The Parliament of the Commonwealth of Australia

Employment in the environment: *Methods, Measurements and Messages*

Inquiry into employment in the environment sector

House of Representatives
Standing Committee on Environment and Heritage

November 2003
Canberra

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THE REPORT

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Foreword

The title of this report, , ***Methods, Measurements and Messages***, encapsulates what is needed next for Australian businesses, consumers, organisations and governments to implement the principles of ecologically sustainable development (ESD). The inquiry has found that there is a need for better methods for implementing ESD principles, more refined measuring tools and greater information dissemination to promote the messages of ESD.

Future growth in environmental employment is likely to be through integrating ESD principles across industry. While there will always be a need for environmental specialists, more efficient business practices and better environmental management may have the effect of lessening the need for a work force specialised in environmental remediation work. Very simply, if we stop causing the environmental problems then we will have less need for people to work at the 'repair solutions'.

This is not to imply that implementing the principles of ESD will result in a net employment drop. It is the conclusion of this Committee that the real growth for environmental employment, and the real gain for Australia, lies in integrating environmental management across all levels of industry. All jobs and businesses must take on an environmental responsibility and become 'green jobs' and 'green businesses'.

Consequently, the report has investigated how to promote the implementation of ESD and how to integrate environmental responsibility across areas of the workforce and into the daily lives of Australians.

The inquiry has revealed a strong commitment to the principles of ESD. What is lacking are the practical strategies to transform commitment and rhetoric to actions and outcomes. The recommendations of this report are targeted at developing practical strategies, in order to harness a commitment to ESD, and increasing awareness, in order to increase the momentum of change.

The drivers of ESD are various and the Committee is aware that no one driver, in isolation, will achieve the implementation of ESD principles. This report targets the methods of ESD - how these principles can be incorporated into business operations, policy decision making, and consumer choices.

Measurements are also important. We need to measure progress, assess outcomes, re-evaluate our directions and anticipate market needs. To achieve this, we need the tools, the data and the systems that enable robust, consistent and meaningful reporting. These tools need to be appropriate to the needs of corporations, governments, small to medium enterprises and consumers.

Above all we need to promote the messages of ESD and provide greater information in the market place to encourage informed choices. As governments, industries, organisations, employers and employees, and as consumers, indirectly or directly, we participate in decisions relating to supply chain management, consumer purchases, energy consumption and investment decisions. Industry and the Australian Government in particular have a vital role to provide leadership in these areas.

This report comes nearly a decade after the 1994 report Working in the Environment. The 1994 report considered defined industries within the environment sector and investigated growth opportunities that would lead to further employment. In 2003, this current report is indicative of the changed context of the environment sector and particularly its integration into the broader business community.

It is the expectation of the Committee that the recommendations proposed here will initiate the development of a series of practical methods and measuring tools to implement the principles of ESD and promote the messages of ESD.

In another decade, when someone asks about employment in the environment sector, it is hoped that the response will be:

> *The environment is everyone's business and everyone's job is a green job.*

Bruce Billson MP
Committee Chair

Membership of the Committee

Chair	Mr Bruce Billson MP	
Deputy Chair	Ms Jennie George MP	
Members	Mr Phillip Barresi MP	Hon Duncan Kerr MP
	Mr John Cobb MP	Mr Peter Lindsay MP
	Mr Greg Hunt MP	Ms Kirsten Livermore MP
	Mr Harry Jenkins MP	Mr Stewart McArthur MP

Committee Secretariat

Secretary	Dr Anna Dacre
Research Officers	Ms Rebecca Gordon (until 22/08/03)
	Mr Anthony Overs
Administrative Officers	Mrs Marlene Dundas
	Ms Jeannie Brooks

Terms of reference

The House of Representatives Standing Committee on Environment and Heritage is to inquire into:

- The current contribution of environmental goods and services to employment in Australia;

- The future potential growth, including barriers and opportunities for growth, of environmental goods and services and impact on employment;

- Current status and future requirements for an appropriately skilled workforce;

- Appropriate policy measure that could encourage the further development of the environmental goods and services sector; and

- Information and reporting systems that would support the uptake of environmental goods and services to enhance overall business performance and development of the sector.

List of abbreviations

ABS	Australian Bureau of Statistics
ACF	Australian Conservation Foundation
ACRE	Australian Cooperative Research Centre for Renewable Energy
AEAC	Australian Environment Activity Classification
AELA	Australian Environmental Labelling Association
AGO	Australian Greenhouse Office
ANAO	Australian National Audit Office
ASIC	Australian Securities and Investment Commission
ASX	Australian Stock Exchange
CCF	Civil Contractors Federation
CEO	Chief Executive Officer
DEH	Department of Environment and Heritage
DEST	Department of Education Science and Training
EBA	Environment Business Australia
EFP	Environmentally friendly products
EIA	Environment Institute of Australia
EIAA	Environment Industry Action Agenda
EIANZ	Environment Institute of Australia and New Zealand
EIDN	Environment Industry Development Network
EPBC	*Environment Protection and Biodiversity Conservation Act 1999*

ERO	Environmental Resource Officer
ESD	Ecologically sustainable development
FSR Act	*Financial Services Reform Act 2000*
GEN	Global ecolabelling network
GRI	Global Reporting Initiative
ICA	Institute of Chartered Accountants
IMS	Integrated Management System
IEAust	Institution of Engineers Australia
ISO	International Organisation for Standardisation
ISR	Department of Industry Science and Resources
ITR	Department of Industry Tourism and Resources
MEJN	Melbourne Environmental Jobs Network
MRET	Mandatory Renewable Energy Target
NAFI	National Association of Forest Idustries
NEEC	National Environmental Education Council
NISI	National Industry Skills Initiative
NGO	Non-government organisation
OECD	Organisation for Economic Cooperation and Development
ORER	Office of the Renewable Energy Regulator
PDS	Product disclosure statement
PMSEIC	Prime Minister's Science Engineering and Innovation Council
REAA	Renewable Energy Action Agenda
REC	Renewable Energy Certificate
REEF	Renewable Energy Equity Fund
SEDA	Sustainable Energy Development Authority
SIRIS	Sustainable Investment Research Institute
SME	Small to medium enterprise
SoE	State of the Environment

SRI	Socially responsible investment
TAFE	Technical and Further Education
TBL	Triple bottom line
WIOA	Water Industry Operators Association

List of recommendations

2 Understanding the Environment Industry

The Committee recommends that the Australian Government provide the additional funding required to enable the Australian Bureau of Statistics to collect and make available ongoing and trend data on the environment industry in Australia.

3 Industry - Leading Ecologically Sustainable Development

The Committee recommends that the Australian Government establish a centralised site for collating and making available comparative company triple bottom line reports and environmental performance reports.

The Committee recommends that the Australian Government:

■ Develop, as part of the small to medium enterprises set of environmental tools, an adaptable software package that would facilitate assessment and reporting; and

■ Develop a set of measuring tools, appropriate to small to medium enterprises, to introduce companies to basic environmental performance assessment and reporting.

The Committee recommends that the Australian Securities and Investment Commission:

■ Develop standardised terminologies and methodologies, which can be used by the investment community and consumers, to measure and verify the claims made in relation to socially responsible investment;

■ Undertake an awareness raising program to increase consumer understanding of the range of socially responsible investments, and the methodologies and terminologies associated with them; and

■ Develop guidelines to assist industry in preparing product disclosure statements and to enhance consumer understanding of product disclosure statements.

4 Government - Leading Ecologically Sustainable Development

The Committee recommends that:

■ The Australian Government commit to achieving full compliance for reporting on ecologically sustainable development from all Australian Government departments and agencies by 2005;

■ The Australian Public Service Commission report annually on the ecologically sustainable development compliance and reporting levels of Australian Government departments and agencies; and

■ Ecologically sustainable development performance and reporting compliance be a key performance indicator for Senior Commonwealth agency and department staff.

The Committee recommends that the Australian Government make mandatory the use of Environmental Purchasing Guidelines for the procurement decisions of all Australian Government departments and agencies.

5   Marketing the Environment Industry

The Committee recommends that:

■   The Australian Government Departments of Environment and Heritage and Industry, Tourism and Resources work with industry groups, such as the Environment Industry Development Network, to establish a single online consolidated database of Australian environmental goods and services. The database should

⇒   include information on new technologies, tailored solutions and environmental innovations; and

⇒   incorporate appropriate filters (such as listing referees, examples of usage or warranty information) to verify the information listed; and

■   The Australian Government Department of Industry Tourism and Resources establish an environmental technology verification program in Australia, to be run in conjunction with the online database of environmental goods and services.

The Committee recommends that Standards Australia pursue with the International Standards Association the establishment of minimum benchmark standards across all areas of the ISO 14000 series.

The Committee recommends that the Australian Government:

■   Develop a national policy for the environmental labelling of consumer goods;

■   Ensure the establishment of a national environmental labelling program that is widely recognised, consistent and meaningful to both producers and consumers; and

■   Undertake a national campaign to raise awareness of environmental labelling.

6   Marketing Renewable Energy

The Committee recommends that the Australian Government:

■   Retain the Mandatory Renewable Energy Target;

■   Substantially increase the Mandatory Renewable Energy Target as part of a multifaceted approach to increase market demand for and supply of renewable energy; and

■   Implement a timely review of the Mandatory Renewable Energy Target for beyond 2010 with a view to furthering the uptake of renewable energy in Australia.

The Committee recommends that the Australian Government through the Mandatory Renewable Energy Target pursues the mandatory disclosure for all electricity retailers of:

■   Relative sources of supplied energy;

■   Associated greenhouse gas emissions; and

■   Advice on how consumers can increase their purchase of Green Power.

The Committee recommends that:

■   It be made mandatory for all Australian Government departments and agencies to purchase, where available, a minimum of 5 per cent Green Power by 2005; and

■   This minimum is increased to 10 per cent Green Power by 2007.

7   Educating and Accrediting the Workforce

The Committee recommends that the Department of Education, Science and Training and the National Environmental Education Council:

■   Assess the extent to which specific training in environmental awareness and reporting is included in all business, commerce, management, administration and related degrees; and

■   Undertake to achieve the inclusion of environmental awareness and training in all business management courses.

The Committee recommends that the Australian Government Department of Education, Science and Training, in association with the National Environmental Education Council:

■   Undertake a review to assess current environmental skills and broad industry needs in relation to environment training, and workforce entry opportunities; and

■   Develop a set of actions to ensure an adequately skilled future workforce and appropriate training facilities to meet future needs.

The Committee recommends that the Australian National Training Authority develop a program of environmental apprenticeships or traineeships to provide follow-on opportunities for youth completing the Green Corps or similar program.

The Committee recommends that the Australian Government departments of Education, Science and Training, and Environment and Heritage:

■   Work with the Environment Institute of Australia and New Zealand to establish a certification scheme for environmental professionals; and

■   Assist the Environment Institute of Australia and New Zealand to identify Commonwealth grant programs.

1

The environment industry is everyone. The day will come
when you will not have a separate environment manager at
that plant site or in that operation because everybody will be
skilled. It will be everyone's job. It is like occupational health
and safety. We are in the position where you are on a site and
you say, 'You are the environment guy. You deal with it.' You
are not taking on the responsibility and you are not
understanding what needs to be done. It is too easy to pass
the buck. Ultimately, business will have everybody skilled.[1]

Introduction

1.1   In 1994, the House of Representatives Standing Committee on
Environment, Recreation and the Arts tabled the report *Working with
the Environment: Opportunities for job growth.* The report inquired into
opportunities to stimulate employment growth through better
coordination and response to environmental problems.

1.2   In 2003, the House of Representatives Standing Committee on
Environment and Heritage has undertaken a further inquiry into
employment in the environment sector. This inquiry occurs in a
significantly different context to the 1994 report. There is evidence
now of a greater community and corporate environmental awareness
and the work of the environmental industry is, to a large degree,
integrated across various industrial sectors.

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1   *Transcript of Evidence*, p. 50.

1.3   Public hearings for this inquiry were conducted in Melbourne and Canberra. A forum on sustainable investment took place in Sydney and there were a number of briefings and inspections held in Sydney and Melbourne.

Overview

1.4   The Committee used as its starting point for the inquiry the Organisation for Economic Cooperation and Development (OECD) definition of the environmental goods and services industry. The OECD describes the industry as consisting of goods and services to measure, prevent, limit, minimise or correct environmental damage to water, air and soil, as well as problems related to waste, noise and eco-systems.

1.5   The Committee broadly interpreted environmental goods and services to include activities such as the production of pollution reduction equipment, environmental consultants, national park management as well as related activities such as tourism and conservation and environmental management across production sectors.

1.6   Although there is considerable breadth to the inquiry's terms of reference and the definition of the environmental goods and service industry, the inquiry process became shorter than initially envisaged by the Committee. The primary reason is that the Committee received little evidence suggesting that there were intractable problems concerning employment opportunities or growth in the environment sector. To the contrary, there is evidence of positive initiatives being implemented across a number of sectors.

1.7   The Committee is very much aware that these initiatives do not imply that all is well with Australia's environment, or that there are not serious issues to be addressed to ensure a sustainable and protected future environment for all Australians.

1.8   However, there is evidence of a strong cultural shift toward greater environmental accountability amongst industry, the investment sector, business and land managers and to a certain degree from consumers. This cultural shift is not consistent across all aspects of the nation and the tasks that remain ahead for more sustainable Australian businesses and communities should not be underestimated.

1.9   Given the evidence put before the Committee from a number of public hearings, an industry forum on sustainable investment and discussions with a range of businesses and enterprises, the Committee saw its role as consolidating and expanding the many initiatives in train. The recommendations made by the Committee will continue the direction of many community and industry initiatives, and provide positive momentum to achieving employment growth and sound social and economic outcomes.

1.10   The 1994 report *Working with the Environment* identified two of the most urgent national priorities facing Australia as restoration of full employment and the ongoing protection of our environment. These two issues remain high national and global priorities. In 2003, the relationship between these priorities is perhaps even more apparent as Government policy and business planning decisions must take account of the resulting environmental impact.

1.11   Increasingly, the security of a business is measured by its future rather than current prospects. This framework is placing an increased pressure on environmental management and accounting processes which are able to connect environmental risks and economic returns.

1.12   The submissions received to the inquiry and discussions conducted by the Committee with industry representatives indicate broad support for the inquiry from businesses and non-government organisations (NGOs). However, given the relatively low number of submissions made to the inquiry, the Committee adopted a more pro-active approach and contacted several companies and organisations seeking further views.

1.13   Despite seeking out further input to the inquiry, the Committee received little new evidence. While the companies and organisations contacted were broadly supportive of the inquiry, they were not able to identify major impediments to employment growth or to the integration of environmental management into mainstream businesses.

1.14   Rather, it was suggested that the shift to greater environmental accountability in all businesses was seen as inevitable and already in progress – although the change was occurring more slowly in some sectors.

1.15   However the Committee did encounter some industries which were reluctant to speak to the Committee as the company viewed its core business as separate from the environment sector. In some cases, this was despite a company's extensive use of recycling and impressive efficiency principles underpinning their closed loop production. This type of industry resistance to the 'quarantining' of environment issues appears a relatively new phenomenon and marks a significant attitudinal shift from the context of the 1994 *Working with the Environment* report.

1.16   The Committee viewed the integration of environmental issues into general business practice and planning as an extremely positive indication that Australian industry is moving to sustainable development. This integration is resulting in employment opportunities for environment professionals across a wide range of sectors. It is also bringing with it increased pressure and necessity for middle as well as high level managers and supervisors to include environmental management in their daily considerations.

1.17   The Committee saw this integration of environmental management as the growth opportunity for creating employment in the environment sector. Education and training issues were raised with the Committee along with issues of credibility relating to the verification of new technologies and competencies of professionals.

1.18   The Committee was impressed by the collaborative work between businesses, the networking and initiatives undertaken by environment industry associations, the general awareness and priority given to environmental impact in business planning, and the alliances forming between NGOs and industries across a range of sectors.

1.19   The integration of environmental concerns across industrial sites and business boardrooms is part of a wider movement to sustainable development. The inquiry gave some focus to the drivers of ecologically sustainable development (ESD) and the role of government in facilitating, promoting and leading this movement.

1.20   From discussions and evidence presented, the Committee identified the key drivers of ESD operating in Australia as follows:

■ Compliance with legislation or mandatory reporting requirements;

■ Economic returns due to increased business efficiencies and managing long term risk liabilities;

- Capturing a greater market share or achieving market differentiation; and

- Cultural and attitudinal shifts by communities and industry to be more environmentally accountable.

1.21 Legislation is already in place to establish minimum standards, require approvals and environmental assessments to be conducted where needed, and ensure that a degree of reporting takes place. Although the 'benchmark' set by legislation could be raised in many areas, the Committee considered that a more appropriate response was to ensure that the mix of drivers was appropriate, targeted and functioning at its best.

1.22 Accordingly, the inquiry has considered the more 'intangible' drivers of ESD and sought to add impetus to the changes already taking place in the marketplace.

1.23 The Committee considered that the area that provided the most scope for this related to risk liabilities, market differentiation, and attitudinal shifts. These drivers all rely on a proactive commitment from consumers, investors, communities, governments, suppliers and businesses. This can only be achieved if the **rhetoric** of environmental concern is transformed into **environmental actions** in the marketplace. The Committee considers that the key to this transformation is greater information and ease of access to information.

1.24 If ESD principles are to be incorporated into Australian business and if sustainability reporting is to operate as a positive market force in determining corporate reputation and future prospects, then more information exchange is required. Areas identified by the Committee include:

- Increased consumer awareness and active purchasing choices;

- More scope to differentiate products and companies on their environmental performance and reporting;

- Increased internal market pressures through 'green' supply chains and business to business agreements;

- More marketing of ESD as an efficiency measure and long term risk management measure; and

- Clarification of the terminology around sustainability reporting and investing.

1.25   However, greater information in these areas does not always equate to a greater understanding or translate to greater actions. Information must be easily accessible, credible, meaningful and consistent. There is a need for a common and understandable 'system' that incorporates:

   ■ The methods to implement ESD principles;

   ■ The tools to measure progress and gains; and

   ■ The messages to market ESD principles.

1.26   Developing the methods, measurements and messages of ESD is fundamental to closing the gap between attitudes and actions, increasing information exchange and harnessing the range of drivers of ESD. These are the areas in which the Committee has sought to facilitate, promote and lead change.

1.27   In formulating responses to these challenges, the Committee also took into account the particular constraints facing small to medium enterprises (SMEs).

Conduct of the Inquiry

1.28   The matter of employment in the environment sector was referred to the House of Representatives Standing Committee on Environment and Heritage by the Minister for Environment and Heritage, the Hon Dr David Kemp, on 5 June 2002. The inquiry was advertised in major national newspapers and letters inviting submissions were sent to industry groups, state, territory and local governments, and NGOs.

1.29   Public hearings were conducted in Canberra and Melbourne. Site inspections took place in Sydney and Melbourne. A forum on Sustainable Investment was conducted in Sydney with representatives from the financial sector, private consultancies and NGOs attending. A number of briefings also took place during the course of the inquiry. A list of submissions, exhibits and public hearings can be found at Appendices A, B and C.

1.30   The Committee received 37 submissions to the inquiry. These included submissions from some state governments, industry associations, NGOs and individuals. Relatively few submissions were received from businesses working in the environment sector,

interpretative and environmental tourism, or those involved in wildlife and park management.

1.31   Site discussions were conducted with companies involved in the environment sector and with companies integrating environmental management into their business practices. These discussions indicated an encouraging level of corporate awareness of environmental issues and strategies to implement the principles of ESD.

1.32   Given these promising business moves, the Committee viewed the role of the inquiry as maximising the force of the drivers for ESD that are already operating. This involves adding impetus to some initiatives already underway, developing the methodologies, the measuring tools and the messages to market sustainability, establishing reporting and disclosure frameworks that enable market differentiation to operate effectively, and encouraging industry and government leadership in ESD.

1.33   This is not an interventionist approach, but instead provides the measures and the momentum to transform environmental concerns into environmental action in the marketplace.

Structure of the Report

1.34   The inquiry into employment in the environment sector has proven to be a timely 'litmus test' of broader corporate approaches to sustainability and the integration of environmental consideration into standard business practices.

1.35   An issue faced by the environment sector, and encountered by the Committee in the process of its inquiry, is the lack of available data on the environmental goods and services sector. This issue impacts on planning and benchmarking of the industry in both the national and international context. Definitional and data issues for the environment sector are discussed in Chapter 2.

1.36   Leadership by industry champions is essential to drive change to more ESD. Public reporting, corporate responsibility and government procurement all play a vital role in providing employment and achieving sound environmental outcomes. Reporting guidelines, socially responsible investment (SRI), standardised terminology and assistance to SMEs to put into practice triple bottom line (TBL) environmental accounting are considered in Chapter 3.

1.37   The Australian Government also has a responsibility to provide business leadership in ESD. Government reporting, procurement policies and local government assistance measures are considered in Chapter 4.

1.38   Chapter 5 outlines the need to market the environment sector and the importance of information dissemination particularly in the area of environmental innovations and Australian capability. The importance of harnessing consumer awareness through eco-labelling is also addressed.

1.39   The renewable energy industry is a sub sector of the environment industry, but it faces a more specific array of challenges to increase consumer uptake. Renewable energy is a highly regulated sector with mandated targets seeking to increase the supply of energy derived from sources other than fossil fuels. However, due to a number of factors, demand in Australia for renewable energy is below that of other comparable developed nations. Chapter 6 provides an overview of the renewable energy market and considers initiatives to improve market awareness and promote product disclosure.

1.40   Growth in the environment sector, and the integration of better environmental management practices across a number of sectors, will place increased demand on the training of both general managers and specialist environmental professionals. Education and training facilities must instil the attitudes, skills and management techniques to put into practice the principles of sustainable development and care for our future environment. Chapter 7 addresses the supply and demand needs for environmental training and certification.

Earlier Reports and Inquiries

1.41   The House of Representatives Standing Committee on Environment and Heritage has considered public good environment work and, tangentially, employment issues relating to this in two recent related reports. The 2001 report *Public Good Conservation: our challenge for the 21st century* considers the means to ensure that costs associated with public good conservation measures are shared equitably by all members of the country, and not disproportionately borne by current landholders and farmers. The 2000 report *Co-ordinating Catchment Management* considers environmental degradation in catchments and

the mechanisms and management systems for achieving environmental sustainability.

1.42   Implementation of many of the recommendations in these reports would go a considerable way to conserving and sustaining vital elements of Australia's environment. The leadership provided through the initiatives recommended would also assist with direct and indirect employment generation across the environment sector. In addition, this would likely lead to employment generation across a broader range of industries.

1.43   For this current inquiry, the Committee has chosen not to venture into areas already addressed through these report recommendations. The Committee awaits an Australian Government response to these reports.

1.44   The current inquiry, although covering similar ground to the 1994 report *Working with the Environment,* is indicative of the changed context of the environment industry and the broader business community.

1.45   Although no Government response was made to the 1994 report, subsequently a number of recommendations from that report have been addressed through Australian Government initiatives.

2

Understanding the Environment Industry

2.1   While the overarching aim is the greater integration of environmental management across sectors, there will always remain a core sector of industries that provide specialist environmental services and products. Ensuring that these core industries are economically and technologically strong is vital to ensuring that the drivers of sustainability are supported by the knowledge, products and services necessary to assist businesses take up the move to ESD.

2.2   However, there is currently little national data on the domestic supply of these goods and services, and emerging market demands.

2.3   Market information failure is an ongoing issue for the sector and one which may adversely affect the future uptake and integration of new environmental solutions and technologies. The lack of national and trend data on the industry also impacts on sector analysis, future strategic planning and investment attraction.

What is the Environment Industry?

2.4   For the purposes of international data collation, the OECD has adopted the following definition:

> The environmental goods and services industry consists of activities which produce goods and services to measure, prevent, limit, minimise or correct environmental damage to air, water and soil, as well as problems related to waste, noise

and ecosystems. This includes cleaner technologies, products and services that reduce environmental risk and minimise pollution and resource use.[1]

2.5   In evidence presented to the Committee, the Australian Government Department of Industry, Tourism and Resources (ITR) noted that the OECD definition is technical and offers a general rather than practical approach. The Department advised the Committee that, for their own means of defining the industry:

> We have found it useful to use a better snapshot, which has been provided by Environment Business Australia. They suggest that the industry includes activities encompassing water and waste water management, river system and coastal zone management, land management and rehabilitation, air quality monitoring and control, energy efficiency and renewable energy, waste minimisation, resource recycling, waste treatment and waste disposal, cleaner production technologies, monitoring and instrumentation and environmental research analysis and technology development.[2]

2.6   The *National Capability Statement on Australia's Environment Industry*, prepared for the Australian Government Department of Environment and Heritage (DEH) in July 2001, provides a detailed and prescriptive outline of the definition used to measure the Australian industry.[3] The report also outlines how this definition maps onto the framework used by the OECD in international environmental data collection. These approaches detail the specific activities which are considered part of the environment industry – from solid waste management, soil remediation, prevention technology to resource recovery.

2.7   To initiate the inquiry, the Committee adopted a broad approach to defining environmental goods and services.

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1   OECD (1999), *The Environmental Goods and Services Industry: manual for data collection and analysis, Eurostat 1999*, OECD Publications Service, Paris, France.

2   *Transcript of Evidence,* p. 2.

3   *National Capability Statement on Australia's Environment Industry* prepared for Environment Australia by the Centre for Strategic Economic Studies, July 2001.

2.8   Submissions were predominantly received from state governments, Australian Government departments and agencies, environmental consultants, industry associations and those in environmental service related industries across other sectors. Only a relatively small number of the submissions received addressed or made reference to conservation issues.

2.9   During the course of the inquiry, the Committee engaged with corporations who employed environmental advisors or environmental management teams. Discussions were also held with a range of financial advisers and business consultants who worked with companies on issues such as TBL reporting, measuring environmental performance and SRI.

2.10   How to define the environment sector emerged as a difficulty throughout the inquiry and was commented on by a number of industry organisations and agencies. The Committee also attributes the limited range of submissions received to a number of waste and recycling companies regarding themselves as separate from the environment industry.

2.11   It also seems that, to some extent, industry may view the greening of business (and employment) as a process which is already occurring and, therefore, perhaps did not consider that further comment to the Committee was warranted.

2.12   While a number of companies may view themselves as separate from the environment sector, the Committee is encouraged by the number of industry associations who recognise the changes expected of industries due to increasing environmental responsibilities and regulatory demands.

2.13   Industry associations making submissions to the inquiry included the Civil Contractors Federation (CCF), the Institution of Engineers Australia (IEAust) and the Water Industry Operators Association (WIOA). These industry associations all acknowledge the changed context of environmental management and are committed to responding to the challenge these new demands place on their members.

2.14   There was a general awareness amongst these associations that, although the growth in the environment sector may have created some new employment opportunities, primarily it had made environmental credentials a necessary component of many existing 'mainstream' jobs. What constituted an environmental job has become hard to define.

2.15   In a joint supplementary submission to the inquiry, the Barton Group and the Environment Institute of Australia (EIA) commented that the conventional definition of the environment industry has a narrow focus on service delivery. This approach, they claim, has two shortcomings:

- It excludes emerging and new environmental issue areas (eg biodiversity, renewable energy and energy efficient and climate change, coastal ecosystem collapse, salinity); and
- It focuses attention on delivery functions rather than policy and specification functions.[4]

2.16   Given the evidence presented, the Committee saw value in the inquiry expanding the interpretation of 'environment sector'. The Committee is of the view that 'green jobs' are happening in a range of sectors outside of what may traditionally or technically be considered the environment sector. This 'greening' of many mainstream areas of business and employment was an important step in achieving attitudinal change and sound environmental outcomes for the nation.

2.17   The Committee is of the view that environmental protection and conservation is an issue for all Australians and for all businesses operating in Australia. The Committee considers that all industries have an environmental accountability and should be involved in assessing and mitigating their environmental impacts. In line with this approach, the Committee considers that as a nation we must move toward integrating the environment into all companies and resisting the segregating of environmental concerns or environmental specialisation to a discrete group of industries. Similarly, all Australians have an environmental responsibility which we must begin to exercise – for example, as members of a community, as consumers and as investors.

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4   Submission no. 33, p. 3.

2.18   This broad brush approach adopted by the Committee is in line with evidence presented by the Barton Group. The Barton Group is the industry group responsible for implementation of a number of agreed recommendations from the Environment Industry Action Agenda (EIAA).

2.19   The Barton Group noted the importance of recognising that environmental management is not a discrete industry, but rather is the everyday business of many companies, contractors and decision makers. The Group explained to the Committee that:

> … the definition of the environment industry as the [Australian Bureau of Statistics] deals with it includes water pollution, waste water and so on. The reality is that … we in the environment industry are simply backroom people cleaning up rubbish. The real environmental managers in this country are the many tens of thousands of people out there who make policy, write specifications, write work orders, draw up contracts and administer a business every single day. They are, in the main, absolutely unaware of what they are doing. The level of skill and training just is not there. Those people see themselves in a job. Institutionally, the system just gets them to do a job. They ask what their bosses ask of them. They are remote and unconnected to the environmental responsibility they actually discharge.[5]

2.20   Key to achieving an informed integration, advocated by the Barton Group, is developing and diffusing the knowledge and market information about environmental goods and services. Consistent with this approach, the Committee is of the view that the environment sector, and the growth of environmental employment, are issues relevant to all industries.

2.21   This view is supported by Environment Business Australia (EBA), a peak body representing environmental consultants and professionals. EBA predict the 'demise' of the environment industry as a discrete industry, due to the process of mainstreaming environmental concerns into all business practices. At a public hearing, a representative of EBA speculated that:

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5   *Transcript of Evidence,* p. 47.

> … in 12 to 15 years time there will be no such thing as an environment industry, because we will have become so mainstream. So, while I am arguing for the growth of the industry, the growth of change, better risk assessment, risk management and profiteering – in a good sense – from new opportunities are certainly going to be the major driving force.[6]

2.22   This was a view echoed by GreenChip, a consultancy company advising companies on improving efficiency and implementing sustainable development. The director of GreenChip suggested that environmental concerns needed to be 'normalised', and advised that:

> One of the things about the environmental jobs is that we have to get away from thinking that we want to have more environmental jobs and instead have more 'normal' people, I would say—I am abnormal, maybe—or regular folk in any line of business actually seeing that no matter what they do they can also take responsibility for the decisions they make in their own work. I do not think there should be an industry called ecoarchitects. I think every architect in Australia should understand the basics of solar passive design. It is a simple thing really: when you build a home you should have simple things in place that minimise the amount of energy you use. When you are advising people on investing money, you give them the option and say, 'Did you realise that the ethical investments funds are performing commensurably with other funds,' so that client then knows that they have got options out there. It is really not necessarily saying that everyone has to become an environmentalist. If the government were providing that leadership and support and maybe bridging training for certain industries which have got their core business, and if they were also aware of some of the other sides of the environmental side of things in their core business, that advice would propagate.[7]

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6   *Transcript of Evidence,* p. 170.

7   *Transcript of Evidence,* p. 117.

2.23   In light of this evidence from industry associations and companies, the Committee chose to define its approach to employment in the environment sector as one of 'greening mainstream employment'. This approach recognises that, just as information technologies are now a standard tool in the jobs of many workers, and occupational health and safety is a shared workplace responsibility, so environmental awareness and management must be integrated into the daily work practices of employers and employees.

2.24   Reflecting this approach, and in contrast to earlier parliamentary and private sector 'green jobs' inquiries where the focus has been on different segments of the environment industry, this inquiry envisages the greening of consumers, the workforce, education and business, complemented by a body of skilled environmental operators and professionals.

The Environment Goods and Services Industry

Industry Overview

2.25   There have been a number of studies on the size, structure and prospects of the Australian environmental goods and services industry. An overview of the data collections available and the scope and limitations of national studies is provided at Appendix D.

2.26   Recently, the most significant and comprehensive national analysis of the industry in Australia was conducted as part of the development of the EIAA. Action Agendas are an Australian Government strategy for industry and Government to work in partnership developing a set of recommendations to overcome sector impediments and maximise opportunities for growth. The EIAA report was developed jointly by industry, ITR and DEH. The report was launched on 26 September 2001 and a progress report on the first year of implementation was released in November 2002.

2.27   The EIAA has set a vision 'to add value to all Australian business by enabling competitive outcomes, and in the process build an environment industry with annual sales exceeding $40 billion by 2011'.[8] Australian Bureau of Statistics (ABS) data indicates domestic sales were $8.6 billion in 1996-97.[9]

2.28   The Committee heard evidence on the EIAA from the Barton Group, DEH and ITR – formerly the Department of Industry Tourism and Resources (ISR). The Barton Group was formed in 2001 to oversee implementation of the EIAA recommendations. The Barton Group is an alliance of 12 Chief Executive Officers (CEOs) representing sectors such as: agriculture; waste management; infrastructure, technology and construction; investment services; and water and resource management. ITR is responsible for the implementation of the Australian Government agreed recommendations.

2.29   The ITR submission describes the EIAA as outlining:

> … a vision for considerable growth in the revenues of the environment sector over the next 10 years which, if realised, could be expected to result in a significant increase in employment in that sector.[10]

2.30   The development of the EIAA was preceded by the release in 2000 of a discussion paper, which provided an overview of the environment industry, environment employment, and issues affecting the environment sector. The discussion paper used a number of data sources to compile the following summary statistics for the environment industry:

- Annual global environment market is estimated at around $1 000 billion;

- The domestic market is estimated at $8.6 billion with a growth rate of 3 per cent per annum;

- One third of the Australian goods and services supplied are imported;

- Australian exports are estimated at $300 million; and

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8   ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability*, p. 8.
9   ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability*, p. 25.
10   Submission no. 18, p. 1.

- The industry accounts for 1.6 per cent of Gross Domestic Product in Australia and up to 127 000 jobs.[11]

2.31 The discussion paper summarises as follows the main factors driving demand for environmental goods and services as follows:

- Environmental regulations, including evolving international environmental standards and their enforcement through incentives and economic instruments;

- Consumer and community pressure reflecting changing awareness and lifestyle decisions;

- Changing business attitudes to environmental issues;

- The focus of public expenditure; and

- Technological developments.[12]

2.32 The environment industry is described as consisting predominantly of SMEs with a low number of large enterprises and transnationals. The discussion paper notes that there is also considerable variation in the maturity and depth of development of segments within the industry. Further fragmentation of the industry comes in part from the 'consumers' of environmental goods and services which are divided between government, industry and households. While each share between 30 and 40 per cent of total domestic environment protection expenditure, each consumer of these goods and services is focussed in a particular segment of the industry.[13]

2.33 In 1996-97, total domestic environment protection expenditure was $8 622 million. Government expenditure accounts for 29.6 per cent of this total. Nearly half of this government expenditure (45.9 per cent) is in biodiversity and landscape. Industry accounts for 39.8 per cent of total environment protection expenditure, of which 42.7 per cent is in waste management. Households account for 30.6 per cent of total expenditure, of which 66.3 per cent is in waste water and water protection.[14]

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11 ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability Discussion Paper.*

12 ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability Discussion Paper*, p. 13.

13 ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability Discussion Paper*, p. 13.

14 ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability Discussion Paper*, p. 13.

2.34   The paper also analyses domestic and international opportunities for the Australian environment industry. Domestic opportunities include increased demand from mainstream businesses as sustainability awareness leads to implementation of eco-efficiency changes and TBL accounting.

2.35   Emerging international opportunities for the Australian environment industry are in markets in Asia and the Pacific and some Central European locations. In these areas, emerging economies are developing regulatory frameworks to manage the effects of rapid development on local environmental systems. However, the niche supply of environmental goods and services to industrialised countries such as Western Europe, Japan and the United States remains the most important overseas markets for Australia.

2.36   The United States Department of Commerce has estimated that global environment revenues were US$500 billion in 2000 and growing at more than 3 per cent each year. The United StatesS, Western Europe and Japan represent the sizable portion of these revenues (approximately 84 per cent). However, the Asia-Pacific region is expected to show marked growth in future demand for environmental goods and services.[15]

2.37   Internationally, the environmental goods and services industry is certainly a growth industry, with economic and employment opportunities for Australia. The 2002 Australian Conservation Foundation (ACF) report, *Natural Advantage*, claims that global pollution control represents an exciting market opening for Australia. By capturing just 2 per cent of the market, the ACF claims that 150 000 jobs could be created.[16]

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15   United States Department of Commerce (2000), *US Industry and Trade Outlook, 2000,* Washington DC.

16   Australian Conservation Foundation (2002), *Natural Advantage: a blueprint for a sustainable Australia* , p. 57.

Lack of Reliable and Trend Data

2.38   Australian environmental goods and services market supply and demand data is available until 1996-97. However, data collection has not been continued and any ongoing expenditure data tends to be on selective industry segments sectors, which inhibits wide-ranging analysis of the environment industry. Details of the ABS data collections on the environment industry is provided at Appendix 3 of the EIAA.

2.39   The lack of a national data collection on the environment industry means that there remains a critical need for meaningful data on the size, characteristics and economic performance of the Australian environment industry. While the Committee has adopted a broad definition for the purposes of this inquiry, there remains a critical need for more data on the Australian environment industry, for the purposes of international comparative analysis, domestic policy, planning and market opportunities.

2.40   Existing industry and commodity classifications used by the ABS do not separately identify businesses as 'environment industry.' Given the global importance of the environment sector and its growth performance, it is important that Australia is able to benchmark its own industry, identify market openings and monitor trends across industry segments.

2.41   As indicated earlier, there have been a number of studies and small surveys on the environment industry in Australia. Industry organisations have undertaken surveys of the industry and contracted researchers to measure and describe the structure of the sector. These studies provide indicative 'snapshot' data on aspects of the industry.

2.42   However, each data set is limited by the size or location of the sample, and different classifications prevent the compilation of these studies into comprehensive or trend data. The ABS notes that several issues are apparent from this range of data collections:

   ■ The data is not national or comprehensive;
   ■ Different definitions are applied across different surveys; and

■ Most surveys are voluntary and response rates tend to be not higher than 30 per cent, which compromises the reliability of data collected.[17]

2.43   During the inquiry, a number of industry associations referred to the lack of consistent, comprehensive and trend data. In its submission to the inquiry, ITR noted that the lack of adequate information is of concern to the Australian Government and the environment industry. ITR described the available data as disjointed and limited, and as representing only parts of the industry. Consequently, the data collections available do not provide the type of comprehensive or trend information which would aid sector analysis and strategic forward planning.

2.44   The Environment Industry Development Network (EIDN) stated that:

> There is no doubt that there is an urgent need for more information and more analysis in this sector, and it can be done now, quickly and strategically.[18]

2.45   In evidence to the Committee, a representative from the Barton Group also affirmed the need for sound data on the environment industry:

> Metrics is a very big area. If it is not measured properly, it will not be taken seriously. The ABS has a very narrow definition of, as I say, the environment industry. The funding of the next round of an ABS survey, which is recommended in the action agenda—I think it is $1½ million—is an urgent requirement. There is also a need for a parallel study, probably by consultants. It has a broader view. It is more of a scoping study of where the real industry is, where the real decisions are being made and where the real capacity for growth, exports and technology growth are.[19]

2.46   Similar evidence was presented by the EIA who commented on the urgency of a clarifying and useful definition of the environment industry. The EIA considered that, while ABS data on the industry is needed, it is important that the environment industry be understood as extending to companies and business production beyond this statistical interpretation. The EIA considered that:

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17   ABS (2001), *Prospectus on a National Survey of Environment Industry.*
18   *Transcript of Evidence,* p. 2.
19   *Transcript of Evidence,* p. 48.

> The overarching theme [of the Action Agenda] of capturing the [high] ground has a big impediment in the definition of the environment industry, which is essentially treating threats and hazards to the environment or, in a traditional view, cleaning up somebody else's waste. Now if you are on the back foot and you see yourself in the environment industry as simply dealing with somebody else's rubbish, you will always be yesterday's men looking at yesterday's people— and it has been men rather than men and women. Tomorrow's issues are biodiversity, salinity, climate change, coastal ecosystem collapse, land clearing and so on. It is a long way from clearing up roads and rubbish.[20]

2.47   The Western Australian Government, in their submission to the inquiry, also raised industry measurement and the lack of precise industry data as issues. The submission incorporated evidence from a number of state departments and agencies. The State Department of Training stated that:

> A definitive estimate concerning the contribution of environmental goods/services to employment is not available for Western Australia. The inherent difficulty in calculating employment estimates for these sectors is well documented and encompasses definitional issues, inconsistencies in data collection methods and the complexity in assessing partial or indirect environmental components across the full gambit of industries and occupations.

> At present the ABS industry and occupational data classifications, namely (1) the Australian and New Zealand Standard Industrial Classification and (2) the Australian Standard Classification of Occupations, do not enable precise identification of the sectors/occupation that provide environmental goods/services.[21]

2.48   The Western Australian Department of Training also advised the Committee that the ABS is developing an Australian Environment Activity Classification (AEAC). The AEAC is derived from the principles of the OECD environment definition, and adapted by the ABS for the Australian context. The AEAC would describe activities

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20   *Transcript of Evidence,* p. 47.
21   Submission no. 22., p. 144.

undertaken by organisations within the environment industry. The Department of Training informed the committee that this classification is in draft phase with a pilot test to be conducted contingent on the availability of funding. The Department commented that such a classification would result in the provision of 'quality, detailed data on quantitative indicators pertaining to the environmental industry'.[22]

2.49   Similarly, in the Western Australian Government submission, the Office of the Minister for State Development, Tourism and Small Business noted that a major challenge is in defining and scoping the environment industry. The Office raised the lack of current data on a national basis and concluded that this issue requires priority attention, stating that:

> The implementation of the Commonwealth's Action Agendas for the Environment and Renewable Energy sectors, plus complementary State and Territory initiatives, places a greater urgency on the need for environmental industry data.
>
> The matter is in the national interest and should be funded by the Commonwealth Government and implemented in consultation with State and Territory Governments.[23]

2.50   The Committee agrees that having sound environment data is a priority and is also a matter of public good. The Committee investigated the progress made towards establishing a national survey on the environment industry.

2.51   The lack of sound data on the environment industry prohibits a detailed understanding of its size, structure and future trends. More importantly, this lack of data means there is little understanding of the integration of environmental management practices in businesses or the use of environmental goods and services across all industries. The Committee sees an urgent need to establish a national survey on the environment industry and addresses this need in the following section.

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22   Submission no. 22, p. 2.
23   Submission no. 22, p. 2.

2.52   However the Committee also realises the difficulties inherent in understanding the environment industry, its integration across industries and its potential impact on employment. The Committee heard evidence from GreenChip that forecasting environmental jobs is a difficult task at this time. The future remains uncertain and future scenarios will be affected by Government action, or inaction, and by the priorities set at a national level.

2.53   DEH commented that, due to the increase in local government environmental responsibilities, 'There is likely to be significant and increasing employment in environmental areas within local councils'.[24]

2.54   While this may be the case, the Committee also heard anecdotal evidence suggesting that improved environmental outcomes may result in an overall decrease in employment in the environment industry. As communities, government and industries take up more sustainable business practices, waste production is reduced and environmental impact lessened. Given that a proportion of environmental employment is currently in site remediation, waste processing and the repair of environmental degradation, there is likely to be a reduction in the need for this type of 'repair' work.

2.55   However, balancing this potential decrease is the integration of environmental training into a range of other employment fields and also the employment of environmental management teams within larger corporations and businesses to oversee risk and impact processes.

2.56   This type of situation was seen by the committee during its site visit to Coca-Cola Amatil Ltd in Sydney. The Coca-Cola company has a dynamic environmental management team which introduces and oversees eco-efficiency measures in the company. This team employs people skilled in aspects of environmental assessment and management. In addition, within the company, environmental responsibility is considered to be 'everyone's job' and the company prides itself on its 'greening' of the general workforce.

24   Submission no. 26, p. 196.

2.57   The Committee considers that national data should be available which captures employment in the environment industry and also integrated environmental employment across all areas of industry.

Proposal for a National Survey on the Environment Industry

2.58   The need for more wide-ranging and more informed data to market the industry and hence grow employment opportunities is identified in the EIAA. As part of the process of developing the Action Agenda, in 1998 a scoping study on the environment industry was commissioned by ISR.

2.59   The EIAA cited a lack of understanding of the environment industry as one of the impediments facing the industry and argued that:

> Available data is incomplete, lacks standardisation, and fails to capture the industry's linkages with other industries. This information failure ultimately leads to reduced investment in the industry.[25]

2.60   The Action Agenda suggests the industry could overcome such an impediment through 'more accurate data on the environment industry' which would allow industry members to better position themselves and increase their understanding of the market and customer needs. In turn this would provide a better basis for marketing the industry and thus attracting investment.[26]

2.61   Given the importance for industry of innovation and marketing new technologies, and also the fragmented structure of the industry which is characterised by a large number of SMEs, investment attraction is a key issue. Investment in the environment industry has obvious environmental benefits for the nation as Australia has greater access to state-of-the-art technologies and customised environmental solutions.

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25   ISR (2001) *Environment Industry Action Agenda: Investing in Sustainability* p. 9.
26   ISR (2001) *Environment Industry Action Agenda: Investing in Sustainability* p. 9.

2.62   The Committee notes that a specific recommendation to improve the data available on the environment industry and was developed and agreed to by industry and the Australian Government in 2001. Recommendation 3 of the EIAA report states that:

> The Australian Statistician to improve the amount and level of statistical information available from the Australian Bureau of Statistics (ABS) on the industry. This should include regular (annual) collection of economic statistics on the environment industry and its clients by the ABS.[27]

2.63   Responsibility for implementation of this recommendation lies with the Australian Government. In September 2001, when the EIAA was launched, a 12 month timeframe was agreed to develop the survey.

2.64   The Committee is encouraged that some progress has been made to address this key issue – although it is clear that implementation of any initiative has not been achieved.

2.65   In 2001 the ABS released the paper *ABS Prospectus on a National Survey of Environment Industry*. The prospectus outlines the context, demand, possible methodology and costings for a national survey on the environment industry, noting that:

> Over the past 1-2 years, the Australian Bureau of Statistics (ABS) has received numerous requests from Federal and State government departments, industry organisations, businesses, and researchers, as well as international organisations such as APEC, for data on the economic performance and structure of the environment industry in Australia. This is because comprehensive and comparable data on the economic structure, activities and development of the 'industry' is currently lacking on a national basis.[28]

2.66   The prospectus concluded that:

> The ABS could therefore make a significant contribution to providing reliable and comparable estimates of the Australian environment industry covering all States and major areas of activity within the industry.[29]

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27   ISR (2001) *Environment Industry Action Agenda: Investing in Sustainability* p. 39.
28   ABS (2001), *Prospectus on a National Survey of Environment Industry*, p. 1.
29   ABS (2001), *Prospectus on a National Survey of Environment Industry*, p. 2.

2.67   The prospectus provided detail on the approach that would be taken, should a national survey on the environment industry be developed for Australia. Issues covered in the paper included: relevant concepts and classifications; types of businesses to be surveyed; data items to be collected; methodology; and the likely costs involved.

2.68   The ABS noted that the most significant barrier to the development and running of a national survey was the 'significant levels of user funding' which would be required.[30]

2.69   The ABS has undertaken consultations with a number of potential users of environment industry statistics. The prospectus for the national survey summarised as follows the primary reasons that decision-makers require better data on the environment industry:

- To gain an understanding of the structure, characteristics and particular strengths of the Australian industry;
- To assess changes in the industry's capabilities over time;
- To assist with the development of policies to encourage and support growth, job creation and international trade in the environment industry;
- To provide a benchmark against which the effectiveness of government policies aimed at supporting the industry's growth and development may be measured over time;
- To assess the contribution of the industry to Australia's economic, social and environmental performance, and to ecologically sustainable development;
- To enable comparisons over the industry with other industry sectors, between States, and with other countries; and
- To assist with promoting Australian industry's expertise in international markets and with gaining greater access to those markets.[31]

2.70   The South Australian Government submission commented that the environment industry will continue to grow in significance and implementation of a national survey is required for economic forecasting and analysis. The submission recommended that:

> … the Commonwealth work with States and Territories and the Australian Bureau of Statistics to establish the size and

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30   ABS (2001), *Prospectus on a National Survey of Environment Industry*, p. 1.

31   ABS (2001), *Prospectus on a National Survey of Environment Industry*, p. 3.

nature of the environment industry in Australia, both on a
national and regional basis.[32]

2.71   From the evidence considered, the Committee concludes that an
ongoing national survey of the environment industry has wide-
spread support and long-term environmental and economic benefits
to Australia.

2.72   The ABS prospectus provided costing estimates for a national survey
of the environment industry. In 2001, the estimated total cost was
$1.54 million.[33] This cost included: survey development; fixed costs
for processing systems; preparation of statistical output; and survey
processing costs (depending on the size of the sample surveyed).
Ongoing collections would not incur the same initial development
costs and are estimated to total $1 million per survey.

2.73   The ABS argues that, despite its keenness to respond to the strength
of user demand for an environment industry survey, it is not
currently in a position to solely finance this collection. The ABS
suggested that contributions from Australian Government and State
agencies interested in reliable and comparable data are necessary in
order for the survey to proceed.

2.74   The provision of good data on the environment industry is a matter of
public good. While there has been cooperative work between
Australian Government departments and agencies to develop
appropriate methodologies, scope and costs for such a survey, there is
less willingness to cooperatively seek a means to fund such a survey.

2.75   The ITR submission provided an update on the recommendation
relating to improving data on the environment industry, explaining
that:

> Industry representatives have called for more consistent and
> comprehensive data for the whole of the Australian
> environment industry. To this end, the Minister for Industry
> Tourism and Resources and the Minister for the Environment
> and Heritage have recently written to the Australian
> Statistician asking that the amount and level of statistical
> information available from the ABS on the environment
> industry be improved. While the ABS has considered the

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32   Submission no. 32, p. 7.
33   ABS (2001), *Prospectus on a National Survey of Environment Industry*, p. 9.

conduct of such a survey and developed methodologies for conducting the survey, the ABS at present does not have the funding to undertake such a survey.[34]

2.76   At a public hearing, ITR provided a further update on the progress of a national survey, stating that:

> We have done quite a bit of work with the ABS to help them define how they might undertake as survey. Ministers have written to the ABS to request that the amount of information on the environment industry by increased. The response essentially, as I understand it, went along the lines of, 'We've done some work to figure out how we might do it, but essentially we need funding to carry out a survey of that size' … The question of funding is something that is now back in our court.[35]

2.77   The Committee notes there appears to be general industry and government consensus about the national value of such a survey, in terms of growing a sector that can potentially deliver economic, employment and environmental outcomes for Australia. Despite this consensus, it appears not a priority for any one department to assume the initiative and negotiate a funding arrangement for an ongoing national survey.

2.78   In the 2002 First Year Implementation Report of the EIAA, Recommendation 3 (which relates to improving the data available from the ABS on the environment industry) is reported as in progress.[36] However, beyond the ABS having developed options and classifications papers, there is no indication that an Australian Government agency is continuing to progress this recommendation.

2.79   The 2002 EIAA Implementation Report noted that the South Australian Government has worked with the ABS to conduct a survey of the state's environment industry. The findings of this survey have been published by the South Australian Government.[37]

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34   *Transcript of Evidence,* p. 19.
35   *Transcript of Evidence,* p. 20.
36   ISR (2002), *Environment Industry Action Agenda: First Year Implementation Report.*
37   www.environment.sa.gov.sustainability, last accessed 12 June 2003.

2.80   While the Committee is pleased that reliable data now exists for South Australia, the issue of national comparable data on the environment industry has not been addressed – despite the potential public and economic benefits. The Committee is disappointed that the concept of the national survey appears 'shelved' as the financial bill for it is passed between Australian Government departments and agencies. The budgetary constraints on departments and agencies are understood by the Committee as is the need for departments and agencies to make difficult funding decisions between competing priorities.

2.81   The ABS has received numerous requests for data on the Australian environment industry from government departments and agencies, industry organisations and researchers as well as international organisations such as the organisation for Asia-Pacific Economic Cooperation (APEC). The Committee considers that these requests reflect a strong need for more comprehensive national data on the economic performance and structure of the Australian environment industry.

2.82   In addition, evidence to the Committee suggested that:

- Current statistics on the Australian environment industry are limited and do not assist agencies or the industry with sector analysis and future strategic planning; and

- Incomplete data on the environment sector is leading to reduced investment in the industry.

2.83   In addition, the Committee notes that substantial resources have already been devoted to developing an *ABS Prospectus on a National Survey of Environment Industry* and considers that additional funding should be made available to carry out ongoing national surveys on the environment industry. The Committee advises that failure to do so may impede the development of the industry and hence result in greater long term national costs to Australia.

Recommendation 1

2.84   **The Committee recommends that the Australian Government provide the additional funding required to enable the Australian Bureau of Statistics to collect and make available ongoing and trend data on the environment industry in Australia.**

3

Industry - Leading Ecologically Sustainable Development

3.1 Industry leadership is vital to the take-up and effective implementation of ESD principles. However there is also a role for government in ensuring that appropriate frameworks are in place for market pressures to operate and to harness the drivers of ESD.

3.2 Sector agreements, business to business strategies and 'green' supply chains are demonstrations of the commitment to ESD from some industry quarters. Public environmental reporting, TBL reporting and SRI markets are also demonstrating a broad commitment to changed business and consumer priorities.

3.3 While one issue is the provision of a mix of initiatives to harness the drivers of ESD, from discussions and evidence presented, the Committee recognises the need to establish a pathway to ESD that can be integrated into business planning and practices. There is a lack of clarity in the terminology surrounding sustainability and SRI. Similarly, there are few practical tools to assist SMEs in particular in basic reporting and measurement of TBL or environmental outcomes.

3.4 The Committee has recommended initiatives which will provide a series of stepping stones onto the path of sustainability in the form of simplified 'ready reckoner' approaches to TBL, accessible reporting structures, and a commonly understood language to aid business managers, financial analysts and potential investors to measure and compare sustainability indicators.

Defining Sustainable Development

3.5   'Sustainable development' has become a standard term in government, industry and community planning at a local, national and international level. However, there remain several conceptual challenges regarding what is meant by 'sustainable development', for instance:

■ What are the objectives of sustainable development and how are these objectives put into practice?

■ How do we shift current practices to the sustainability development path and what time frame is appropriate for this?

■ Is there a financial cost to the present generation or do increased efficiencies deliver financial returns? and

■ How is sustainability measured and what type of balances or even trade-offs may be appropriate?

3.6   For the purposes of this inquiry, the Committee has broadly interpreted the term sustainable development in line with contemporary definitions which define a sustainable path of development as 'One that allows every future generation the option of being as well off as its predecessors'.[1]

3.7   This definition, which uses the broad concept of a generation being 'well off', provides a flexibility of approach that enables objectives to vary according to the developing needs of a nation as well as national priorities and cultural determinants of wealth.

3.8   There are commonly taken to be three measures of sustainability which may be ascribed different weightings of wellbeing according to national differences. The three measures of sustainable development cover economic, environmental and social wellbeing.

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1   Solow, R. (1992), *An Almost Practical Step Towards Sustainability,* Invited Lecture, Resources for the Future, Washington DC (October 8).

3.9   The Australian Government Treasury article, *Sustainable Development – to what end?*, argues the connectedness of these three measures in the context of developing a future Australia:

> Economic growth, a clean environment and sound social policy can be mutually supportive goals. They all contribute to improving the wellbeing of people, both now and in the future.[2]

3.10   The article goes on to note that 'these three dimensions, commonly referred to as the 'three pillars', each correspond to a domain that has its own distinct driving force and objectives'.[3]

3.11   The article argues that, traditionally, the economic dimension is well-developed in Western countries. In recent decades the environmental dimension has strengthened at the government policy and legislative level. There is also growing community and corporate pressures to minimise long term environmental impacts. The article notes that the social dimension is the less developed of the three pillars – at least in terms of methodologies to assess outcomes and changes.

3.12   For this inquiry, the Committee has restricted its consideration of sustainable development practices to the 'environmental pillar'. Where appropriate, the connections between environmental outcomes and economic gains are discussed.

3.13   TBL reporting, which takes into account all three measures, is considered later in this chapter. However the discussion on TBL again is weighted toward environmental reporting and the improvement of environmental outcomes, rather than providing a comprehensive discussion of the three components of TBL reporting.

3.14   From the evidence presented the Committee considers that substantial opportunities for the environment industry lie in the growth of environmental awareness across all sectors and the 'greening' of mainstream employment and investment. Accordingly this chapter focuses on ESD and market mechanisms to promote its uptake.

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2   Treasury (2002), *Sustainable development – to what end?* www.treasury.gov.au, last accessed 21 October 2002.
3   Treasury (2002), *Sustainable development – to what end?* www.treasury.gov.au, last accessed 21 October 2002.

Drivers of Ecologically Sustainable Development

3.15   The Committee heard a range of evidence relating to the drivers for
        and prevalence of ESD. There were also a range of views presented
        during the course of the inquiry on the role of government in
        promoting or regulating a shift in business practices towards more
        sustainable development.

3.16   The submission from the South Australian Government refers to
        OECD research which suggests that economic returns are themselves
        a driver in ESD and growth of an environment domestic industry. The
        OECD research concluded that:

> … countries which lag behind in developing environmental
> products and services may find themselves with substantial
> trade imbalances in this area and a reduced quality of the
> environment.[4]

3.17   DEH also gave evidence to the Committee concerning the drivers of
        ESD and the potential for employment growth in the environment
        industry:

> Environmental regulation is one of the major drivers of both
> public and private sector employment in this sector.
> Environmental education is another…

> Turning to potential growth in the sector, some of the drivers
> we would nominate are new regulation; consumer and
> community pressure and changed lifestyle or consumption
> patterns; changing business attitudes and, particularly,
> supply chain requirements; and, finally developments in
> technology.[5]

3.18   The EIA gave evidence to the Committee that the technology existed
        to address most of the environmental problems faced today.
        However, EIA suggested that there was not the desired uptake of
        these technologies as a key driver for change in environmental
        consideration continued to be legislation, and legislation was
        currently not demanding sufficiently high a benchmark. A
        representative from the EIA stated that:

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4   OECD (1992), *The OECD Environment Industry: Situation, Prospects and Government
    Policies.*

5   *Transcript of Evidence*, p. 55.

> … the major driver is still environmental legislation for people doing anything. I can give you examples at the top end of people who are leading the way in terms of product stewardship, being accountable and open in their public reporting and sustainable reports and doing some wonderful things. There are some magnificent examples at the top end. But when you come back to the bulk of industry and business, there is one driver, and that is legislation …

> If we look at the technologies, we have some amazing technologies that have been developed here. But they are not being used because there are not the drivers to do so. In other words, we actually could minimise the majority of our environmental problems today. We have the answers. There are some big ticket issues that we have to deal with. For the bulk of them we have the answers, but we do not actually have the incentive to do so on a legislative framework.[6]

3.19   ITR gave evidence to the Committee that overall trends toward sustainable development were positive. ITR suggested that, while the initial drivers for environmental accountability may be regulatory, once the change in business practices is made then other benefits for industry emerge. ITR told that Committee that:

> A number of companies in a number of areas are now seeing the benefits of sustainable development to their own operations. Perhaps for other reasons they have found themselves needing to report on sustainable development outcomes from their operations. But once they are heading down that path, it is realising that that has led them to a company that is doing well. It is doing well in its overall governance and its overall performance. They have found areas to improve their performance in terms of sustainable development. Having headed down that path, they have also started to quantify a number of their inputs and costed some of their outputs so that it has led to more productive outcomes and more commercial outcomes ... In the past, maybe [reporting on sustainable development] was something that one endured rather than embraced. But I think that is changing. It is changing in a number of sectors.[7]

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6   *Transcript of Evidence*, p. 46.
7   *Transcript of Evidence*, p. 27.

3.20   The Gold Coast City Council gave evidence to the Committee based on its local area and the challenges it has faced. In 2001, the Council commissioned a scoping study of the local environment industry to determine the major issues affecting the industry. The Council's submission to the inquiry reports on the findings of the study, which:

> … identified that legislation and policies designed to protect the environment at all levels of Government were the greatest creators of opportunities for the environment industry. This higher standard of required environmental protection reflected the changing attitudes of society who now expect environmental protection measures as standard rather than additional features of industry activity. This change in community perception, as well as influencing government policy also creates a market in itself as people now include 'environmentally friendly' criteria in their selection of goods and services.[8]

3.21   The Committee recognises that traditionally, the market has been the driver of change in industry. A shift to ESD requires an attitudinal shift from governments, companies and communities to bring together an environmental and economic focus. While the Committee was of the view that environmental benefits often do deliver economic and efficiency benefits to industry, it was interested to hear views on how to meaningfully take this message of sustainability to industry and to consumers.

3.22   The Committee heard evidence from GreenChip's Managing Director, Mr Anthony Peyton, who described the approach of the company as:

> I try and say, 'Look, there's probably a dollar in there somewhere if you look hard enough. Whether it be by becoming more efficient or through your product selection, there will probably be opportunities in the future by changing your company over time.' I try to develop strategies with companies to gradually move them across to the green side of being commercially viable.[9]

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8   Submission no. 8, p. 5.
9   *Transcript of Evidence*, p. 116.

3.23   From discussions and evidence presented, the Committee identifies
        the key drivers of ESD operating in Australia as follows:

- Compliance with legislation or mandatory reporting requirements;

- Economic returns due to increased business efficiencies and
  managing long term risk liabilities;

- Capturing a greater market share or achieving market
  differentiation; and

- Shifting cultural and attitudinal expectations by communities and
  industry to be more environmentally accountable.

3.24   Given this range of drivers for ESD, the Committee is aware that there
        is no 'quick fix' to achieve long term sustainability. A range of
        initiatives are needed to promote and facilitate the implementation of
        ESD business practices.

3.25   EBA gave evidence regarding the need for sustainable development
        and environmentally responsible business to be progressed through a
        'suite of activities'. These measures must be responsive to the various
        industry drivers and appropriate to sectoral needs. EBA also stress
        the need to focus on practical tools for ESD implementation, stating
        that:

> Although we have had doom and gloom from environmental
> groups from the year dot, they have not done an awful lot to
> change consumer awareness or consumer action. Whether
> you look at people as consumers or taxpayers or voters, if we
> can go out to them with a suite of activities that say, 'We need
> to do this for this reason, and here is how we do it, and here is
> your role in it,' they will buy into that. But it cannot be a
> deluge – it has to be a drip, drip, drip approach that keeps on
> going. We are looking at a five-, eight- or ten-year campaign
> to achieve that, not a six-month blitz.[10]

3.26   The Committee agrees strongly with this view and endorses the need
        for practicalities and long term planning to enter into the debate.
        Sustainable development should not be reduced to gimmicky slogans.
        For real change to take place, the path to sustainable development
        must encompass real action and commitment from governments,
        industry and consumers.

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10   *Transcript of Evidence*, p. 178.

3.27   The Committee is of the view that no one driver can bring about a widespread shift to ESD. It is the role of the Australian Government to implement a suite of initiatives that provide the framework, incentives and tools for business to respond to the diversity of ESD drivers and, in the long term, achieve ways of doing business that are economically viable and environmentally sustainable.

Industry and Joint Initiatives

3.28   The issue of the Australian Government's role in promoting sustainable development was examined in 2002 by a Working Group of the Prime Minister's Science, Engineering and Innovation Council (PMSEIC). The PMSEIC report, *Australian Industry's Sustainable Competitiveness*, recommended the development of a framework which would assist industry, and in particular SMEs, to develop and implement sustainability as part of standard business practices.[11]

3.29   A key element of this framework that was recommended involved 'operationalising sustainability' by:

- Encouraging a greater focus on SME sustainability reporting through industry associations; and
- Collaborating with relevant industries to apply voluntary sustainability sector agreements.[12]

3.30   There are a range of initiatives and programs underway – either driven by industry groups or cooperative agreements with the Australian Government which are encouraging ESD and reporting. EIA also noted that the mining and resource companies, in particular, have implemented codes of practices requiring member companies to report on environmental performance and meet standardised sustainability criteria.

3.31   A number of Eco-efficiency Agreements have also been signed between Australian industry associations and the Australian Government. Eco-efficiency Agreements are voluntary, three year agreements that are tailored to the needs and requirements of different industry sectors. In mid 2003 the Australian Government had signed 21 Eco-efficiency Agreements with, among others, the

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11   PMSEIC (2002), *Australian Industry's Sustainable Competitiveness*, www.dest.gov.au/science/pmseic, last accessed June 2003.

12   Submission no. 27, p. 200.

Housing Industry Association, the Australian Food and Grocery Council and the Australian Chamber of Commerce and Industry.

3.32 There are also a range of Australian Government initiated programs either encouraging or requiring types of environmental reporting. These include:

- The Greenhouse Challenge Program;

- The National Pollutant Inventory;

- The Waste Packaging Covenant;

- The *Environmental Protection and Biodiversity Conservation Act 1999*;

- State of the Environment (SoE) reporting requirements; and

- Legislative disclosure requirements relating to environmental performance reporting.[13]

3.33 In addition to the more formal programs and agreements, the Committee heard evidence regarding business to business strategies to improve environmental performance throughout supply chains. In its submission, GreenChip outlined the role of supply chains in implementing a 'cascading' system of environmental awareness. By requesting suppliers to have in place an accredited environmental management system, GreenChip explained how larger corporations can:

- enhance their own marketing image;

- contribute to positive global outcomes; and

- ensure that the environmental risk of suppliers is minimised.[14]

3.34 GreenChip refers to Ford Australia and the work they have done to promote better environmental performance through their supply chains. GreenChip notes that:

> Whilst the Ford example did not show a major increase in the number of Environment jobs, many people within the supply chain would have had a responsibility for environmental management included in their position description. Over time it is expected that more medium and large sized companies will employ people to take on such responsibility for the

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13 A detailed outline of these joint industry and government initiatives is provided in the ISR *Environment Industry Action Agenda: Investing in Sustainability*, 2002, p. 32.

14 Submission no. 30 p. 222.

> management of systems and environmental risks. This
> increase will be accelerated by the decisions of corporations
> such as Ford and Telstra to require their supply chain to
> improve their management of environmental aspects.[15]

3.35   A number of other companies operating in Australia, such as General
         Motors Holden, Toyota, Unilever, and Rio Tinto, are requiring their
         suppliers to monitor and improve environmental performance. Some
         companies are requiring suppliers to develop an environmental
         management system or prepare a public environmental report.

3.36   The Committee is highly impressed by the work being undertaken by
         major corporations to influence the environmental performance of
         companies in their supply chains. The movement to ESD must be seen
         as a 'cascading' process with consumers, governments and businesses
         working within their own spheres of influence.

3.37   However it is perhaps in business to business strategies that the more
         dramatic shifts in industry behaviour can be achieved. This is also the
         area in which the Australian Government has the lesser influence. The
         Committee commends the greening of supply chains undertaken by
         some companies and urges all corporations to demonstrate a
         corporate environmental responsibility and leadership throughout
         their suppliers.

3.38   The advantages for companies involved in greening supply chains are
         potentially improved corporate image and market differentiation (and
         therefore potential economic gains). Risk liabilities can also be
         reduced.

3.39   The Committee recognises that in many instances the success of these
         initiatives is dependent on the willingness of certain large industries
         to publicly drive sectoral or supply chain campaigns for ESD. The
         need for 'environmental champions' that can lead the attitudinal
         change in communities and across business has led the Committee to
         focus on the importance of leadership and different forms of
         environmental reporting and accountability. In particular, the
         Committee considers that this leadership is needed from industry, the
         finance sector and governments.

3.40   Leadership from industry on ESD can be demonstrated through a
         greater uptake of TBL reporting. The finance sector has a particular
         role in SRI and recognising the reduction of risk liabilities of those
         companies engaging in sound environmental management.

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15   Submission no. 30 p. 222.

3.41   The Committee considered a number of these issues and reports on its findings in this chapter.

3.42   The Committee recognises that leadership from all levels of government is critical in establishing environmental accountability and ensuring ESD. State and Australian Government department and agency reporting, green procurement policies and local government initiatives are an important means of creating employment and market opportunities for environmental goods and services.

3.43   The Committee considered the role of government in displaying leadership in ESD and discusses these findings in the chapter following.

Triple Bottom Line and Environmental reporting

3.44   John Elkington, co-founder of *SustainAbility* (a European management consultancy and think-tank) and author of *Cannibals With Forks: The Triple Bottom Line of 21st Century Business* (1997) has described TBL as:

> At its narrowest … a framework for measuring and reporting corporate performance against economic, social and environmental parameters.

> At its broadest, the term is used to capture the whole set of values, issues and processes that companies must address in order to minimize any harm resulting from their activities and to create economic, social and environmental value.[16]

3.45   A key aspect of this definition is that it requires not merely the minimisation of harm but also looks to 'create value' across the three pillars of sustainability. Arguments are now being put forward that TBL reporting is a key communication tool for sustainability in business decision-making. TBL, it is argued, must be regarded as a mechanism to operationalise sustainability.

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16   www.sustainability.com, last accessed June 2003.

3.46   The Barton Group gave evidence to the Committee stating that the value of TBL lay not in the reporting itself but in the analysis that accompanied it. This analysis enabled a company to evaluate and hence upgrade its processes:

> We are strong supporters of triple bottom line analysis before reporting. The key to it is the analysis, not so much the reporting. And it is important that companies know why they are doing the analysis and for what purpose in the first place. If it is reporting for reporting's sake, clearly it is almost greenwash. To some extent, the existing regulations have been dangled out there saying, 'This is what you have to report to. Once you have reported to them, soon you will learn that this is worthwhile stuff and you should be analysing it a lot more. If you are forced to collect it under legislation, you will be given an incentive to at least have it at your disposal and do some analysis.' The secret to it is the analysis, not so much the reporting, as such. At this stage, except for a small handful of dedicated and a smaller handful of large companies, we do not see the analysis being done.[17]

3.47   Similar views are put forward by the Ecos Corporation Pty Ltd (Ecos) in the discussion paper *Single Bottom Line Sustainability*. Ecos is an Australian consultancy firm who describe themselves as:

> … a passionate group of business professionals and former social change campaigners who now work together as strategic advisers to large corporations – to help them convert Values to Value™.[18]

3.48   The Ecos discussion paper argues that:

> … now we need a revolution. Sustainability needs to move to centre-stage for business decision-making and the TBL has a fundamental weakness if companies try to use it as a framework for business strategy …

> ■ The application of [the TBL] idea tends to encourage a separation of environmental, social and economic performance, with the unspoken (and unintended) message to business being 'we don't mind if you make money as long as you add social and environmental value while you're doing so'. What is needed is a concept that

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17   *Transcript of Evidence*, p. 48.
18   P. Gilding, M. Hogarth and C. Reed (2002), *Single Bottom Line Sustainability: How a value Centred Approach to corporate Sustainability can Pay Off for Shareholders AND Society*, Ecos Corporation, p. 2.

> integrates, not separates. It needs to clearly and simply say: 'If you create more social and environmental value the right way, you'll create *more* financial value as a *direct and measurable result*'.[19]

3.49   This and other evidence to the Committee suggests a lack of clarity around the practical forms of TBL reporting. As the Ecos discussion paper suggests, there is also limited awareness of the value of TBL as a management tool for good business practice. While TBL reporting is not a new concept, initiatives to support the uptake of TBL reporting will need to address fundamental issues such as what constitutes a meaningful TBL report.

3.50   The Committee agrees with the concept that TBL reporting is a valuable tool for company and community change. While TBL reporting is not an end point, public disclosure through TBL reporting can drive change by promoting market differentiation and awareness, increasing investor confidence and managing risk.

Uptake of TBL Reporting

3.51   Evidence presented to the Committee suggests that the uptake of TBL reporting varies considerably across sectors and company size. Despite this variance there are positive signs that the uptake of TBL reporting is gaining in momentum. A report released by the Sustainable Investment Research Institute (SIRIS), *Sustainability and Environmental Reporters Benchmarking Program 2001-2002*, surveyed a number of organisations producing sustainability and environmental reports and evaluated the extent to which different indicators were reported on.

3.52   The report found that:

- 14 per cent of the top 100 Australian Stock Exchange (ASX) listed companies produced stand alone environmental or sustainability reports;

- A further 10 ASX listed companies provided environmental or social information within their annual reports; and

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19   P. Gilding, M. Hogarth and C. Reed (2002), *Single Bottom Line Sustainability: How a value Centred Approach to corporate Sustainability can Pay Off for Shareholders AND Society*, Ecos Corporation, p. 6.

- Globally, the number of companies producing corporate or sustainability reports has risen by 10 per cent in the past three years.[20]

3.53   These are promising figures although they also indicate that we have some way to go in achieving widespread public disclosure of company TBL performance. DEH gave evidence in its submission regarding the performance and attitudes of industry toward TBL reporting and environmental responsibility. The DEH submission refers to a report commissioned by the National Environmental Education Council (NEEC) which highlights the following issues:

- There is limited understanding of environmental concepts and approaches. Many companies have not heard of eco-efficiency or environmental management systems. Corporate citizenship is often taken to mean philanthropic activities and along with environmental considerations, is regarded as marginal to core business.

- The number of companies with well-developed environmental management systems is relatively low and these are restricted to larger companies.

- The most common environmental management initiatives by companies over the past few years have involved waste management, waste minimisation, and recycling. Product stewardship, marketing of 'green' products and life cycle assessment is very uncommon.[21]

3.54   ITR also acknowledged to the Committee that the take-up of ESD was sector variant with both exemplary and disappointing company practices taking place across Australia. ITR suggested that some of this variance was due to the degree of potential environmental impact a sector may cause and so the extent to which legislation, public opinion and shareholder confidence had made it necessary for a sector to address issues of environmental management and long term risk minimisation.

3.55   Sustainable development, as an opportunity for growth in the environment industry, was considered in part by the EIAA. The Action Agenda found that, to increase the uptake of sustainable development and growth in the environment industry, externalities needed to be costed, communicated and valued. In short the price of delivering improved environmental outcomes needed to be made more transparent in the marketplace.

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20   SIRIS (2002), *Sustainability and Environmental Reporters Benchmarking Program 2001-2002*, p.ii., www.siris.com.au, last accessed 19 November 2003.

21   Submission no. 26, p. 198.

> The industry believes that too often there is a lack of appreciation among consumers of the value of a better environment … The industry has identified three factors that, if addressed, would help both industry and consumers correctly value and price environmental resources. These are:
>
> - Increasing the flow of information available to the market by environmental reporting;
> - Addressing the policy framework; and
> - Influencing purchasing and investment decisions.[22]

3.56   A series of EIAA recommendations, grouped under the broad theme of 'Valuing and Pricing the Environment', seek to promote greater awareness of public and private sector environmental performance. Strategies developed include greater use of existing reporting mechanisms and the further investigation of sustainability indicators and investment reporting.

3.57   While the Action Agenda recommendations go some way to addressing issues raised during the course of the inquiry, the Committee also sees scope to more immediately enhance the workings and implementation of the proposed EIAA initiatives.

3.58   The Committee was heartened by the leadership displayed by certain sectors and companies in Australia. The submission from the Western Australian Department of Premier and Cabinet included evidence from the Department of Mineral and Petroleum Resources. In the submission, the Department suggested that a number of State initiatives are promoting environmental excellence in the mining and petroleum sectors and that a 'robust reporting system' already applies to all minerals, petroleum and associated downstream processing projects.[23]

3.59   The Committee also held discussions with BP Solar Australia and was interested in the leadership approach taken by BP Australia to TBL reporting. Community and stakeholder expectations, the need to reduce environmental risk liabilities and the desire for market differentiation are driving BP Australia's move to TBL and ESD.

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22   ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability*, p. 32.

23   Submission no. 22, p. 152.

3.60   In 2001, BP Australia produced its first combined TBL report (the company has produced separate environmental and social reports in earlier years). Mr Greg Bourne, Regional President South Asia and Australasia, explained the reasons for the company choosing this form of reporting:

> We are reporting this way because the overwhelming response from our stakeholders is that they want more transparency from companies. For us though, it is not the reports per se that are important but the behaviours that they engender.[24]

3.61   The report goes on to state that 'BP believes that a TBL approach to business makes good business sense and will provide us with a sustainable competitive advantage'.[25]

3.62   This finding was confirmed by environment industry representations with the EIA commenting on TBL reporting that 'certain sectors have been asked to do it by their codes et cetera. But we do not see enough of it in general.'[26]

3.63   The Committee commends the leadership of certain sectors and companies in their uptake of ESD and TBL reporting. The Committee believes that an increased use of TBL reporting would promote greater environmental responsibility. To this end, the Committee considered mechanisms for promoting TBL reporting and the possible role for the Australian Government in facilitating more ecologically sustainable business practices.

Voluntary Versus Mandatory Reporting

3.64   The Committee heard evidence to support voluntary, rather than mandatory, environmental reporting for companies. This evidence even came from those consultants who would have the most to gain, in terms of increased business, from mandatory reporting.

3.65   The Committee heard that, while mandatory reporting and legislative change set benchmarks, change beyond these benchmarks is most appropriately driven by market pressures, attitudinal changes and the recognition of financial returns.

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24 BP Australia (2002), *Triple Bottom Line Report*, p. 1.
25 BP Australia (2002), *Triple Bottom Line Report*, p. 5.
26 *Transcript of Evidence*, pp. 48-49.

3.66   The reasons for opposing mandatory reporting were several. Of greatest concern was the compliance cost this would place on companies. This issue was considered in the EIAA which notes that:

> Some within industry oppose mandatory reporting because of the cost and additional reporting burden such moves would impose. In addition, companies already provide compliance reports to government in respect of many pieces of environmental and social legislation, and may question the need to do more. A further problem with mandatory reporting is that it may not lead to better environmental or social outcomes. Unless mandatory reporting requirements were highly prescriptive, the reports produced could lack substance, report only on positive performance, or set conservative targets that can be more easily met.[27]

3.67   The Institute of Chartered Accountants (ICA) provided an example of voluntary reporting. The ICA worked with DEH and the Victorian Environment Protection Agency to undertake a number of environmental management accounting case studies. The case studies examined the implementation of Environmental Management Accounting initiatives within several organisation, including Services@AMP, a service division of AMP.

3.68   The Office of the Minister for State Development, Tourism, Small Business, Western Australia, commented further on the role of government in promoting, rather than mandating, environmental reporting. Incentives, information and leadership are identified as key roles for the Australian Government in promoting better environmental performance and reporting:

- Promoting public environmental reporting is important, but the Government needs to encourage rather than prescribe public reporting. The Government's role in this processes could include providing financial assistance through industry support schemes to encourage companies to adopt public environmental reporting and provision of 'how-to' information promoting best practice examples of public reporting;

- Leading by example, with the Commonwealth Government either encouraging or requiring national agencies to adopt public environmental reporting. State Governments may also consider this initiative; and

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27   ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability*, p. 66.

■ Encouraging companies to demonstrate compliance with [the International Organisation for Standardisation] ISO 14000, which may be of increasing importance in winning international projects.[28]

3.69   While the Committee recognises that environmental legislation is one key driver to ESD, the Committee also believes that a multi-faceted approach toward implementing sustainable development and public reporting is the most effective long term approach. Currently there exists insufficient basis for mandating TBL reporting. However, as the TBL concept becomes further refined and achieves a greater acceptance by industry and in the marketplace, the Committee sees value in revisiting the question of mandatory TBL reporting.

Facilitating Change

3.70   ITR outlined to the Committee what it saw as the view of the Australian Government, namely that sustainable development in industry should be encouraged but not approached entirely through regulatory mechanisms. The Department stated that:

> Clearly, the government has outlined a view that it wants companies to decide that this is in their own interests to improve their credentials or however they want to go about improving their environmental performance. In doing that, they have put forward a number of initiatives to try to assist that process.[29]

3.71   One of the most significant initiatives is the development of voluntary environmental reporting guides and the establishment of the online reporting database *Sustainability Reporter* (www.sirisdata.com).

3.72   This database of company sustainability reports and information is being developed by SIRIS. When completed, the database will provide:

> … a publicly accessible resource where stock exchange listed companies can disclose core sustainability information. The database aims to encourage and provide an easy mechanism for companies not producing an environment or sustainability report to make some information available. For those companies already reporting, the database enables them to avoid repetitive requests for data from analysts and stakeholders.

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28   Submission no. 22, pp. 141-2.

29   *Transcript of Evidence*, p. 28.

> On the other side of the ledger *Sustainability Reporter* will provide a one-stop-shop for investors to get a more transparent and consistent picture on the sustainability performance of corporate Australia.[30]

3.73   The Western Australian Department of Premier and Cabinet recommended in their submission that:

> … information [from environmental reporting] could be better utilised if collated into an environmental database contributing to the status of knowledge of the Australian environment. A consequence of this is better environmental planning and management, as demonstrated by the WA North West Shelf Joint Environmental Management Study, which drew on information collected by industry operating in the North West Shelf region.[31]

3.74   The Committee notes that SIRIS is a work in progress and there is some prospect that it will address issues raised by the Western Australian Government. A complementary SIRIS initiative is being undertaken to develop core environmental and social reporting indicators and methodologies. This should aid in standardising reporting frameworks, reducing the compliance and reporting burden on companies and providing greater transparency and comparability of company reports.

3.75   There are also a range of guides and reporting systems designed to encourage greater public environmental reporting by corporate Australia (see Appendix E). The publication *A Framework for Public Environmental Reporting – An Australian Approach,* was released by DEH in March 2000. The publication describes how to prepare an environmental report following the broad phases of planning, measuring, reporting and reviewing. Examples are also provided of performance indicators.

3.76   The Committee is of the opinion that this publication is a sound contribution to the body of information on environmental reporting. It provides accessible guidance for companies which seek to move along the sustainability path but perhaps lacks the 'how to' skills.

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30   Beale, R. (25 July 2002), *Finance and Sustainability*, speech given by Secretary of DEH at Forum, Melbourne.

31   Submission no. 22, p. 153.

3.77   Although the report focuses on environmental rather than TBL reporting, it provides a practical guide to analysing and reporting on aspects of corporate performance beyond the traditional financials.

3.78   Internationally there are a range of initiatives and measures available to assess corporate performance. The most notable is the *Global Reporting Initiative* (GRI) which attempts to develop a methodology to effectively compare triple bottom line performance. The mission of the GRI is to raise the comparability and credibility of sustainability reporting practices worldwide.[32] It provides guidelines aimed at increasing uniformity to assist organisations to assess their performance against others and to measure improvement over time.

3.79   The PMSEIC report, *Australia's Sustainable Competitiveness,* also refers in its recommendations to the development of 'a voluntary set of common national metrics and reporting structures, relevant to that industry, that are compatible with international frameworks such as the Global Reporting Initiative'.[33]

3.80   The Committee supports the PMSEIC recommendation. The rhetoric of ESD is well developed but this must be accompanied by a developed approach to the implementation of ESD principles. There is an urgent need for the message of sustainability to be translated into the methods for its implementation and the measurement tools to track and report on progress.

3.81   The DEH submission noted that it is 'implementing and continuing to develop initiatives that provide an adequate response to the recommendations of PMSEIC'.[34] DEH noted that:

> Some 100 Australian companies have published such [TBL] reports. Greater corporate adoption of this form of reporting would appear likely to lead to increased management attention to environmental issues and consequent demand for environmental goods and services.[35]

3.82   The Committee considers that a key initial step is to provide a collated site that enables businesses, consumers and investors to assess company TBL and environmental reports. This would enable product differentiation and the effects of good corporate reputations to operate more effectively as 'value' in the marketplace. There are also

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32   www/globalreporting.org, last accessed 15 November 2003.
33   Submission no. 27, p. 200.
34   Submission no. 27, p. 200.
35   Submission no. 27, p. 202.

benefits for Australia in building a more comprehensive and accessible store of data on the Australian environment industry.

3.83   The Committee looks forward to DEH's response to the recommendations of the PMSEIC report and to the continuation of the department's work in assisting the uptake of public reporting. The Committee strongly supports the facilitative work that is being undertaken by Australian Government departments and agencies, research institutes and industry associations to promote better environmental performance, ESD and TBL reporting.

3.84   In line with recommendation 2 of the PMSEIC report *Australia's Sustainable Competitiveness*, the Committee also recommends that a collated site be established for company TBL and environmental reports. The public nature of this site would provide an incentive for better and more comparable reporting.

Recommendation 2

The Committee recommends that the Australian Government establish a centralised site for collating and making available comparative company triple bottom line reports and environmental performance reports.

Issues for SMEs

3.85   The need to develop the methods and measuring tools for sustainability is particularly applicable to SMEs. It was brought to the Committee's attention on a number of occasions that SMEs face particular challenges in implementing ESD and TBL reporting. The Committee heard that while TBL reporting is increasing, much of the guidance and assistance is not tailored to the specific content and limited resources of smaller enterprises.

3.86   The leadership of larger corporations appears to be influencing the reporting of environmental performance amongst SMEs. The submission from the Western Australia Government commented that:

> … sustainability issues are now acting as a driver to generate employment in environmental services, as an increasing number of companies conduct environmental audits and

> produce public statements on environmental management. While companies engaging in public environmental reporting so far have been larger companies, particularly those associated with minerals and energy, the use of such reports now appears to be spreading to smaller companies operating in a broadening range of industry sectors.[36]

3.87   However the Barton Group emphasised that reporting must bring with it the benefits of improved business practices. Otherwise TBL reporting for SMEs may not be useful or cost effective and may become a formality rather than a functional tool. The Barton Group stated that TBL reporting:

> … does help the big companies, but it does nothing to help SMEs and smaller companies who at the moment are being encouraged to do the reporting for no good reason without doing the analysis, which is a retrograde step.[37]

3.88   The burden of TBL reporting for SMEs was also raised by EBA in its submission. However, EBA suggested that measures appropriate to SMEs were needed to facilitate the uptake of TBL analysis and reporting.

3.89   EBA suggested that:

> Triple Bottom Line reporting is increasingly being taken up by business although it is noticeable that the SME sector finds this an added constraint to business. Engaging the finance and insurance sector will be key to making sure that the approach is widely adopted.[38]

3.90   The development of simplified reporting templates would be a useful tool to introduce SMEs to the practices of sustainable development. At the Sustainability and Investments roundtable held by the Committee in Sydney, it was emphasised that there was a need for 'scaled down' versions of TBL reports. Some participants suggested that simplified TBL reports could be aligned with or based on the Business Activity Statement programs used by SMEs.

3.91   The Committee was appreciative of the ideas presented at the roundtable and the commitment of those present to work cooperatively to develop the sector tools and networks that will drive ESD.

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36   Submission no. 22, p. 139.
37   *Transcript of Evidence*, p. 48.
38   Submission no. 34, p. 266.

3.92   The recommendations of this report are for the most part directed to establishing the market framework that enables the drivers of ESD to operate most effectively. The recommendation to establish a collated site for public environmental and TBL reports gives greater prominence to the management of environmental risk and raises market awareness of environmental outcomes. However the Committee believes that, for such a vital national issue as improved environmental outcomes, it is also the role of the Australian Government to ensure that the drivers of ESD are underpinned by ready access to the appropriate tools.

3.93   Several of the recommendations of this report go to the development of a set of methods, measuring tools and messages for sustainability that will provide the strategies for ESD implementation.

3.94   The Committee is aware of the particular resource and skill constraints faced by SMEs and the need to tailor reporting guides and tools to meet these needs. The Committee considers that, if environmental performance is to be integrated into reporting and business planning, then the assistance provided needs to be practical and appropriate to SMEs. The Committee suggests that such assistance should give working examples and advice on how SMEs might adapt TBL reporting to their own business context. In addition, advice must make clear the potential gains to SMEs of integrating environmental considerations into business management.

3.95   While the guides produced by the DEH and the work of SIRIS and the EIAA are assisting the uptake of TBL reporting, more direct means are required to meet the needs of SMEs. The Committee recommends that in, addition to the initiatives under development, a 'tool-kit' approach appropriate to SMEs should be developed.

3.96   The Committee welcomes the innovative ideas of many of those working in the financial sector. Suggestions raised at the Sydney roundtable forum by some key players included the development of a modified triple A rating system (along the lines of E1, E2, etc.). Such ideas should be investigated as part of the development of a toolkit for SMEs.

3.97   The Committee suggests that the tool-kit include an online or CD-ROM guide that provides a means for SMEs to develop rudimentary public reporting for assessing environmental performance and efficiency returns.

3.98   Included in such a tool-kit should be practical assistance to enable companies and suppliers to work cooperatively with the aim of 'greening' supply chains. This assistance would provide a greater incentive for SMEs to shift business practices towards more sustainable measures. It would also assist in establishing cooperative networks to progress SMEs to implement sustainable development and reporting.

Recommendation 3

3.99   **The Committee recommends that the Australian Government:**

- **Develop, as part of the small to medium enterprises set of environmental tools, an adaptable software package that would facilitate assessment and reporting; and**

- **Develop a set of measuring tools, appropriate to small to medium enterprises, to introduce companies to basic environmental performance assessment and reporting.**

Socially Responsible Investment

3.100   While aspects of sustainability reporting, such as social responsibility and corporate governance, are beyond the scope of this inquiry, the Committee recognises their connectedness to a corporate mindset of sustainability.

3.101   SRI enables investors to differentiate companies based on sustainability performance and provide returns for companies who are implementing sustainable development.

3.102   SRI can also act as a market driver for companies to improve environmental performance and reporting. SRI, or ethical investment, most simply means 'the conscious inclusion of ethical and/or social considerations in the investment decision'.[39]

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39   Wilmot, B. and Mathews, S., *Ethical Investment Now Part of the Mainstream*, Philanthropy, p. 9.

3.103   SRI is emerging as a growth industry in Australia, although there remain some issues to address such as screening methodology, standardised reporting, comparative assessments, disclosure and consumer awareness.

3.104   The Committee believes that SRIs are an important contribution to better environmental outcomes and an important means of harnessing market drivers for ESD. However a robust SRI industry is reliant on sound information marketing – that is, companies declaring their social and environmental outcomes in a manner which is comparable and clearly understood, and investors being aware of the SRI market and able to access that information.

3.105   As SRI or ethical investment was not mentioned specifically in the terms of reference, the submissions received to the inquiry did not directly address these issues. However, during the course of some public hearings, the Committee inquired about the SRI market in Australia and its possible impact on corporate behaviour and reporting.

Market for SRI

3.106   The Committee conducted a roundtable on sustainability and investments with representatives from the finance sector, consultancies and environmental NGOs.

3.107   The Sustainability and Investments roundtable made the following points regarding the SRI market in Australia:

- SRI has the potential to change corporate behaviour;

- The credibility of SRI relies on good data and screening processes;

- Some companies are facing multiple requests for different types of SRI returns; and

- Much of the current reporting could be synthesised into a standardised SRI assessment.

3.108   In June 2002, SRI assets in Australia were across a range of categories as indicated in Table 3.1.

Table 3.1. SRI Assets in Australia.

Assets invested	Category
$1.8 billion	Managed SRI funds
$124 million	Private SRI portfolios managed by financial advisers
$6.7 billion	Investments in religious organisations
$116 million	Invested by charitable trusts using SRI criteria
$5 billion	Employer superannuation funds using SRI overlays
$164 million	Community finance investment
$13.9 billion	**Total SRI assets invested in Australia**

Source   Deni Greene Consulting Services (September 2002), *Socially Responsible Investment in Australia,* p. i.

3.109   The report by Deni Greene also notes that the total SRI assets figure of $1.3 billion is conservative, as there were limitations on the data that was able to be collected.

3.110   SRI managed funds are a subset of the total assets, and investment in 2001-2002 rose from $1.3 billion to $1.8 billion. In 2002 there were 74 SRI managed funds which represents an increase of 61 per cent from 2001.[40]

3.111   Despite the strong growth indicated by these figures, SRI continues to represent a small market share (around 0.5 per cent) and investor awareness of SRI options remains low.[41] Less than one third of Australian investors were aware of SRI products, although many stated that they would consider them if given the option.[42]

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40   Deni Greene Consulting Services (September 2002), *Socially Responsible Investment in Australia*, p. i.

41   The ABS defines managed funds differently from the Deni Greene survey. The ABS data for the value of assets held by managed funds at 30 June 2002 is $154 billion (Reserve Bank of Australia Statistical Table B15 – Managed Funds). Adjusting Greene figures would suggest SRI managed funds total $868.73 million, or 0.5 per cent of the overall market.

42   ASSIRT (April 2002*), Proactive Investor Survey*, www.assirt.com.au, last accessed June 2003.

3.112   DEH attributes the growth in SRIs to risk sustainability management, stating that:

> I think we are seeing a growing interest and a growing demand from the finance sector—by which I mean banks as lenders and large institutional investors, like superannuation funds, as purchasers of equity—in the environmental and the social performance of companies to whom they lend or in which they invest from that risk perspective. I think that you can class the forms of risk as being risk to intangibles in the sense of the reputation of a company … Obviously brand and image of the company or its products can be quite badly damaged by some sort of environmental disaster or perhaps by poor labour practices. Those are examples that would readily spring to mind. The other form of risk which perhaps has not always been at the front of the mind and does not necessarily come to light terribly clearly in corporate accounts would be, say, the costs down the track of rehabilitation of a mine site or cleaning up of contaminated land, where the industry's processing site has retained chemicals on site over many years and will ultimately mean that somebody pays the bill, probably the company.[43]

3.113   The report *A Capital Idea - Realising value from environmental and social performance*, released in August 2001, considers how companies can attract equity capital for ethical funds. The report states that:

> Financial success for business is increasingly linked to good environmental and social performance. Companies are subject to the ever-rising expectations of shareholders, including customers, employees, the community, non-governed organisations, and lenders, insurers and investors.
>
> Mounting evidence shows that companies that are environmentally and socially responsible are more profitable and provide greater returns and lower risks to their shareholders. Eco-efficient firms are able to create greater shareholder value than their industry competitors while minimising environmental risk and impact.[44]

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43   *Transcript of Evidence*, p. 58.

44   Deni Greene Consulting Services (August 2001), *A Capital Idea – Realising value from environmental and social performance*, Executive Summary p. i..

Rate of Returns

3.114   Australia now has the highest rate of share ownership in the world, having risen from 15 per cent of adult Australians owning shares in 1991 to 52 per cent a decade later.[45] The growing rate of ownership is highest amongst young people and those with higher education and higher income – these are also the categories most likely to be concerned about environmental issues.

3.115   SRI has traditionally been seen as a niche market in which economic returns are traded for ethical returns. This image of the SRI market has been challenged recently with reports of SRIs outperforming other investments. The EIAA suggests that:

> One reason for this [outperformance] may be that SRI focuses on investments in firms that pay attention to their economic, environmental and social performance and as a result they are better managed overall.[46]

3.116   Interest in corporate responsibility and ethical investment has increased markedly in Australia in recent years. More Australians are investing in shares and also demanding some accountability from the companies they have invested in.

3.117   The most reliable and comprehensive data on the size of the SRI market in Australia is the report *Socially Responsible Investment in Australia – 2002* which was conducted for the Ethical Investment Association by Deni Greene Consulting. The report found evidence of a strongly growing domestic SRI with an increase in SRI-type products of 32 per cent (from $10.5 billion to $13.9 billion) over the financial year 2001-2002.[47]

3.118   There appears to be contradictory evidence regarding the rate of returns in Australia from SRIs. Some of this variance may be explained by the small market in Australia for SRIs and a lack of clarity used regarding the screens and relative assessments of companies. The lack of comparable trend data is also making the SRI market appear volatile, when in reality it may simply be displaying expected variations in return rates. This point was made to the Committee by GreenChip during a public hearing:

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45   Deni Greene Consulting Services (August 2001), *A Capital Idea – Realising value from environmental and social performance*, Executive Summary, p. i.

46   ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability*, p. 36.

47   Deni Greene Consulting Services (September 2002), *Socially Responsible Investment in Australia.*

One of the funds has been tracking at two per cent above the
All Ordinaries Index over the last three years, so the returns
are higher than those you would have received if you had
invested in mainstream stocks. In the last 12 to 18 months it
has been a shocker. The ethical investment funds have
dropped four per cent, but that may be competing against
other funds that have dropped six per cent. There will always
be the ups and downs of the share market. In the US and the
UK, 15 per cent of funds under management are screened. In
Australia we have only about one per cent …The problem is
that there are not enough companies in Australia to invest
in.[48]

Screening Filters

3.119   One of the issues facing the SRI market is the different types of
screens applied to assess appropriate companies and possible investor
confusion over the types of products available. While SRIs consider a
range of non-financial factors, in Australia environmental issues
attract the greatest investor concern. In discussions with the financial
sector, fund managers and NGOs, the range of filtering processes
applied to SRIs was outlined to the Committee. Typical approaches
include:

- Negative screens - meaning certain industries (for example, tobacco
  manufacture, gambling, weapons or uranium mining) are excluded
  automatically due to the production they are involved in and
  regardless of any environmental minimisation strategies;

- Positive screens – meaning preference is given to sectors and
  industries which are considered to have positive and sustainable
  attributes, for example renewable energy or future-orientated
  industries such as biotechnology;

- Best of sector - meaning leading companies are selected from every
  business sector based on the best environmental, social and
  financial outcomes. This approach lacks any baseline
  benchmarking and hence a company in a particular sector may not
  even approach best practice, however, as the 'best of a bad sector'
  they may be included in SRIs;

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48   *Transcript of Evidence*, p. 127.

- Constructive engagement - meaning investment options are selected using traditional financial criteria, then an overlay is applied to reject companies with poor social or environmental performance; and

- Indexed - meaning a similar method to constructing mainstream investment portfolios is used, however particular TBL indexes are applied.

3.120   The Committee considered that the range of approaches was appropriate to meet the different concerns and portfolio needs of investors. However, the Committee was concerned that investors did not always appreciate the distinctions between different approaches and the terminology was loosely applied in some instances and relied on different interpretations. There appears a lack of consistency, stemming from the absence of standardised terms and methodologies in the SRI market, that could enable meaningful comparisons.

3.121   Currently, terminology that does not distinguish how filters are applied and how SRIs are assessed is unhelpful to investors and does not promote or reward better environmental performance in industry.

3.122   The lack of data and lack of transparency has been identified by several sources. A recent article in the *IPA review* noted that:

> Most information available on ethical funds is provided by their many promoters and is unreliable. Indeed there is a dearth of independent research, a distinct absence of basic descriptive information.[49]

3.123   The EIAA also refers to the lack of transparency regarding environmental accountability and more broadly 'corporate responsibility':

> Not only are SRI investment opportunities still rare, but also there are limited opportunities for finding out about the environmental and social performance of a particular company when a potential investor does want this information. There is a significant lack of transparency about the 'corporate responsibility' performance of companies listed on the stock exchange. Requirements for non-financial disclosure, including environmental disclosure, are still very limited.[50]

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49   Hoggett, J. and Nahan, M. (September 2002), *Ethical Investment – Deconstructing the Myth*, IPA review, p. 3.

50   ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability*, p. 37.

3.124   In response to this, the EIAA has recommended investigating disclosure of residual corporate liabilities as a means of making more explicit environmental risks and management. In addition to this, investigations are underway to assess the feasibility of a sustainability index on the ASX.

3.125   The Committee agrees with the direction of the Action Agenda recommendations and the principle that 'Disclosure helps markets make informed decisions'.[51]

3.126   When DEH appeared at a public hearing with DEH, the Committee inquired about the need for a generic framework governing the sieves or filters applied to SRIs and the need to promote transparency in the industry. A representative from DEH replied:

> I think the issue driving some developments in this area is the growing demand from the many different funds and companies interested in performance in this area. What we could call survey fatigue is starting to creep in. There may be quite onerous requirements for companies—even large companies listed on the Stock Exchange—to respond to these requests for information. I think this will tend to drive the emergence of some kind of standard for reporting by companies. Within government we have been concerned to assist in the development of some sort of standard, or at least to make research that has been conducted publicly available to perhaps satisfy curiosity and reduce the number of demands made. We have supported a project by the Sustainable Investment Research Institute. We referred in our submission to the web site they operate. In the course of the next few months they expect to provide information on their web site about the top 300 listed Australian companies as a result of survey work they have undertaken.[52]

3.127   The *Sustainability Reporter* database being developed by SIRIS, may go some way to addressing the lack of easily accessible and comparable company information. A further initiative, which will assist transparency in the sector, is more detailed disclosure for investment products.

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51   ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability*, p. 37.
52   *Transcript of Evidence*, p. 57.

Disclosure Guidelines

3.128   Changes under the *Financial Services Reform Act 2000* (FSR Act), in March 2000, require detailed product disclosure statements (PDS) for investment products. The PDS requires disclosure of the consideration given to labour, social, ethical and environmental issues. A PDS is usually required to be given to a consumer prior to the acquisition of a financial product. The PDS is information to assist the consumer in deciding whether to acquire a financial product.

3.129   The reforms gave the Australian Securities and Investment Commission (ASIC) the power to develop guidelines relating to claims made in a PDS. While the legislation does not refer to SRIs and this is not part of or driving the requirement for disclosure in a PDS, ASIC has referred to the process as SRIs. ASIC states that this is the term 'commonly used to refer to these types of investment considerations'.[53]

3.130   In December 2002, ASIC released a discussion paper seeking public comment on whether ASIC should:

> … produce guidelines on the new requirement that all products with an investment component that have a product disclosure statement (PDS) will now need to disclose the extent to which labour standards or environmental, social or ethical considerations are taken into account in the selection, retention or realisation of the investment.[54]

3.131   Apart from the pressure of public reporting, the FSR Act does not require any changes to company practices. The effect of the PDS is to make more transparent the long term risk management practices of a company to enable more informed consumer investment decisions. ASIC emphasises that any guidelines would not relate to the setting of standards or establishing methodologies for measuring ethical considerations. The discussion paper reiterated that:

> The law does not require ASIC to specify the labour standards or environmental, social or ethical considerations that may be taken into account of, or the methodologies that should be used, and we do not intend to do so.[55]

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53   ASIC (December 2002), *Discussion Paper: Socially Responsible Investing Disclosure Guideline*s? www.asic.gov.au, last accessed June 2003, p. 7.

54   ASIC (December 2002), *Discussion Paper: Socially Responsible Investing Disclosure Guidelines?* www.asic.gov.au, last accessed June 2003, p. 7.

55   ASIC (December 2002), *Discussion Paper: Socially Responsible Investing Disclosure Guidelines?* www.asic.gov.au, last accessed June 2003, p. 7.

3.132   ASIC consulted widely in producing the discussion paper and notes that the majority of those consulted (including industry associations, NGOs and government departments and agencies) favoured ASIC developing guidelines.

3.133   The discussion paper noted that the development of ASIC guidelines for SRI disclosure would provide greater clarity regarding the legislative requirements and may improve the quality of reporting that is currently undertaken. Guidelines could also provide greater clarity for consumers wishing to make informed investment decisions and would encourage a form of disclosure which is meaningful, accessible and enables product comparability.

3.134   The discussion paper also outlined possible arguments against ASIC developing PDS guidelines. These arguments included the need to wait until the law has been operational for some time and then determine if and in what areas guidance is needed. There was also concern that any guidelines may be too prescriptive and so unnecessarily increase compliance costs.

3.135   The Committee acknowledges the concerns of ASIC not to be overly prescriptive in developing PDS guidelines. However, the Committee also recognises that ESD, SRI, TBL and other forms of environmental reporting can, at times, confuse rather than enlighten industry and consumers. Initiatives are needed to improve market awareness and achieve consistent, transparent and meaningful forms of reporting. PDS guidelines would provide greater clarity for industry and assist consumers to make more informed choices. Accordingly the Committee supports the development of trial PDS guidelines by ASIC.

3.136   However, the Committee considers that there are more immediate issues surrounding consistency in SRI terminology and methodology and recommends that these be addressed as a priority.

3.137   Fundamental to a robust SRI industry is the marketing of the information which differentiates SRIs from other investment options.

3.138   Future growth of the industry is dependent on the provision of robust, reliable and consistent data on company performance across a range of criteria. Investors must be able to access this information in a meaningful and comparable manner and, similar to environmental labelling, make investment decisions based on product

differentiation. The Committee strongly supports the SRI market as a means of responding to community expectations for greater corporate ethical responsibility and also as a means of providing possible economic incentives for better environmental accounting and outcomes.

3.139   Accordingly the Committee sees an important role for the Australian Government in ensuring that the framework governing SRI market information is effective in maximising the potential of this industry. The primary issues identified by the Committee relate to the terminologies and methodologies utilised. The Committee sees a pressing need to develop standard ratings and easily understood indexes to make the SRI market more accessible and transparent to investors. There is also a need to raise the profile of the SRI market to potential investors. The Committee believes that a robust SRI market would positively contribute to improved ESD in Australia.

Recommendation 4

3.140   **The Committee recommends that the Australian Securities and Investment Commission:**

- **Develop standardised terminologies and methodologies, which can be used by the investment community and consumers, to measure and verify the claims made in relation to socially responsible investment;**

- **Undertake an awareness raising program to increase consumer understanding of the range of socially responsible investments, and the methodologies and terminologies associated with them; and**

- **Develop guidelines to assist industry in preparing product disclosure statements and to enhance consumer understanding of product disclosure statements.**

4

Government - Leading Ecologically Sustainable Development

4.1   Industry leadership in ESD can promote change through establishing a market value for good environmental outcomes. Government leadership in ESD can raise community expectations of environmental outcomes, and so influence marketplace behaviour, and also assist in nurturing the market.

4.2   Leadership by the Australian Government should be actively demonstrated through the business operations of all Australian Government departments and agencies. To ensure that the Australian Government commitment to ESD is being achieved and that leadership is displayed, the Committee considered a number of mandatory department and agency compliance standards and reporting requirements.

4.3   GreenChip outlined the importance of leadership at the Australian Government, and State and Territory levels, commenting that:

> In many ways this leadership will determine the level of green consumerism in the community, which will in turn drive Environment jobs. Irrespective of one's political alignment our Government leaders need to agree on values that put the long-term security of our planet as a priority area for action.[1]

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1   Submission no. 30, p. 218.

4.4   The Committee considers that ESD is a national responsibility and it falls to all levels of government to provide leadership, set minimum regulatory standards and influence market and community expectations that will further drive ESD.

Government ESD Guidelines and Requirements

4.5   Australian Government departments and agencies are required to meet a number of obligations to implement the Government's ESD commitment. Table 4.1 outlines some of these policies.

Table 4.1 Australian Government Policies and Requirements.

Document	Issue	Requirement
Measures for Improving Energy Efficiency in Australian Government Operations	Energy and greenhouse emission reduction	Target of less than 10,000 MJ per person per year by 2002 for tenant's light and power use in Australian Government office buildings.
		All new appliances to have 2-star or better Energy Rating under the Appliance Energy Efficiency Rating Label Scheme.
		Departments and agencies to purchase only office equipment that carries an 'Energy Star' label, where it is available and fit for purpose.
Australian Government Waste Reduction and Purchasing Guidelines	Waste reduction	Agreement to work towards whole of government waste reduction and purchasing policies; individual agencies to adopt waste reduction and purchasing plans; effective monitoring and reporting systems to track implementation.
National Packaging Covenant	Reduce the environmental impacts of packaging	As a signatory, the Australian Government has agreed to facilitate implementation of purchasing policies for recycled goods.
Environmental Protection and Biodiversity Conservation Act 1999	Environmental reporting	Australian Government agencies to include information about their ESD performance in their annual reports.
Australian Government Procurement Guidelines	Life-cycle costing	'Officials buying goods and services need to be satisfied that the best possible outcome has been achieved taking into account all relevant costs and benefits over the whole of the procurement life cycle.'
National Greenhouse Strategy		Encourages purchasing which takes into account operating energy costs as well as capital cost for assessment and selection of tendered goods and services.
Other	Environmental Management Systems	The Australian Government has encouraged all departments and agencies to join the Greenhouse Challenge Programme and implement an environmental management system and accredit one large site by Dec 2003.

Source   DEH, www.ea.gov.au/industry/sustainable/greening-govt/consult.html, last accessed 19 May 2003

4.6   The Committee considers that demonstrated leadership, in terms of implementation and reporting, across all these areas is vital.

Government ESD Implementation and Reporting

Australian Government Agency Reporting

4.7   Through its policies and operations, the Australian Government has a significant effect on ecological sustainability. Since 2000, there has been a requirement under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) for Australian Government departments and agencies to report annually on their environmental performance and contribution to ESD.

4.8   Section 3A of the EPBC Act sets out five principles of ESD that should be considered by departments and agencies in planning for ESD reporting. These are that:

- Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;

- If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;

- The principle of inter-generational equity—that the present generation should ensure the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;

- The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making; and

- Improved valuation, pricing and incentive mechanisms should be promoted.[2]

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2   Section 3A *Environment Protection and Biodiversity Conservation Act 1999.*

4.9   Under section 516A(6) of the EPBC Act, the annual report of an Australian Government department or agency must:

- Include a report on how the activities of, and the administration (if any) of legislation by, an agency accorded with the principles of ESD;

- Identify how the outcomes (if any) specified in an Appropriations Act contribute to ESD;

- Document the effect of the agency's activities on the environment;

- Identify any measures the agency is taking to minimise the impact of its activities on the environment; and

- Identify the mechanisms (if any) for reviewing and increasing the effectiveness of those measures.[3]

4.10   Departments and agencies must also report on measures for minimising environmental impact and mechanisms for increasing the effectiveness of these measures. The Australian Government is encouraging its departments and agencies to implement accredited Environmental Management Systems to assist with the reporting requirements under the EPBC Act.

4.11   The PMSEIC report, *Australia's Sustainable Competitiveness,* makes reference to this reporting requirement, stating that:

> Reflecting the Australian Government 's support for public environmental reporting in the private sector, the *Environmental Protection and Biodiversity Conservation Act 1999* requires Australian Government organisations to include in their Annual reports a section detailing the environmental performance of the organisation and the organisation's contribution to Ecologically Sustainable Development (ESD).

> The identification, monitoring and reporting of environmental issues will help Australian Government organisations improve their environmental performance and in the process improve their skill base and refocus employment opportunities (for example, from waste disposal to recycling/composting initiatives).[4]

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3   Section 516A(6) *Environment Protection and Biodiversity Conservation Act 1999.*

4   Submission no. 26, p. 203.

4.12   These requirements for Australian Government department and agency reporting on ESD are relatively recent. The Committee is strongly supportive of these measures and considers that it is essential that this compliance and reporting be regarded as a core government management practice. It should not be viewed as simply 'going through the motions' of reporting. Rather it should be prioritised as the active demonstration of government policy commitments.

4.13   The Auditor General has recently reviewed reporting on ESD by Australian Government departments and agencies. The audit report No. 41, *Annual Reporting on Ecologically Sustainable Development*, was presented on 7 May 2003.

4.14   The audit provides an independent assessment of the quality of the first two years of Australian Government department and agency annual reporting on ESD. The audit reviews current practice in light of legal requirements, and provides examples of better practice.

4.15   The Australian Government has indicated that it expects its departments and agencies to demonstrate leadership in the processes by which economic, social and environmental goals are integrated.[5] The annual reports of agencies are the key mechanism for determining environmental performance and contribution to ESD against the Australian Government's goals.

4.16   The Australian National Audit Office (ANAO) surveyed 44 agencies and examined the annual reports of 20 agencies for 2000-01. The audit found that the quality of Commonwealth reporting undertaken to date was satisfactory, given the timeframes involved. Activity was underway in relation to the establishment of ESD strategies at most agencies surveyed. Only four of the agencies surveyed considered that their activities had no relevance to ESD. Most agencies surveyed (86 per cent) had policies or other measures in place to minimise their impacts on the environment. There was also evidence across most agencies that further work was being undertaken to enhance the effectiveness of environmental policies in agencies. Airservices Australia, Defence and CSIRO were identified as having implemented good practice environmental management strategies. The report also noted that there was scope for improvement to meet Australian

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5   The Hon. Peter Costello, 'Terms of Reference', in: '*Implementation of Ecologically Sustainable Development by Commonwealth Departments and Agencies*', Productivity Commission Report No. 5, 25 May 1999, p. v.

Government ESD objectives. However, they did note that in spite of the Australian Government's 10-year commitment to ESD and the more recent requirement for departments and agencies to report annually on their contributions, many agencies remain focused solely on the impact of their operations on the natural environment.

4.17   The ANAO report also comments that most departments and agencies are still developing appropriate management and reporting frameworks, including performance indicators, for effective monitoring and reporting. As a consequence, there is considerable scope for improvement in relation to the quality of departments' and agencies' annual reports – especially in relation to compliance with the EPBC Act and articulating agencies' contribution to broader ESD outcomes.

4.18   DEH currently provides guidance to departments and agencies on how to comply with ESD reporting requirements.

4.19   Generally, departments and agencies are yet to come to terms with the broader implications of ESD, its relevance to their operations and the responsibility of departments and agencies to incorporate ESD into all business practices. The view that ESD is not relevant to non-environmental departments' and agencies' operations is widely held, and the audit report comments that this will need to be addressed by DEH in moving the Australian Government's ESD agenda forward.

4.20   The Committee endorses the findings of the audit report that DEH has a key role to play in terms of assisting departments and agencies to improve the quality of their ESD reports. While the advice and guidance that DEH currently provides is well regarded, the Committee reiterates the leadership role which the Australian Government and its departments and agencies must play in implementing ESD. To demonstrate this leadership, the Committee regards Australian Government department and agency ESD compliance as a high priority.

4.21   The Committee suggests that DEH provide further guidance and practical tools on ESD reporting for Australian Government departments and agencies. Additionally, the Committee strongly recommends that there be greater scrutiny of Australian Government departments and agencies in their compliance with and movement towards ESD implementation and reporting. If community expectations are for industry to display a greater corporate responsibility and accountability, then it is imperative that Australian

Government departments and agencies are similarly accountable for the environmental impact of their operations.

4.22   The Committee strongly supports the need for Australian Government departments and agencies to demonstrate an active commitment to ESD though leadership in public reporting. Currently ESD reporting is sporadic, lacks standardisation and the compliance rates suggest it is not prioritised by departments and agencies. This situation should be remedied.

4.23   Taking into account the ANAO findings, the Committee suggests that responsibility for guidance on ESD rests with DEH. However it is the recommendation of the Committee that individual departments and agencies be held more accountable for their own ESD performance and reporting compliance.

Recommendation 5

4.24   **The Committee recommends that:**

- **The Australian Government commit to achieving full compliance for reporting on ecologically sustainable development from all Australian Government departments and agencies by 2005;**

- **The Australian Public Service Commission report annually on the ecologically sustainable development compliance and reporting levels of Australian Government departments and agencies; and**

- **Ecologically sustainable development performance and reporting compliance be a key performance indicator for Senior Commonwealth agency and department staff.**

Australian Government Department and Agency Purchasing

4.25   Australian Government procurement can provide significant leverage in establishing a viable domestic market for environmental goods and services, and demonstrating better environmental accountability across a broad range of goods and services.

4.26   Through its policies and operations, the Australian Government has annual outlays of approximately $150 billion, which accounts for 21.5 per cent of Gross Domestic Product.[6]

4.27   EBA presented evidence to the Committee concerning the need for Australian Government leadership in ESD. EBA suggested that government procurement could leverage growth in the environment industry and provide employment opportunities while contributing to better national environmental outcomes.

4.28   EBA noted that all three levels of government have substantial investment and procurement reach. The Association recommended that further investigation be undertaken:

> … to measure the current sustainability of procurement and investment practices and to gauge how these could be improved with greater uptake of environment industry goods and services. EBA believes that a major revision in this area would provide outstanding opportunities for industry growth, employment, better health, improved value-adding, and will also encourage investment in the things we want as a nation (clean air, good agricultural practice, clean water, state of the art waste-resources treatment) as well as stronger long-term sustainability.[7]

4.29   The Barton Group and the EIA commented on the role that the Australian Government can play in directing procurement toward eco-efficiency. Their submission recommended the establishment of a training framework to raise awareness about eco-efficiency principles in Australian Government departments and agencies, and the importance of ESD principles in responsible public procurement. The submission noted that:

> Leadership in procurement is flowing from public sector, but skills need to be developed and made available in agencies to ensure an appropriate and disciplined approach to implementation of eco-efficiency. Such a process can be expected to have a flow-on effect to the private sector.[8]

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6   Minister for Environment and Heritage, '*Investing in our Natural and Cultural Heritage: Commonwealth Environment Expenditure 2001-02*', 22 May 2001, p. 36.

7   Submission no. 34, p. 264.

8   Submission no. 10, p. 42.

4.30   The submission also noted the importance of promoting TBL reporting to Australian Government departments and agencies, commenting that 'considerable training and job development is needed to enable TBL reporting to deliver on its potential management benefits'.[9]

4.31   Similarly the CCF suggested that an impediment to growth in the environment industry is a lack of leadership from governments at different levels. The CCF described:

> … an apparent unwillingness by some State governments and government departments to require higher environmental standards and compliance for their own goods and services.

> Also CCF is of the opinion that State governments could be doing more to reduce the volume of potential recyclable materials going to waste depots.

> Encouraging or even mandating such policies would create substantial employment opportunities.[10]

4.32   CCF also put forward to the Committee strong views regarding the need for policies on Australian Government procurement and suggested that government tendering processes should require contractors to be environmentally accredited (CCF has developed its own accredited management system, based on ISO Standards).

4.33   CCF put forward the case that the Australian Government wields considerable purchasing power and so its choices significantly influence the market. For sustainability and environmental accountability to take centre stage, Australian Government departments and agencies must exert their influence in the marketplace. Speaking to the Committee at a public hearing, CCF stated that:

> We are asking for the government of the day to encourage all its departments, either through direction or stronger encouragement, to adopt these qualifications, to recognise them and make them a part of their tendering process. That is the logical first step.

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9   Submission no. 10, p. 42.
10   Submission no. 11, p. 45.

> If a potential client is quite open in saying, 'We will only deal with accredited people', then people will go out and get the accreditation. That has the automatic effect of lifting the standard, lifting the bar everywhere. At this stage we have only been dealing with departments and the authorities, and so forth, and we have had some quite reasonable success in doing that, in lifting the bar.[11]

4.34   Taking Australian Government purchasing policies further down the sustainability path requires significant shifts and also a degree of education for departments and agencies and for the public who demand 'value for money' from government initiatives. It is often difficult to quantify this 'value for money' when externalities such as sustainability and environmental impacts are being taken into consideration. It can be tempting to opt for the 'low cost and immediate gain' type of decision. However, as the CCF noted, 'The lowest price is not always the most cost effective in the long term'.[12]

4.35   The Committee recognises the need to both keep pace with public expectation *and* provide leadership along the path to sustainable development. EBA addressed this 'balancing act' in its statement to the Committee:

> There is going to be consumer reaction in several different ways in the short term. But that is the fundamental importance of government being able to bring the future home so that it matters here now. It takes bravery and it is a bit tough in the six months running up to an election but, with a broad enough education campaign, people are sophisticated enough nowadays to understand that we cannot continue along the path that we have carved out. People see dust storms blowing our topsoil here, there and everywhere, they see that droughts and bushfires are on the increase and they know that something is wrong. But they are not being given the chance to address that; they are not feeling empowered enough to be a driving force. That is the glue that government can really bring to this whole thing— education that, without being preachy, educates.[13]

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11   *Transcript of Evidence*, p. 104.
12   *Transcript of Evidence*, p. 104.
13   *Transcript of Evidence*, p. 177.

4.36   Further evidence presented to the Committee suggested that Australian Governmental procurement purchasing policy should also provide leadership in ensuring that the cost of externalities is incorporated into procurement policies. To this end, life cycle costing or ecological foot-printing techniques were suggested by several witnesses.

4.37   A similar recommendation was made in the PMSEIC report, *Australia's Sustainable Competitiveness*, which stated that:

> Government purchasing policy should incorporate sustainability criteria including life-cycle costing, to reward adopters of sustainability.[14]

4.38   The issue of Australian Government procurement policies and guidance was also examined in the 2003 audit report on ESD reporting. The report notes that:

> … at the time of the audit, no specific advice was available to purchasing officers in relation to implementing the updated environmental requirements.[15]

4.39   The audit report also comments on current procurement policies and the need for further guidance, adding that:

> … only seven of 44 agencies surveyed had implemented ESD clauses as standard practice for contracts. Only six of the 44 agencies surveyed had implemented green procurement training for relevant staff.[16]

4.40   The Committee concurs with the need for further guidance and a move toward incorporating ESD into standard procurement practices. The Committee was informed by DEH that Voluntary Environmental Purchasing Tools are being prepared by DEH and the Australian Greenhouse Office (AGO). A draft *Environmental Purchasing Guide* has been developed in conjunction with a series of 15 draft checklists. An issues paper on *Environmental Purchasing by the Australian Government*

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14   PMSEIC (2002), Australian Industry's Sustainable Competitiveness, www.dest.gov.au/science/pmseic, last accessed June 2003.

15   ANAO (2002-03), *Annual Reporting on Ecologically Sustainable Development*, Report No. 41, p. 9.

16   ANAO (2002-03), *Annual Reporting on Ecologically Sustainable Development*, Report No. 41, 2002-03, p. 9.

was released earlier in 2003.[17] These papers are available for public comment.

4.41   The Environmental Purchasing issues paper outlines the policy and legislative context for environment considerations and public purchasing. 'Value for Money' is the core principle governing Australian Government procurement, supported by the four principles of:

■ Efficiency and Effectiveness;

■ Accountability and Transparency;

■ Ethics; and

■ Industry Development.

4.42   All Australian Government department and agency procurement decisions are also governed by the *Australian Government Procurement Guidelines and Best Practice Guidance*, which provide the policy framework. The procurement guidelines specifically refer to energy and environment policies as issues to be taken into account, where appropriate, in determining the comparative 'Value for Money' of competing goods or services.

4.43   The goal of the *Environmental Purchasing Guide and Checklists* is to provide comprehensive advice on Australian Government environmental policies and energy considerations to aid in determining procurement decisions that represent value for money across the four principles. The checklists go to such specificities as building management services, cleaning, fax machines, task lighting, waste management, recycling and personal computers.

4.44   The Committee considers it appropriate that the *Environmental Purchasing Guide* is voluntary at this stage. Nonetheless, if sustainability is to be expected of industry, then Australian Government procurement and purchasing decisions must take seriously the importance of making decisions in the long-term and sustainable public good – that is, incorporating ESD into purchasing decisions must become standard practice for Australian Government departments and agencies, rather than a voluntary consideration.

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17   www.ea.gov.au/industry/sustainable/greening-govt/consult.html, last accessed 19 May 2003.

4.45   Australian Government leadership should be demonstrated by
        ensuring that environmental considerations are an integral element of
        purchasing decisions and that, as far as possible, the Australian
        Government procurement budget assists in establishing a market
        demand for environmentally friendly goods, hence contributing to
        economies of scale and reducing unit costs.

4.46   To this end, the Committee believes that it should be mandatory for
        environmental purchasing guidelines to be incorporated into the
        procurement decision for all Australian Government departments
        and agencies.

Recommendation 6

4.47   **The Committee recommends that the Australian Government make
        mandatory the use of Environmental Purchasing Guidelines for the
        procurement decisions of all Australian Government departments and
        agencies.**

National Environmental Accounting

4.48   The Committee notes that there are already a number of ways in
        which businesses and the Australian Government can take
        environmental impact into account in decision making. The EIAA
        highlighted the following six complementary actions that will assist
        with assessing the environmental impact:

        ■ Environmental accounting;

        ■ ABS data collection;

        ■ TBL and environmental reporting;

        ■ Sustainability indicators;

        ■ SRI indexes; and

        ■ Environmental standards.

4.49   Environmental accounting aims to include or link environmental
        costs and benefits to National Accounts. The ABS provides a range of
        environmental accounting measures for Australia, of which two in
        particular attempt to rectify the absence of environmental factors in
        the National Accounts.

> The ABS has developed a number of physical natural
> resource accounts that are in effect satellites of the National
> Accounts …The natural resource accounts show stocks and
> flows of natural resources. They enable ratios between
> physical and economic/financial data to be calculated. They
> include accounts for energy, minerals, water and fish.[18]

4.50   In addition, the EIAA also discusses the national balance sheets:

> …which are part of the National Accounts, now take into
> account natural assets that provide economic returns (such as
> land, subsoil asset, livestock and timber that has economic
> value).[19]

4.51   The submission to the inquiry from the South Australian Government
raised the issue of national TBL reporting. The submission suggested
investigation of ecological footprinting as a method for incorporating
environmental concepts and accounting into wealth assessments and
policy decision making. The ecological footprint technique is a:

> … method for comparing the sustainability of resource use
> among different populations. The consumption of these
> populations is converted into a single index: the land area
> needed to sustain that population indefinitely…
> Unsustainable populations are simply populations with a
> higher ecological footprint than available land.[20]

4.52   The submission proposed that the ecological footprint technique:

> … enables an understanding of sustainability in a way that is
> measurable, intuitive and grounded within ecological realties.
> Because the Footprint is an accounting tool based on physical
> rather than monetary data, it provides crucial information
> pertaining to resource use and ecological limits which is
> absent from conventional analysis.[21]

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18   ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability*, p. 32.

19   ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability*, p. 34.

20   Lenzen, M. and Murray, S. (2003), *The Ecological Footprint – Issues and Trends*, ISA
Research Paper 01-03 University of Sydney, www.isa.org.usyd.edu.au, last accessed
5 November 2003, p. 5.

21   Submission no. 32, p. 246.

4.53   The South Australian Government noted that 'Businesses who do not take steps to reduce their Footprint and improve eco-efficiency are potentially exposing themselves, and consequently their shareholders, to economic risk'.[22] The submission also noted that the footprint technique has featured in several international studies, such as the report *Ecological Footprint Analysis: Towards a Sustainability Indicator for Business*, which was commissioned by the United Kingdom Association of Chartered Certified Accountants.

4.54   The South Australian Government submission suggested the addition of the ecological footprint to the Australian Government accounting and reporting measures. The submission commented that:

> The assessment of monetary indicators alongside biophysical indicators can provide the foundations for a Australian Government Triple Bottom Line report where the interaction between these variables can be utilised in the sustainability policy formulation and assessment process. A National Ecological Footprint report would clearly link ecological capacity and human consumption and would provide a more comprehensive assessment of national wealth and prosperity in the national accounts.[23]

4.55   The Committee agrees with this comment and with the long term benefits of implementing some form of ecological accounting.

4.56   The South Australian Government submission recommended that:

> … Governments work together on meaningful and measurable criteria and, in particular, that the Australian Government:
>
> ■ Further investigate the merits of incorporating Ecological Footprint concepts into the national State of the Environment Report and in national accounts (such as a counterbalance to Gross Domestic Product in assessment of national wealth and prosperity);
>
> ■ Encourage other sectors and other governments to investigate the merits of Ecological Footprint as a decisions/policy making tool and its applicability to Triple Bottom Line reporting.[24]

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22   Submission no. 32, p. 247.
23   Submission no. 32, p. 247.
24   Submission no. 32, p. 232.

4.57   The Committee supports the concept of an ecological footprint measure and understands that the technique remains in development. When progressed further, the application of an ecological footprint measurement should be assessed, and it may at that time make a useful contribution to national accounting.

4.58   To date, Australia's progress in ESD is sporadic and dispersed. At this stage, the Committee sees that more value is to be gained from promoting the implementation of ESD across businesses, governments and communities. The Committee sees greater value in strengthening the established reporting processes and expanding the initiatives which are already achieving outcomes.

Australian Government and Local Government Partnerships

4.59   DEH provided evidence on the expanding role of local governments in administering environmental protection measures and providing local level leadership on ESD. Local governments are now required to provide services such as recycling, energy efficiency initiatives, and implementation of revegetation and biodiversity conservation. The DEH submission noted that in 1999-2000, local governments spent $2.5 billion on environmental protection.[25]

4.60   The Committee recognises the importance of local government as the initiator of action at a local level. Many 'mainstream' positions in local government have a strong environmental focus and the expansion of local government responsibilities for ESD is generating employment opportunities in these fields. The Committee is also aware of the diversity of environmental issues facing different local governments and the challenge of finding the resources and retaining the skilled personnel to address these issues.

4.61   The Australian Government is responsible for setting national policy frameworks and demonstrating leadership in ESD to industry and other levels of government. Leadership and facilitative assistance is particularly important for local governments which are increasingly assuming responsibility for environmental management and sustainable development. In many instances, they are the 'front-line' implementation of ESD. Local governments also face particular issues of economies of scale and limited resources.

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25   Submission no. 26, p. 196.

4.62   There is a role for Australian Government departments and agencies to provide assistance for local governments to develop expertise, network and share information and resources. The Committee is aware that DEH does currently manage various programs with local governments to assist in the implementation of ESD and, in this regard, DEH provides an important facilitative role.

4.63   The Local Agenda 21 program assists local governments to integrate environmental, social and economic objectives. The Local Agenda 21 was developed from the global blueprint for sustainability that was agreed at the United Nations Conference on Environment and Development in 1992 (the Rio Earth Summit). It identifies local authorities as the sphere of governance closest to the people, and provides a framework for local authorities to consult with their communities and develop and implement a local plan for sustainability. The program aims to build upon existing local government strategies and resources (such as corporate plans, vegetation management plans, and transport strategies) to better integrate environmental, economic and social goals.

4.64   Although developed in 1992, the Local Agenda 21 program is active in Australia and continues to provide the principles for sustainable development at the local government level. DEH provides a number of guides to assist local government authorities in the implementation of the Local Agenda 21 program. The Australian Government is also developing a national framework of milestones for local governments to measure the implementation of Local Agenda 21.

4.65   The national framework will assist local governments to systematically assess their progress towards sustainability. Consultation during the development of the draft framework suggested that there was local government support for this initiative.

4.66   DEH recently called for feedback on the proposed Local Sustainability Assessment Framework. The results of this feedback process and the final framework is expected to be available in late 2003.

4.67   DEH also brought to the Committee's attention the Environs initiative which aims to foster better cooperation and share information across local governments. DEH explained that:

> … there is a so-called local government environment network called Environs based in Melbourne to which local governments around the country can subscribe. It is unrelated to their membership of the Australian Local

> Government Association but, where any sized local
> government authority wants to buy in, Environs acts as a
> facilitator, a provider of information and an arranger of some
> cooperative activities between multiple local governments.[26]

Environment Resource Officer Scheme

4.68   DEH gave evidence to the Committee that:

> … the Department of Environment and Heritage has had a
> program of environmental cooperation with local
> government. In a concrete sense, perhaps the most visible
> form of that at the moment is funding of what we call
> 'environmental resource officers' in the relevant state-local
> government associations in each state. Each of those officers
> has a responsibility to act as a facilitator and a coordinator of
> action within the state, as the disseminator of information and
> particularly as a bridge between the national and local levels
> of government.[27]

4.69   The Environmental Resource Officer (ERO) Scheme places dedicated
officers in the peak local government associations in each State and
the Australian Local Government Association, to assist councils to
better manage their local environments, especially through improved
take-up of Australian Government programs.

4.70   The ERO Scheme was established in 1993 to assist in delivery of
Australian Government environmental programs and policy
information at the local level, creating an Australian Government -
local government linkage.

4.71   There are currently eight EROs. One officer is employed in the peak
Local Government Association of each State and the Northern
Territory. One national ERO is employed by the Australian Local
Government Association. The objectives of the Scheme are to:

■   Facilitate the delivery of Australian Government environmental
programs to local governments;

■   Improve the environmental management performance of local
governments;

■   Provide local governments with information about DEH policies
and programs; and

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26   *Transcript of Evidence*, p. 69.
27   *Transcript of Evidence*, pp. 68-69.

- Facilitate the development of strategic partnerships between DEH, local governments and regional bodies.

4.72   The ERO scheme was funded until 30 June 2003. The Committee is of the view that work with local governments is important to provide 'on the ground' local initiatives and to ensure a unified approach to ESD from all levels of government. The Committee supports the work being done and is pleased to note that ERO funding was extended in the 2003-04 Australian Government Budget. The Committee supports the continuation of this funding into future years.

5

Marketing the Environment Industry

5.1   Raising market awareness of environmental technologies and
        enabling differentiation of goods based on environmental
        performance can provide a strong impetus for shifting business
        practices towards ESD. For businesses to make this shift, they require
        access to the technologies, innovation and information that will
        improve environmental performance.

5.2   The Committee considers that marketing the environment industry,
        and the goods and services it has to offer, is key to achieving more
        widespread and integrated ESD across all sectors.

5.3   Initiatives such as the EIAA and the Renewable Energy Action
        Agenda (REAA) have developed long-term strategies for expanding
        domestic and export markets. There is strong industry involvement in
        and commitment to these processes. Both Action Agendas have set
        ambitious future growth targets and achievement of these targets is
        likely to result in increased employment opportunities in the
        environment industry.

5.4   Issues of market information failure were raised in the context of both
        Action Agendas and recommendations have been agreed which
        address aspects of marketing the industries. These Action Agenda
        recommendations are in the process of implementation.

5.5   From evidence presented, the Committee sees scope to build on some of the recommendations of the Action Agendas and to introduce new initiatives to strengthen the marketing of the environmental goods and services industry in Australia. Issues considered by the Committee include:

- The consolidation of information on Australian environmental capability and the verification of new technologies; and

- Enhancing industry marketing to consumers through more informative labelling.

5.6   The issues of capability information and marketing apply to the renewable energy industry as well as the broader environmental goods and services industry. However, the renewable energy industry also faces more specific growth challenges. These are considered in Chapter 6 'Marketing Renewable Energy'.

The Environment Industry Action Agenda

5.7   The EIAA was released in September 2001. It sets out 18 industry and Australian Government agreed recommendations to assist the environment industry achieve its vision:

> … to add value to all Australian business by enabling competitive outcomes, and in the process build an environment industry with annual sales exceeding $40 billion by 2011.[1]

5.8   The Action Agenda is driven by an overarching theme of 'capturing the high ground', which is supported by the following four key strategic themes:

- Valuing and pricing the environment – covering actions designed to improve business and consumer understanding of the value of the environment, and to enable markets to better take account of environmental factors;

- Building markets and competitiveness – action that will increase the competitiveness of the industry, promote competition and remove unnecessary regulatory impediments and compliance costs;

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1   ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability*, p. 8.

- Innovation – actions focussing on innovation to create additional competitive advantage for the environment industry; and

- Marketing the industry – actions seeking to expand demand for environment goods and services by encouraging management by consumers and investors, and by directly promoting the capabilities of the environment industry.[2]

Capability Directories

5.9   Fragmentation of the environment industry was an issue identified in the EIAA and continues to impede networking and marketing opportunities for the sector. A consequence of this fragmentation is duplication of some resources and a lack of accessible information in other areas. This is particularly apparent in the case of capability databases and directories.

5.10   ITR advised the Committee that the industry faces a number of potential barriers and amongst these:

> The ones which seem to be most prominent … would be the structure of the industry in terms of it being predominantly made up of small and medium sized enterprises and where the largest organisations tend to be government owned corporations, such as Sydney Water and so on, which naturally have a focus closer to home and on the management of their particular territory rather than on, say, exporting. The structure of an industry with a very high SME content is one difficulty for the industry.[3]

5.11   The environmental goods and services sector is driven by innovation. Changing regulations and expectations are demanding new solutions to deal with problems of waste or to improve efficiency. Often there is a need for solutions to be tailored to company specifications, rather than purchased off the shelf.

5.12   A further challenge for the environment industry is the demand for goods and services which often originates from companies who are unfamiliar with regulatory requirements or solutions. So clients are potentially seeking information as well as environmental solutions.

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2   ISR (2002), *Environment Industry Action Agenda: First Year Implementation report*, p. 8.

3   *Transcript of Evidence*, p. 21.

5.13   In the context of a sector reliant on high levels of innovation and dominated by SMEs, information networking and technology diffusion are key to growing the industry.

5.14   The EIAA discussion paper noted that the environment industry faces a number of challenges, including market information failure. The report stated that:

> The diffuse nature of both the demand and supply sides of the environment industry across all sectors of the economy and the weak value chain linkages between them constitute market information failure. The environment [industry] is also characterised by market failure due to significant externalities and its public good nature.[4]

5.15   The discussion paper identified industry development, rather than enhanced research and development, as the primary requirement for the Australian environment industry to capitalise on this competitive advantage.

5.16   Given the challenges faced by the sector, the Committee was impressed at the initiatives of industry organisations and Australian Government departments and agencies to utilise information technology in promoting industry capability.

5.17   Currently there are a number of databases and capability directories for the environment industry. These include:

- Environment Australia's EnviroNET – an on-line industry expertise database detailing Australian companies and government organisations which provides technologies, instrumentation, monitoring equipment, and consulting services relating to environmental issues and problems (www.environet.ea.gov.au);

- The EIDN's Environment Directory - an online national database of Australian environmental technologies, products and services for which companies pay a fee to list online (www.environmentdirectory.com.au); and

- EBA promotes industry capability through their website (www.environmentbusiness.com.au).

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4   ISR (2001), *Environment Industry Action Agenda: Investing In Sustainability Discussion Paper*, p. 29.

5.18   There are also a number of online services and directories maintained by industry associations or agencies dealing with segments of the environment industry. Examples of these include:

- The CCF maintains a listing of providers of environmental goods and services which are relevant to its operators;

- The South Australia Water Industry Alliance website promotes the capabilities and technologies of this sector; and

- The South Australia Environment Protection Authority has assisted in the development of a CD-ROM database of Environmental Consultants.

5.19   Some more generic databases, which are not specific to the environment industry, also promote supplier capabilities. These databases include:

- The Austrade Suppliers Database (www.austrade.gov.au); and

- The Industrial Supplies Office Network (often referred to as ISOnet) - a State-based network established to assist purchasers identify the supply capability of local manufacturers and service providers.

5.20   In its submission, the CCF noted the existence of some of these databases, and highlighted the usefulness of consolidating this information into a more centralised form:

> A register of goods and services available could be useful not only to the end users but to the contractors seeking better methods for doing the work now being tendered. While there are some existing commercial listings, there may be scope for a more consolidated on-line service.[5]

5.21   At a public hearing, the CCF expanded on this view and the particular importance of a technology database to harness and build on innovative environmental solutions:

> Obviously, for a piece of machinery or a well-accepted practice, you can have an off-the-shelf solution in terms of environment control or anything like that. But, if you are talking about remediating a situation like the 150-year-old quarry that we looked at in Cairns a couple of years ago … you do not find off-the-shelf solutions; you come up with

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5   Submission no. 11, p. 3.

> some innovative thinking and those sorts of things ... But
> there needs to be some way of creating an archive of that
> material and having it readily accessible. We have the ability
> to deliver it. I am not sure that at the moment we have the
> ability to collate it all.[6]

5.22   The submission from the Western Australian Department of Premier and Cabinet also noted the importance of appropriate and centralised marketing to overcome the difficulties of a diverse client base and an industry structure dominated by SMEs. The Department commented that:

> Obtaining information on overseas export opportunities may
> be subject to market failure through 'information asymmetry'
> – where information exists but accessing that information is
> prohibitively expensive for SMEs. Again, one solution to this
> impediment may be the development of coordinated
> marketing information on businesses opportunities that can
> be shared by Australian companies.[7]

5.23   The issue of multiple capability directories and databases on the Australian environment industry was considered in the development of the EIAA. The Action Agenda report noted the value of the internet in promoting environment businesses and the extensive use already being made of e-commerce and showcasing opportunities. However the EIAA report also noted with concern that:

> … the existence of multiple sites, all claiming to show-case
> the capabilities of the environment industry can actually
> create confusion in the minds of potential buyers seeking
> information on Australian capabilities – a case of information
> overload defeating the original marketing intent.
>
> The situation could be improved by:
>
> ■ The creation of a single 'environment industry portal'
>   which acts as an entry point with links to the various sites
>   already in existence; and

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6   *Transcript of Evidence*, p. 105.
7   Submission no. 22, p. 4.

■ Consultation between the operators of the existing web-sites with a view to agreeing to jointly promote the environment industry portal, as well as their own site, and to review arrangements for achieving the most effective and efficient marketing outcome for the environment industry with the resources currently employed by the various operators.[8]

5.24 This finding was addressed in recommendation 14d of the EIAA, which stated that:

> Industry to more actively market the Australian environment industry, in particular by promoting its capabilities and success stories. This should include (but not be limited to): …
>
> ■ Reviewing current environment industry internet marketing and databases with the aim of developing a more coordinated and customer focussed approach, including a common entry point.[9]

5.25 Industry and the Australian Government share joint responsibility for implementation of this recommendation. The recommendation is scheduled for implementation in 2003.

5.26 The Committee agrees with the recommendation of the EIAA and the aim of developing a more coordinated and consolidated approach to marketing industry capabilities.

5.27 The Committee considers that a central website listing Australian environment industry capabilities should be available. It may be appropriate to locate within this centralised site access to other more specialised databases which are then maintained by the relevant industry organisation or similar. However, a single portal is vital if the industry is to overcome the difficulties of fragmentation and definition.

5.28 The Committee considers that consolidating the existing listings and establishing a comprehensive database of environmental goods and services is a priority. The Committee also considers that this single portal and a consolidated database should also include information on innovative and verified environmental technologies.

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8 ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability*, p. 48.

9 ISR (2001), *Environment Industry Action Agenda: Investing in Sustainability*, p. 50.

Innovation and Verification of Technologies

5.29   The ability to innovate, commercialise and market new technologies is key to developing supply of and demand for environmental goods and services. This is supported by the conclusions of a 1996 OECD report which found that the two of the principal competitive advantages of the environment industry derive from:

- Technological innovation (it has been estimated that 50 per cent of the environmental goods which will be used in fifteen years do not currently exist);
- Quality and service performance (the ability to adapt products to client needs and capability to produce effective and easily managed products).[10]

5.30   The Committee heard evidence from organisations regarding opportunities and funding available for commercialisation of new technologies. Australian Superconductors are developing technology to reduce energy loss during electricity transmission and distribution. The business is seeking to develop an engineering prototype in the electricity grid and has struggled to access funding grants appropriate to the project, claiming that:

> … the feedback we receive is that funding is being targeted to renewable generation (and not energy efficiency) or at fossil fuel industries (and not new technology) because of a perceived lower-risk profile.[11]

5.31   The IEAust also expressed concern that the Australian Government was not adequately funding SMEs in start-up and development grants. IEAust noted that funding for the AusIndustry START R&D grants had been suspended at one time, commenting that:

> Although AusIndustry has stated that the program will continue, the IEAust believes that more funding is required to ensure that the R&D START program is not suspended in the future.[12]

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10   ISR (2000), *Environment Industry Action Agenda: Investing in Sustainability Discussion Paper*, p. 25.

11   Submission no. 6, p. 2.

12   Submission no. 21, pp. 3-4.

5.32 The IEAust also cited evidence from the OECD on environmental R&D in government budgets, revealing that R&D in Australia's environment sector grew by only 0.2 per cent during 1991-99. In comparison, other developed nations recorded a significantly stronger growth rate over the same period. For example, Canada recorded 10.3 per cent, Ireland 13.7 per cent and Italy 12.2 per cent.[13]

5.33 The IEAust view regarding the lack of start-up and development grants was not shared by the EIDN. In its submission to the inquiry, the EIDN identified issues of market information and promotion as critical to the development of the sector. The EIDN suggested that the commercialisation of new technologies was not an issue for the sector as Australian Government assistance programs were enabling companies to overcome this hurdle. The EIDN stated that:

> Being very objective about it, the federal government has initiated many programs to try to assist in this way. I would refer to the COMET program, the Commercialisation of Emerging Technologies program, which was established by AusIndustry. I cannot imagine that anything more could be done.[14]

5.34 ITR presented evidence to the Committee regarding the key role that innovation plays in industry development and in the environment industry in particular. In relation to access to funds for innovation and commercialisation, the ITR presented evidence that the environment industry was well served and did not identify this as an impediment to industry growth. Representatives from ITR stated that:

> … innovation is a large part of our department's focus. From my experience, environment and renewable energy related technologies have been getting a good hearing or getting their fair share, if you like, of the program money going out through innovation programs.[15]

5.35 In addition to the need for a consolidated capability directory, an associated issue is the lack of access to aggregated and verified information on new technology and environmental solutions which have been independently certified or trialled by other companies.

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13 Submission no. 21, p. 3.
14 *Transcript of Evidence*, p. 4.
15 *Transcript of Evidence*, p. 23.

5.36   The driver for this online database of environmental companies comes from the need for companies to seek tailored responses. The EIDN stated that:

> With a lot of these environmental problems, there is no packaged solution.
>
> Companies in such industries as mining, agriculture and food all have someone in their organisation that is responsible for minimising waste and solving environmental problems. Those people are scratching around to find out what is out there.[16]

5.37   The EIDN commented that it would be useful to have a system that was able to provide solutions more directly, but that there were not the resources to do this. The EIDN stated that at present such requests for assistance are passed onto companies who may or may not be able to provide the most up-to-date- technologies or solutions. However, if there were more resources, the EIDN stated that a more pro-active system could be implemented. They went on to note that in the environmental goods and services sector:

> We do need more focus. Perhaps the Barton Group will look to their outcomes. It does need more of a focal point. Obviously, we are trying to help provide that by providing a cohesive package of such information systems as our directories, together with activities such as marketing offshore. Yes, it is about trying to get a bit more cohesion there.[17]

5.38   The EIDN identified one of the major impediments to local and international uptake of Australian environmental goods and services as 'difficulties experienced by potential purchasers in identifying those goods/services and evaluating vendors'.[18] They noted that 'growth of the overall industry and individual enterprises has also been inhibited by limited opportunities for exchange of information regarding technology applications'.[19]

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16   *Transcript of Evidence*, pp. 12-13.
17   *Transcript of Evidence*, pp. 12-13.
18   Submission no. 4, p. 2.
19   Submission no. 4, p. 2.

5.39   A central function of the EIDN is to facilitate networking across the
        environmental goods and service sector. Key to this function are a
        number of technology diffusion workshops and seminars run across
        Australia on innovation developments and trade opportunities, and
        also the development and maintenance of the Environment Directory
        database. This is a free online resource giving information on
        Australian environment businesses to domestic and international
        clients.

5.40   The EIDN, in its submission to the inquiry, identified 'access by
        overseas markets to aggregated information about Australian
        environmental goods and services' as one of three key needs.[20] The
        submission also noted that opportunities for increased
        competitiveness in the Australian environment sector exist through
        'mechanisms that enable overseas buyers and agents to readily
        identify what Australia (and individual businesses) have to offer'.[21]

5.41   In its submission, the EIDN noted that the Environment Directory
        initiative:

        ■ Underpins the Barton Group Task Force on Clusters,
          Partnerships and Networks to better link suppliers and
          buyers of environmental goods and services; and
        ■ Links business with research bodies and government
          agencies across Australia, in contrast to guides or other
          resources that have a State-only coverage.[22]

5.42   The EIDN gave evidence in their submission that the online
        Environment Directory is used by a range of organisations, agencies
        and individuals and that it has resulted in significant business for
        Australian enterprises in local and overseas markets. Data on business
        opportunities which may have been facilitated by the Centre's
        directory are not available. However the Committee believes that, if
        the directory is functioning as a vital promotional tool for Australian
        environmental industries in both domestic and international markets,
        then credibility is a crucial issue.

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20   Submission no. 4, p. 7.
21   Submission no. 4, p. 6.
22   Submission no. 4, p. 3.

5.43   While no filters are in place on the Directory and it operates on the 'caveat emptor' principle, there is a risk that damage is done to the broader environmental sector in Australia if disreputable businesses or unproven technologies are accessed through this site. It is the view of the Committee that the work done by the EIDN in establishing the directory is commendable, however an expansion or aggregation of the directories which are in operation should address issues of verification and credibility if these directories are to become an important tool in marketing and supplying environmental goods and services.

5.44   The EIA gave evidence to the Committee regarding the need for access to a consolidated directory of suppliers, and the importance of ensuring that the products and services listed on such a site have been verified and can deliver outcomes to purchasers. The EIA acknowledged that:

> … the more information available to people, the better. The more information you have, the better your outcome or decision is going to be. But in doing that, supplying that data to them, there needs to be a verification of that data, of the product and accountability for it. So if you are going to list it, it should go through a rigorous review for it to actually be listed. I can open up my directory and see these three suppliers. I can be guaranteed that they will do what they say they will do. We have had periods in the environment game where such and such site went and bought this processor because they were told this is what would happen, yet they still have the same environmental outcome today. They have been put off doing anything now because they went down the wrong path, unfortunately. I think there is room for it. As an export industry, that is valued. But we have to have that verification of those services and products.[23]

5.45   Recognising that off the shelf environmental technologies, if available, require tailoring to the particularities of a company's situation and needs, connecting companies with environmental industries able to develop these solutions is an excellent tool for promoting industry and environmental outcomes. It is also an excellent mechanism for promoting Australian expertise into key developing markets, such as the Asia-Pacific region, which represent real opportunities for the industry.

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23   *Transcript of Evidence*, p. 50.

5.46   However, the future success of these ventures and the reputation of Australian technologies, innovation and capability could also be compromised. An additional problem currently experienced is that information is spread across a variety of databases and agencies, which leads to duplication, inefficiencies and spreads thin resources across a wide scope of directories. The Committee is of the view that a centralised portal is essential for sector development. This centralised site should also incorporate some filtering mechanisms that can give credence to the companies and technologies accessed through the site.

5.47   The EIDN gave some evidence to the Committee that this was an issue yet to be addressed within the industry. The EIDN acknowledged a basic matrix took place but no comprehensive evaluation or filtering system was undertaken before companies were listed on the Environment Directory.[24] The EIDN considered that its role in establishing and maintaining the directory was to circulate rather than verify the information:

> That [verification] has been an issue that we have grappled with for many years. We cannot do much, other than take a fairly careful view about it. We have basic filters. The point is that, if somebody is promoting a technology, we simply act as a conduit to that, and that technology or system has to stand or fall because it is very variable.[25]

5.48   One reason for this, the EIDN explained to the Committee, is that many technologies are situational specific and specialist research facilities are required to test and verify new innovations. The EIDN gave evidence that:

> The expertise required for in-depth evaluation of individual products and individual companies, as well as the validation or giving a tick of approval, is a whole new ball game.[26]

5.49   While recognising the diversity and unique nature of many environmental solutions, the Committee also sees scope for a verification system. In conjunction with a consolidated online capability database, the site could provide aggregated information on current innovations. This would assist in disseminating vital information, particularly to SMEs who may lack the resources to fully investigate and trial new environmental technologies otherwise.

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24   *Transcript of Evidence*, p. 6.
25   *Transcript of Evidence*, p. 6.
26   *Transcript of Evidence*, p. 6.

5.50   However, the need for a site of verified technologies and/or a verification program is not a view shared by DEH. A representative from DEH gave evidence that they considered that the existing Trade Practices framework is sufficient to prevent false claims being made regarding environmental solutions:

> I think you heard evidence at a previous hearing from somebody who was suggesting that there may be some need for formal verification, particularly government verification, of the claims made about environmental technologies. This is certainly an area that we have been keeping an eye on. We are very aware of the fact that, in marketing into the Asia-Pacific region, North American companies are able to point to verification of their technologies. We do not see that as such a huge issue for Australian businesses. We are not aware of any examples where Australian companies have not been listened to or have failed to get a contract because they could not point to some sort of government stamp on their technology. Within Australia, the question of environmental technology claims is reasonably adequately catered for by existing provisions in the Trade Practices Act. It is illegal to make false claims about a product you are trying to sell, regardless of what it is.[27]

5.51   However the Committee sees that the purpose of a technology verification program is substantially broader and would serve a more direct national interest than is currently addressed through the Trade Practices Act. The current regime may be 'reasonably adequate' to protect against false claims, as DEH suggests, but its role is to provide purchasers with a legal remedy when a product does not perform as claimed. This type of protection is different from the function of a technology verification program.

5.52   A technology verification program would provide a clear recognition of technologies and their applications, and would promote these technologies and the use of innovative environmental solutions. Given that market awareness is a key issue in the uptake of new environmental innovations and technologies, such a program would assist purchasers to make informed choices and to ascertain not just the available technology, but the most appropriate and advanced technology. Such a program may also assist the Australian environment industry to enter international markets.

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27   *Transcript of Evidence*, p. 62.

5.53   ITR gave evidence to the Committee regarding the lack of technology verification and the difficulties for purchasers in Australia. ITR referred to programs run in Canada and the United States which provide independent verification of environmental technologies:

> … other than in terms of purchasing the equipment and you meeting the existing standards, there is no other verification imposed on people coming into the [Australian] industry. It is typical … in a lot of the organisations which purchase environmental equipment to have panels of accredited suppliers and so on. The difficulty is that sometimes that works against innovation ...

> Typically in Australia you would go to a university or a laboratory or CSIRO or someone like that and they would verify the equipment. You would get a certificate which says 'This technology works' to whatever standard. What these programs provide is a government seal of authority to that and some government funding to that. In the case of the Canadian [environmental technology verification] program, it is heavily subsidised, with just one price for all verifications. In the US EPA it is a little different and a little more comprehensive. They have comparative verifications.[28]

5.54   At a public hearing, EBA noted that a technology verification program provided environmental credibility to products purchased by industry, in a similar manner to the assurances that labelling information provides to consumers:

> … we have been very strongly pushing the concept of environmental technology verification. It runs in Canada and in the United States. With the advent of Internet marketing, it has become even more important because it is very easy for any Tom, Dick or Harry to say, 'I've got the new beaut technology. Trust me: it's fantastic.' There are snake oil salesmen around. There are snake oil salesmen in my industry just as much as in anybody else's industry ... But, if you have a system that really peer-reviews the technology and gives that tick of approval, that can solve that. It is slightly different from eco-labelling, which is more for the consumer product. This is actually about how you rate a sewerage treatment plant or a waste management plant.[29]

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28   *Transcript of Evidence*, p. 29.

29   *Transcript of Evidence*, p. 176.

5.55   After consideration of the evidence put before it, and the potential environmental and economic benefits, the Committee recommends the development of a centralised portal which provides:

- Links to vetted Australian businesses supplying environmental goods and services; and

- Aggregated information on new environmental technologies and innovations, including perhaps testimonials from larger corporations who have trialled these technologies.

5.56   In addition to this centralised portal, the Committee sees value in further investigation of an environmental verification program, similar to those operating in countries such as the United Kingdom and Canada.

5.57   The Committee is impressed by the work of the capability directories, the success of the environment industry in developing a strategic growth plan through the Action Agenda, and the initiatives in terms of export strategies and innovation which are underway. However, the Committee is of the view that any promotion of Australian environment industry capability could result in unintended harm to the industry reputation, the future uptake of environmental technologies and potentially the environment if these directories do not provide credible and verified information. The Committee considers that the lack of filters on current databases put at risk industry credibility and future environmental outcomes.

5.58   The Committee also considers that ensuring the credibility of directory listings is vital to promoting the business uptake of ESD. The credibility of listings is particularly important for SMEs which often lack the resources to trial new technologies or to check claims of improved efficiencies or environmental outcomes. For example, the trialling of electrical energy efficiency technology at Coca-Cola Amatil (at the expense of the service provider and with demonstrable savings to the company).

5.59   The Committee strongly endorses the development of a program to verify environmental technologies and to ensure that the credibility of environment industries, both domestically and internationally is maintained. There are a range of technology verification and best available techniques programs operating around the world and it is the conclusion of the Committee that, if Australia is to make possible ESD for business, then a similar national program should be established.

Recommendation 7

5.60   **The Committee recommends that:**

- **The Australian Government Departments of Environment and Heritage and Industry, Tourism and Resources work with industry groups, such as the Environment Industry Development Network, to establish a single online consolidated database of Australian environmental goods and services. The database should**
  ⇒ **include information on new technologies, tailored solutions and environmental innovations; and**
  ⇒ **incorporate appropriate filters (such as listing referees, examples of usage or warranty information) to verify the information listed; and**
- **The Australian Government Department of Industry Tourism and Resources establish an environmental technology verification program in Australia, to be run in conjunction with the online database of environmental goods and services.**

Voluntary Standards and Environmental Labelling

5.61   Voluntary standards and environmental labelling provide information to potential clients and consumers on production processes and the composition of particular goods. Labelling and standards can provide valuable market differentiation, especially in a climate of increased focus on environmental outcomes and corporate reputation.

Internationally Recognised Environmental Standards

5.62   The Committee was interested to hear evidence from environmental consultants on the application of voluntary international environmental standards and the efficacy of these standards in measuring and rewarding environmental outcomes.

5.63   The most significant and internationally recognised environmental standards are the ISO 14000 series from the ISO. The ISO is a federation of national standards bodies from 100 countries, including Standards Australia.

5.64   The ISO 14000 series relates to the environmental management of goods and services, and cover areas such as:

- Environmental management system certification;

- Environmental performance evaluation;

- Environmental auditing;

- Life cycle assessments; and

- Environmental labelling.

5.65   As of the 31 March 2003, 728 organisations in Australia have been certified and so currently have a fully accredited environmental management system in place.[30]

5.66   ISO 14000 standards are a measure of company environmental performance and production processes, rather than an environmental measure of the product. The Committee notes that, under ISO standards, it is possible to produce an 'environmentally unfriendly' product (that is, one which is polluting and or inefficient). However the environmental impact of the production processes would have been taken into account and improvements made.

5.67   ISO accreditation measures a company against its past performance as a way of encouraging continuous improvement. Each organisation is reassessed and reviewed approximately every three years. The approach of continuous improvement is sound in that it continues to lift the benchmark and so encourages further efficiencies and gains.

5.68   However the Committee was intrigued to hear that no baseline benchmark applies to ISO accreditation; a company has only to improve its environmental performance from the last assessment. The Committee expresses its concern that this lack of initial baseline benchmark undermines the meaningfulness of ISO accreditation. In the most extreme case, it would appear that ISO 14000 accreditation could mean that a company was 'not quite as appalling' in its environmental performance as it had been in preceding years.

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30   www.jas-anz.com.au, last accessed 12 June 2003

5.69   Despite this anomaly, the Committee supports the ISO 14000 series and encourages companies to make use of the standards as tools to promote better management, market differentiation and ultimately to minimise environmental impact.

5.70   To strengthen the value of ISO 14000 accreditation, the Committee believes that it is essential for minimum benchmark performances to be established for all areas of the ISO 14000 standards. These are international standards and the Committee recommends that Australia take the lead in promoting a more meaningful system of ISO environmental accreditation.

Recommendation 8

5.71   **The Committee recommends that Standards Australia pursue with the International Standards Association the establishment of minimum benchmark standards across all areas of the ISO 14000 series.**

Impact of Environmental Concerns on Consumer Purchasing

5.72   An international survey undertaken in 2000 by the Australian *Environmental Monitor* found that, in relation to environmental concerns, 'Australians were already committed and willing to use their spending power to show conviction for a better environment'.[31] The survey also found that:

> 78 per cent of Australians were willing to pay 10 per cent more for green cleaning products; 39 per cent were willing to pay 10 per cent more for green electricity and 61 per cent were avoiding damaging product brands when the information was available.[32]

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31   *Australian Environment Review* (January 2002), Vol 17, no. 1, p. 3.
32   *Australian Environment Review* (January 2002), Vol 17, no. 1, p. 3.

5.73   However, the ABS publication *Environment by Numbers*, released in February 2002, found that Australians have become less concerned about environmental issues. The ABS research also demonstrated that good environmental performance often does not extend to purchasing:

> In 1992, three out of four Australians expressed concern, but this fell to 62 per cent in 2001. The decline was most pronounced among young Australian aged 18 – 24; only 57 per cent expressed concern compared to 79 per cent in 1992.

> Fewer than one in ten people expressing concern about environmental problems registered their concern through action, such as writing letter, telephoning or signing a petition. Of the 8 per cent that did take action, 37 per cent signed a petition, 33 per cent wrote letters, 27 per cent used the telephone and 6 per cent participated in a demonstration.

> Seven per cent of Australians stated that they belonged to an environmental group. In 2001, 20 per cent of Australians donated time or money to environmental protection. In 1992 the figure was over 28 per cent.[33]

5.74   Despite these figures of declining concern over environmental issues, the ABS found evidence of a growing involvement in recycling by Australian households. Household recycling has increased with around 85 per cent of people recycling at least one item of household waste, increasing to 97 per cent of households in 2000 practising at least some recycling. However, only 7 per cent of households did so for all recyclable items.

5.75   It appears that Australian consumers have embraced recycling to a large extent and express a willingness to buy environmentally friendly goods. However, when it comes to purchasing decisions, the ABS data suggests consumer commitment to environmental considerations remains low. A possible reason for this disparity is a lack of information on which to distinguish environmentally friendly goods.

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33   ABS (2002), *Environment by Numbers*, cat no. 4617.0

5.76   Household use of environmentally friendly products (EFPs) has been measured by the ABS. In 2001, the most widely used form of EFPs in Australian households was refillable containers (64.5 per cent), followed by recyclable paper (69.8 per cent). These figures are higher than 1992 levels. However, both figures have also declined from 1998 levels of EFP usage. Similarly, the use of phosphate-free cleaning products was 37.7 per cent in 1992, increasing to 42.5 per cent in 1998 and then declining to 39.5 per cent in 2001.

5.77   The only EFP usage not to decline from 1998 levels is the purchasing of organically grown fruit and vegetables which increased marginally from 39.8 per cent in 1998 to 41.8 per cent in 2001.

5.78   The ABS cites the reasons for households not using EFPs as follows:

> Cost was the single most important factor which prevented households from using EFPs. Over a third of households (37 per cent) which did not use them believed that these products were more expensive to buy. About 4 per cent were not convinced of the environmental benefits.[34]

5.79   While evidence regarding consumer commitment to purchasing environmentally friendly goods remains contradictory, the Committee considers that product differentiation in the marketplace (based on environmental impact and performance) should be encouraged.

Ecolabelling

5.80   An 'ecolabel' identifies preferred products, based on environmental impacts and life cycle considerations. An ecolabel is generally awarded by an impartial third party to products or services which are found to meet established environmental leadership criteria particular to each product category.[35]

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34   ABS (2002), *Environment by Numbers,* cat no. 4617.0
35   Global Ecolabelling Network (October 1999), *The Ecolabelling Guide,* Geneva, p. 1.

5.81   There are many different environmental performance labels and declarations being used around the world. It is important to note that 'ecolabelling' is:

> … only one type of environmental [performance] labelling, and refers specifically to the provision of information to consumers about the relative environmental quality of a product service.[36]

5.82   Ecolabelling assessment and certification is structured in accordance with the International Standard ISO 14024: *Environmental labels and Declarations – General Principles.* The environmental labelling programs governed by this standard are voluntary and can be operated by public or private agencies. These programs can also be national, regional or international in nature.[37]

5.83   Under the Standard ISO 14024 there are three types of environmental labelling programs:

- ISO 14024 – Type 1 – defined as a voluntary, multiple criteria based third party programme that awards a license which authorises the use of environmental labels on products indicating overall environmental preferability of a product within a particular product category based on life-cycle considerations;

- ISO 14021 – Type 2 – are self declared labels where a manufacturer will declare their own environmental performance through a declared environmental verification process; and

- ISO 14025 – Type 3 – defined as report card label and designed to specifically give detailed information on environmental impacts of products or services to consumers.[38]

5.84   The main benefits of Type 1 and Type 3 eco-labels are that they provide independently assessed ecological information about a product or service. The ecolabel then serves as a signpost to independently inform the consumer about the product or service at the point of sale, which is a crucial stage in the decision-making process of the consumer.

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36   Global Ecolabelling Network (October 1999), *The Ecolabelling Guide*, Geneva,, p. 1.

37   Standards Australia, www.standards.com.au, last accessed June 2003.

38   Johnson, P. and Lundie, S. (2002), *Ecolabelling Standards – Developments Overseas and the Good Environmental Choice Label Australia*, National Conference Paper, p. 4.

5.85   These types of ecolabelling are based on the premise that informed consumers lead to changed purchasing and consumption decisions.

5.86   The overall goal of the ISO standard for labels and declarations is to improve product knowledge and as a consequence influence market pressures. *The Ecolabelling Guide*, produced in Australia by the Global Ecolabelling Network (GEN) based in Geneva, describes the purpose of ISO ecolabelling standards as:

> … through communication of verifiable and accurate information, that is not misleading, on environmental aspects of products and services, to encourage the demand for and supply of those products and services that cause less stress on the environment, thereby stimulating the potential for market-driven continuous environmental improvement.[39]

International developments

5.87   The world's first ecolabelling was initiated by Germany in 1978 with the release of the 'Blue Angel' program. Canada, Japan and the United States established ecolabelling schemes in the late 1980s. Many more were launched in the early 1990s. It is now estimated that over thirty countries worldwide have either full life cycle or multi environmental criteria labelling programs. Some of these ecolabelling schemes are government supported programs and others are publicly or privately run schemes.

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39   Global Ecolabelling Network (October 1999), The Ecolabelling Guide, Geneva, p.1.

5.88   The Table following below provides a small sample of overseas environmental labelling programs and the number of products certified under these programs.

Table 5.1 International Environmental Labelling Programs in 2001.

NAME	ORGANISATION	No. OF VALID CRITERIA	No. OF PRODUCTS CERTIFIED	NEW CRITERIA
Environmental Choice (Canada)	TerraChoice Environmental Services, Inc., Canada	125	3 000	Compostable paper bags, metered dose inhalers, personal care products, renewable low impact electricity (under development)
German Blue Angel Scheme (Germany)	Environmental Protection agency	85	2 981	39 criteria under development; new criteria soda makers, wet cleaning for textiles
Eco Mark (Japan)	Japan Environment Association	68	4 235	Personal computers, waste disposer; under development: returnable containers, wrapping material, publications, printers and fertiliser.
Korea Environmental Labelling Program (Korea)	Korea Environmental Labelling Association	62	170	Notebook computers, shower heads, water meters, dishwashers, detergent for dishwashers, electricity wire, lead-free sinkers, ballast for sodium vapour lamps, ballast for metal halide lamps, diesel engine oil, 2-stroke-cycle engine oil

Source   Johnson, P and Lundie, S.(2002), Ecolabelling Standards – Developments Overseas and the Good Environmental Choice Label Australia, National Conference paper, p. 6.

5.89   Environmental labelling programs have demonstrated that they can deliver a range of results both in community supported industry improvements and as a means of market transparency.

5.90   The OECD provides the following example of how an environmental labelling program has influenced the market in Scandinavian grocery stores:

> At the end of 1995, the ICA retail chain programme, which commenced in 1994, had 259 stores that fulfilled the eco-label's criteria. The criteria included such requirements as, stocking at least 85 per cent of dishwashing liquids and 90 per cent of laundry detergents with a Swedish environmental choice or the Nordic Swan eco-label, and carrying of a broad range of KRAV labelled (ecologically grown) products. The ICA Annual Report for 1995 reported that 'Sales of eco-labelled products continued to increase and in certain product group sales of these products as a percentage of all sales in this group have reached 80-90 per cent'.[40]

5.91   These Swedish examples serve to demonstrate the ability of Type 1 eco-labels to increase the market share of 'business to business' sales, as well as the traditional retail sales of products.[41]

Australian Ecolabelling program

5.92   The Committee was briefed by the Australian Environmental Labelling Association (AELA) on the implementation of a national ecolabelling program in Australia. The AELA is an independent non-profit environmental research and ecolabel certification organisation. Its objectives are to:

- Manage and deliver a whole-of-market environmental labelling program, conforming to ISO 14024; and

- Generate greater interest, knowledge and capacity within Australia for sustainable consumption.

5.93   The issue of ecolabelling has been considered by DEH, but no Australian Government policy or program has been developed. Currently there is a small independently run program, called the Australian Ecolabel Program, concerning a limited range of goods and administered by AELA.

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40   Johnson, P. and Lundie, S. (2002), *Ecolabelling Standards – Developments Overseas and the Good Environmental Choice Label Australia*, National Conference paper, p. 7.

41   Johnson, P. and Lundie, S. (2002), *Ecolabelling Standards – Developments Overseas and the Good Environmental Choice Label Australia*, National Conference paper, p. 8.

5.94   This program provides a national ecolabel for Australia under the name the 'Good Environmental Choice'. AELA compares its ecolabel program to other established overseas programs, such as the Nordic Swan, Environmental Choice Canada and New Zealand and the Japan Eco-Mark.

5.95   AELA identify the purpose and benefits of ecolabelling as follows:

■ Environmental labels and declarations provide information typically at the point of sale;

■ Purchasers and potential purchasers can use this information in choosing the products or services they desire based on environmental, as well as other considerations; and

■ The provider of the product or service hopes the environmental label or declaration will be effective in influencing the purchasing decision in favour of its product or service.[42]

5.96   AELA's ecolabelling assessment uses a life cycle analysis to gauge the environmental footprint of a particular good. A life cycle assessment identifies environmental issues at all stages of a product's 'life' – from design planning through to commissioning, production, end-use operation and disposal. This ensures that environmental burdens are not hidden between different product stages. For example, it ensures that clean air during one stage of production is not coming at the cost of releasing polluted water into the ocean during another stage of production.[43]

5.97   AELA is also affiliated with GEN, the non-profit association of ecolabelling organisations from around the world. Founded in 1994, GEN aims to improve, promote, and develop the ecolabelling of products and services. AELA argue that 'there is general consensus among members of the Global Ecolabelling Network that a full life cycle approach is required for credible environmental labelling'.[44]

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42   Private briefing by AELA to the House of Representatives Committee on Environment and Heritage, 27 May 2003.

43   *Australian Environment Review* (January 2002), Vol. 17, No. 1,, p. 4.

44   Johnson, P. *The use of life cycle analysis in environmental labelling standards*, p. 2.

5.98   Life cycle assessment is undoubtedly a rigorous program to certify environmental impact. However, this rigour comes at a financial and administrative cost. There continues to be ongoing international and national debate as to whether a full life cycle assessment is necessary for the credibility and general acceptance by consumers of an ecolabelling program.

Role of Government

5.99   The AELA ecolabel program is currently independent of Australian Government financial support or formal endorsement. The AELA strongly advocate that the ecolabel program should continue to be administered by an independent organisation. AELA also clearly considers itself the most appropriate organisation to continue to implement and expand an ecolabel program in Australia.

5.100   AELA's ecolabel program has received support from several notable industry, scientific and academic groups in Australia. The program's development guidelines have also been registered with the ISO.

5.101   In a private briefing to the Committee, the AELA recommended that the Australian Government 'develop a comprehensive policy for Australia with regard to credible environmental labelling based on the international standards'.[45]

5.102   The Committee is aware that AELA liaised with all three levels of government during the establishment of the ecolabel program. However, not all Australian Government departments fully agree with the particular approach of AELA's program.

5.103   The Committee agrees that there is a role for the Australian Government in establishing a national policy in regard to environmental labelling. A credible labelling program would also enable recognition to be given to those companies whose products clearly display environmental leadership. Consumer purchasing decisions could be harnessed to exert greater market pressures if differentiation of products, based on environmental consideration, was available at the point of sale.

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45   Private briefing by AELA to the House of Representatives Committee on Environment and Heritage, 27 May 2003.

5.104   Comparable environmental labelling schemes are already in operation across Australia. For example, energy efficiency labelling is required for a wide range of household electrical appliances and car manufacturers are now required to display the average carbon dioxide emissions of new vehicles. A consistent national environmental labelling program is required for all consumer goods.

5.105   From the evidence presented, the Committee has formed no view as to whether an environmental labelling program should be independently administered or implemented under the auspices of an Australian Government department or agency. However, given the many environmental labelling programs operating internationally and their proven effectiveness in influencing consumer purchasing decisions and rewarding companies for good environmental performance, it seems astonishing that more has not happened in Australia.

5.106   Further, two key drivers of sustainability are achieving market differentiation and increased expectations for industries to be environmentally accountable. It is reasonable to expect that Australia should have in place the frameworks to enable these ESD drivers to operate effectively in the marketplace.

5.107   Accordingly, the Committee recommends that the Australian Government articulate a national policy endorsing the concept of environmental labelling across as wide a range of goods as feasible.

5.108   The Committee does not have a view on the most suitable organisation to administer a national environmental labelling program. The priority is to get established a nationally recognised label which is credible, consistent and meaningful to both producers and consumers.

5.109   The Committee considers that this policy should outline framework objectives and identify future programs which would, in time, see a range of appropriate environmental labels applying to all consumer goods and consumables.

5.110   Australian industries displaying leadership in environmental performance should be rewarded in the marketplace and, similarly, consumers should be able to exercise environmental choice in the marketplace. The effectiveness of environmental labelling in achieving this is dependent on a simple and easily identified standard logo which has meaning to the consumer. The Committee recommends that an awareness campaign be run to inform consumers about environmental labelling.

Recommendation 9

5.111   **The Committee recommends that the Australian Government:**

- **Develop a national policy for the environmental labelling of consumer goods;**

- **Ensure the establishment of a national environmental labelling program that is widely recognised, consistent and meaningful to both producers and consumers; and**

- **Undertake a national campaign to raise awareness of environmental labelling.**

6

Marketing Renewable Energy

Introduction

6.1   Australia is among the world's leaders in technology development for renewable energy and has the potential to establish a significant industry and to generate employment opportunities in the future. In recent years, Australia has experienced notable growth in the sector, primarily due to greater investment stemming from environmental concerns about the sustainability of fossil fuel usage.

6.2   However, even with recent growth in the sector and Australia's technology expertise, in comparison to other developed countries Australia's use of renewable energy remains low. This is despite Australia's climate which is amenable to solar energy generation, the many exposed and undeveloped sites which are potentially suited to wind farm sites, and the access to a range of other renewable energy sources.

6.3   From data on the renewable energy industry and from evidence presented during the inquiry, the Committee found that a substantial gap exists between apparent consumer commitment to renewable energies and the purchase of energy from these sources. Taking as a template for action the four key drivers of ESD, which have already been discussed, the Committee has recommended a range of legislative, labelling and leadership initiatives to build market supply and demand for renewable energy.

Industry structure and growth

6.4   The renewable energy industry is a discreet segment of the environment sector. Examples of renewable energy include solar, wind, tidal, biomass and hydro energy.

6.5   There are limited statistics on Australia's environment industry and fewer for Australia's renewable energy sector. In 1995-96, ABS data estimated renewable energy industry sales at $850 million.[1] Over half of this total ($490 million) was from hydro-electricity sales.[2]

6.6   At present, Australia is experiencing growth in the renewable energy industry and there appears to be significant potential for this industry to expand in the future, in both national and international markets. The Committee heard evidence that growth in this industry will offer Australia substantial employment opportunities in addition to improved environmental outcomes.

6.7   The drivers for growth in the renewable energy industry include:

- A reduced availability of some fossil fuel resources;

- An increase in environmental and sustainability concerns regarding the continued use of fossil fuels;

- Concerns regarding the dependence on energy imports and consequent national security issues; and

- In some instances, the falling costs for renewable energies.

Export Markets

6.8   The National Capability Statement on Australia's Environment Industry comments that the renewable energy sector is a niche market exporter.[3] A key recommendation from the REAA relates to the need to implement an integrated export strategy to capture international market opportunities.[4]

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1   Centre for Strategic Economic Studies (2001), *National Capability Statement on Australia's Environment Industry*, Prepared for Environment Australia, p. vi.

2   Centre for Strategic Economic Studies (2001), *National Capability Statement on Australia's Environment Industry*, Prepared for Environment Australia, p. 45.

3   Centre for Strategic Economic Studies (2001), *National Capability Statement on Australia's Environment Industry*, Prepared for Environment Australia, p. XIV.

4   ISR (2000), *Renewable Energy Action Agenda: New Era New Energy*, Executive Summary, p. 6.

6.9   ITR informed the Committee that, in cooperation with Austrade, it
        had supported a small group of Australian renewable energy
        companies in a successful trade mission to Chile, Brazil and Mexico.
        As a result of this trade mission, a joint Renewable Energy Exporters
        Network had been established and further export opportunities are
        being investigated.[5]

6.10   The 2002 implementation report for the REAA estimated that the
        prospective business from the Exporters Networks may be worth
        between $60-80 million.[6]

6.11   In addition, the Office of the Renewable Energy Regulator (ORER)
        advised the Committee that 'the mandatory renewable energy target
        is also expected to support the development of export-oriented
        industries in Australia'.[7]

6.12   The limited evidence presented to the Committee suggests that the
        export potential of Australia's renewable energy industry is strong
        and that export strategies are successfully increasing international
        market demand and establishing Australia as a niche supplier.

Domestic Markets and Employment Generation

6.13   The Committee heard a range of evidence confirming the potential to
        boost domestic market demand for renewable energy. AGO outlined
        some of the Australian Government's strategic measures to support
        the uptake of renewable energy in Australia. These measures cover
        the following three areas:

        ■ Commercialisation – providing the link from R&D to widespread
           adoption;

        ■ Industry development – developing the capacities of the renewable
           energy industry broadly (education, standards, training,
           accreditation); and

        ■ Deployment – putting established technology on the ground and
           establishing familiarity and experience.[8]

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5   *Transcript of Evidence*, p. 26.
6   ISR (July 2002), *Renewable Energy Action Agenda: New Era New Energy Implementation Report*, p. 1.
7   Submission no. 13, p. 5.
8   Submission no. 26, p. 13.

6.14   The AGO emphasised that each of the above areas delivers job creation to varying degrees and that many of the projects are:

> … developing technologies that will have extensive applications in Australia and abroad. For these projects, the level of job creation will depend on the uptake of the technology in the marketplace.[9]

6.15   DEH informed the Committee of a joint research project on renewable energy employment potential, undertaken by the Australian Eco Generation Association and the Renewable Energy Generators of Australia. The project compares job creation from three renewable energy projects with the job creation of a gas and a coal-fired plant. Results from this research demonstrated significantly greater job creation per unit of investment from the renewable energy projects.[10] Results are provided at Table 6.1.

Table 6.1. Renewable energy sources and employment generation.

Eligible Energy Source	Construction employment (approx)			Permanent employment (approx)		
	Direct	Indirect	Total	Direct	Indirect	Total
New hydro	700	2100	2800	9	26	35
Wind	2100	8400	10500	26	79	105
Solar (Photovoltaics, Solar Tower etc)	900	2700	3600	45	135	180
Biomass (bagasse, cotton, macadamia, wood waste etc)	3840	11520	15360	480	1440	1920
Landfill gas	3600	10800	14400	180	540	720
Existing resources (upgrading, refurbishment)	350	1050	1400	-	-	-
Totals	11490	34470	45960	740	2220	2960

Source   Submission no. 13, p. 4.

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9   Submission no. 26, p. 13.
10   Submission no. 26, p. 6.

6.16   This data was supported by a 2002 Greenpeace report, which found
        that 'clean energy industries create more employment opportunities
        per dollar invested than non renewable energy sources such as fossil
        fuels'.[11] An overview of the direct employment per million dollars
        invested is provided at Table 6.2.

Table 6.2. Direct employment per million dollars invested.

Technology	Jobs per A$ million invested
Oil shale	0.5
Solar electric	3.5
Energy efficiency	35-50

Source   Greenpeace, *Jobs and the Oil Shale Industry*, www.greenpeace.org.au, last accessed 4 August 2003

6.17   The ORER submission stated that a renewable energy project
        generates employment across a range of areas, including:

        ■ Technical: such as project planning and design, manufacturing,
          construction and plant operation and maintenance;

        ■ Environmental expertise: such as site management, emissions and
          waste management, consultation, environmental impact
          assessment, and resource assessment and management; and

        ■ Other related sectors: such as economic and market forecasting,
          energy trading and brokering and tourism.[12]

6.18   In addition, ORER informed the Committee that certain types of
        renewable energy technologies appear to have a strong tourist
        attraction potential, which can result in additional employment
        opportunities. For example, Snowy Hydro and Hydro Tasmania
        conduct guided tours through their generation facilities. Major wind
        farms projects, such as proposed or established in Albany (Western
        Australia), Codrington (Victoria), Windy Hill (Queensland) and
        Blayney (New South Wales) are attracting tourist interest.[13]

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11   Submission no. 32, p. 11.
12   Submission no. 13, p. 3.
13   Submission no. 13, p. 3.

6.19   During a public hearing, the ORER commented that a significant
        number of jobs could be generated if the renewable industry had
        $6 billion of additional investment by 2010. However, the ORER
        stated that the number and skill level of these jobs was hard to predict
        due to the mix in the market:

> … jobs are likely to be very diverse in nature and cover areas
> such as project planning and design, manufacturing,
> construction, operation and maintenance of plant, site
> assessments, economic and market forecasting, energy
> trading, broking and tourism.[14]

6.20   As an indicative estimate, the ORER suggested the additional
        investment could generate 45 000 construction jobs between now and
        2010, with up to 3 000 permanent jobs.[15]

6.21   The Committee was interested to ascertain what, if any employment
        displacement might take place as a result of a steadily increasing
        renewable energy industry. As an example, DEH advised the
        Committee that the coal industry would:

> … not suffer any job losses as a result of renewables, but
> certainly there will be a supplementary addition to the
> workforce coming from the development of the renewable
> energy industry.[16]

6.22   Other evidence presented to the Committee suggested that the
        growth of the renewable energy industry would not occur at the cost
        of exiting energy industry employment.

6.23   With such demonstrable potential for employment growth and clear
        environmental benefits, the Committee wishes to ensure that
        Australia is maximising the uptake of renewable energy, particularly
        of solar technology in the domestic market.

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14   *Transcript of Evidence*, p. 32.
15   *Transcript of Evidence*, p. 32.
16   *Transcript of Evidence*, p. 68.

Sector Initiatives

6.24   A number of Australian Government programs have assisted in growing the renewable energy industry in Australia and promoting domestic and international market opportunities. Given the success of the industry's development, the Committee is keen to ensure that the momentum of this growth is maintained. The Committee considered current initiatives and new proposals to enable the industry to be a viable and competitive alternative to fossil fuels.

6.25   There are a range of programs and policies assisting the growth of the renewable energy industry in Australia. The most significant sector development programs are the REAA and the Mandatory Renewable Energy Target (MRET).

General Programs and Policies

6.26   AGO delivers a range of programs and policies targeted at increasing the use of renewable energy and reducing greenhouse gas emissions in Australia. Some of these programs include the Renewable Remote Power Generation Program, the Photovoltaic Rebate Program and the Alternative Fuels Program. Many of these initiatives offer both environmental and social benefits to the community.[17]

6.27   To date, the current Australian Government has committed $377 million in programs to support the commercialisation and deployment of renewable energy technologies and related industry developments.[18]

6.28   Additional measures undertaken by the Australian Government to support Australia's renewable energy sector include the establishment of the Australian Cooperative Research Centre for Renewable Energy (ACRE), and the Centre for Application of Solar Energy. Several states and territories have also set up strong programs of research for renewable energies (for example, the Photovoltaics Special Research Centre at the University of New South Wales).

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17   Submission no. 26, p. 6.
18   The Hon Dr David Kemp and The Hon Ian Macfarlane (25 May 2003), *Million Dollar Boost to Renewable Energy Industry*, Joint Media Release, p. 4.

Renewable Energy Action Agenda

6.29   The REAA, developed jointly by the industry and the Australian Government, was launched in June 2000. The vision of the REAA is to harness the potential of the industry and achieve $4 billion worth of annual sales by 2010.[19]

6.30   The REAA has developed five over-arching strategies addressing:

- Market development;

- Building community commitment;

- Building industry capability;

- Setting the policy framework; and

- Encouraging a culture of innovation.[20]

6.31   A total of 25 recommendations were agreed in the REAA. Leaders from the renewable energy industry, the Australian Greenhouse Office and ITR are responsible for implementation of the REAA recommendations.

6.32   A major initiative stemming from the REAA was the establishment of the Renewable Energy Equity Fund (REEF). The REEF program provides venture capital support to develop innovative renewable energy technologies. Since the REEF program became operational in December 2000, grants have been made to a number of companies, supporting a range of renewable energy technologies such as biomass, solar, geothermal and wind. REEF has provided approximately $27 million of venture capital funds for renewable energy projects.[21]

Mandatory Renewable Energy Target

6.33   In April 2001, the Australian Government introduced the MRET as a policy initiative to support the uptake of renewable energy in the national energy market.

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19   ABS estimates sales in 1995-6 were $850 million (*National Capability Statement*, p. vi).
20   *Transcript of Evidence*, p. 18.
21   *Transcript of Evidence*, p. 22.

6.34   The MRET operates under the *Renewable Energy (Electricity) Act 2000* and associated regulations. Wholesale purchasers of electricity are required to progressively increase the amount of electricity purchased from defined renewable energy sources. The ORER oversees the MRET and ensures that purchase targets are met.

6.35   The ORER outlined to the Committee the progressive targets of the MRET scheme:

> Targets have been implemented each year over the period 2001-2020. The target for 2001 was 300 000 megawatt hours (MWh) with this rising to 9 500 000 MWh by 2010.[22]

6.36   The 2010 target of 9 500 000 MWh is the equivalent to the amount of electricity required to meet the domestic electricity needs of approximately four million people.

6.37   The annual targets are implemented through a certificates trading program whereby each MWh of qualifying electricity is eligible to create one renewable energy certificate (REC). These RECs are sold or traded between energy generators and wholesale purchasers to meet individual liabilities. Open trading of RECs overcomes issues of varying renewable energy capacity across the country that could otherwise occur.

6.38   The ORER emphasised that significant investment in renewable energy generation capacity will be required to meet the 2010 target of 9 500 000 MWh, with industry estimates ranging from an expected 2 000 to 4 000 MWh. The ORER commented that this investment will generate employment opportunities since direct investment could be as much as $6 billion over the life of the scheme.[23]

The Future of Mandatory Renewable Energy Targets

6.39   In November 2002, a panel, commissioned by the Australian Government, released its draft report, *Towards a Truly National and Efficient Energy Market.* The report recommended the introduction of a cross sectoral greenhouse gas emissions trading system, which would facilitate the reduction of greenhouse gas emissions in the electricity and gas sectors. The report went on to recommend that the MRET, along with several other initiatives, cease to operate once an announcement had been made on an agreement to implement an emissions trading system.

22   Submission no. 13, p. 2.
23   Submission no. 13, p. 2.

6.40   The Committee heard of the substantial debate that has surrounded the suggested abolishing of the MRET. The majority of industry stakeholders, including the ROUNDTABLE renewable industry forum, strongly believe that the MRET should be maintained in its present form or increased to 10 per cent by 2010. In their submission to the inquiry, the ROUNDTABLE stated that:

> The MRET should be increased to 10 per cent above 2001 levels by 2010, and further increased to 20 per cent above 2001 levels by 2020. These targets should be based on a percentage of consumption rather than fixed targets.[24]

6.41   The Sustainable Energy Development Authority (SEDA) believes that the review panel's draft recommendation to abolish the MRET has had a dramatic effect on the renewable energy industry in Australia. SEDA noted that the MRET has been a key driver for renewable energy investment, assisting in creating economies of scale which are reducing unit costs to competitive levels. However SEDA stated that, since the announcement of the draft recommendation, investments have 'screeched to a halt'.[25]

6.42   EBA also strongly disagreed with the draft recommendations from the MRET review panel. At a public hearing, a representative from EBA commented that:

> I believe that [the review panel's] argument—that, if we have a national emissions trading system, we do not need an MRET—is actually false. You can have a national emissions trading program and look at it as an umbrella program. Underneath that you can hang any number of market mechanisms that make the whole system more efficient. MRET is very good at doing that. Plus, there is a lot of sunk investment—and not only from the renewable energy people—in MRET, which I think would be sadly wasted if MRET were to disappear.[26]

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24   Submission no. 23, p. 2.
25   Thomson CPD, *Environmental Manager*, Issue 428, p. 3.
26   *Transcript of Evidence*, p. 175.

6.43 The South Australian Government provided evidence on policy measures that could encourage the further development of renewable energy. The submission advocates that the MRET be retained, recommending that:

> … the Commonwealth commit to increase the Mandatory Renewable Energy Target from 2 per cent to 10 per cent, thereby bringing Australia into line with leading international renewable targets and opening further opportunities for renewable energy producers and support industries.[27]

6.44 The objectives and achievements of the MRET are also consistent with the REAA vision and the Australian Government agreed strategy for the industry. A key REAA recommendation is to leverage government support for renewable energy business opportunities. The MRET is a major contributor towards this and some companies have reported a significant increase in trading as a result of the new legislation.[28]

6.45 The Committee agrees with the 2002 implementation report of the REAA, which states that 'there is a danger that [the industry's] momentum will be lost if Government assistance is reduced or withdrawn'.[29]

6.46 The review panel's final report on the MRET is due in late 2003. Regardless of the report findings, the Committee considers that there is national value in retaining the MRET policy and increasing the targets above the levels currently set.

6.47 Evidence presented to the Committee strongly supported an increased MRET with 10 per cent above 2000 levels implemented by 2010 being a consensus view.

6.48 Where such strong environmental benefits are to be gained from the increased use of renewable energy, the Committee considers that there is a Australian Government responsibility to undertake a multi-faceted approach to increasing market demand for and supply of renewable energies.

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27 Submission 32, p. 3.
28 ISR (July 2001), *Renewable Energy Action Agenda: New Era New Energy, Implementation Report*, p. 5.
29 ISR (July 2001), *Renewable Energy Action Agenda: New Era New Energy, Implementation Report*, p. 1.

6.49   While mandated requirements are not an appropriate driver of sustainability in all instances, the Committee sees a clear role for establishing minimum targets in this context. The MRET has successfully provided growth opportunities for the industry and, regardless of emissions trading or other initiatives, the Committee concludes that the MRET policy should be retained and the targets increased.

6.50   The Committee recognises that for Australia to commit itself to ESD principles, leading policy and legislative decisions are required. Retaining the MRET and increasing the mandated annual targets is one such decision.

6.51   The Committee was receptive to submissions proposing a 10 per cent increase in the MRET by 2010 and advise that this target was realistic viable and achievable.

6.52   However, the lack of independent analysis on the likely impact on consumers and the economy make the Committee hesitant to recommend a specific target and implementation date.

6.53   Other measures considered by the Committee that could form part of a multifaceted approach to increase market demand for and supply of renewable energy include tax incentives, project facilitation, peak-load provisioning and network interconnect assistance.

Recommendation 10

6.54   **The Committee recommends that the Australian Government:**

- **Retain the Mandatory Renewable Energy Target;**

- **Substantially increase the Mandatory Renewable Energy Target as part of a multifaceted approach to increase market demand for and supply of renewable energy; and**

- **Implement a timely review of the Mandatory Renewable Energy Target for beyond 2010 with a view to furthering the uptake of renewable energy in Australia.**

Photovoltaics and Solar Technology Expertise

6.55   Australia is an international leader in the area of photovoltaics, in terms of research programs, innovation and in the utilisation of these technologies in areas such as solar energy generation, solar heating and pumps.

6.56   Australia is also considered an international leader in energy efficient heating using solar and other heating technologies. The ORER commented that:

> … we are seeing other technologies emerging or other technologies within that solar water heater system emerging. Some of them are very appropriate to Australia. For example, the integration of photovoltaics with hot water systems.[30]

6.57   A combined research paper from ACRE and the Centre for Photovoltaics Engineering suggested that in 2002 over 70 per cent of photovoltaic cell production in Australia was expected to be exported. Despite fluctuations in exports over the last decade, the paper suggests that the future of Australia's off-grid photovoltaics market should remain strong.[31] This prediction was based on continued Australian Government support through the continuation of the MRET generating 9 500 000 MWh of extra renewable energy by 2010.

6.58   The Committee considered that, while this export outlook is extremely encouraging, it also suggests an untapped domestic market for solar technologies.

6.59   To further investigate the potential of the domestic market, the Committee held discussions with the renewable energy company BP Solar and inspected different applications of solar technology.

6.60   These inspections confirmed for the Committee the potential for industry and employment growth if domestic demand for solar technologies, in particular, could be increased.

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30   *Transcript of Evidence*, p. 37.

31   M. Watt, and I. MacGill, *Jobs and Investment Potential of Renewable Energy: Australian Photovoltaics Industry Scenarios,* ACRE and the Centre for Photovoltaics Engineering, UNSW, p. 3.

6.61   BP Solar is engaged in supplying, installing and supporting a range of solar power applications. It employs approximately 300 people on a rotating roster of four days on and four days off. It is the largest photovoltaic manufacturing facility in the southern hemisphere and over half of the factory's output is exported.

6.62   Although BP Solar expressed an interest in increasing domestic sale figures, the current low level of demand results in high unit costs, which in turn is a deterrent to domestic market growth.

6.63   The Committee held discussions with the designer of the *Solar Sailor* ferry to gain a better understanding of the potential commercial application of renewable energy. The *Solar Sailor* is a wind and solar powered passenger ferry operating on the Sydney harbour. It is a commercial venture which promotes solar technologies and its applications through demonstrating the reliability, efficiency, passenger comfort and environmental benefits of wind and solar energy generation. The technology also has applications in the maritime industry in vessels from 10 to 100 metres length, operating at less than 20 knots.

6.64   The *Solar Sailor* has been awarded a $1 million Renewable Energy Commercialising grant to assist with the launch of the *Solar Sailor* technologies in international markets.[32]

6.65   The Committee also inspected the Olympic Village at Homebush Bay. The Olympic Village is part of one of the world's largest solar powered suburbs and generates over one million kilowatts of power per year. Dwellings include rooftop photovoltaic cells which generate sufficient energy to meet household requirements.

6.66   Given the solar manufacturing expertise in Australia and the demonstration projects which have successfully integrated solar technologies into their design and construction, the lack of domestic market demand was of concern to the Committee.

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32   Centre for Strategic Economic Studies (2001), *National Capability Statement on Australia's Environment Industry*, Prepared for Environment Australia, p. 146.

6.67 Cost competitiveness and market awareness appeared key inhibitors to increasing domestic demand. One of the main challenges the renewable energy market faces is 'the huge sunk costs in conventional power generation'.[33] For example, while the cost of coal remains relatively low it is difficult for solar or other renewable energies to achieve comparable costs in order to gain competitive access to the domestic energy market.

6.68 At a public hearing, ITR explained that the cost barrier still exists. While solar energy costs have come down in price, ITR explained that 'what they have not done is come down to a point where they are competitive with other forms of electricity generation in Australia.'[34]

6.69 IEAust commented that Australian support is needed to establish the market viability of the renewable energy industry. IEAust advised that some programs, such as the Renewable Energy Showcase and the Renewable Energy Commercialisation Fund, have been cut. It emphasised that both these programs provided important assistance to renewable industry development.[35]

6.70 The Committee was pleased to note that the 2003-04 Australian Government Budget papers extends the Photovoltaic Rebate Scheme for a further two years, providing funding of $5.8 million for rebates for the installation of photovoltaic systems.

6.71 The decision to extend the photovoltaic rebate scheme was welcomed by BP Solar who commented that Australia has had 'a successful track record in developing solar technology and a manufacturing capability'.[36] However, BP Solar also commented that:

> The next phase of the sector's growth will need industry and government to work together to develop market-based programs that remove dependency from Federal rebate support.[37]

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33 Centre for Strategic Economic Studies (2001), *National Capability Statement on Australia's Environment Industry*, Prepared for Environment Australia, p. 160.

34 *Transcript of Evidence*, p. 24.

35 Submission no. 21, p. 4.

36 BP Solar (13 May 2003), Press Release.

37 BP Solar (13 May 2003), Press Release.

6.72   Some States and Territories have already implemented building regulations requiring the use of solar technologies in new commercial buildings, major renovations or new dwellings. Requirements for higher energy efficiency ratings in new dwellings are also increasing the domestic demand for solar technologies.

6.73   The Committee noted that while Australia's renewable technologies (such as solar) have reduced in cost, in most instances they are still not competitive with fossil generated electricity (the exceptions are for remote or specialised sites).

6.74   Nevertheless, the Committee believes that Australia's photovoltaic and solar energy industry is an important one with economic, environmental and employment benefits for the nation. Australian Government programs are assisting in encouraging investment in the renewable energy sector; the next phase of development relies on the continuation of these programs and policies, and the stimulation of domestic markets in order to lower unit costs.

Market Demand for Renewable Energy

6.75   The Committee was interested in a range of marketing initiatives and mechanisms to encourage the uptake of renewable energy in Australia.

6.76   Currently there are a number of renewable energy purchasing schemes for consumers operating across Australia. These schemes enable consumers to purchase a portion of their electricity needs from renewable sources. Several Australian Government departments and agencies have taken a leadership role in purchasing all or part of their electricity requirements through these schemes.

Green Power Disclosure for Consumers

6.77   The term 'Green Power' refers to electricity generated from renewable energy sources, rather than from fossil fuels. In Australia, Green Power schemes:

> … operate as a voluntary system either as a donation, known as contribution based Green Power, or on a consumption

basis, where the householder pays an additional green tariff to have their electricity supplied by green sources.[38]

6.78   Most of the existing and planned Green Power schemes operate under a consumption system. Only Australian Inland Energy (New South Wales) and Integral Energy (New South Wales) use contribution based systems. Contribution-based systems are generally cheaper than consumption-based systems.[39]

6.79   The most significant advantage of Green Power is a reduction of greenhouse gas emissions by displacing the use of fossil fuel systems with renewable energy sources. Green Power schemes provide a simple way for consumers (as households or organisations) to exercise an environmental choice and reduce greenhouse gas emissions.

6.80   In a survey conducted by GreenPower Services Pty Ltd for the Electricity Supply Association of Australia, 60 per cent of electricity customers indicated that they would purchase Green Power if it was available. However, the adoption rate of Green Power amongst utilities with Green Power schemes operating is approximately 1 per cent.

6.81   An ACRE study, titled 'Green Power in Australia', indicates that consumers opt for Green Power because it is 'one of the few convenient ways to support renewable energy and make some contribution to greenhouse gas reduction'.[40] However the take up rate remains disturbingly low.

6.82   The Committee suggests that the combination of higher costs, cumbersome sign-up processes and a lack of market awareness are impeding a greater take up Green Power.

6.83   Certainly across Australia there is considerable variation in the weekly cost of Green Power to consumers. Table 6.3 provides indicative costs for different Green Power schemes. As a point of comparison, the supply charge for conventionally supplied electricity from ACT Electricity and Water (ACTEW) is $2.38 per week.[41]

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38   DEH, www.ea.gov.au, last accessed 14 October 2003.

39   DEH, www.ea.gov.au, last accessed 14 October 2003.

40   Sonneborn, C. and Russell, S. (February 1999), *Green Power in Australia: Occasional paper series*, Australian CRC for Renewable Energy, p. 2.

41   www.actewagl.com.au, last accessed 5 November 2003.

Table 6.3. Comparative Weekly Cost to Consumer of Green Power Schemes

Electricity Retailer	State / Territory	Product Name	Weekly cost for 100% Green Power	Planned generation technologies
Energy Australia	NSW	Pure Energy	$3.80	Photovoltaics Wind, Landfill Gas & Hydro
Great Southern Energy	NSW	Earth saver	$3.00	Photovoltaics, Wind, Landfill Gas & Hydro
Advance Energy	NSW	Green Power	$2.50	Photovoltaics, Wind, & Hydro
North Power	NSW	Ectoplasm	$5.00	Biomass Photovoltaics & Hydro
Australian Inland Energy	NSW	Solar Future	$0.80	Photovoltaics
Integral Energy	NSW	Community Green Power	$0.06	Photovoltaics
CitiPower	Victoria	EcoPower	$2.50	Photovoltaics, Wind, Landfill Gas & Hydro
Powercor	Victoria	Ecosaver	$3.75	Landfill Gas & Hydro
AGL	Victoria	Green Energy	$3.85	Photovoltaics, Wind, Biomass & Landfill Gas
United Energy	Victoria	Untied Energy Green	$3.00	Biomass
Energex	Queensland	Earth's Choice	$2.50	Photovoltaics, Wind, Biomass & Hydro
ACTEW	ACT	New GreenChoice	$4.00	Photovoltaics, Wind, & Hydro

Source   GreenPower Services Pty Ltd

6.84   In Australia, Green Power schemes operate as a voluntary system either as a donation, known as contribution based Green Power, or on a consumption basis, where the householder pays an additional green tariff to have their electricity supplied by green sources. Most of the existing and planned Green Power schemes operate under a consumption system, with only Australian Inland Energy and Integral Energy operating contribution based systems. Contribution based systems are considerably cheaper than consumption bases systems, and in these systems the contribution is used to build additional green power systems, such as a photovoltaics or wind farm.[42]

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42   www.acre.murdoch.edu.au/ago, last accessed 5 November 2003.

6.85   The uptake of Green Power was considered in the REAA which concluded that, over the last decade in Australia, the awareness and interest in Green Power has reached a reasonable level. However, the REAA also commented that:

> … the challenge remains to convert much more of that into sales, with scope for retailers to design new imaginative Green Power products and differentiate them from others. [43]

6.86   It would seem that this challenge is yet to be met. However, a recent poll commissioned by Greenpeace indicated that '83 per cent of people would be willing to pay the extra money if it meant 10 per cent of Australia's electricity came from new renewable sources by 2010'.[44]

6.87   If there appears to be consumer willingness to purchase Green Power products but current initiatives are not able to harness this commitment, then the Committee suggests that further initiatives are required to inform consumers and encourage more environmentally conscious energy purchase decisions.

6.88   The Committee acknowledges that there have been a number of consumer and community awareness raising initiatives which have successfully demonstrated the applications and benefits of renewable energy.

6.89   The Australian and New Zealand Solar Energy Society and the Alternative Technology Association held a 'solar house day' in September 2002, in collaboration with the AGO. The event showcased passive solar design principals and the domestic installation of photovoltaic systems and solar hot water. A major advertising campaign in national print, radio and television media accompanied the event.

6.90   The Committee is fully supportive of the range of showcasing events and programs that are taking place. However, despite the profile of these events, there remains a low uptake of Green Power and renewable energy.

6.91   The Committee considers that further, more direct measures are needed to 'mobilise' consumer commitment and stimulate domestic market demand.

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43   Sonneborn, C. and Russell, S. (February 1999), *Green Power in Australia: Occasional paper series*, ACRE, p. 2.

44   Greenpeace (11 June 2003), *Poll finds people willing to pay extra for renewables.* Press clipping.

6.92   A 1999 ACRE report outlines a number of factors which may increase the uptake of Green Power schemes in Australia. These factors include:

- Giving continuing feedback to reinforce customers' choice of Green Power;

- Presenting tangible benefits to customers and visible installations;

- Maintaining a sustained promotion effort;

- Providing customer education about the production of electricity, about renewable energy, and about the way Green Power schemes might stimulate renewable energy; and

- Making participation in a Green Power scheme by customers both convenient and easy to understand.[45]

6.93   The Committee strongly agrees with these comments. Given that these factors were identified in a 1999 report, the Committee urges effective action be taken to implement them. The Committee sees particular scope for enhancing consumer awareness by providing greater disclosure of energy sources on electricity bills and including education material with billing information.

6.94   The Committee noted that recommendation 6 of the REAA encourages energy retailers to provide environmental information at relevant purchasing points. To date, some States, such as Victoria, have taken the step of requiring all retailers to disclose information regarding the greenhouse gas emissions associated with each customer's electricity use.[46]

6.95   As of July 2003, the Australian Capital Territory also requires all electricity bills to include details of the greenhouse gases produced for the electricity consumed.[47]

6.96   The Committee commends the work of State and Territory governments who have taken a lead in the disclosure to consumers of greenhouse gas emissions associated with energy generation.

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45   Sonneborn, C., Russell, S. (February 1999), *Green Power in Australia: Occasional paper series,* ACRE, p. 3.

46   ISR (2002), *Renewable Energy Action Agenda: New Era New Energy Implementation Report,* p. 13.

47   The Canberra Times (19 June 2003), *Green House: territory takes on world-first emissions plan,* p. 5.

6.97   The CEO group responsible for implementation of the REAA
        indicated that they believe the renewable energy industry should be
        supported by:

> Encouraging energy retailers to provide environmental
> information, including greenhouse gas emissions of energy
> sources, so consumers can make informed choices on energy
> purchase options.[48]

6.98   The Committee supports the initiative that electricity retailers should
        be required to provide a disclosure statement on every electricity
        account as a way of improving transparency and educating
        consumers.

6.99   Given that market differentiation is a driver of sustainability, the
        Committee applies to electricity retailers the same logic applied to
        ecolabelling for consumer products – establishing disclosure
        frameworks enables informed purchase and consumption decisions
        and assists in placing a market value on environmental outcomes.
        Informed consumers and clear product differentiation in the
        consumer energy market place can assist in driving sustainability
        through a more widespread uptake of Green Power schemes.

6.100   The Committee recommends that electricity accounts clearly disclose:

- The total amount of Green Power being purchased or generated by
  the electricity supplier;

- The percentage breakdown of each type of renewable energy (for
  example solar, wind or hydro) and conventional energy sources
  generating the electricity supplied;

- Information clearly highlighting the savings on greenhouse gas
  emissions as a result of the electricity suppliers purchasing of
  Green Power; and

- Advice on how a consumer can increase their uptake of renewable
  energy.

48   ISR (2001), *Renewable Energy Action Agenda: New Era New Energy Implementation Report*,
      p. 9.

Recommendation 11

> **The Committee recommends that the Australian Government through the Mandatory Renewable Energy Target pursues the mandatory disclosure for all electricity retailers of:**
>
> - **Relative sources of supplied energy;**
>
> - **Associated greenhouse gas emissions; and**
>
> - **Advice on how consumers can increase their purchase of Green Power.**

Green Power for Australian Government Departments and Agencies

6.101   Up to ten Australian Government departments and agencies now purchase a proportion of their energy needs from Green Power schemes. This includes the Department of Defence, which is the largest energy user amongst Australian Government departments and agencies. As the lead department in environmental issues, DEH purchases 100 per cent Green Power.

6.102   A report on energy use in Australian Government operations found that the consumption of Green Power by Australian Government departments and agencies had increased markedly in recent years, growing from zero use in 1997-1998 to 34 539 GJ in 2000-2001.[49]

6.103   The overall use of Green Power in Australian Government operations remains low, estimated at less than one per cent in 2000-2001. Total electricity use is around 64 per cent of energy consumption, (when defence operational fuels are excluded).[50] Although use of Green Power remains low and certainly provides for a great deal of improvement, the Committee noted that there was zero usage only five years ago. It is expected that the next five years will see far greater use of Green Power.

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49   ITR (2000-01), *Energy Use in Commonwealth Operations.*

50   ISR (2001), *Renewable Energy Action Agenda: New Era New Energy Implementation Report*, p. 20.

6.104   The Committee commends the DEH, which purchases 100 per cent
        Green Power, and supports the concept of a minimum purchasing
        agreement for Australian Government departments and agencies.
        However, the Committee is concerned that, under the current
        agreement, some agencies may purchase little or even no Green
        Power.

6.105   The Committee takes seriously the need for the Australian
        Government to demonstrate its active commitment to ESD principles.
        Community expectations are for greater environmental accountability
        from industry and these expectations are driving improved
        environmental performance from a number of businesses. Similarly,
        the Australian Government should demonstrate improved
        environmental accountability.

6.106   One means of fulfilling the commitment to ESD principles is to
        mandate a minimum usage of Green Power in all Australian
        Government departments and agencies. This also has the effect of
        increasing the market share of renewable energy, assisting the
        industry to address challenges in economies of scale which is
        currently keeping unit costs high.

6.107   The Committee suggests that all Commonwealth agencies should
        purchase a minimum percentage of Green Power. This percentage
        should be increased in the future in order to support the renewable
        energy industry, reduce greenhouse gas emissions and set a leading
        example for a sustainable Australia. A target of five per cent appears
        realistic and achievable, given current renewable energy supply and
        demand, market trends and forecasts.

Recommendation 12

The Committee recommends that:

- **It be made mandatory for all Australian Government
  departments and agencies to purchase, where available, a
  minimum of 5 per cent Green Power by 2005; and**

- **This minimum is increased to 10 per cent Green Power by 2007.**

7

Educating and Accrediting the Workforce

7.1   Australia's environment industry is aiming to increase sales to a target $40 billion by 2010. Accompanying this growth will be an increased demand for employees with environmental skills and expertise. The mounting pressure for national and international environment accountability has lead to an increased demand for environmental training across all sectors of industry.

7.2   Environmental education has been incorporated into primary and secondary school teaching for over thirty years. However evidence from the inquiry suggests that it could be more actively integrated into a wider spectrum of tertiary and vocational training courses.

7.3   Evidence from the inquiry's public hearings and the Committee's discussions with industry suggest links between higher education and industry need to be enhanced in order to assist new environmental graduates to make a smoother transition into the workforce.

7.4   An environmentally aware and trained workforce is essential for industry as a whole to embrace ESD. Some of the drive towards changed business practices must be lead by senior management and shifts in corporate philosophies.

7.5   However, all employees have a role in implementing change and bringing environmental responsibility into the workplace as an active and integrated part of business.

7.6   The widespread 'greening of the workforce' and greater environmental accountability for industry will bring with it the demand for more advisory services, and specialist and technically competent environmental professionals. The Committee considers the role of environmental professionals to be essential in ensuring that Australia achieves leading edge innovations in business efficiency and ESD.

7.7   Green business must be embraced as a component of good business. Critical to this future path is the scope of environmental training available to the mainstream workforce and the credibility of specialist environmental professionals.

Environmental Education

7.8   Environmental education has different objectives across primary, secondary and tertiary levels. The Committee recognises the importance of environmental education at each level and the different roles of these educators. The broad awareness of environmental issues taught at primary and secondary school must be succeeded by a range of both specialist and general training opportunities in the workforce, within vocational and tertiary education.

Inspiring and Educating Children

7.9   The Committee was interested in the approaches to environmental education through all levels of education. The Barton Group and the EIA suggested to the Committee that:

> Environmental education … needs to start early – as it already does in our primary schools – and progress through secondary, technical and diploma levels to fully professional qualifications in our tertiary education institutions.[1]

7.10   Giving evidence at a public hearing, Professor Barry Meehan, a lecturer at the Royal Melbourne Institute of Technology, detailed the history of environmental education in Australia. He noted that, while there has been considerable activity in environmental education over the past 30 years in both the formal education sector and the

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1   Submission no. 33, p. 4.

community, there has only been intermittent support for the environmental agenda.[2] He commented that:

> Within the formal sector, environmental education has had an ongoing base in both primary and secondary schools, but one that has seen a spasmodic support by education departments and governments.[3]

7.11   Professor Meehan emphasised the need for government intervention and commitment to ensure a continuation of support for environmental education.

7.12   The Committee is satisfied that environmental education is being addressed at primary and secondary levels and that the training of teachers is sufficient to address the needs at these levels.

7.13   The Committee's view was supported by the Barton Group and the EIA who suggested that:

> … environmental education in primary schools can be carried out effectively by teachers with broad qualifications in areas such as the natural sciences, geography and environmental science. But at tertiary level more specialist teaching is required.[4]

7.14   However, the Committee stresses the importance of incorporating environmental awareness into schooling. Future generations will take on the responsibility for ESD and the Committee encourages all schools to review and, where possible, enhance their environmental education.

7.15   The Committee also received evidence from some community groups on environmental education and training. The Committee recognises the valuable contribution of these groups in providing training and communicating environmental awareness to the broader community.

7.16   The Palm Beach Surf Life Saving Club, on the Gold Coast, has a local community group involved in environment and conservation problems in the area. The Club also runs environmental programs for primary and secondary schools and the Committee was pleased to hear that there are currently eight participating schools. The programs are an important tool in educating and encouraging children to take part in environmental remediation and improvement projects. The

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2   Submission no. 7
3   Submission no. 7, p. 1.
4   Submission no. 33, p. 4.

Palm Beach Surf Life Saving Club runs the following range of activities:

> … beach litter patrols, weeding and eradicating beach dune areas of unwanted plants, growing special grasses and plants and planting these areas to help control erosion and stabilising these areas which are constantly being damaged by wind and high seas.[5]

7.17   Another non-profit community organisation, the SurfRider Foundation Australia, provided evidence to the Committee on its environmental education initiatives. The SurfRider Foundation runs environmental programs for schools. In its submission, the Foundation explained that it takes a:

> … proactive approach to environmental issues through school and community education programs and regular publications to members and the public.[6]

7.18   The Committee acknowledges the important role that community groups play in providing environmental education programs, especially for school-aged children. The Committee also commends the partnerships that some schools have developed with environmental community groups.

7.19   The Committee encourages all schools, from primary to secondary level, to enhance the education of young people by instilling a sound concern for our environment and its future conservation.

Post-Secondary Environmental Training

7.20   While the foundations for environmental education must be laid during school years, Australia must continue this education into more specialised post-secondary training to ensure a skilled and aware workforce.

7.21   Evidence to the Committee suggested that Australia has a strong demand for tertiary environmental courses across a range of specialist areas. The Committee was interested in the breadth and strengths of Australia's tertiary environmental education sector.

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5   Submission no. 3, p. 1.
6   Submission no. 5, p. 1.

7.22   The Australian Government Department of Education, Science and Training (DEST) informed the Committee that, in 2001, there were 7 957 students enrolled in environmental studies courses.[7]

7.23   Environmental engineering comprises a significant component of the environmental industry. The IEAust informed that Committee that 'overall, there are 12 environmental engineering courses across Australia'.[8] These include universities such as Monash, Newcastle, and the Universities of Melbourne, Queensland and New South Wales.

7.24   IEAust informed the Committee that these courses contain:

> … components that analyse environmental legislation and the importance of sustainability. They also offer post-graduate research scholarships specifically aimed at the development of sustainable practice and new technologies'.[9]

7.25   DEH administers an environmental education database called EnviroNET. This database provides searchable information on 879 Australian environmental courses for Australian and international students at a tertiary level.

7.26   The National Capability Statement on Australia's Environment Industry describes Australia's EnviroNET as:

> … the premier electronic national and international gateway to Australia's environment business sector. It provides information on industry expertise, environmental technologies, education, and research and development.[10]

7.27   The environmental courses on offer throughout Australia provide a range of generalist skills and more specialised training. Greening Australia discussed with the Committee the issue of course specialisation at university and the skilling requirements in the workforce:

> We tend to find that the people we recruit have great generalist skills and very few specialist skills. The dilemma that this puts us in is that we must train them in a particular area of speciality. There needs to be a shift to encourage

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7   Submission no. 25, p. 3.
8   Submission no. 21, p. 5.
9   Submission no. 21, p. 5.
10   Centre for Strategic Economic Studies (2001), *National Capability Statement on Australia's Environment Industry*, Prepared for Environment Australia, p. 54..

> greater specialisation—be that in community engagement, in adult education and training, in water quality or in biodiversity assessment; there is a whole bunch of specialities that any individual could choose—as well as a generalist background amongst the people who are coming out. I think the [curricula] could do more to encourage people to choose a specialty and pursue that as well as the general background that they require.[11]

7.28   In addition to the concerns surrounding 'specialist' versus 'generalist' training, Greening Australia also raised the difficult balance between theoretical and vocational training. The CEO of Greening Australia conceded that ultimately:

> … you always have that dilemma of the balance between a theoretical training and a vocational training. Those with a theoretical base are probably going to struggle when they hit the field and have to have a fair bit invested in them … I think the ones who ultimately succeed and make the biggest contribution in Australia are the specialists who then become generalists.[12]

7.29   Greening Australia also commented that, in order to obtain a better understanding of what industry requires, 'Better links with the industry and a better understanding of the specialist areas and skills required are needed'.[13] An ongoing dialogue should be established between industry and tertiary and vocational training institutions to ensure that the skills developed are relevant to market needs. Conversely, industry would benefit from being made aware of the skills offered by environmental graduates and the value of these skills in a business context.[14]

7.30   The Committee considers that there is a need for a diversity of graduates able to meet the range of workplace skill needs. However, there was not sufficient evidence received by the Committee to assess whether the current diversity of training courses adequately meets the range of employment opportunities.

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11   *Transcript of Evidence*, p. 155.
12   *Transcript of Evidence*, p. 159.
13   Submission no. 20, p. 4.
14   Submission no. 20, p. 4.

Tertiary Specialist Training

7.31   The National Capability Statement commented that:

> Australia has a strong educational infrastructure in environmental sciences and environmental engineering, and professional skills provide an important source of strength for the industry.[15]

7.32   The Committee is pleased to note that the study also finds that:

> Australia has a broad international competitive advantage in university and technical education as well as vocational training and specialist training. This broader advantage flows through into environmental engineering, science and management education and provides a base for the skills required in the environmental education, training and information industry.[16]

7.33   In evidence to the Committee, the EIA spoke highly of Australia's tertiary environmental education programs, commenting that 'we are producing some wonderful graduates'.[17] The EIA also stated that the environmental graduates from Australian tertiary institutions 'come out well educated. They understand what they are doing. At that professional level, we have that knowledge and expertise'.[18]

7.34   From the evidence available, the Committee considered that current tertiary courses, which are specifically designed for environmental science and engineering, are providing graduates with a high level of education on the environment.

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15   Centre for Strategic Economic Studies (2001), *National Capability Statement on Australia's Environment Industry*, Prepared for Environment Australia, p. XIII.

16   Centre for Strategic Economic Studies (2001), *National Capability Statement on Australia's Environment Industry*, Prepared for Environment Australia, p. XV.

17   *Transcript of Evidence*, p. 46.

18   *Transcript of Evidence*, p. 46.

Environmental Education and Business Management Courses

7.35   The Committee was informed by Professor Meehan that, since the early 1990s, there have been initiatives world-wide to integrate environmental education across the curriculum of tertiary institutions. There have been a number of institutional moves to ensure that students are educated in sustainability and that universities demonstrate their own commitment to ESD.

7.36   Professor Meehan told the Committee that:

> One of the early approaches has been for universities to sign agreements or declarations like the Talloires Declaration. Many of these declarations focus on the day-to-day operations of the institutions, encouraging a reduction in resource consumption and waste. However, many also propose that the institutions' curricula ensure that all students are educated about the environment, and are encouraged to take a role in reducing environmental impacts in their personal and professional lives. During the late 1990s the emphasis on environmental literacy was broadened to embrace the principles of sustainable development, and the language in these agreements has moved to sustainability education, or similar.[19]

7.37   In Australia some six universities have signed the Talloires Declaration. However Professor Meehan expressed disappointment at the lack of environmental outcomes or leadership from Australian universities. He commented that:

> … research of less than two years ago indicated that universities across Australia, whether or not they were signatories of Talloires or other declarations, had not achieved anything that could be identified as curricula for environmental literacy, or sustainability education.[20]

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19   Submission no. 7, p. 3.
20   Submission no. 7, p. 3.

7.38   Professor Meehan emphasised the importance of integrating environmental education, suggesting that:

> … the curricula of tertiary education must be renewed if adequately resourced graduates are to emerge to support the potential of the environmental industry.[21]

7.39   The NEEC also suggested that there is a need for universities to integrate environmental education across the curriculum. The NEEC commented that universities and industry need to address new and emerging issues such as environmental legislation and requirements, TBL auditing and the growing demand for more eco-efficiency in product performance and service delivery, innovation and commercialisation.[22]

7.40   In terms of business schools, EBA believes that the awareness of environmental management issues and sustainability should be integrated into existing business courses. The CEO of EBA told the Committee:

> One of the things that needs to develop – and I have spoken to a few of the graduate schools about this—is much more awareness of issues of sustainability, risk, risk management and assessment, and company liability, and that awareness should be integrated into existing business courses. I think that over the next couple of years we will see a number take that up. RMIT certainly has a whole division focus to it. The Macquarie Graduate School of Management is very seriously looking at it, and so are Murdoch University and Curtin and, I think, the Melbourne business school as well.[23]

7.41   However, anecdotal evidence to the Committee suggests that at some institutions there is little or no focus given to environmental training in business management courses. Ms Slawka Bell, a representative from the EIA, gave the following account in relation to the environmental content of her Masters degree:

> I am currently studying for an MBA [Masters of Business Administration] and in no section of that MBA do I see anything on the environment. Maybe some cover it, but a lot do not. The MBA tends to cover four sectors: finance, marketing, IT and a type of HR, which is people

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21   Submission no. 7, p. 2.
22   Submission no. 26, p. 15.
23   *Transcript of Evidence*, p. 170.

management. But it certainly does not focus in those areas on the environment at all.[24]

7.42   During a public hearing, DEH explained to the Committee that progress has been made by the NEEC in implementing environmental education across courses – but it was not yet standard practice:

> The National Environmental Education Council has sought to engage with a number of the universities to try to promote the inclusion of environmental components in all degree courses, regardless of the particular discipline being pursued. I think that the council has found some receptive ears in a number of universities.[25]

7.43   Integrating environmental education into business courses is essential to provide adequately trained management professionals equipped with the skills to lead Australian companies in ESD. As environmental issues are integrated into sustainable business practices, it increasingly falls to all tiers of company management to assess environmental performance.

7.44   At a public hearing, the EIA discussed with the Committee the need for environment training at three different levels within an organisation. The EIA explained that:

> … within an industry or business there are really three levels. You have senior management or corporate management, you have a supervisors level and then an operators level. All three of them actually need different information. The first group look at the big picture, the global influence—why we are heading this way and what that is. The next group actually need to know some of that but also all the tools that the operator is going to need, because they are implementing it or managing it. So there are different training programs to give toolsets to the different levels within the industry or business.[26]

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24   *Transcript of Evidence*, p. 49.
25   *Transcript of Evidence*, p. 62.
26   *Transcript of Evidence*, p. 50.

7.45   EIA believes that environmental education in upper management is starting to filter through, however middle management and the workers operating the machines required urgent training and education:

> At the top end of management, we have some CEOs who actually acknowledge ESD as their new way of doing business, but we have quite a slab of middle or senior management that are the asset managers … They have not gone through any cultural awareness or change and they have not been given the tools to do the job. That is quite a blockage in Australian industry at the moment. It is a severe blockage.

> The second area, which is probably a little more frightening right now, is that those people in the work force—the operators who potentially can pollute or contaminate—are at risk. They have not been educated. The education system there is very poor. They have a little bit of awareness but they have not been educated in spills management, waste management, hazards management, erosion sediment control management and all the areas where they can pollute or contaminate.[27]

7.46   During a public hearing, GreenChip made the observation that a cultural change is needed in top level management. Specific training that targets middle management and operational managers is also required. GreenChip made the following comment in relation to a cultural shift in upper management:

> If we can get the CEOs to have this as part of their personal passion—such as at VicSuper, where the CEO is personally passionate about it—it will bring about change. They will then believe that, for the long-term sustainability of the company they have to be playing the game.[28]

7.47   Overall the Committee believes that environmental education and training is slowly being taken up by industry's management streams. However, it urges all businesses and industry sectors to evaluate the level of environmental education and training that managers at all levels receive and take appropriate action to enhance the current levels of training.

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27   *Transcript of Evidence*, p. 49.
28   *Transcript of Evidence*, p. 126.

7.48   The Committee considers that substantially more needs to be done to
        integrate environmental training into a more consistent manner across
        all tertiary management courses. Failure to do so may leave Australia
        lacking a future managerial workforce that can respond effectively to
        growing demands for better environmental performance,
        accountability and reporting. The environmental and economic costs
        of this situation could be significant.

Recommendation 13

7.49   **The Committee recommends that the Department of Education, Science
        and Training and the National Environmental Education Council:**

- **Assess the extent to which specific training in environmental
  awareness and reporting is included in all business, commerce,
  management, administration and related degrees; and**

- **Undertake to achieve the inclusion of environmental awareness
  and training in all business management courses.**

Industry Skills Assessment

7.50   In order to green the mainstream workforce, especially at the
        management level, Australia must also ensure it has an adequate
        supply of both environmental generalists as well as environmental
        specialists. This requires ensuring that there is appropriate and
        relevant training and also entry level workforce opportunities for
        environmental graduates.

7.51   Currently the dispersed nature of the environment sector, and
        particularly those engaged in environment management as part of
        their 'mainstream occupation', makes it difficult to determine how
        Australia stands in terms of skill levels and future needs. To take ESD
        seriously, and to expect its widespread uptake across businesses,
        governments and communities, requires a detailed understanding of
        Australia's skill needs and training capabilities.

7.52   The Committee sought to collect evidence in this area. However,
        beyond anecdotal accounts, there is little information available on
        which to determine any planned policy options. There is limited
        cooperation between training institutes and industry, and the sector
        lacks the cohesion to fully identify its potential expertise and needs.

7.53   Assessing current environmental management skill levels, future skill requirements and the adequacy of current training initiatives to equip the workforce with these skills is essential to ensure that Australia has the workforce and knowledge to drive and implement ESD principles.

Entering the Environmental Workforce

7.54   During a public hearing, the Melbourne Environmental Jobs Network (MEJN) also discussed its concern regarding new graduates accessing job opportunities. MEJN highlighted the need to bridge the gap for graduates in the transition phase from university to the workforce:

> There are many people who are becoming highly skilled in environmental studies from universities, however they find that it is very hard to get jobs of their choice at the end. Therefore, we see a future requirement for this skilled workforce being the jobs available at the end, and the programs to bridge the gap between university and the workforce to ensure that they do not get disgruntled and turn away. Many employers are seeking qualifications and experience that are far above graduates, and the numbers of people looking for these kinds of jobs far exceeds the positions available.[29]

7.55   Greening Australia expressed concern to the Committee about a lack of career structure and professional development in the environment sector. The CEO of Greening Australia stated that:

> There is relatively poor career structure and professional development in Australia, and relatively short-term employment. Most employment is on an 18-month to three-year contractual basis … these programs are run on a budget cycle and there is no security of employment. This makes it very hard for people to plan for the future and the majority of staff who work with us get fed up with that at some point in time.[30]

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29   Submission no. 16, p. 3.
30   *Transcript of Evidence*, p. 153.

7.56   DEST informed the Committee that:

> The Department will continue through its policies and
> initiatives to facilitate the acquisition of education and
> training that supports the environment industry and related
> employment sectors.[31]

7.57   The Committee recognises the potential difficulties facing graduates
who are looking to join the workforce with several years of mainly
theoretical knowledge and limited vocational experience. The
Committee encourages DEST to review the current programs in place
to help bridge the gap between universities and the workforce.

7.58   The Committee was pleased to note that vocational training in
environmental management is receiving increased emphasis with a
variety of operator level and skills enhancement courses being offered
through the Technical and Further Education (TAFE) sector and a
number of these institutions are seeking to integrate with industry
providers in offering courses overseas.[32]

7.59   An Australian Government program providing some entry workforce
opportunities and training in environmental awareness for young
people is Green Corps. The Green Corps program provides 1 700
young people in rural and regional Australia with a youth training
wage for six months while they work on environment industry
projects. Greening Australia currently has the contract for this
program.

7.60   The CEO of Greening Australia commended the Green Corps
program but also stated that there appears to be a lost opportunity.
The CEO suggested that there is an excellent opportunity to offer
potential employers green apprenticeships or green traineeships
which would provide follow-on employment for young workers
while also benefiting employers:

> The program would benefit from being more closely tied to
> the potential employers of people coming through the
> program and I think there is also considerable potential for
> tying traineeships to the back of the program. If, for example,
> we could take someone in the program who shows promise,
> develop a mentoring arrangement over the first six months

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31   Submission no. 25, p. 7.
32   Centre for Strategic Economic Studies (2001), *National Capability Statement on Australia's
Environment Industry*, Prepared for Environment Australia, p. 185.

with the local industry or a local employer and then offer a traineeship running off the back of that, we would have potentially opened up a pathway.[33]

7.61   The Committee acknowledges these concerns raised by witnesses regarding entry and ongoing opportunities for young people to secure employment in the environment sector. Given the limited evidence on this issue, and the lack of available data, the Committee considers that further assessment of employment impediments and opportunities is required before effective strategies can be developed.

Ongoing Workplace Training

7.62   Training is a key issue for the mainstreaming of environmental awareness. Changing technologies, community expectations and regulatory standards result in operators requiring more specialised knowledge. The skill level required for some positions has also been upgraded.

7.63   Generalised workplace training is important to ensure that the environment becomes the business of all workers. More specialised re-skilling courses are needed to take account of changing expectations and technologies and the new demands this places on some jobs.

7.64   WIOA typifies the difficulties faced by a traditional industry responding to changing environmental standards and expectations. A survey by the WIOA of its members in 2001 found that:

> … of the 100 respondents, 66 % were in 31-50 year old bracket. A trade qualification was the most common educational standard attained (34 %) with a water industry specific certificate held by only 10 % of respondents. The Association believes that its members reflect the broader industry in terms of age and skill distribution.[34]

7.65   In its submission to the inquiry, the WIOA noted that, given its ageing workforce, 'the challenge for water business managers, as well as Associations such as ours, is to ensure that access to appropriate skills development and training courses is available'.[35]

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33   *Transcript of Evidence*, p. 158.
34   Submission no. 9, p. 1.
35   Submission no. 9, p. 1.

7.66   It would seem that the issues faced by the WIOA, and many other similar sectors, are twofold. Firstly there is a need to encourage young people to pursue careers in certain sectors. Awareness of these sectors as a career choice could be raised through the provision of more training programs which address the specific skill needs of these areas. Secondly, there is a need to update the skills of some existing workers to meet the changed technological and regulatory demands of the job.

7.67   Both challenges could be addressed by the provision of training programs which raise awareness of industry sectors as a career choice for young people, and provide the opportunity for those working in the field to upgrade skills and competencies in line with new technologies.

7.68   The Committee was impressed with the market awareness of industry associations, such as the WIOA, which are working at strategies to best serve the training needs of their members and the sector. An example of this forward thinking and commitment to both the industry and environment is the Association's engagement in the development and revision of the National Water Industry Training package. In its submission, the WIOA explained to the Committee that:

> This package has recently been released to the water industry and training providers, and the challenge now for each State is the development and provision of courses meeting the outcome requirements of the package. Integral to this is the need for acceptance of the package by the water business managers and a commitment to the provision of access to ongoing training for their staff.[36]

7.69   Another industry association responding to the challenge of changing industry competency requirements and the skilling of its members is the CCF. The CCF has developed a national prequalification system which consists of an Integrated Management System (IMS) containing elements of the ISO 14001 standard for environmental management, quality assurance and Occupational Health and Safety Standards.

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36   Submission no. 9, p. 38.

7.70   The CCF notes that their IMS:

> … enables contractors around Australia to more successfully meet their obligations and manage the risks associated with works impacting on the environment. The scheme, environmentally speaking is far in advance of other sectors of the building and construction industry.[37]

7.71   The CCF noted to the Committee that there has been a high uptake of the IMS across States and some State authorities are making the CCF IMS or similar a mandatory requirement for contractors.

7.72   The CCF considers that there is an important role for the Australian Government leadership in promoting the uptake of management systems which deliver sound environmental outcomes. The CCF stated in its submission that:

> … all levels of Government through various compliance measures should be setting higher standards / criteria to make environmental awareness / training mandatory.[38]

7.73   In relation to future training needs of the industry, the CCF described a similar situation to that faced by the WIOA:

> The Civil Construction industry presently has an ageing workforce. Every effort should be made to encourage younger people to join the industry through appropriate skills programs. The environmental awareness of young people will only help the industry to go to the next stage.[39]

7.74   Schemes, such as the CCF IMS can ensure that training in environmental management and awareness is a standard component of management systems and employee expectations. The WIOA commented to the Committee at a public hearing that, in relation to environmental training:

> … one of the big drivers now is ISO accreditation. I know a lot of the authorities are going down that path. We certainly are. One of the reporting outcomes from that is to actually have demonstrated levels of training in your staff. That is an important thing for us.[40]

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37   Submission no. 11, p. 44.

38   Submission no. 11, p. 45.

39   Submission no. 11, p. 45.

40   *Transcript of Evidence*, p. 146.

7.75   Training needs, particularly to implement sustainable forestry practices, are also an issue for the National Association of Forest Industries (NAFI). NAFI informed the Committee that they were currently not skilled 'to the extent that the industry would like'.[41]

7.76   To meet future demand, the forestry industry will have to ensure that the people working in the sector are appropriately skilled. Specific skills sets are required in order to be able to provide advice on issues such as the correct species of trees that should be planted in areas, depending on the annual rainfall levels and the quality of soil.

7.77   NAFI went on to explain that:

> There are some very good forestry schools and some very good courses being run around the country, but the industry does have some significant problems with talent base and with future leadership positions.[42]

Industry Skill Needs

7.78   The 2001 National Capability Statement recognised the need for skill specialisation in the environment sector as well as the benefits of promoting the opportunities for careers in the environment sector:

> … there are many roles in the environment industry in which skills of the highest order are required – such as in design and engineering, monitoring and analysis, and research and consulting. Greater awareness of the opportunities and challenges of careers in these areas and greater focus on education and training for environment industry opportunities might assist industry development by ensuring ease of access to necessary skills.[43]

7.79   The Committee believes that the NEEC is a valuable forum for bringing together speakers from industry, business, government and tertiary institutions to exchange views on the professional skills that are required for graduates and professional entering the workforce now and in the future.

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41   *Transcript of Evidence*, p. 87.
42   *Transcript of Evidence*, p. 87.
43   Centre for Strategic Economic Studies (2001), National Capability Statement on Australia's Environment Industry, Prepared for Environment Australia, p. XX.

7.80   The need to foster this collaboration between tertiary institutions and business and industry was also brought to the Committee's attention by the Western Australian Department of the Premier and Cabinet:

> Continued coordination and cooperation between industry, industry associations, government, unions, education and training bodies and institutions will be required to achieve a focussed and timely response to skills generation in the environment sector.[44]

7.81   The South Australian Government recognised that environmental industries such as aquaculture and fisheries are becoming increasingly popular in South Australia's regional areas and for regional young people. Consequently schools, TAFEs, universities and other educational and training institutions have a major role in ensuring that there is a steady stream of skilled personnel available for industry development.

7.82   The South Australian Government recommended that the Australian Government commit, along with States and Territories, to a national campaign directed at young people which emphasises environment related industries as viable career options.[45]

7.83   A representative from GreenChip also made the point that:

> Environment job opportunities would abound if governments agreed that these people could make a real difference to the environment and the economy and efforts were then made to mobilise them.[46]

7.84   Addressing skill gaps is a complex issue, in particular when environmental employment stretches across a range of sectors and is not able to be confined to certain industries or production processes. The Committee heard consistent reference made to the need for vocational education, either subsequent to, or in conjunction with, tertiary training.

7.85   There was also the need for vocational training which provided more specific environmental management skills to supplement the competencies of workers who came into the field through trade qualification or had 'worked their way up' to new positions. In many instances, it would seem to the Committee that there were people

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44   Submission no. 22, p. 4.
45   Submission no. 32, p. 3.
46   Submission no. 30, p. 5.

willing to do the job, and often represented by industry associations committed to sound environmental outcomes, but there are skill gaps – that is, a lack of 'the specialised knowledge, skills and experience needed to adapt to new technology and new methods of working'.[47]

7.86   A report on national skill shortages identifies globalisation and changes in technology as two major forces impacting on skill formation:. The implications of these forces are:

- the need for all skills training programs (including apprenticeships) to be continually developed to meet the now very rapidly changing skill requirements in the workplace arising from new technologies; and
- that as much attention needs to be given to the upgrading and renewal of the skills of existing workers as the acquisition of qualifications by new entrants to any skilled occupation.[48]

7.87   While these themes resonate with those of the environmental industry and emphasise the need for raising environmental training across a range of sectors, the report also stated that:

> … despite some of the issues being generic across all or most skilled occupations, the solutions and plans for action really need to be tailored and customised to the conditions applying in particular industries and occupations. For example, most industries felt that the skilled trades had an image problem in terms of their appeal to young people thinking about potential careers. All industries felt a bias on the part of school, parents and media towards university education and the professions. Yet each industry has proposed some quite different specific measures to tackle these issues in their industry.[49]

7.88   DEH also informed the Committee about a series of NEEC summits at various Australian universities. The summits brought together speakers from business, industry, government organisations and tertiary institutions with the aim of exchanging views on industry's needs and the tertiary sector's capacity to prepare graduates equipped with necessary environmental and professional skills.

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47   DEST (November 2002), *Nature and Causes of Skill Shortage*, p.3.

48   DEST (November 2002), *Nature and Causes of Skill Shortage*, p. 1.

49   DEST (November 2002), *Nature and Causes of Skill Shortage*, p..1.

7.89   The Committee noted that there were a limited number of these forums and they have not been ongoing.

7.90   While the Committee received some evidence regarding education and training needs in the industry, much of this evidence was anecdotal and specific to certain areas of industry. Shortages of professionals are anecdotally reported in some areas, and yet others consider that there is a good supply of trained environmental consultants and professionals. It is also unclear whether the current availability of training courses is sufficient to meet the predicted growth in demand for environmental professionals.

7.91   The Committee noted that other sectors have at times faced similar education and training issues, and strategies have been developed at the Australian Government level to address sector skill needs. The National Industry Skills Initiative (NISI) is an industry led consultation process that establishes the industry, government and partnership projects required to redress industry skill shortages in identified sectors. A number of action plans have already been developed across a range of sectors and recommendations from these plans are in the process of implementation.

7.92   A report on the effectiveness and progress of NISI was released in November 2002. The report provides some 'overarching' lessons and comments on skill shortages derived from the six industry areas (engineering, electrotechonology, retail motor, commercial cookery, building and construction and rural industries).

7.93   In many instances the findings of the report echo the evidence heard by the Committee in relation to environment skills and training. A key finding of the report is that pathways to employment have diversified, beyond the traditional apprenticeships, to a range of vocational education opportunities. The report noted that:

> Most skilled occupations have a significant proportion of workers who do not have formal qualifications. A real question arises as to whether Australia can maximise its potential with such high numbers of skilled workers without formal qualifications in the future.[50]

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50   DEST (November 2002), *Nature and Causes of Skill Shortage*, p.3

7.94   The report also considered:

- skill shortages - where there is difficulty in filling vacancies for an occupation); and

- skill gaps - where specialisation or re-skilling of existing employees is required).

7.95   The Committee believes that an industry-Australian Government partnership approach to assess skill levels and needs is essential for the environment sector and for ESD implementation. There is a critical need to ensure that all Australian industries have access to environmental training and that Australia's specialised areas of environmental management and development continue to be world competitive and leading edge.

7.96   It is the view of the Committee that a comprehensive review should be undertaken to assess skill needs and training facilities and a set of actions developed to adequately equip the future workforce to meet the expectations of greater environmental accountability and sustainability.

Recommendation 14

7.97   **The Committee recommends that the Australian Government Department of Education, Science and Training, in association with the National Environmental Education Council:**

- **Undertake a review to assess current environmental skills and broad industry needs in relation to environment training, and workforce entry opportunities; and**

- **Develop a set of actions to ensure an adequately skilled future workforce and appropriate training facilities to meet future needs.**

Recommendation 15

7.98   **The Committee recommends that the Australian National Training Authority develop a program of environmental apprenticeships or traineeships to provide follow-on opportunities for youth completing the Green Corps or similar program.**

Professional Certification

7.99   The EIA gave evidence to the Committee regarding the need for certification of the environment profession and the steps being taken by the Institute to achieve this. In their submission, the EIA noted the importance of certification for the industry to ensure professional credibility and sound environmental outcomes. The EIA stated that:

> It is the expectation of the Institute that we will witness a massive increase in the demand for formally certified environmental professionals to be employed to prepare environmental management systems, carry out environmental audits and be responsible for the 'sign off' of projects having potential environmental impacts. This expectation is sustained by a growing awareness of sensitivity within the community worldwide, demanding assurances that adverse ramifications, such as environmental harm, can and will be avoided.[51]

7.100   The EIA considered that certification has become essential due to the increasing demands and expectations of governments, business and the industry itself to meet environmental responsibilities and manage risk liabilities. The development of a series of common yardsticks, against which competence could be measured, would ensure that environmental practitioners and consultants are appropriately experienced for the task at hand.

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51   Submission no. 10, p.43.

7.101   In addition, given the range of technologies and specialisations within the environment profession, few practitioners can be expected to competently operate across all fields. EIA believes is an obligation to establish systems of accreditation (that assess standards of competence, professionalism and adherence to ethical standards) for environmental practitioners.[52]

7.102   The EIA made a strong case to the Committee regarding the need to ensure the competencies of professionals employed, especially in light of the predicted rise in environmental consultancy work.

7.103   The Committee was told that the situation is rapidly becoming one of:

> ... employ the right person – competent, knowledgeable, responsible, professional and ethical – or else. This trend to significant increases in employment of environmental professionals is inevitable, if public liability issues are to be reduced to acceptable levels and private confidence (for say, investment purposes) is to be achieved and maintained.[53]

7.104   In its supplementary submission to the inquiry, the EIA also brought to the Committee's attention a request for funding assistance that has been presented to the Minister for Environment and Heritage, the Hon Dr Kemp. The EIA stated to the Committee that it considers that the Institute is:

> ... in a strong position to drive and develop an environmental professional certification program but it cannot do this alone. It seeks the support of the Federal Government in bringing forward this certification scheme.[54]

7.105   The EIA seeks funding to implement the next stage needed to establish certification in Australia. This stage involves the establishment of a taskforce, high level work with other stakeholders, a review and assessment of other models and associations, followed by the publication, launch, implementation and marketing of the certification scheme over a three year period.

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52   Submission no. 10, p.4.
53   Submission no. 10, p. 43.
54   Submission no. 33, p. 259.

7.106   The EIA has undertaken a large amount of preliminary work towards
         certification of the profession, including conducting research and
         international benchmarking with programs from Canada and the
         United States.

7.107   For certification to be an effective nationally recognised scheme, the
         EIA told the Committee that the Australian Government commitment
         is essential. The EIA stated that:

>   Federal government needs to be actively involved in
>   supporting the progress of a certification scheme for
>   environmental practitioners which will lead to high and
>   consistent standards within the profession.[55]

7.108   The Committee was impressed by the drive of the EIA and its
         commitment to upholding the strongest ethical standards and to
         seeking the best environmental outcomes.

7.109   The Committee is also strongly of the view that, for industry to be
         'won over' to ESD, the credibility of environmental professionals is of
         paramount importance. It also considers that the Australian
         Government must again be seen to recognise the importance of ESD
         and to facilitate the integration of environmental considerations and
         performance into standard business practices.

7.110   Accordingly, the Committee places a high importance on a
         certification program for environmental professionals. There are
         sound national benefits to ensuring that Australia has skilled
         environmental professions whose competencies can be certified.

7.111   For these reasons, the Committee concludes that there is a definite
         role for the Australian Government to financially and
         administratively assist the EIANZ in the establishment of such a
         program.[56]

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55   EIA (2003), The *Future for Certification of the Environment Profession*, submission made to
     the Minister for Environment and Heritage, p. 9.
56   In December 2002, the EIA become the Environment Institute of Australia and New
     Zealand (EIANZ). EIANZ continues to progress the EIA work towards certification of the
     environmental profession. However, for the purposes of this inquiry, the report refers to
     the EIA as the submission, documents and public hearing referred to were prepared by
     or conducted with EIA. Future work will be conducted with the EIANZ.

Recommendation 16

7.112   **The Committee recommends that the Australian Government departments of Education, Science and Training, and Environment and Heritage:**

- **Work with the Environment Institute of Australia and New Zealand to establish a certification scheme for environmental professionals; and**

- **Assist the Environment Institute of Australia and New Zealand to identify Commonwealth grant programs.**

Bruce Billson MP

Committee Chair

6 November 2003

A

Appendix A – List of submissions

Number	Organisation
28	Aboriginal and Torres Strait Islander Commission (ATSIC)
24	Australian Political Ministry Network Ltd (PolMin)
6	Australian Superconductors
10	Barton Group & Environment Institute Australia
33	Barton Group & Environment Institute of Australia [supplementary submission]
11	Civil Contractors Federation
27	CRC Reef Research Centre Limited
37	Darlington, Mr Bon, Dalvean, Mr Michael and Manson, S. R.
25	Department of Education, Science and Training
26	Department of Environment and Heritage
18	Department of Industry, Tourism and Resources
22	Western Australia Government
1	Didg Information Systems
36	Didg Information Systems [supplementary submission]
2	Email Media
34	Environment Business Australia

4	Environment Industry Development Network
17	Forests & Forest Industry Council of Tasmania
8	Gold Coast City Council
30	GreenChip Pty Ltd
20	Greening Australia
21	Institution of Engineers, Australia
29	Lawson, Mr Steven
14	McLeod, Dr Stephen and Chapman, Mr Christopher
7	Meehan, Assoc. Prof. Barry and Thomas, Dr Ian
16	Melbourne Environmental Jobs Network
12	National Association of Forest Industries Ltd
13	Office of the Renewable Energy Regulator
3	Palm Beach Schools Surf and Environmental Education
23	Renewable and Sustainable Energy ROUNDTABLE
19	Renewable Energy Generators Australia Limited
32	South Australian Government
5	Surfrider Foundation
31	Vulcz, Rosemary
35	Wajon, Dr Eddy
9	Water Industry Operators Association Inc.
15	World Wide Fund for Nature Australia

B
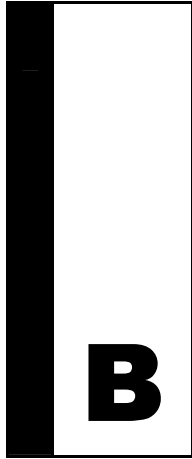
Appendix B – List of exhibits

1   *Careers in the Environment, Careers Information*, presented by
    Melbourne Environmental Jobs Network at the public hearing in
    Melbourne on 26 February 2003.

2   *National Water Training Package,* presented by the Water Industry
    Operators Association at the public hearing in Melbourne on
    26 February 2003.

C

Appendix C – List of public hearings

Thursday, 17 October 2002 - Canberra

Environment Industry Development Network

> Mr Ian Bergman, General Manager, Environment Technology Information Centre

Environment Technology Information Centre

> Mr Bruce Arnold, Manager for Strategic Development

Monday, 11 November 2002 - Canberra

Department of Industry, Tourism and Resources

> Mr Rick Belt, Director of Environment Industry Section

> Mr Malcolm Farrow, Head of Energy and Environment Division

Office of the Renewable Energy Regulator

> Mr David Rossiter, Regulator

> Ms Karla Wass, Manager

Thursday, 14 November 2002 - Canberra

Barton Group

> Mr William Leane, Executive Manager

Environment Institute of Australia

    Mr Bill Haylock, National Executive

Environment Institute of Australia

    Mrs Slawka Bell, Executive Director

Thursday, 12 December 2002 - **Canberra**

Department for Environment and Heritage (Australian Greenhouse Office)

    Mr Denis Smedley, A/Manager Energy Supply Team, Sustainable Energy Group

Department of the Environment and Heritage (Environment Australia)

    Mr Richard Webb, Director, Finance and Environment Industries Team

Thursday, 13 February 2003 - **Canberra**

National Association of Forest Industries

    Ms Kate Carnell, Executive Director

    Mr Phil Townsend, Deputy Executive Director

Wednesday, 26 February 2003 - **Melbourne**

Civil Contractors Federation

    Mr Kenneth Chiller, Chief Judge, Case Earth Awards

    Mr Richard Snare, Director - Projects

GreenChip Pty Ltd

    Mr Anthony Peyton, Managing Director

Melbourne Environmental Jobs Network

    Mr Michael Oke, Acting President

    Dr Cathy Oke, Media & Partnerships Coordinator

RMIT University

> Assoc. Prof. Barry Meehan, Assoc. Professor of Environmental
> Science, School of Social Science & Planning

Victorian Water Industry Association Inc

> Mr Paul O'Brien, Training Manager

Water Industry Operators Association Inc.

> Mr George Wall, Secretary/Treasurer

Thursday, 6 March 2003 - **Canberra**

Greening Australia

> Mr Carl Binning, Chief Executive

Thursday, 20 March 2003 - **Canberra**

Environment Business Australia

> Ms Fiona Wain, Chief Executive Officer

D

Appendix D – National Environment Statistics

Major ABS publications

4613.0 Australia's Environment: Issues and Trends

The 2003 edition looks at the economic and other values that can be placed on Australia's environment and natural resources. This edition explores how economic, social and environmental changes and conditions can be measured. The environmental impacts of the agriculture, forestry and mining industries, the industries are considered along with waste and waste management in Australia. The publication does not present data on all environmental issues. Future editions of the publication will cover other topics.

4602.0 - Environmental Issues: People's Views and Practices

The survey provides information on energy sources, aspects of dwelling materials and fixtures that impact on energy use, and energy using household appliances.

4603.0 - Environment Protection Expenditure, Australia, 1995-96 and 1996-97

The survey provides information on environment protection expenditure, capital environment protection expenditure and income from environment protection activities. In the 2000-01 publication, the range of industries covered was limited to mining and manufacturing industries as these are typically the largest consumers of environment protection goods and services.

4604.0 - Energy and Greenhouse Gas Emissions Accounts, Australia

The survey provides information on the supply, use and stock of primary energy resources; secondary energy products; and the greenhouse gas emissions associated with the use of these energy resources

4617.0 - Environment by Numbers: Selected Articles on Australia's Environment

This publication covers a number of topics including climate change, Australia's rivers, renewable energy, forest conservation, salinity, and the impacts of transport, construction, fishing, mining, manufacturing and agriculture on the environment.

Year Book Australia 2002 Environmental attitudes and behaviour in Australian households

Other ABS Environment Related Publications

4605.0 - Australian Transport and the Environment, 1997

4607.0 - Fish Account, Australia, 1997

4608.0 - Mineral Account, Australia 1996

4610.0 - Water Account for Australia 1993-94 to 1996-97

4611.0 - Environment Expenditure Local government Australia, 1999-2000

4603.0 - Environment Protection, Mining and Manufacturing Industries, Australia 2000-2001

Other Major Publications

National Capability Statement on Australia's Environment Industry 2001 prepared by the Centre for Strategic Economic Studies

Australia: State of the Environment report 2001

E

Appendix E – TBL Guidance

Australian organisations and standards

The Commonwealth Department of Environment and Heritage

Environment Australia

1.1   Environment Australia has implemented a number of initiatives to assist business with environmental reporting. The following two publications provide step-by-step guidance on preparing public environmental reporting:

- *A Framework for Public Environment Reporting: An Australian Approach.* Environment Australia (March 2000) (also available online).[1]

- *Environmental Reporting: Handbook for Small and Medium Size Businesses.* Australian Business Limited (June 2001) (also available online).[2]

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1   www.ea.gov.au/industry/finance/publications/framework, last accessed 5 November 2003.

2   http://www.ea.gov.au/industry/finance/publications/smehandbook.html, last accessed 5 November 2003.

Australian Greenhouse Office (AGO)

1.2   The AGO site is the principal source of information relating to greenhouse and ozone issues in Australia. The AGO administers the Greenhouse Challenge program, which includes detailed methodologies for calculating greenhouse gas emissions.[3]

Commonwealth Department of Family and Community Services (FaCS)

1.3   FaCS is developing two guides to assist Australian organisations to report on their social and economic performance.[4]

National Pollutant Inventory (NPI)

1.4   The NPI is a database of key pollution sources across Australia. It contains information for NPI reporters, including access to methodologies for emissions calculations.[5]

Environment Protection Agency (EPA), New South Wales

1.5   Corporate Environmental Reporting: Why and How?, prepared by the Economics and Environmental Reporting Branch of the EPA, was the first guide to be published by a regulatory agency on corporate environmental reporting. Its intention was to increase awareness within industry regarding voluntary reporting.

International organisations and standards

Global Reporting Initiative (GRI)

1.6   The GRI is an international, multi-stakeholder initiative aimed at creating a common global framework for voluntary reporting of the economic, environmental and social impact of organisation-level activity. The GRI mission is to elevate the comparability and credibility of sustainability reporting practices worldwide.[6]

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3   www.greenhouse.gov.au, last accessed 5 November 2003.
4   www.facs.gov.au, last accessed 5 November 2003.
5   www.npi.gov.au, last accessed 5 November 2003.
6   www.globalreporting.org, last accessed 5 November 2003

The Institute of Social and Ethical AccountAbility

1.7   AccountAbility is an international, not-for-profit, professional
        institute dedicated to promoting social, ethical and overall
        organisational sustainability. Its AA1000 series provides a framework
        to assist organisations to build accountability and social responsibility
        through quality social and ethical accounting, auditing and
        reporting.[7]

ISO 14000 Standards

1.8   The ISO 14000 series of Standards provides management tools to
        assist organisations to address environmental risks associated with
        their operations. The environmental management systems standard
        ISO 14001 provides a framework to identify significant environmental
        aspects and impacts, and provides a basis for performance
        improvement.

1.9   ISO 14031 provides guidance on how organisations can evaluate their
        environmental performance. The standard addresses the selection of
        suitable performance indicators as a basis for internal and external
        environmental reporting.

1.10   ISO Standards are not available free of charge, however information
        relevant to the Standards and purchase details are available online.[8]

SustainAbility

1.11   SustainAbility is a consultancy focusing on sustainable development
        practices. It provides many relevant online documents regarding how
        sustainable development philosophies and practices fit within
        business strategy and TBL reporting.[9]

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7   www.accountability.org.uk, last accessed 5 November 2003
8   www.iso.org/iso/en/ISOOnline.frontpage, last accessed 5 November 2003
9   www.sustainability.com, last accessed 5 November 2003

United Nations Department of Economic and Social Development

1.12   The United Nations Department of Economic and Social
         Development administers a range of programs across economic,
         environmental and social dimensions. It provides online links to
         United Nations' initiatives and programs in sustainability, the
         environment and public reporting, along with links to information
         and guidance on international environmental and sustainability law,
         including the Montreal Protocol, the Basel Convention and the Kyoto
         Protocol.[10]

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10   www.un.org/esa/index.html, last accessed 5 November 2003