and population groups facing social exclusion and disadvantage, including young adults, people with disabilities, humanitarian migrants, recent migrants (especially those with language barriers), the long-term unemployed and the homeless.

Recruitment procedures can provide a formidable hurdle for migrants from diverse backgrounds, because recruitment is a culturally based practice that requires sound cultural knowledge for success. Positions often have specific requirements for local knowledge or qualifications, and language requirements may exclude many applicants. Such difficulties can be complicated by settlement issues including difficulty finding accommodation, financial instability, or mental or emotional difficulties arising from adjusting to new social conditions.

The Brotherhood of St Laurence is active in helping disadvantaged job seekers into employment. Michael Horn, Senior Manager at the Brotherhood, introduced the session by noting that the two critical global and national challenges of this century are the dangerous impact of climate change and the stubborn levels of poverty and inequality. Horn proposed a greater role for green social enterprises to offer employment pathways for disadvantaged



job seekers aimed at industries with solid growth prospects and with a focus on communities and population groups at risk of social inclusion.

4.3.2 Key challenges

The group exploring the involvement of disadvantaged job seekers in the emerging green jobs market identified six central challenges in this area:

1. Increased labour pool (due to the global financial crisis) means the most disadvantaged job seekers are left even further behind.
2. Unemployment is geographically concentrated as a result of socio-economic issues and cultural attitudes.
3. Past policy responses that rely on short-term non-sustainable jobs and training in non-transferable skills are limited and ineffective.
4. The transition to a low carbon economy requires a pro-active approach to training.
5. Responses to increasing unemployment need to address the multi-faceted characteristics of disadvantaged job seekers and the need for adequate investment for integrated interventions.
6. Effective coordination of policies and programs across government departments and with community organisations and the business sector will be essential.

4.3.3 Strategic responses

In responding to these challenges, the group prioritised three strategies:

1 significant idea:

Governments should utilise social procurement strategies, which commit a portion of environmentally focused tenders to supporting social enterprises that provide training, support and employment to disadvantaged jobseekers and pathways for trainees into green jobs. To achieve this, Governments should also provide seed funding and incentives to other business to take on disadvantaged workers.

2 strategies that can be implemented quickly:

Expansion of Victoria's New Workforce Partnerships program with a priority on disadvantaged young adults and green jobs in highly disadvantaged communities.

Ensure programs that deliver solar energy and energy efficiency retrofitting to households and businesses are carried out across Victoria by local people in each region to ensure employment and benefits are distributed to areas of employment disadvantage and to regional areas.

1 strategy that can be implemented at little or no cost:

Ensure that the increase in capacity for vocational training places in the green skills sector are accessible to jobseekers with multiple barriers. This training should be integrated with support and 'on the job' experience for low skilled and disadvantaged job seekers, and provide transferable skills to enhance opportunities available to disadvantaged job seekers (including promotion and career movements).



4.4 Greening manufacturing – taking the next steps in greening the manufacturing sector

4.4.1 Framing

Australian manufacturing has faced significant challenges since 2006, at least partly as a result of the growth in manufacturing of competitor economies in China and India, and the more widespread economic decline of the global financial crisis.

Historically Australian manufacturing generally focuses on high value-add products, such as aerospace technology, which avoids competition with cheaper low-end commodity manufacturing in developing countries.

The high profile of climate change issues has prompted increasing scrutiny of the manufacturing industry's response to climate change and carbon reduction initiatives. 'Green Gold Rush' points out that in this environment, sustainable practices become points of difference between organisations.

The National Greenhouse and Energy Reporting (NGER) Act (Cth) 2007 required manufacturers to examine and report their carbon footprint. Another incentive for manufacturers to reduce their carbon footprint is the soaring cost of energy. *Manufacturing Monthly* argues that 'an area often overlooked in plans to reduce emissions is plant and equipment, even though machinery can be a key factor in a company's carbon footprint.'⁶ Major providers of manufacturing equipment are now providing services to evaluate and upgrade equipment.

Julius Roe, National President of the Australian Manufacturing and Workers Union introduced the session by emphasising that effective change is urgent and must go beyond isolated islands to encompass the whole manufacturing sector. Roe warned that whole industries can be lost if they do not respond effectively to changing circumstances.

Roe outlined various important aspects of the required change, including workforce engagement, education and toolkits, improved efficiency and recycling. He suggested that free market dogma creates an impression that 'greening' will destroy 'brown' jobs, but that in fact the skills required are different, and 'greening' within firms leads to productivity growth.

4.4.2 Key challenges

The key challenges facing the greening of manufacturing include:

1. Employee engagement and empowerment – which has not been a recent feature of thinking around the green economy but is a source of major innovation and commitment when well supported.
2. Commitment to training and trainers – to ensure that training activity receives the budgetary and programmatic support required to deliver green skills.
3. Price signals and incentives to drive change and investment – ensuring that the manufacturing industry receives sufficient signals for timely change rather than simply being protected.

⁶ Derek Parker, 'Innovative thinking needed' in *Manufacturing Monthly* 11 March 2009.



4. Industry strategy in the context of global financial crisis and climate change – allowing for targeted interventions and support where there is a competitive advantage in the green economy.
5. Limited perception of business opportunities in sustainability – by some sections of industry and government.
6. Greening established professions and vocations – to ensure that opportunities can be grabbed.

4.4.3 Strategic responses

The following three priority strategies were identified by the group:

1 significant idea:

Create a Tripartite Sustainability Initiative (maybe a Green Jobs Council), involving key representatives from the manufacturing industry, workplace representatives and management, and government. This Initiative would address issues such as awareness, skills and workplace-specific implementation to link sustainability to productivity.

1 strategy that can implemented quickly:

Compensation for emissions intensive trade exposed industries should be tied to industry re-structure (which could require a proportion of energy to be sourced from renewable generation sources).

1 strategy that can be implemented at little or no cost:

Government should implement a purchasing policy similar to the Queensland Government Purchasing Policy which includes minimal embodied energy as one criterion for construction material. The use of criteria such as this could address the issue of carbon leakage (local versus international emissions).

4.5 Ensuring we have the skills we will require in the new green jobs economy

4.5.1 Framing

In a speech on 'Green Jobs and Green Skills' in March 2009, Sharan Burrow argued that sustainability will become central to business strategy.⁷ Burrow suggests that businesses will increasingly demand green skills and knowledge as they integrate sustainability into all aspects of their business – into the products they make, into their operations and processes, and into their accounting practices.

In preparing for low carbon economy there are two major skills challenges:

⁷ Information from a speech delivered by Sharan Burrow on Wednesday, 4 March 2009 'Green Jobs and Green Skills' available from www.actu.asn.au/Media/Speechesandopinion/SharanBurrowGreenJobsandGreenSkills.asp



- Greening existing jobs – e.g. meeting current demand for retrofitting and re-tooling industry to ensure that they continue to grow.
- Training new workers to meet increasing demand for employees in new green industries for example renewable energy and other green technologies.

Up-skilling workers to transform existing industries is particularly important in sectors with a high environmental impact – including building and construction, energy, transport and agriculture. Activities in these high-impact areas account for around 70-80 percent of overall resource use and emissions. They employ around three million workers.

Even with major environmental reforms, employment in these industries will continue to grow strongly. Demand for energy efficient alternatives is already outstripping the number of skilled workers, for example:

- When the government introduced a subsidy to encourage the conversion of cars from petrol to LPG, people found themselves waiting a long time because of shortage of skilled mechanics.
- This is also happening with the take-up of solar energy, where there is a lack of skilled workers in the range of occupations needed to retrofit buildings and install solar energy systems.

A second skills challenge will be in anticipating the future demands for green skills in emerging industries. We need to:

- Prepare new workers for the skill requirements inherent in green jobs.
- Ensure that our transition to a greener, more sustainable economy is not slowed by a shortage of adequately trained workers.
- Collect better data on consumer demand for green products and services, so that we can anticipate future demand and ensure we train an adequate number of workers in green skills.
- Commit to a green skills and jobs target, which drives investment, planning and skills demand (as in countries like Germany and the UK).

The massive mobilisation of skills and training required will require commitment and efforts by everyone - by governments, businesses, unions, the community sector, environmental organisations and VET institutions.

In introducing the 'green jobs' summit session on skills and training, Professor Bill Mitchell, (Director of the Centre of Full Employment and Equity (CofFEE) at the University of Newcastle) pointed out that some countries have far worse skills problems than Australia. Mitchell suggested that although there has been considerable discussion about high end skills, Victoria will also need a lot of low end skills. This is a huge opportunity to create sustainable paid employment for disadvantaged people.

Victoria will also need skills development in technology research and development to ensure new technologies become economically viable. Public benefits and subsidies will be required for this, because the private sector is reluctant to pay for research. Greater investment in the TAFE sector is required to enable it to offer green courses, for example, to plumbers. At the moment, TAFE course offerings are restricted to what the corporate sector requests in terms of skills. TAFE should not have to compete with private training providers.



Professor Mitchell suggested Australia consider an employment guarantee system in which people are not given unemployment payments, but instead are found a paid employment position. Such a system could easily incorporate training.

Victoria needs to engage in long term employment forecasting, which then determines apprenticeship funding (a role that used to be filled by government employment departments).

An appropriate transition framework is required to smooth costs for those who bear the financial burden of this skills transformation.

4.5.2 Key challenges

In exploring the skills required for a green jobs economy, this group identified six key challenges:

1. There is a shortage in the knowledge and skills required for sustainability (more trainers and training providers are required).
2. The access and delivery of training needs to be provided in a consistent way across education sectors in order to attract participants.
3. There is a lack of Victorian and Australian data on the supply and demand for green skills. This needs to be acquired in order to inform green skills planning and provision.
4. All education sectors involved in the development of green skills need to operate on evidence-based best practice policy and regulatory settings.
5. Business opportunities in sustainability are not widely perceived
6. Established professions and vocations will need to be greened.

4.5.3 Strategic responses

Below are the three strategic responses prioritised by the skills and training group:

1 significant idea:

Develop a well-funded dedicated provider of supply and demand data for green skills, which can contribute to policy.

1 strategy that can implemented quickly:

Require professional industry bodies and associations (for example CPA Australia) to include sustainability in their qualification and accreditation requirements.

1 strategy that can be implemented at little or no cost:

Establish a coordinated network exchange mechanism for training and professional development in green skills.



Appendix A Workshop agenda



24 April 2009

Program

Registration 8.30 am – 9.00 am

Setting the scene

- 9.00 am – 9.15 am **Opening**
Kelly O’Shanassy – Chief Executive Officer, Environment Victoria
Tony Nicholson – Executive Director, Brotherhood of St Laurence
Anita Roper – Chief Executive Officer, Sustainability Victoria (Chair)
- 9.15 am – 9.30 am **Ministerial opening**
Jacinta Allan – Minister for Skills and Workforce Participation and Minister for Regional and Rural Development
- 9.30 am – 10.30 am **Opportunities, challenges and means to realise a vibrant, inclusive green collar job market in Australia (Part 1)**
Sharan Burrow – President, Australian Council of Trade Unions
Evan Thornley – Chief Executive Officer, Better Place Australia
Wayne Kayler-Thomson – Chief Executive Officer, VECCI
- 10.30 am – 10.50 am **Morning tea**

Opportunities and lessons from success

- 10.50 am - 11.30 am **Opportunities, challenges and means to realise a vibrant, inclusive green collar job market in Australia (Part 2)**
Sally Sinclair – Chief Executive Officer, National Employment Services Association
Charles (Chuck) Berger – Director of Strategic Ideas, Australian Conservation Foundation
May Lam – Project Leader Applied Social Inclusion, Brotherhood of St Laurence (Chair)
- 11.30 am – 11.50 am **Victorian stories of success**
Mark Wakeham – Campaigns Director, Environment Victoria
- 11.50 am – 12.40 pm **Panel: Green jobs in Victoria – lessons from success stories, challenges ahead and preconditions for green job growth**
Tony Gray – Director of Sustainability, Visy
Steve Garner – General Manager, Keppel Prince
Anne Barker – Managing Director, City West Water
Tony Nicholson – Executive Director, Brotherhood of St Laurence
- 12.40 pm – 1.30 pm **Lunch**





24 April 2009

Program continued...

Towards a Victorian Green Jobs Plan 5 parallel workshops / planning sessions

1.30 pm – 3.30 pm

Facilitated by the Nous Group

- 1 **Increasing Victoria's competitive advantage in green jobs**
Tim Piper – Director Victorian Branch, Australian Industry Group
Erwin Jackson – Director Research and Policy, The Climate Institute
- 2 **Unlocking the potential of energy and water efficiency, and creating green jobs in these industries**
Paul Murfitt – Chief Executive Officer, Moreland Energy Foundation Limited (MEFL)
- 3 **Ensuring that disadvantaged job seekers are involved in the emerging green jobs market**
Michael Horn – Senior Manager, Research and Policy, Brotherhood of St Laurence
- 4 **Greening manufacturing – Taking the next steps in greening the manufacturing sector**
Julius Roe – National President, Australian Manufacturing Workers' Union
- 5 **Ensuring that we have the skills we will require in the new green jobs economy**
Prof. Bill Mitchell – Director, Centre of Full Employment and Equity, University of Newcastle

Afternoon tea 3.30 pm – 3.50 pm

Looking ahead

3.50 pm – 4.50 pm

Reports from workshops

Ian Porter – Senior Consultant, The NOUS Group

Future directions

John Thwaites – Chair, Equity in Response to Climate Change Working Group, Brotherhood of St Laurence

Tony Nicholson – Executive Director, Brotherhood of St Laurence

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Appendix B Bibliography

ACF and ACTU study, 'Green Gold Rush: How Ambitious Environmental Policy Can Make Australia a Leader in the Global Race for Green Jobs'

Environment Victoria, 2009, 'Victoria- the Green Jobs State: seizing the opportunities', available from www.environmentvictoria.org.au

Victorian Government's '2009 Statement of Government Intentions'

United Nations Environment Program, 2008, 'Background Paper on green Jobs'

ACF and ACTU, 2008, 'Green Gold Rush: How Ambitious Environmental Policy Can Make Australia a Leader in the Global Race for Green Jobs'

CSIRO, 2008, 'Growing the Green Collar Economy: Skills and labour challenges in reducing our greenhouse emissions and national environmental footprint'

Allen Consulting Group 2009, 'Victoria's Greenhouse Opportunity Set: New growth prospects in a carbon constrained world'

Derek Parker, 'Innovative thinking needed' in Manufacturing Monthly 11 March 2009

Burrow, Sharan, 'Green Jobs and Green Skills' (speech) delivered on Wednesday, 4 March 2009, available from www.actu.asn.au/Media/Speechesandopinion/SharanBurrowGreenJobsandGreenSkills.asp
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