

Business Services

Learner Guide



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Acknowledgements

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Sustainability Victoria has provided funding support towards the Knowledge and Skills for Sustainability resource development and pilot training.

National Centre for Sustainability (NCS) at
Swinburne University of Technology

Learner Guide for Business Services BSBSUS301A: Implement and monitor environmentally sustainable work practices © Sustainability Victoria 2008

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Section 1 - Introduction

Purpose of this Learner Guide

This unit of competency (BSBSUS301A from the *Business Services Training Package – Implement and monitor environmentally sustainable work practices*) is supported by this **Learner Guide**. The Learner Guide has been prepared to assist the learner's understanding of the unit content. The Learner Guide also provides background information, additional resources and activities to further develop the learner's knowledge and skills in relation to the learning outcomes. This Learner Guide will provide you with the information you need to become competent in this unit.

BSBSUS301A Implement and monitor environmentally sustainable work practices is designed for learners working or aiming to work at the team leader and/or middle manager level within the business services industry. This industry category covers areas such as finance, education, consulting, information and communication technologies, printing and graphic arts.

At this level you would be expected to understand not only the environmentally sustainable practices of your own work but also those of your team or branch and to some degree your organisation as a whole.

Overview of competency

This training describes the performance outcomes, skills and knowledge required to effectively analyse the workplace in relation to environmentally sustainable work practices and to implement improvements and monitor their effectiveness.

The learning outcomes are:

- investigate current practices in relation to resource usage
- set targets for improvements
- implement performance improvement strategies and
- monitor performance.

How you will be assessed

To receive formal recognition for this unit of competency, you need to complete a number of assessment tasks that will be reviewed by an assessor to determine your competency.

The assessor may choose to base their assessment of your competency on the tasks described in this Learner Guide. They may also use other or additional tasks or activities that suit your workplace

or a simulated workplace selected for the purposes of this training. Assessment requirements will be discussed with you at the commencement of training.

Recognition of prior learning (RPL)

You might feel that you are already competent in some or all the elements of this unit of competency. If so, you will need to present evidence to an assessor so that they may determine whether you need to complete all or any of the unit to gain formal recognition. The evidence might be a certificate from another course, references from past or current employers and/or work samples. If you think you may be eligible for RPL, please discuss this with your trainer or unit provider.

How to use this Learner Guide

In this Learner Guide you will find guidance, activity sheets, resource links and templates relevant to the learning outcomes.

Sections 2 and 3 provide **background information** on the concept of sustainability and what it means to an individual as well as a business community. Information is also provided on the various sustainability issues and how they influence and are influenced by business.

Section 4 shows you how to identify **environmentally sustainable work practices**, through the completion of a simple audit.

Section 5 provides information on how to **implement environmentally sustainable work practices**, including **communication tips** – how to inspire and engage your work colleagues, management and external stakeholders, such as customers and suppliers to implement performance improvement strategies. This Section also explains how you can set targets to improve the sustainability of your work practices.

Section 6 provides a methodology to **monitor your performance** to enable continuous improvement of your environmentally sustainable work practices.

Section 7 provides **additional resources**, including web sites, books, journals and organisations that may be able to assist you in identifying, implementing, monitoring and improving your environmentally sustainable work practices.

Throughout the Learner Guide are question boxes, activity boxes and case study boxes. Your trainer may use the question and activity boxes for group discussion or may ask you to complete them individually or as a group as part of your assessment requirements.



Question boxes provide items for you to think about and discuss in more detail.



Activity boxes provide exercises for you to complete, either as a group or individually, to help you learn and consolidate information.



Case study boxes provide 'real life' examples to provide you with a greater understanding of the topic and its implications.

Section 2 - Sustainability

What does sustainability mean?

Every day we hear the term 'sustainable' or 'sustainability' being used to describe a large number of issues and news items. There is the 'sustainable economy', 'sustainable agriculture', 'economically sustainable', 'the need to be sustainable', '*sustainable work practices*' and 'sustainable water supply' to name a few.

The Brundtland report

The Brundtland Report, *Our Common Future*, is seen by many as one of the first global reports to address sustainable development. This report defined sustainable development as:

"...development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Brundtland (1987)

National strategy for ecologically sustainable development

Sustainable Development is defined by the Australian Government's *National Strategy for Ecologically Sustainable Development* as:

"...using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained and the total quality of life, now and in the future, can be maintained."

Commonwealth of Australia (1992)

UNESCO Decade of education for sustainable development

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) defines sustainable development in reference to the United Nations Decade of Education for Sustainable Development, spanning from 2005 to 2014, as:

"Society: an understanding of social institutions and their role in change and development, as well as the democratic and participatory systems which give opportunity for the expression of opinion, the selection of governments, the forging of consensus and the resolution of differences."

Environment: an awareness of the resources and fragility of the physical environment and the effects on it of human activity and decisions, with a commitment to factoring environmental concerns into social and economic development.

Economy: a sensitivity to the limits of economic growth and their impact on society and on the environment, with a commitment to assess personal and societal levels of consumption out of concern for the environment and for social justice.”

UNESCO (2002)

Overall, sustainability is a broad concept that includes a balance of three objectives – environmental, social (cultural) and economic. (National Centre for Sustainability, 2006)

ESD and sustainability

The term 'ESD', or 'ecologically sustainable development', is widely used within Australian industry in conjunction with or in place of the term 'sustainability'.

Sustainability is referred to in many other terms as well, such as the 'triple bottom line', 'corporate social responsibility', 'extended producer responsibility', 'cradle to grave' (or 'cradle to cradle'), 'ecological footprint' and 'industrial ecology'. All these terms describe the inter-relationship and inter-dependence of the economy and the social and physical environments.

These terms have come about due to the recognition that the earth's resources are finite and that we must conserve and manage these resources for our own needs so that we do not compromise the ability of future generations to meet their needs. It introduces the concepts of 'stewardship', or looking after the world's resources, reducing and recycling resources and looking to nature for examples of ways to develop without using large amounts of resources (termed 'biomimicry').



Can you think of other terms that are used to describe sustainability?

What are the sustainability issues?

Unsustainable activities have led to changes in our environment, or have been identified as having the potential to lead to future changes. The types of changes that are occurring or are predicted to occur form the key issues for sustainability.

Key sustainability issues can be global and/or local.

The following Table 1 provides a summary of the key issues. They are related to changes to the physical and cultural (being the way we live) environments, which in turn relate to the economic environment.

Table 1 Key Sustainability Issues

Key Issue	Implications – Globally and in Australia	Management Options?
Change in climate due to an increase in greenhouse gases	Rising sea levels due to accelerated ice cap melting, agricultural losses, drought, flooding.	E.g.: Reduce greenhouse gas emissions through higher use of renewable energy. Reduce energy use through efficiencies.
Reduction in air quality	Increase in air pollution affecting health, vegetation loss.	
Reduction in water quality and quantity	Less water available for agriculture, natural environments (leading to loss of biodiversity) and human consumption and recreation, increase in soil erosion, increase in illness due to unclean water consumption.	
Loss of biodiversity	Loss of species, land clearing leading to erosion (which reduces water quality), changes to the food chain and ecosystems.	
Finite resources	Limited supplies of fossil fuels (e.g., oil, gas, coal), changes to transport modes, price increases for fuels and other resources, damage to the environment through resource extraction activities.	
Loss of heritage	Reduction in heritage values and historical reference, cultural losses – stories, traditions and values, loss of cultural diversity	
Generation of waste	Increase in pollution risks due to uncontrolled landfill disposal and liquid waste disposal to rivers and oceans. Health hazards associated with uncontrolled waste disposal.	

Increase in noise	Effects on community and worker wellbeing, hearing damage.
Genetically modified foods	Loss of species diversity, loss of local traditions and small scale methods of food production, potential for larger scale disease/pest epidemics due to reduced crop diversity.
Loss of community and social values	Increase in crime, reduction in family support and reliance on external financial support mechanisms, loss of links to the natural environment through traditional values (see Loss of heritage), isolation from the community.



Complete the third column with examples of possible management options for key sustainability issues. The first one (change in climate) has been completed for you.



Think about the town or suburb where you live. List five sustainability issues that you feel are affecting your local community and how they may be affecting your personal or family way of life

1. _____
2. _____
3. _____
4. _____
5. _____

Climate change

What is climate change?

Climate change is a key sustainability issue and is at the forefront of sustainability issues in today's media.

Climate change is the change in the earth's climate caused by the build up of greenhouse gases (mainly carbon dioxide, methane and nitrous oxide) in the earth's atmosphere. These gases build up in the atmosphere, forming a blanket which prevents the sun's energy from escaping, so that temperatures within the atmosphere increase.

Greenhouse gases are released into the atmosphere by human activities, particularly the burning of fossil fuels. The resulting increase in global temperatures is altering the earth's natural systems such as cloud cover, rainfall, wind patterns, ocean currents, and the distribution of plant and animal species.

(http://www.greenhouse.nsw.gov.au/what_is_climate_change).

The Intergovernmental Panel on Climate Change (IPCC), established by the World Meteorological Organisation and the United Nations Environment Program, is a scientific body tasked to evaluate the risk of climate change caused by human activity. The IPCC has released a series of reports examining the science and consequences of climate change. The fourth assessment report, released in 2007, provided the following conclusions in its Summary for Policy Makers (2 February 2007 <http://www.ipcc.ch/>).

Warming of the climate system is unequivocal.

Most of the observed increase in globally averaged temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic (human-caused) greenhouse gas concentrations.

Anthropogenic warming and sea level rise would continue for centuries due to the time scales associated with climate processes and feedbacks. This would occur even if greenhouse gas concentrations were to be stabilised. The likely amount of temperature and sea level rise varies greatly depending on the fossil intensity of human activity during the next century.

The probability that this is caused by natural climatic processes alone is less than 5%.

World temperatures could rise by between 1.1 and 6.4 °C during the 21st century.

Sea levels will probably rise by 18 to 59 cm.

There is a confidence level >90% that there will be more frequent warm spells, heat waves and heavy rainfall.

There is a confidence level >66% that there will be an increase in droughts, tropical cyclones and extreme high tides.

Both past and future anthropogenic carbon dioxide emissions will continue to contribute to warming and sea level rise for more than a millennium.

Global atmospheric concentrations of carbon dioxide, methane, and nitrous oxide have increased markedly as a result of human activities since 1750 and now far exceed pre-industrial values over the past 650,000 years.

International and business agreements and policies

There are various agreements and policies in place that aim to reduce greenhouse gases. These include:

- Declaration of federated states and regional governments on climate change (signed by the NSW Government in Montreal in December 2005 – this partnership affirms the commitment of regional governments to taking action on climate change)
- European Union Greenhouse Gas Emissions Trading Scheme – commenced in January 2005 as the largest multi-country, multi-sector Greenhouse Gas emission trading scheme world-wide
- Kyoto Protocol – a multilateral treaty intended to provide a framework to reduce global growth in greenhouse gas emissions. The Protocol does not currently include emissions reductions targets for all countries
- United Nations Framework Convention on Climate Change – joined by most countries, this Framework considered what can be done to reduce global warming and to cope with temperature increases.
http://www.greenhouse.nsw.gov.au/international_action/agreements_links)

There are also many other agreements and policies in place between governments, corporations, cities and individuals.

What are businesses doing to respond to climate change?

Many businesses are taking action on climate change by developing and implementing greenhouse reduction strategies. These strategies may also be referred to as 'carbon management strategies' or 'carbon reduction strategies'. These strategies aim to reduce the amount of greenhouse gases used by their business, which also includes their suppliers and customers.

The term 'carbon neutral' applies to a business that aims to generate no net carbon increase from their business activities. They do this through reducing carbon emissions from their business and then 'offsetting' any residual amounts (i.e., the amount of carbon generation that they cannot reduce). Offsetting refers to the practice of purchasing 'carbon credits' in methods that reduce carbon amounts, for example, purchasing from renewable energy sources or investing in tree planting programs (as trees absorb carbon dioxide from the atmosphere).

- Businesses are generally taking the following steps to reduce and manage their greenhouse gas emissions
- Joining programs or partnerships that aim to reduce greenhouse gases
- Educating their customers and suppliers about greenhouses gases and ways to reduce them, and in some cases making reduction targets a contract requirement
- Improving energy efficiency in business processes – by improving efficiencies (e.g., reducing electricity, gas and water use and reducing waste generation) greenhouse gas emissions are reduced
- Purchasing energy from renewable sources that do not generate greenhouse gases – e.g., solar, wind and hydro.

Determining your own sustainability

How do sustainability issues affect you? Have you undertaken any of the 'management options' listed in the third column of Table 1 to try and reduce your impact? This reduction in impact is also referred to as your 'footprint'. Your 'footprint' is the size of your impact on the environment.

An Ecological Footprint Assessment provides '*a measure of how much productive land and water an individual, a city, a country or humanity requires to produce all the resources it consumes and to absorb all the waste it generates, using prevailing technology*' (<http://www.footprintnetwork.org>).

There are many web sites that can guide you through the identification of your own ecological footprint – you could try this one as an exercise <http://www.ecofoot.org/>

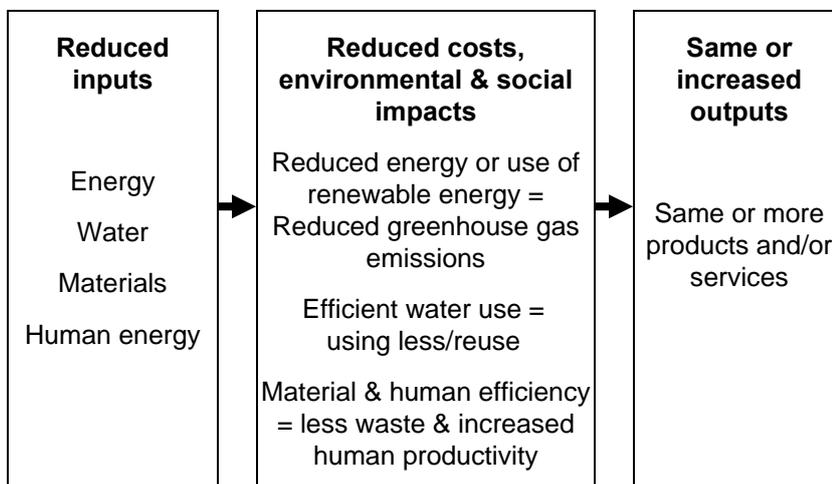
Section 3 - Sustainability and business

Relating sustainability to business

Business sustainability involves the following three aspects in relation to the 'triple bottom line':

- Economic well-being: job security, decent wages, safe and healthy work environment
- Environmental health: clean air, clean water, diverse ecosystems, safe and reliable food sources
- Social equity: equal access to opportunities, freedom from discrimination, poverty and homelessness, protection from terrorism and wars, assistance after natural disasters.

The sustainability concept in terms of environmental sustainability and resource usage can be related to business as shown below:



Refer back to Table 1 Key Sustainability Issues

?

Can you think of management options that could be achieved within your own organisation to address the key issues?

Are all of the key issues listed in Table 1 relevant to your organisation?

The role of corporations in sustainability

The following text from Sustainability: *The Corporate Challenge of the 21st Century* (Diesendorf in Dunphy, Benveniste, Griffiths, Sutton 2000) provides a clear explanation of the role of a corporation in sustainable development.



'Corporations impact on the natural environment, their own workforces and society at large and so affect the sustainability of the planet and society.

They make these impacts through their choices of raw materials and suppliers, land use, geographical locations, manufacturing processes including creation of wastes and pollution, organisational structures, financial arrangements, management systems, employment and work practices, customer services, community services uses of information and lobbying.

Their social impacts are both direct (for example, those following from the locations of their offices and factories) and indirect (for example, by creating models of consumption which are copied in the community at large).

It is sometimes argued that corporations operate on behalf of consumers and so it is consumers alone who are responsible for the impacts of corporations. This view treats corporations as the passive instruments of consumer demand. In reality, corporations shape consumer demand by advertising and marketing. They acquire and store knowledge that is not always publicly available and then release it selectively. In this way, they also define 'goods' and 'services' and create new products. This can influence sustainability, for better or worse...

...Corporations also lobby governments to create laws and other conditions that are favourable for their operations and products. For instance, they may have limited liability, tax deductions for investments, infrastructure provided by government, subsidised energy and patent protection.

Clearly, corporations are important players in the sustainability scene. Therefore, creating a sustainable society must involve changes to corporations as well as other social institutions.

In pursuing the goal of sustainable development, the most obvious contribution that corporations can make is to improve the quality and efficiency of the products they sell...A more challenging aspect of sustainable development is a corporation's decision to stop producing certain types of products and services, because of their negative environmental and social impacts.'

(Diesendorf in Dunphy, Benveniste, Griffiths, Sutton 2000)

Corporate social responsibility

‘Corporate social responsibility’, or ‘CSR’, is a term used by the business community to broadly describe their sustainability principles. The Social Venture Network defines nine principles of CSR, being:

Ethics	The company deals with all stakeholders ethically.
Accountability	Stakeholder ‘need to know’ takes precedence over inconvenience and cost to the company.
Governance	The company balances conscientious management of resources with the interests of all stakeholders.
Financial returns	Profits sustain long-term growth and shareholder value.
Employment practices	The company fosters employee development, diversity, empowerment, fair labour practices, competitive wages and benefits and a safe, harassment-free, family-friendly work environment.
Business relationships	The company is fair and honest with all business partners and monitors the CSR of business partners.
Products and services	The company offers the highest level of service and quality.
Community involvement	The company has an open, honest, transparent, proactive relationship with the community.
Environmental protection	The company protects and restores the environment by minimising use of resources and energy, decreasing waste and harmful emissions and embedding these considerations into day-to-day management decisions.

(Social Venture Network website
www.svn.org in Willard 2002)

The role of the individual

“Corporation *n.* 1. an association of individuals, created by law or under authority of law, having a continuous existence irrespective of that of its members, and powers and liabilities distinct from those of its members.”

Macquarie Dictionary (2002)

You will notice that the CSR principles listed in Section 3 refer to such actions as ‘empowerment’ and ‘proactive relationship’. Key to the success of a company’s adoption of sustainability principles is the contribution of individuals within the corporation to the development, implementation, monitoring and improvement of sustainability actions.

Individuals within a company can all identify the possibilities for improving environmental and resource efficiency in their jobs. They are often the best person to know the details of their work, including what environmental hazards exist in their personal work areas and how systems and procedures operate on a day-to-day basis. They will have the best knowledge of the materials, products and processes used in their work and will often have excellent practical solutions for resource efficiency.

Individuals from various sections of the company, brought together to develop a sustainability plan, will ensure that all aspects of the company are addressed within the plan.



Think about the structure of your organisation or company.

List some of the departments, offices or individuals within your company and what ideas they could contribute to a sustainability plan.

For example:

- **HR could contribute to staff satisfaction policies**
- **Cleaning staff/contractors could identify more efficient use of chemicals and cleaning hazards**
- **Administrative staff could identify ways to reduce office materials**
- **Purchasing officers could look at fleet costs and efficiencies or supplier arrangements.**

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What is an environmentally sustainable work practice?

Many of the key sustainability issues discussed in Table 1 can be related to an environmentally sustainable work practice. For example: more efficient use of electricity in a workplace can reduce the potential impacts of climate change

- ensuring fresh air flow in a workspace can improve indoor air quality
- purchasing recycled paper products could reduce loss of biodiversity from forest clearing and
- recycling waste could reduce the amount of waste sent to landfill.

An environmentally sustainable work practice is a practice that: -

- identifies its key sustainability issues and procedures to reduce these issues
- implements these identified procedures
- monitors and reports on the procedures to ensure they continue and have the most effective outcome and
- reviews the procedures to ensure continuous improvement.

Environmental sustainability in the workplace – reducing risks and increasing opportunities

Introducing environmentally sustainable work practices can both reduce risk and increase business opportunities. It can reduce risk by:

- reducing capital costs and ongoing expenses – for example, by using less energy and being more efficient with materials and
- decreasing exposure to possible litigation and costs through non-compliance with the law, pollution incidents or hazards.

Opportunities are increased through:

- retention of top talent and increase in staff productivity through improved work conditions
- identification of niche market opportunities for 'green' products and services and early take-up of emerging technologies and
- higher customer retention.

(based on Willard 2002)

Willard (2002) has investigated the 'business case' for implementing sustainable business practices. His research has quantified the business case benefits as shown in Table 2

Table 2 Seven business case benefits (Willard, 2002)

Business Case Benefit	% Improvement
1. Reduced recruiting costs	-1.0%
2. Reduced attrition costs	-2.0%
3. Increased productivity	+10.5%
4. Reduced expenses in manufacturing	-5.0%
5. Reduced water, energy and consumables expenses at commercial sites	-20.0%
6. Increased revenue and market share	+5.0%
7. Reduced risk/easier financing	-5.0%

Yielding a profit increase of 38% (based on a large corporation)

A brief introduction to the reduced risks and increased opportunities associated with a sustainable business is provided in Table 3

Table 3 Risk reduction and opportunity increases associated with a sustainable work practice

Issue	Summary
Business operations and resource costs	<p>Ability to attract better talent and reduce attrition of employees due to having a workplace where people want to work.</p> <p>Reduces risk from pollution fines or corporate liability and identifies potential future liabilities or legislative restrictions on business operations.</p> <p>Improves corporate image and reduces risk of reputation loss from external stakeholders (e.g., being subject to a campaign identifying perceived problems)</p>
Emerging technologies	Ability to take-up emerging technologies to take advantage of market opportunities
Material use and waste minimisation	<p>Reducing the amount of materials used in a process reduces the costs associated with procuring the material and disposing of left-over waste product.</p> <p>Recycling products can lead to market opportunities.</p>
Water and energy efficiency	Reducing energy and water use reduces costs associated with purchasing these commodities.
Investment opportunities	New markets assist investment opportunities and money saved can be used for investment opportunities. Some investment firms are offering incentives to companies implementing sustainability or purchasing sustainable products and services.
Stakeholders	<p>Internal and external stakeholders are increasingly aware of sustainability issues and want companies to implement sustainable practices. They will purchase from companies they feel are 'more sustainable' and will cease purchasing from those 'ignoring sustainability'.</p> <p>Involving staff and customers in decisions about sustainability increases these relationships and provides for more transparent decision-making.</p>

Case studies

Three case studies are provided that show the benefits of implementing sustainable business practices. These are:

- *Interface Carpets* – a global leader in the design, production and sales of carpet and fabrics
- *mecu* – an Australian financial co-operative and
- *Insurance Australia Group (IAG)*, an international general insurance group.



Interface Flor

Interface, founded in 1973, is a recognised leader in the commercial interiors market, offering floor coverings and fabrics. The company is committed to the goal of sustainability and doing business in ways that minimise the impact on the environment while enhancing shareholder value. Interface has manufacturing locations on four continents and offices in more than 100 countries.

Interface promotes sustainable business practices within their global community and in the products they make. Sustainability is built into their business model and is an underlying corporate value, with business decisions weighed against their potential impact on the economic, natural and social systems.

The VISION of Interface is *“To be the first company that, by its deeds, shows the entire industrial world what sustainability is in all its dimensions: people, process, product, place and profits - by 2020 - and in doing so we will become restorative through the power of influence.”*

Interface’s sustainability commitments are described as **seven fronts**, being:

- Eliminate waste: eliminating all forms of waste in every area of business
- Benign emissions: eliminating toxic substances from products, vehicles and facilities
- Renewable energy: operating facilities with renewable energy sources – solar, wind, landfill gas, biomass and low impact hydroelectric
- Closing the loop: redesigning processes and products to close the technical loop using recovered and bio-based materials
- Resource-efficient transportation: transporting people and products efficiently to reduce waste and emissions
- Sensitizing stakeholders: creating a culture that integrates sustainability principles and improves people’s lives and livelihoods
- Redesign commerce: creating a new business model that demonstrates and supports the value of sustainability-based commerce.

Interface's sustainability efforts include a measurement system that enables Interface to understand their impact and change behaviour for the good of the environment. Global and local metrics have been developed and the following indicators (2006 EcoMetrics™ Report) provide a summary of results:

Waste elimination: Waste is defined as anything that does not provide value to the customer. The cumulative avoided costs from waste elimination activities since 1995 total over \$336 million. Total manufacturing waste sent to landfills has decreased by 70% since 1996.

Energy: emphasis on initiatives that improve efficiency and conserve energy has reduced the total energy used by 45% since 1996. Use of renewable energy increased to 16% in 2006. Interface also uses biomass, landfill gas and photovoltaic arrays as alternative energy sources.

Recycled and bio-based content in products: The percentage of recycled or bio-based content in products worldwide has increased from 0.5% in 1996 to 20% in 2006.

Greenhouse gas emissions: Interface reduced its greenhouse gas emissions by 37% through improved efficiencies and direct renewable energy purchases. Interface also purchases renewable energy credits.

Water Intake: Water intake per square meter of carpet is down 80% in modular carpet facilities and 62% in broadloom facilities from 1996 due to conservation efforts and process changes such as eliminating the printing processes at some locations.

(Source: <http://www.interfacesustainability.com/>)



mecu

mecu is a financial services organisation with over 200 staff in service centres across Australia. Core business is personal banking, insurance and financial planning. mecu is a member owned financial cooperative with 50 years experience in providing financial services, and is committed to enhancing financial well-being in a socially responsible way.

mecu believes a strong synergy exists between social and environmental responsibility and cooperative banking and is committed to sustainable development as a way of doing business.

Over 100,000 people and their families choose to conduct part or all of their banking with mecu.

mecu aims to become the pre-eminent socially responsible banking brand in Australia.

In August 2006 mecu signed a voluntary Sustainability Covenant with EPA Victoria. This covenant provided sustainability goals and commitments that mecu is committed to achieving. These included such goals and commitments as:

Employees:

- Goal – mecu’s workforce to be healthy, diverse, empowered and rewarded
- Commitment – undertake staff sustainability training across the organisation

Social impact:

- Goal - mecu’s influence as a financial institution and its skills and products to help build social capacity among its communities
- Commitments – maintain member/s net satisfaction at above 90%; target up to 4% of mecu’s budgeted post-tax profits to sponsoring community partnerships

Environmental impact:

- Goal - Environmental impact to be minimised through the adoption of financially viable initiatives to improve resource efficiency, reduce waste generation and reduce natural resource consumption
- Commitment – review and promote action plans to reduce energy and water use and waste produced throughout mecu, purchase a percentage of energy from renewable sources

Leadership and partnerships:

- Goal - mecu to provide leadership to the financial service industry in the field of sustainability by demonstrating that environmental and social improvements are part of a successful business strategy
- Commitment – Maintain active membership of the United Nations Environment Program Finance Initiative

mecu continues to monitor these goals and commitments and adjusts as necessary for continuous improvement. An annual work program is developed to implement the goals and commitments.

mecu has also introduced initiatives such as its ‘goGreen’ car and home loans which reward customers for environmentally friendly choices and come with a commitment from mecu to undertake tree plantings to offset greenhouse gas emissions for cars financed. To increase in-house sustainability, mecu has established waste management programs, and is developing a more eco-friendly credit card.

(Sources: <http://www.mecu.com.au/>
http://www.epa.qld.gov.au/environmental_management/sustainability/industry/epa_sustainable_industries_wards_2007/2006_finalists_and_winners/)



Insurance Australia Group (IAG)

Insurance Australia Group (IAG) has undertaken a range of sustainability commitments, actions and reporting. These are summarised as follows. Detailed information, including their annual sustainability report, is available on their website.

Sustainability commitment

Insurance Australia Group (IAG) recognises that its business has impacts on the community, the environment and the wider economy. We believe that it is good business to operate in a way that recognises these impacts and responds to them effectively. We acknowledge that we must consider the risks and opportunities that they present for our company. We are committed to understanding these impacts and to ensuring that our business minimises any negatives arising from our operations.

Environmental commitment

Insurance Australia Group recognises that economic development needs to be aligned with the health and well-being of people, their communities and the environment. We consider that it is fundamentally sound business management for a company to address its social and environmental performance as well as economic performance.

Charter for health, safety and security

The well-being of Insurance Australia Group's own people is vital to growing our business for the benefit of our customers, shareholders and the wider community. This charter identifies both our legal compliance and our beyond-compliance undertakings to promote health, safety and security for our staff, contractors and other suppliers, and our support to help our customers and members of the wider community to reduce risks in their lives.

Supplier selection guidelines

Guidelines reflect IAG's commitment to procuring products and services in ways that are socially responsible, meet the community's expectations of us as a good corporate citizen and reflect our values.

Programs

IAG is undertaking a range of programs to address aspects of sustainability, including:

- addressing skill shortages
- jumpstart auto-body traineeships and scholarships
- researching weather risk
- reducing accident injuries and
- financial education.

(Sources: <http://www.iag.com.au/sustainable/commitment/index.shtml>)

<http://www.industry.gov.au/content/itrinternet/cmscontent.cfm?objectID=6FBA22A4-65BF-4956-B86DB94F4E5D991F#IAG>

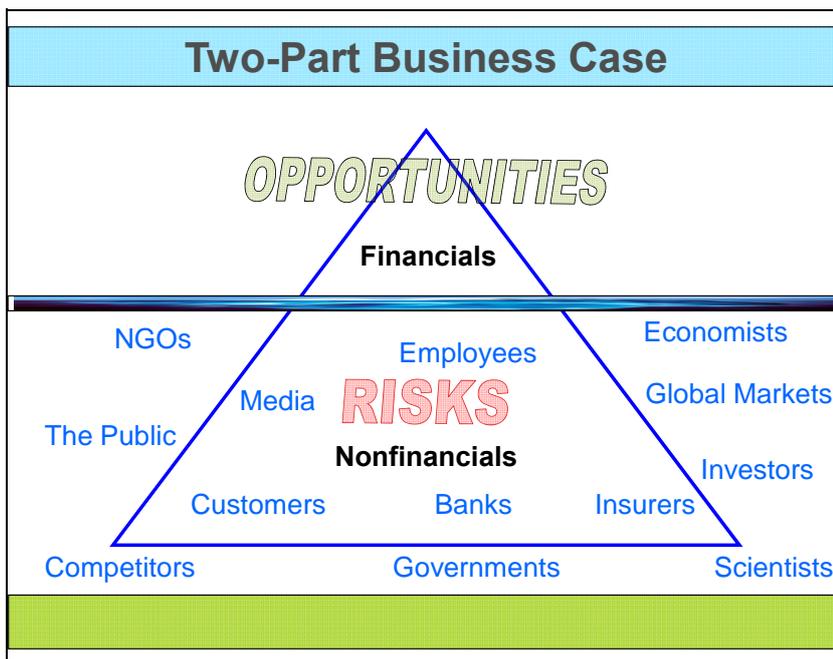
Risks of unsustainable practices - company boycotts and green wash

The 'sea of stakeholders'

A business that is identified as having unsustainable practices, or that does not respond to stakeholder inquiries into its practices, increasingly runs the risk of customer boycotts, financial penalties or negative media attention.

Willard (2007 – presentation slides, Melbourne, Australia) identifies the 'sea of stakeholders' that increasingly surrounds businesses, asking questions about their sustainability.

This 'sea of stakeholders' is shown graphically in the following slide, which illustrates the two-part business case for sustainability, being the opportunities (tip of the iceberg) and risks (bottom of the iceberg). The diagram shows that there are a wide range of stakeholders surrounding a business that could place that business at risk if they are not satisfied with the sustainability performance of the business. These stakeholders include the public, media, shareholders, non-government organisations (NGOs) and employees.



(Source: Willard, 2007 – presentation)

Greenwash and company boycotts

'Greenwash' is a term used when a business promotes itself or its products or services as 'sustainable' or 'environmentally friendly' and independent research, often by NGOs, discovers that their claims are false or misleading.

A company boycott can occur when a company either engages in greenwash or does not address its sustainability issues, with particular practices being targeted by external stakeholders. These external stakeholders can encourage a 'company boycott', where customers are encouraged not to purchase from the business in question.

Ribena, a popular children's blackcurrant drink for many years, was exposed in 2004 by two students from New Zealand who measured the Vitamin C content of this drink and found that it did not have 'four times the vitamin C of oranges' as claimed by its advertising. Its vitamin C content was also found to be lower than other fruit juice drinks. Charges for misleading representations were made under the New Zealand *Fair Trading Act* and the company was fined NZ\$217,500. In Australia, the company that manufactures the product issued a statement confirming labeling discrepancies to the Australian Competition and Consumer Commission and undertook to remove all references to vitamin C from its labels. (Wikipedia 20 May 2007) The company has since gone to considerable effort and expense to re-build its market after this damaging exposure.

Some companies that produce recycled paper have also been targeted over 'green washing'. For example, some companies promote their paper as 'recycled' but have much less than 100% recycled content. Some companies indicate on packaging the percentage of recycled paper, while others do not.

Web based campaigns by NGOs such as Greenpeace can quickly spread the message around the world about a particular company, and many advocacy groups now have researchers who are able to expertly assess a company and its sustainability (and sustainability claims). It is therefore becoming increasingly important for companies to not only identify and measure their sustainability, but to correctly represent its achievements so that it is not branded as 'green wash'.

Following are three recent examples of where a corporation has been targeted by external stakeholders due to perceived problems with their sustainability. The examples provided here are:

- BP
- Victoria's Secret and
- Apple computers

These three case studies show the importance of identifying sustainability issues within a company and communicating with external stakeholders. All three corporations were targeted by NGOs through web-based campaigns to highlight perceived unsustainable practices or greenwashing.



BP - Beyond Petroleum

“An NGO report Don’t Be Fooled 2005, lists top ten ‘green washing’ ad campaigns, with BP taking the number two spot behind Ford. Another group declared the [BP’s re-branding from *British Petroleum* to *Beyond Petroleum*] campaign ‘Beyond Preposterous’ – as well as Beyond Pompous, Beyond Pretension, Beyond Posturing, Beyond Presumptuous and Beyond Propaganda. Greenpeace even gave CEO Lord John Browne an ‘award’ for ‘best Impression of an Environmentalist’.

Were these criticisms justified? Yes and no. BP has achieved admirable reductions in its own greenhouse gas emissions. It’s one of the world’s largest providers of renewable energy products such as solar panels. But even if BP’s solar business reaches its target of \$1 billion in sales by 2008, at least 98% of the company’s roughly \$300 billion annual revenue stream will come from oil and gas.

Bottom line: BP hasn’t moved beyond petroleum just yet.”

(Esty DC and Winston AS (2006) in Green to Gold)



VICTORIA’S SECRET

Forest Ethics, an environmental-advocacy group, targeted Victoria’s Secret - a lingerie company, who were purported to be using paper sourced from unsustainable forestry practices for their 395 million catalogues sent out each year. Campaigners produced an Internet site and also interrupted Victoria’s Secret fashion parades with their own models wielding chainsaws.

(Source: <http://www.victoriasdirtysecret.net/>)



APPLE COMPUTERS

Another web-based campaign produced after a Greenpeace environmental report in 2006 rated the Apple computer 2.7 out of 10 with low scores in almost all criteria, including the use of toxic chemicals, recycling and quality of take-back schemes.

(Source: <http://www.macnn.com/articles/06/10/26/greenpeace.shown.the.door/>)

Since this campaign, almost all major computer brands have developed take-back schemes and undertaken research to reduce their toxic chemical content. Apple has recently undertaken a large number of actions to improve its environmental sustainability – with Greenpeace recognising improvements by posting a positive banner on its website in 2007.

(<http://www.greenpeace.org/international/news/tasty-apple-news-020507> , May, 2007)

Greenpeace has also posted photographs on its website showing computer waste stockpiles in China and worker conditions. This waste is often promoted as ‘recycling’ of technology components and Greenpeace highlighted the ‘greenwash’ of this statement.

Section 4 - Identifying environmentally sustainable work practices

Section 4 identifies the various elements of an environmentally sustainable work practice. This Section will provide you with the skills and knowledge to be able to identify environmentally sustainable work practices in your own workplace, whether, depending on the size of your organisation, this is for the whole company, your department, your office branch or your team.

It will show you how to investigate current practices, measure and document these practices, and where to find tools and external sources of information that can assist you.

Identifying current practices – the audit

An audit is an examination and verification of accounts and records. (*Macquarie Dictionary, 2002*). You are most likely familiar with the financial audit, and the company auditing requirements that are required by the Australian Government's Australian Securities and Investments Commission (ASIC). You may also be familiar with audits undertaken on properties or cars prior to purchase, to check such items as finance owing or previous damage.

An environmental sustainability audit is an examination and verification of current work practices that relate to environmental sustainability. It can be a 'desktop' audit, where practices are investigated through reviewing invoices, company policies, regulations and laws and discussions with management, employees and customers. The audit can also be a 'practical audit' where you actually measure such things as electricity, water and fuel usage. This can be done to verify discussions for items where more accurate data is required. For example, you may have fuel invoices but need to determine how many cents per kilometre a vehicle is using to determine its fuel efficiency.

The elements of an environmental sustainability audit are:

- identifying what is to be audited (scope and objectives)
- collecting information
- verifying information and
- documenting and reporting information.

What to audit – scope and objectives

Before undertaking an audit, you need to determine the audit scope and objectives.

The **scope** is the geographical or administrative boundaries of your audit. For example, you may decide to audit your entire company, your branch office or the activities of your work team.

The larger the scope the more complex the audit will be. Imagine how large an audit would be for a global company such as IBM? They would need to examine not only their head office in the United States but also all of their administrative branches throughout the world, their many suppliers and perhaps even a sample of their retail outlets and customers.

You must set **objectives** for your audit before you start. This is so that you know the 'boundaries' of your audit and also so that you can refer back to your objectives (in conjunction with your targets) when you are monitoring your sustainability practices at a later date, to make sure you are achieving your objectives. Setting audit objectives is when you ask *"What do I want to achieve from this audit?"* Setting these preliminary audit objectives is different to setting **targets** (refer Section 4). The objectives are broad statements that define the boundaries of the audit to be completed.

For example, an audit objective could be *'determine electricity usage in the Brisbane office'*.

Whereas a target would be *'reduce electricity usage by 20% per year in the Brisbane office'*.

It is also important to identify the key stakeholders in the process, so that they can participate in setting the objectives. Consider involving the following stakeholders in the process of setting audit objectives:

- CEO, board of directors or managers for commitment, strategic direction and sign-off
- human resources department for objectives relating to staff recruitment and retention
- procurement or purchasing department for objectives relating to supply chain and resource efficiency
- marketing department for objectives relating to market opportunities, 'branding' and promotion
- general staff to identify items relating to day-to-day operations
- contractors for external relations and supplies/purchasing
- customers or clients for their 'external' view of the company and values important to them.

For a large-scale audit you could consider setting up a workshop where the various people come together to set the objectives for the audit. This meeting could also be used to set measurable targets, identify possible sustainability improvements and discuss outcomes and promotion.



Setting audit objectives – what to audit

Identify which section of your organisation you will audit (e.g., whole company, procurement section, HR section, retail outlets, etc)

Scope (area to audit):

Think about your organisation or identify a part of your organisation or company. Look back at the key sustainability issues (Section 3) and the elements of a sustainable work practice (Section 4).

Set four audit objectives for your audit. The first one has been provided as an example.

e.g.: Determine electricity use in head office.

1.

2.

3.

4.

Collecting information

As mentioned in Section 4, information can be collected either by 'desktop' methods, where existing documents are examined to determine information, or by 'practical' methods, where data is measured.

This section provides information on where to find information, what form it may take and how to interpret units of measurement.

You may find it easier to develop a 'checklist' of audit items, linked to the scope and objectives of the audit (refer Section 4).

You may also find that some practices have already been measured for the purposes of previous studies, or as part of an environmental management system, for example. You should try and locate any relevant past studies first so that you can update these rather than starting from scratch.



Preparing an audit checklist

Prepare a simple checklist with columns identifying what you want to audit – determined from your audit scope and objectives.

- **What headings could you use for your columns?**
- **What categories could you use?**

Auditing compliance

It is likely that your organisation is required to comply with various laws and regulations. These laws and regulations need to be identified and examined to determine compliance.

Laws and regulations may be at the levels provided in Table 4. Determining laws and regulations that apply to your organisation can be quite complex, and you may need to refer to a lawyer or consultant for assistance. If you have had planning studies done for new buildings or additions, the documentation may list your relevant laws and regulations.

You could also contact your local state or territory environment department, such as the Environment Protection Authority (EPA) in Victoria or Queensland or Department of Environment and Climate Change (DECC) in NSW to discuss what may be relevant.

Your local Council should be able to provide a list of required laws and regulations governing your geographical area.

Legislation is generally provided on various government and law websites. A good starting point to locate a particular piece of legislation or check its content is the Australasian Legal Information Institute website at <http://www.austlii.edu.au/>.

The websites of the various federal and state/territory government departments should also provide useful overviews of laws relevant to various types of industry sectors.

Table 4 Levels of Law and Regulations

Level of law/ regulation	Comment/ example
International	For example, If you manufactured aerosol sprays, you would be required to comply with international ozone protection laws.
Federal	Environment protection and Biodiversity Conservation Act 1999 requires particular activities such as those in sensitive ecosystems to obtain federal planning approval. There are also federal Occupational Health and Safety (OHS) laws.
State/territory	In Australia, the majority of environment-based law is State/territory-based. Planning laws in your local State/Territory will require you to seek approval for most new buildings or extensions. Pollution laws require certain standards for your air emissions, wastewater quality and hazard management. Industries, which may supply your products, may be required to hold an environmental pollution, water use, dangerous goods or hazardous materials licence.
Local Council	Your local Council will most likely have requirements for your building, such as height, window or awning size, car parking restrictions, use of footpath, etc. They may also have guidelines relating to water or energy efficiency for new or existing buildings.

Identifying compliance is very important to an organisation to reduce the risk of litigation and fines. Pollution fines in many states of Australia are quite large and can include jail time clauses for offenders, including the individual offender and company management.

If you identify that your company is required to hold an environmental licence, you should check the date of the licence, as many are required to be renewed each year. They may also require an annual report to be provided, or they may require regular monitoring to be undertaken.

While it is unlikely that a business services-based company would need an environmental licence, if you were auditing your supply chain one of your suppliers, for example, a paper manufacturer, would probably be required to hold a licence. An example of how a member of your supply chain could affect your compliance is provided in the following discussion box.

There are two clauses of Australian Federal law that require consideration of environmental compliance and sustainability. These are:

- s299(1)(f) of the Corporations Act 2001 requires companies to include details of breaches of environmental laws and licences in their annual reports and
- s1013(A) to (F) of the Corporations Act 2001, requires providers of financial products with an investment component to disclose the extent to which labour standards or environmental, social or ethical considerations are taken into account in investment decision-making. (<http://www.environment.gov.au/settlements/industry/corporate/reporting/index.html>)



Hazardous Waste earns Wyee local a \$147,000 bill

(Media release - Wednesday, 2 May 2007)

“Wyee local Mr Bernard Hardt was yesterday fined \$12,000 plus costs of \$105,000 in the Land and Environment Court for filling a gully on his property using hazardous and industrial waste.

Mr Hardt was also ordered to remediate the affected land. Mr Hardt originally pleaded not guilty to the offence of using his land unlawfully as a waste facility contrary to the Protection of the Environment Operations Act 1997. Mr Hardt did not hold a licence permitting him to accept the waste.

In May 2003, Environment Protection Authority (EPA) officers collected samples from the waste mound and found that it contained asbestos, herbicides, high concentrations of volatile solvents such as benzene, toluene, ethyl benzene and xylene, and concentrations of arsenic and chromium....Director General of the Department of Environment and Climate Change Lisa Corbyn said that by accepting the waste at his property without an EPA licence, there were no controls in place to protect the environment or the health of Mr Hardt and his neighbours.

There were no stormwater diversion systems in place to limit stormwater ingress which may cause leachate to be generated from the landfill. The court heard that leachate had the potential to pollute down-slope water channels.

On top of this, trees were damaged and pushed over in order to build up the waste pit. The court heard it would take many decades for the area to return to its original condition.

Mr Hardt ignored a legally binding clean-up notice requiring him to remove the waste. He was given the opportunity to avoid prosecution and ignored it. It was a costly mistake given he now has to pay to remediate the area as well as the fine.”

The above example shows that breaches of compliance can have your business ending up in Court. In NSW and many other states the pollution control legislation grants powers to determine where the waste has come from, and to investigate whether there may be negligence on behalf of the SUPPLIERS OF THE WASTE.

Where does the waste generated by your organisation go? Does it go to licenced waste disposal premises? Are their licences up-to-date? Are they complying with their licence requirements?

An issue that has recently affected many companies is the introduction of regulations relating to the content of products for sale in certain regions of the world. For example, the European Union's Restriction of Hazardous Substances (RoHS) directive, which took effect on 1 July 2006, lists levels of particular hazardous materials that are not acceptable in products such as electronics and telecommunications. The Energy-using Products (EuP) directive calls for the development of more energy-efficient products sold into the European Union market. What is expected at some point is that producers will have to provide consumers with an "ecological profile" of their products, which could become a competitive factor.

The EU's REACH (Registration, Evaluation, Authorization and Restriction of Chemicals Regulation) was adopted in December 2006 and took effect on 1 June 2007. REACH requires the chemical

industry to put health-and-safety information on approximately 30,000 chemical substances used in the European Union market.

A RoHS directive is also being introduced into many countries and the fines for not complying with the directive in some countries extend through the supply chain. A recent article in *Greener Computing News* (Kubin R 2006 at www.greenercomputing.com) notes the major impact of these new regulations on the practice of out-sourcing many of the components that make up modern goods:

“These regulations are having a big impact globally throughout the supply chains of the electronics, telecom and automotive industries, among others. As a result, eco-compliance regulations have become a major concern of companies trying to ensure both product compliance and continued market access. The challenges are considerable. With the globalization and outsourcing of manufacturing, the complexities of product eco-compliance increase exponentially. For instance, a product may be designed in the United States and its components sourced from hundreds of suppliers across many countries. It then may be assembled by a contract manufacturer in China and eventually shipped to countries throughout the world. How can companies manage their global business operations to make sure their products comply with the various environmental regulations?”

Senior executives must understand current and upcoming eco-compliance regulations to effectively prepare their supply chains to assume responsibility for the environmental impact of their products.“

(Richard Kubin “Navigating the World of Green Tech Regulations”,
www.greenercomputing.com 24 May 2007 newsletter)

Industry or company-based standards, guidelines, policies and procedures

There may also be regulations, standards, policies, procedures, compacts, agreements or covenants set by your company, government or industry. These are generally voluntary but compliance will ensure that your organisation is following ‘best practice’. For example, there may be energy efficiency standards set for your business sector, a company environmental policy or purchasing guides published for your industry. The Federal Government also has a ‘National packaging covenant’ that provides requirements to reduce large-scale packaging.

You can locate information about standards, guidelines, policies and procedures by the following methods:

- asking your relevant work department – compliance, human resources, strategic planning or procurement for relevant company policies and procedures
- contacting your industry-based association or relevant environment/sustainability government department or
- undertaking a search of the Internet – for example, typing in “energy efficiency guidelines for financial institutions” will provide lots of links to industry initiatives and guidelines.

Once you have identified the appropriate documents, you would need to review them to identify relevant items and then determine if your practices follow the recommendations.

Identifying resource usage

Resources include:

- energy – including electricity, gas and fuels such as petrol or diesel
- waste – this needs to be categorised – e.g., office waste (recyclable and otherwise), process waste (e.g., paper offcuts from a printing company), putrescible waste (e.g., lunch room waste), liquid waste (e.g., toilets and hand basins)
- water – used in any industrial processes, taps and toilet flushing
- materials – which are the things you use - e.g., paper, cars, office equipment and furniture.

The aim of collecting resource information is to identify whether the use of these resources can be more efficient. Large savings have been made by companies that have implemented resource efficiency savings.

The image shows a presentation slide with the SEDA logo in the top right corner. The main heading is "What can you do? Energy Star Office Equipment". Below this, it specifies "Wollongong Uni". To the left, there is a photograph of a computer monitor, keyboard, and mouse on a desk, with a circular Energy Star sticker on the monitor. The sticker has the text "Energy Star" and "You think you're green. Think again." To the right of the photo, the text reads: "Cost: \$0" and "Saving: \$78,195 pa" and "1,200 tonnes CO2". On the far left, there is a vertical strip of small images related to energy and sustainability.

In determining how you will collect resource usage data, determine whether you will seek assistance from other staff or departments. You should make it very clear to them what sort of information you require, for example, rather than sending an email to purchasing asking for 'electricity invoices', ask for

'the last 12 months of invoices for electricity usage in building C – if there are multiple electricity meters or invoices for this building, could I please have all the data for this building for the past 12 months'.

You can collect information about resources by obtaining the invoices for services such as water, gas, electricity and waste collection. These invoices generally show amounts used in both dollars and a

unit of measurement, and, increasingly, will also provide a greenhouse gas emission calculation. An explanation of how to read the units of measurement on these invoices is provided in the following Section 4.

Collecting information about general resources can be obtained from the purchasing department or you can just count numbers and types of office equipment, furniture, stationery, etc. To do this you could develop a table such as that shown in Table 5

Table 5 Resource Usage Audit

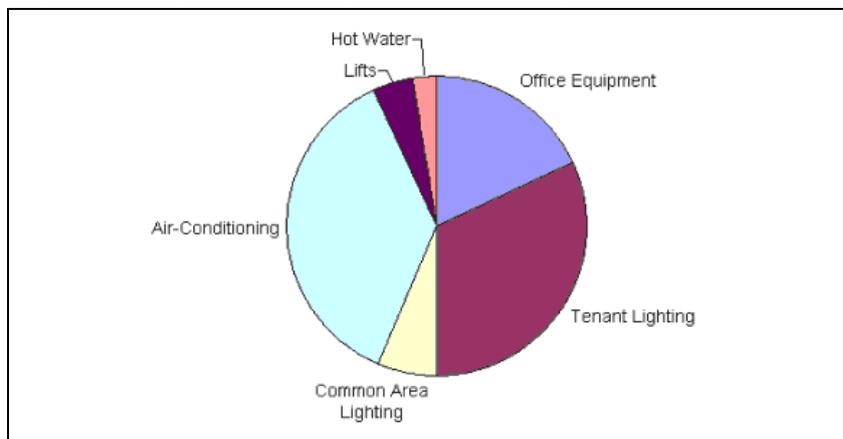
Item No./	location	Type
Photocopier	2 – admin department	Fuji Xerox colour PQ – 45
Colour printer	4 – front office	Kyocera Ecosys FS – 12D
Office tables	10 – HR	Officemaxi – lamipanel
Fridge	1 – lunch room	500 litre frost free – Kelvinator PQRST
Typist chairs	45 - Total count	Officemaxi – gas lift 56G
Fluorescent lights	120 (in doubles – total count)	T12 fluorescent tubes
Copy paper	4 reams total/day used	Brands - 2 'Recyclo', 2 'Britewhite'

The energy usage of items is often written on the equipment or in the user guide. You could make up a third column noting this information and the amount of time the equipment is switched on/in use so that you can calculate energy usage later if required.

Depending on the detail of your audit (determined by your scope and objectives), you may even identify the types of coffee/tea you supply, stationery supplies (pens, pencils, etc), copy paper, etc. A Green Office program (some examples are provided in Section 5) can assist you identify and categorise these items.

Energy usage

A typical energy split in a fully operated building is:



Source:

<http://www.greenhouse.gov.au/lgmodules/wep/buildings/training/training3.html>

As the table shows, air conditioning is a large energy user and details should be taken of the system so that any improvements can be investigated. You could also note whether vents and filters are clean, what temperature the unit(s) is set at and when the system was last serviced. Is the system switched off at night or over weekends or does it run all of the time?

For lighting, office equipment and general power you could make a note of whether equipment is left on all of the time or when it is switched off. For computers, check how many have energy-saving functions activated.

Another method of calculating energy usage is to use a 'power mate' that measures the amount of electricity used by various appliances. Details on how to use the power mate can be found at:

http://www.energy-toolbox.vic.gov.au/summer_push/power-mate_information.html.

There are various types of fluorescent lamps used for overhead lighting in most offices. As technology has advanced, the lamps have become smaller in diameter. The 38 mm lamp (known as a T12 lamp) was superseded 20 years ago by the 26 mm lamp (known as a T8 lamp). The T8 lamp requires 10% less power to produce the same light output. Most recently, new buildings are installing 16mm lamps (T5 lamps) which provide even greater efficiency.

Try and identify what type of lighting you have. Note that in reception areas there are often halogen downlights, which use more power. The number of lights and their type should be identified if this is part of your audit.



Examine a copy of an electricity invoice.

Can the group determine how much electricity has been used?

Does the invoice show the amount of greenhouse gases emitted by the electricity used? Discuss the difference between off-peak and peak energy demand and pricing.

Waste

Invoices from your waste collection contractor will provide you with details of the amounts of waste generated by your organisation. Determine whether there are separate waste collections for general rubbish, other materials (for example, timber off-cuts or ink cartridges), scrap paper, aluminium/ steel or recyclable plastics.

To verify what waste is being generated, you could undertake a waste audit. This can be as simple as identifying the contents of one bin or several bins in order to categorise the waste as percentages. (Don't forget to wear gloves or wash your hands afterwards!)

For example, you may determine that an office waste bin may have 40% scrap paper, 10% food scraps and 50% plastics.

More information on how to undertake a waste wise program and waste audit can be found at <http://www.sustainability.vic.gov.au/www/>.

Water usage

Water supply invoices will provide information on water usage, which if you are in an office situation will roughly equal your wastewater output as most water is used for toilet flushing and hand washing.

You can also calculate your water usage by determining the number of toilets, the size of the cistern (e.g., 9/6/4/3, etc. litre) and whether they are single or dual flush. Calculate how many times a toilet would be flushed per day and you have your per day toilet usage amount.

For example: 2 toilets flushed approx. 5 times per day on $\frac{1}{2}$ flush (6 litre) = 60 litres of water per day.

Units of measurement

To identify where efficiencies can be made, and to monitor usage over time, you will need to identify consistent units of measurement, or metrics. The following Table 6 provides a brief description of the most common units of measurement and how to convert measurements if required.

Table 6 Identifying and converting common units of measurement

Item	Common Units of Measurement
Electricity	J = Joule = unit of energy W = Watt – unit of power (rate of energy usage) 1 watt = 1 joule/second 1000 watts = 1 kilowatt (kW) 3600 watt seconds = 1 watt hour 1000 watt hours = 1 Kilowatt hours (kWh)
Water	L = litres ML = megalitres (1000 litres) GL = ggalitres (1 million litres)
Gas	MJ = megajoules

Green to Gold (Esty and Winston 2006) notes the importance of making the data interesting and relevant so that it focuses the employee's attention. For example, you could talk about energy use per employee, which brings the challenge down to the individual level and grabs everyone more than a grand total.

One common method is to convert energy usage to a greenhouse gas emission (being carbon dioxide equivalent units). This can be done by following the method provided in the Australian Greenhouse Office's *AGO Factors and Handbook* (AGO, 2004). This provides greenhouse emission factors for such energy items as electricity, natural gas, LPG, heating oil, and automotive gasoline and diesel. Factors vary depending on the source of the energy, for example, the type of coal used in the coal-fired power station that generated the electricity.

DuPont uses a metric called Shareholder Value Added (SVA) per pound of product. By using this metric they are indicating that *'the more stuff it produces, the greater the environmental impact'*. So DuPont just measures the total volume, and aims to reduce this. (Esty and Winston, 2006)

The supply chain

You will most likely want to collect information from your suppliers as part of your audit process. These include those businesses which may supply equipment, stationery, printing services, computer hardware, etc. A good way to collect this information is to provide a standard questionnaire to all your suppliers. In this way you can also use the questionnaire to compare potential suppliers. The questionnaire could ask questions about the sustainability of their products and services, or what actions they are undertaking.

Be careful not to ask questions that could be considered commercial-in-confidence. For example, ask about electricity use in terms of units used rather than invoice amounts.

You could also design a supplier checklist, with sustainability items listed down a page with room for the supplier or your audit team to complete details.

Verifying information

It is important to verify the information that you have collected to ensure it is correct. You can do this by the following:

- If you have obtained information from an existing report, check the facts –e.g. if the report says there are 20 single-flush toilets, do a quick check to make sure this is still the case
- Discuss your findings with others (remember the saying “two heads are better than one”) – you may find that you have made a simple calculation error
- Don't just check one bill – ask for 12 months of data. This ensures that you are accounting for seasonal variations, or changes to the workplace or workforce over a period of time
- Contact suppliers to verify details supplied (or not supplied) with equipment.

Documenting and reporting information

Once you have collected all your information you need to present it in a form that is able to be easily interpreted by others. Think about using a table based on the checklist that you may have previously prepared (refer Section 4). Try and document as much information as you can and don't delete any until you have finished the report, as you may find you need a small piece of information at a later date to confirm an efficiency detail, for example.

If you uncover some 'amazing facts' – for example, that the air conditioner has not been serviced for 10 years, or that several taps are constantly leaking – note these down as they can serve as your 'attention grabbers' later when you want action!

?

If you uncover an issue with compliance, for example, that a licence has not been renewed or that there is a new piece of legislation that you think should be complied with, you should bring it to the immediate attention of your management.

Section 5 - Implementing environmentally sustainable work practices

Introduction

Once you have collected information on current work practices in relation to the key sustainability items you identified, you then need to determine a 'benchmark' against which to set the results.

This 'benchmark' is a **target**, which should be measurable and achievable.

How do you determine the benchmark, or target?

How do you know whether what you currently do is 'quite sustainable' already?

How do you determine what actions to take to improve sustainability?

This Section is not an exhaustive manual on best practice sustainability. Technology and best practice thinking in the sustainability arena is constantly changing and new products and services are emerging all the time. Can you recall the debate during early 2007 over carbon offset schemes? Many companies are offsetting their carbon emissions by paying money to schemes to 'soak up' their carbon emissions. One of the most popular methods is by tree planting. Recent debate has centred around whether this is sufficient to offset the emitted carbon, and the time taken for the tree to grow. There has been mention of 'green washing' (refer Section 3) in relation to some schemes.

So that you are able to apply the latest research and technology, this Section provides an overview on how to set measurable and achievable targets for sustainability improvement, and where to find information on the latest benchmark standards.

For example, this Section will explain briefly the types of energy efficient lighting that are available, but will mainly focus on showing you how to find out information from other sources and who can assist you.

A significant section of this Section is devoted to communication strategies. Implementing an environmentally sustainable work practice, just like any other workplace implementation, requires change that needs to be carefully introduced.

?

Can you think of times in the past when someone in your workplace made a suggestion that required a change in work practices? Were there some (management, staff, customers, suppliers) who didn't want to change, and came up with lots of reasons why it wouldn't work?

Setting targets for improvements

A target is something you have decided to aim for. It is the 'best practice' that you or your team have decided will make your work practices more sustainable. Once you set a target, you can compare your audit of current practices against the target to see how much needs to be done to achieve the target. If you provide a unit of measurement in your target (for example, 25% reduction in water usage over 12 months), you can then monitor practices at regular time intervals to see whether they are meeting the target.

?

When you are setting targets, you will need to consider a number of factors, such as cost, return on investment, availability of technology, amount of staff time to implement the practice, etc. Can you think of other influencing factors?

Determining best practice

How do you know what 'best practice' sustainability is as it applies to your workplace? You can find out by:

- having some background knowledge of sustainability principles (e.g., you know that using less fuel in a car is better for the environment as there are less greenhouse gas emissions)
- undertaking research via the Internet, journals or books
- asking organisations or government departments for information (for example, the Australian Greenhouse Office (<http://www.greenhouse.gov.au>) or
- Reviewing case studies of other organisations to see what they have done.

The Resources Section (Section 7) provides links to websites, toolkits and organisations that may be able to assist.

Always remember when you are undertaking research that what might be considered a sustainable option elsewhere may not be so in Australia. For example, if a product is only available in Europe, the environmental impact of the product being shipped to Australia for use would need to be considered.

Best practice can often be defined by looking at your own policies and procedures. If your company has an environmental policy or accredited environmental management system, these documents will provide information on your company's 'best practice' in its aims and objectives.

The following provides some basic background information on best practice sustainability practices related to the type of work undertaken by the business services industry.

Green office

'Green Office' is a management system that promotes environmental-efficiency in an administrative-type office. It includes such aspects as:

- office equipment selection and use;
- paper selection and use;
- energy usage; and
- general purchasing.

Green office practices could include:

- Considering energy efficiency, consumables and packaging when you purchase new office equipment. For example, a photocopier purchased for \$4,000, that is left on continuously for seven years over its two-million copies life, may consume \$1,500 of electricity, \$24,000 of paper and \$15,000 of toner (NCS Swinburne, 2005)
- Reducing paper usage by using electronic document storage, printing only when necessary and purchasing recycled paper
- Considering packaging and recycled products for every purchase – for example, you can purchase mouse mats made from recycled car tyres, pens made from car parts and pencils that do not have a plastic coating and you can use paper clips instead of staples so that they can be reused and paper more easily recycled.



Australia uses 1.5 million toner cartridges per year releasing 1500 tonnes of non-biodegradable waste (enough to cover the MCG to a depth of 1 metre).

The average organisation which does not have efficient paper recycling techniques uses the equivalent of 20 large rainforest trees per day.

A desktop computer, used eight hours per day, generates over 600 kilograms of greenhouse gases each year.



Discuss and/or list some 'green office' practices that you already do in your workplace.

Can you think of any others?

Energy efficiency

Energy efficiency initiatives can save your business large amounts of money, and some, particularly if they reduce electricity consumption, have a relatively short timeframe for a positive return-on-investment.

Simple measures include:

- turning off lights and equipment when not in use
- minimising the use of air conditioning
- switching off computers (and the screen) when not in use, such as overnight, and enabling the energy saving mode (note that some screen saver packages disable the energy saving mode so that the computer does not hibernate after a period of time)
- selecting energy (efficient) equipment such as copiers and computer screens
- placing a timer on the drinks fridge (if it's only used occasionally – say for client functions or on Friday afternoons) – this could save around \$200 per year in energy (which could go towards the Christmas party!)
- instant hot water systems in the kitchen could be placed on a timer to switch off at night, or you could switch to gas hot water heating, which is more efficient
- making sure dishwashers are full before switching on
- avoiding small fan heaters and coolers (try and resolve air conditioning issues between staff without them resorting to their personal energy inefficient solutions!)
- undertake light meter checks to determine light intensities of work spaces, warehouse, reception, etc to see if they might be over lit
- using compact fluorescent globes means the globe is using 80% less energy than a 'normal' incandescent light bulb
- replacing tube fluorescent lighting with tri or quad phosphor tubes which emit more light, so for the same amount of energy you may be able to remove some tubes completely
- purchasing 'Green Power' from renewable energy sources.

What can you do?
Triphosphor Tubes

Star City Casino

Cost:
\$6,500

Saving:
\$14,191 pa
359 tonnes CO2

The image shows a collection of triphosphor tubes, which are energy-efficient lighting fixtures. The background features a collage of sustainable energy icons including a wind turbine, solar panels, and a hydroelectric dam.

Water efficiency

Sustainable water usage has two main principles:

- using less water (water efficiency)
- reusing or recycling water (water reuse).

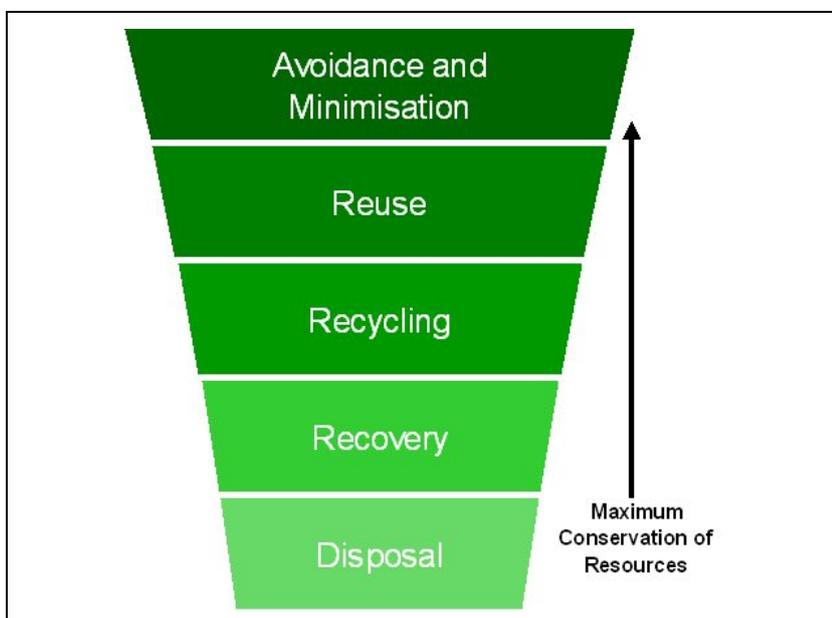
You can use less water in your work practices by investigating anything you do with water in the workplace and determining how to reduce this use.

In an office situation, this could be by installing dual flush toilets, tap aerators, spring loaded taps and selecting water efficient dishwashers (all water using appliances now have a water saving star system, similar to the energy efficiency star system on electrical appliances). If your amenities have hand washing sensors, they can be checked to ensure they do not stay on for too long.

Water reuse is difficult to achieve in high rise office buildings or where you have a lease, however, there may be scope in other facilities to install rainwater tanks for toilet flushing.

The waste avoidance hierarchy

The Waste Hierarchy is adopted by the majority of waste management authorities as the most acceptable approach to waste management. The following diagram shows this hierarchy, with the most preferable option for waste management, *avoidance and minimisation*, located at the top and the least preferable, *disposal*, located at the bottom.



(Source: <http://www.wastenet.net.au/information/hierarchy>)

Some ideas for applying the waste hierarchy to your organisation:

Avoid purchasing items with excessive packaging, and consider buying in bulk to reduce individual packaging, use duplex printing whenever possible and consider electronic methods of document storage.

Reuse packaging, blank sides of office paper, presentation folders, printer cartridges (many can be refilled), kitchen cups/cutlery and plates.

Recycle office paper and cardboard packaging, glass bottles, aluminium cans, printer cartridges, computer equipment, office furniture and organic waste by organising contractors to pick up these materials.

Recovery involves recycling materials into their base components – e.g., commercial composting systems are an example of recovery.

There are many excellent waste-wise business programs available from State and Local government departments as well as other organisations. These provide lots of information to assist you implement a program in your organisation. A quick internet search will provide details. The resources Section (Section 7) provides details of some. Sustainability Victoria's website has templates you can download to prepare waste wise programs as well as a table you can complete to discover the 'hidden cost of waste'. The generation and disposal of waste is often not fully costed by businesses and this table shows you how to estimate these hidden costs. Research on costs is a good way to get the attention of management.

Transport

Environmental sustainability can be increased by reducing vehicle emissions. This can be done by choosing more fuel efficient fleet cars or providing incentives for employee leases for more environmentally friendly vehicles.

Your organisation could also introduce incentives to encourage the use of public transport, walking or bike riding to work. Providing showers and bike storage will assist. You could also replace cab vouchers with public transport funds. Some cities in Australia now offer an 'eco' chauffeur car service, using fuel efficient cars, and there are even 'rickshaw services' being offered for short trips in Central Business Districts. You could also re-consider your use of door-to-door courier services. Various companies offer an 'offset' service where a company can fund tree planting or other carbon sink creation projects to offset vehicle emissions.

Purchasing strategies

Various examples have been provided in previous sections of ways you can improve your environmental sustainability through your purchasing decisions. When considering your purchasing, you should consider not only your own purchases but as much of your supply chain as you can.

You can influence your supply chain by placing sustainability requirements on tenders and quotations and asking questions from your suppliers about their products and services.

As well as the purchasing strategies previously mentioned, you should also consider:

- Marketing and promotions – what is the environmental sustainability of your promotional materials such as stickers, flyers, banners, posters, carry bags, pens, etc.
- Events – think about the environmental sustainability of your client meetings and
- Events – the facilities you use and the catering you provide.

There are various programs that can assist you to select more environmentally sustainable products for your organisation. These include the Victorian-based 'Eco-Buy' (<http://www.ecobuy.org.au>) which provides an extensive range of service and resources to assist organisations in developing and implementing green purchasing programs. Good Environmental Choice Australia (www.aela.org.au/productsregister.htm) provides accreditation to 'green' products and services.



Your company is planning a product launch and is inviting 200 clients and staff. Discuss how you could make the launch more environmentally sustainable.

The preliminary action plan

You have now investigated current practices and the previous section has provided you with some best practice ideas and resources for more environmentally sustainable work practices. You have some ideas of what you want to achieve and have investigated some programs that could assist you.

You now need to determine what actions you will implement that will lead to more environmentally sustainable work practices.

A simple way to determine this is to prepare a '*Preliminary Action Plan*' as shown in Table 7. This Plan will quickly illustrate what is achievable and what is not, so that you can focus on those actions that will be the most effective. The action plan requires you to identify the environmentally sustainable practice that you want to implement, for example, encouraging double-sided copying and printing. The sample Action Plan has been completed to show the details of this proposed action.

As can be seen by Table 7, the table highlights the potential benefits of actions as well as the costs and payback periods and any barriers to adoption. It also helps identify which staff would be most effective at implementing the action.

You can use the completed table to workshop potential actions or present findings to staff and/or management. You could modify the Plan based on further discussions and use it as the basis for your implementation, or you can use it as the basis to prepare more detailed procedures within existing programs that you may have, such as Standard Operating or Work Task Procedures.



Prepare a 6 to 8 line Preliminary Action Plan on the board or within groups. Discuss the various actions and items to complete. Adjust the Action Plan headings to suit if needed.

Table 7 Example of a Preliminary Action Plan

Action Potential	risks/opportunities (alignment with company policy?)	Estimated \$ saving	Capital Cost \$	Payback Period (months)	Target	Target date	Budget	Who?
Use duplex copying and printing	Reduction in paper use. Need to check OK for legal dept documents. Check all printers have capability. Meets policy to reduce paper use.	Est. 40% reduction = \$4000 per year	Nil – all copiers and printers have function New printers will need this function.	0	40% reduction in paper use per year	2 month to implementation	\$1000 (staff time for training and promotion)	Sam P.
Use percentage recycled paper	Less trees used to make paper – reduced footprint Need to undertake initial trial on all printers and copiers to ensure compatibility. Need to undertake CBA to select most appropriate brand/type.	\$0 (use funds from paper savings – see above)	\$1200 (additional cost of paper)	N/A	Purchase 80% recycled paper over next 12 months	Implement over next 3 months	Nil – include in general training	Maria G.
Switch off computer terminals at night	Reduces energy use overnight	Est. 10% reduction in electricity = \$5,000 per year	Nil	N/A	95% of computers switched off overnight when audited in 2 months.	Implement over next 2 months	Nil	Peter P.
Replace grass around regional office with native plantings, install water tank for irrigation.	Reduces current water use for grass irrigation by 100%	Saving of \$520 per year in town water costs.	Landscaping quote - \$3400 Water tank quote - \$4200	14.6 years	100% reduction in town water use for irrigation purposes at regional office	3 months for tank installation, then 2 months for landscaping	\$7500	Grounds – Dan M./Jerry W

Measurable efficiency targets

You will note that Table 7 includes target and target date columns. It is important that you consider and provide a measurable, achievable target in your plan, and also a target date. This is so that you can effectively monitor the target over time. For example, if you stated your target as *'reduce paper use'*, this would be much harder to monitor over time than, say, *'Reduce purchases of non-recycled paper by 40% over 12 months'*. For the more specific second target, you will be able to simply check purchasing orders at the end of the 12 month period to determine whether you have achieved the target or not.

You will also note that Table 7 includes a column for capital cost and payback period. You should remember that the cost here is economic, and does not consider the social or environmental consequences of environmentally unsustainable work practices. For example, consider the 'hidden costs' of waste disposal on the environment. You should also be considering and encouraging others to consider the combined costs and payback periods of several items. For example, while recycled paper may cost more to purchase, it can be offset by the reduction in the use of paper by printing on both sides.

Seeking input from stakeholders

It is very important that you seek input from as many sources as possible while you are completing your Preliminary Action Plan. In this way you will increase 'ownership' of the actions and have a wider range of people who are responsible for implementation. You will also be surprised by the large number of good ideas staff have on how to improve practices, if you ask them.

Accessing external assistance and programs

There are a number of programs you can join to assist with your implementation. Several States run waste-wise and energy efficiency programs for businesses, which your company can join. Once you have joined these programs you will have access to a large number of resources, assistance and you could be monitored with implementation, which assists with keeping to deadlines!

There are also software programs that can assist you – for example 'Energy Tracker' is a software program that monitors energy consumption, greenhouse gases and assist you to minimise your energy costs. Similarly, 'smart meters' can be installed to monitor your energy consumption on a real-time basis.

There are programs to collect your scrap paper and other waste products for recycling.

You can engage external consultants to assist with the development and implementation of your environmentally sustainable work practices. Remember though that a program is often more successful if as many people in a workplace as possible have been involved in its development.

There are standard methodologies you can use to prepare your 'Action Plan' or similar document. If your workplace already has

ISO14001 Environmental Management System procedures in place, you can use this system as the basis for investigating your environmentally sustainable work practices. There are also programs such as Life Cycle Analysis, the Global Reporting Initiative (GRI),

Greenhouse Challenge programs, sustainability covenants and partnerships and LEAN Manufacturing programs that can assist you or can form the basis for your investigations. Refer to the Resources in Section 7 for more detail on these programs.

Timeframes and responsibilities

Table 7 shows timeframes and responsibilities. You should select a realistic timeframe for implementing work practices. If you want staff to have information about a new practice, you may need to work in with staff meeting dates so that you have time to present the information. If staff need to be trained to undertake a new procedure, you will need to consider the most effective form and timeframe for this training.

Noting who will be responsible for an action is very important as it spreads the workload and increases 'ownership' of the project. Try and involve staff from different areas across the organisation, and on different levels. You could have those responsible for actions form a 'sustainability action team' that meets regularly to discuss implementation.

Evaluating options

Your Preliminary Action Plan can be used to evaluate different options prior to selection of the most effective practice. For example, you could use it to compare the costs of new types of lighting or machinery, as opposed to implementing efficiency targets or reusing existing equipment.

Implementation plan

You now have your Preliminary Action Plan and have perhaps modified the plan with more detail or modified actions or targets in response to initial feedback. You are now ready to implement the plan. There are various tools that can assist you with implementing your plan.

You may wish to use tools such as Standard Operating Procedures or Protocols that you already use within your workplace and that staff are familiar with. The advantage of this method is that staff will be familiar with terminologies and procedures, the new action will be more likely to be seen as a 'standard' workplace change, and the new action can be integrated into existing systems, such as documentation, monitoring or accounting systems.

You could also use scheduling software for your Implementation Plan. This type of software has the ability to document sub-tasks and track progress and responsibilities.

A simple Implementation Plan is provided as Table 8. This Implementation Plan documents how an action will be implemented, providing information on the various implementation steps, or sub-actions, who will be responsible for implementation, timeframes and any other relevant information.

When preparing your Implementation Plan, you should consult widely to ensure you have support and understanding of any changes from all stakeholders (refer Section 5).



In groups or as a class, think about what the existing tools in your workplace are that could assist implementation?

Communication plan

Communication is an important key to successful implementation if your environmentally sustainable work practices. Consider using a range of communication strategies to 'get your message out there' to reach as many staff as possible. You should prepare a 'Communication Plan' for your implementation that identifies your communication strategies. This could include such items as staff meetings, training sessions, leaflets, posters, signage next to equipment as reminders, 'switch off' reminder labels on light switches and regular email reminders to staff or departments. You could also 'launch' the program with a special event, or link the program to an existing program or idea (for example, casual Friday could be linked to a sustainable action that takes place every Friday).

More detail on successful communication strategies is provided in Section 5.

A Communication Plan can assist your consideration of all the relevant communication avenues. This Plan can be prepared to identify the people you need to inform and engage with in your plans to make the workplace more sustainable. This includes all of the stakeholders described in the previous sections, and documents how the communications will take place, who will be responsible for actions, feedback and follow-up communications. A sample Communication Plan is provided in Table 9.

Training plan

New or altered workplace practices need to be introduced to employees and management in a manner that maximises uptake. Your Communication Plan will help you determine the best methods to communicate changes. If new skills or altered practices are required, you may need to develop a training module, new or revised operating procedure or information sheet. A Training Plan can assist you with planning the best training methods and could be developed in a form similar to the Communication Plan provided as Table 9.

Communication strategies for successful implementation

Communication is the key to successful implementation of environmentally sustainable work practices. This section provides tips on communicating with management, team members and external stakeholders, including suppliers and customers or clients.

Dr Bob Willard, author of *The Next Sustainability Wave: Building Boardroom Buy-in*, sums up the issues with communicating a sustainability message:

"Suppose you care about the state of the world, but you are not sure if your executive colleagues share your values. You are uneasy about being dismissed as a tree-hugging environmentalist if you suggest the company should pay more attention to its ecological and social responsibilities. Your colleagues and manager might pat you condescendingly on the head, applaud your worthy convictions, and suggest you work with like-minded NGOs in your spare time. Just broaching the subject risks your credibility as a corporate leader who has the best interests of the bottom line at heart. It could be a career-limiting conversation. Not good.

Then an opportune moment arises. It may be a chance meeting in an elevator, at a reception, at a conference, or during a break at an annual general meeting. Sustainability evangelist meets corporate non-believer. How does a sustainability champion start the conversation in such a way that it continues excitedly instead of being quickly terminated and awkward...How can sustainability champions appeal to corporate leaders' critical priorities, handle likely objections and use serendipitous opportunities to engage their interest?"

(Willard, 2005)

Dr Willard's book provides a chapter titled *"Objection-handling Clinic in Inhibitors to the Next Wave"* which provides excellent ideas if you think you may have trouble convincing others. One of the main points he emphasises is to remember that people are not the same and that their 'hot buttons', or reasons that they would want to engage in the process, will vary, and that you need to identify and appeal to these reasons.

For example, the marketing manager would be focused on sales, product differentiation and customer loyalty, whereas the head of human resources would be focused on workforce development, recruitment and retention. As Dr Willard notes:

"Language Matters. Talk Theirs."

Communication with management - “The elevator speech”

Management are busy people. They make quick decisions and you need to be ready when the opportunity arises. If you need to engage management support for your program, you may need to provide them with the information and secure their ongoing enthusiasm in, say, two to three sentences.

Be prepared – summarise and learn the main elements of your program, prepare a good ‘attention-getting’ fact – for example, from your investigations into how much an unsustainable work practice is costing the company (and make sure it is accurate – don’t exaggerate!) and perhaps have a one page handout ready to hand over. You are now ready to promote the program to management whenever the moment arises, and to staff and others as well.

Involving team members

Involving team/other staff members will provide a wider range of practical ideas for environmentally sustainable work practices. It will also create ‘ownership’ of the program and greatly assist implementation. Seek suggestions and ideas through communication sessions, team meetings or other methods, and involve staff in the development of ideas. For example, ask relevant departments for data or to assist with monitoring. Ask management to provide an incentive program for staff who come up with ideas that are implemented, or who contribute to the implementation or monitoring of practices.

Communicating with external stakeholders

A move to more environmentally sustainable work practices could involve asking questions of suppliers and ultimately requesting them to supply alternative products or services. You should ensure that the questions you ask your suppliers are clear and that they understand the reasons for the questions. For example, a supplier may reassure you that their paper products are recycled, but this may mean that only some of their papers contain recycled content, and this content may be very low compared to others. Suppliers may become defensive when they feel the quality of their products is being questioned, so be very careful to ensure they understand your program and the reasons for its implementation.

Customers and clients may also be affected by changes to your products or services when you implement environmentally sustainable work practices. You should brief your marketing staff on what these changes may be and discuss ways of promoting the changes in a positive manner. You could provide mechanisms for customers or clients to provide feedback on any changes, so that you can monitor implementation and alter procedures if required.



Communication barriers

What could be some of the barriers to communication – reasons why staff or management may resist implementing environmentally sustainable work practices?

Table 8 Sample implementation plan

Action (from Table 7)	Sub-actions W	ho responsible?	Timeframe	Comment
Duplex copying and printing	Need to check OK for legal dept documents.	Sam P.	Weeks 1-4 July – check OK with all depts.	Implement as part of green office training module, include in ongoing office audit program.
	Check all printers have capability.		Weeks 1-2 Aug – check capabilities of existing printers	
	Include in Green Office training module for Week 1 Sept.		Weeks 3-4 Aug – prepare modified operating procedure for training module	
Use percentage recycled paper	Prepare report and CBA on available paper options for mgt meeting.	Maria G.	Weeks 1-2 July – Prepare options report	Implement as part of green office training module, include in ongoing office audit program.
	Management group to select paper for use		Week 3 July – Present report to mgt group meeting	
	Undertake trial on all printers and copiers to ensure compatibility.		Week 4 July – Obtain sign-off on selected paper	Monitoring program needs to check for any issues associated with use of new paper types.
	Include in Green Office training module for Week 1 Sept.		Week 1-2 Aug - advise procurement section of new requirement and assist with modifying policy specification	
Switch off computer terminals at night	Prepare modified operating procedure	Peter P.	Week 4 August –modify operations manual for new procedure	Implement as part of green office training module, include in ongoing office audit program.
	Complete training as part of Green Office training module Week 1 Sept.		Week 1 Sept – complete training in new procedure	
Replace grass around regional office with native plantings, install water tank for irrigation.	Prepare Landscape Plan with plant specifications and schedule	Grounds dept – Dan M/Jerry W	July/Aug – Engage tank installer, install tank	Notify staff of disruption to outside grounds, prepare signage for public re disruption.
	Engage construction contractors		Aug/Sept – engage landscape contractors and complete landscaping	
	Engage tank installer			
	Sign-off on completed works			

Table 9 Sample Communication Plan

Action	Who will be affected?	Who needs to be kept informed?	Who will be responsible for the action?	Who can provide useful feedback?	Key questions to ask/ messages to convey	Best communication methodology
E.g., duplex copying and printing	All office personnel	All office personnel, management, procurement team	Sam P to supervise implementation	All office personnel, partic. PAs, procurement manager	Clear instructions to use duplex system will be provided Savings on paper	Include in Green office training module Reminder posters at printers and copiers Include as reminder in weekly bulletin

Monitoring environmentally sustainable work practices

Elements of a successful monitoring program

What gets measured gets managed.....

You have implemented your environmentally sustainable work practices, you or your 'implementation team' feel that practices are working well and you have developed measurable targets so that you can determine whether this is in fact the case.

Monitoring the program will require development of a system that makes monitoring an easier task to complete. You could consider preparing checklists that can be used to do a visual count of lights switched off, equipment in use, amount of single sided waste paper or other work practices.

There are various monitoring or tracking templates that you could develop to assist you with this task. For example, you could develop a simple monitoring table such as that provided in Table 10.

A very detailed 're-assessment' spreadsheet template can be found on the Queensland EPA's Eco-Biz website at <http://www.epa.qld.gov.au/register/p01295ap.xls>

There are various methods of monitoring that may be suitable for your workplace. These include:

- questionnaires or surveys of relevant staff
- visual counting or calculating (e.g.: amounts of waste in particular bins)
- checking supply records/invoices (to determine how much of an item has been purchased) or
- audits by an audit team (which should be representative of the participants).

Monitoring information, once collected according to a schedule, needs to be analysed and reported. This analysis is important so that you

can identify where adjustments and/or improvements can be made, so that the work practices can be continually improved.

Part of the monitoring program should also involve researching new technologies and systems so that these can be assessed and introduced if found to be more effective than existing ones.

If your monitoring and reporting finds that practices are being implemented 100% and that they can be improved, consider adjusting targets to aim for a higher level of sustainability. For example, if you set a target of 50% compliance with switching lights off at night and this was being met, consider increasing the target to 100%.

A monitoring program will be more successfully implemented if the monitoring is made part of everyday tasks, and the process is made as easy as possible – for example, through the use of automatic email reminders to check something, or a ‘tick the box’ checklist.

It is also important to properly cost your achievements. For example, if a practice was implemented that aimed to save the company \$1,000, and it saved \$5,000, this should be noted and used as a key message to promote the program. If you find that an item is costing more than expected, this needs to be assessed and perhaps an alternative method considered.

Table 10 Sample monitoring plan
(This plan could be completed monthly or according to required schedule – this is a monthly sample)

Action Sub-a	ctions	Target	Monitoring method	Results/ compliance	Comment
Duplex copying and printing	Need to check OK for legal dept documents. Check all printers have capability. Include in Green Office training module for Week 1 Sept.	40% reduction in paper use per year (100 reams/mth purchased pre-implementation – 40% reduction is 40 ream reduction)	Purchasing records to be checked monthly	Sept – 70 reams purchased (30% reduction achieved)	Provide graph of results near printers and copiers to promote further use of duplex.

Communicating outcomes

Communicating program outcomes is very important. It assists monitoring and promotion of the program and continuous improvement. You should communicate outcomes internally, and many companies now report publicly on their sustainability initiatives. Reporting can be in the form of informal, regular communications (posters, memos) or more formal reports to management and stakeholders. Any communication should link new initiatives to the original aims and objectives, as well as the company's existing policies and procedures.

It is important to present sustainability outcomes clearly and succinctly. Instead of presenting tables full of numbers, consider using coloured graphs, interspersed with facts about usage and reduction. Your 'sustainability report' often forms part of your company's 'corporate image' and you could consider posting your results on your website or including them in your annual report.

There is a large amount of information available on the various methods of reporting (refer Section 7 – Resources), which may include following the Global Reporting Initiative (GRI) guidelines, OECD Corporate Governance Principles or the mandatory sustainability reporting requirements provided by some countries (Certified Accountants Educational Trust 2001).

An environmentally sustainable work practice is to reduce the amount of paper use, and reporting on the program should follow this principle. Consider reporting using the Internet, which has the following benefits:

- you save on paper usage and staff time in printing, binding and distribution
- you can include hyperlinks to detailed data and resources and even suppliers websites
- you could provide information in several languages if you were part of a multi-national company
- you could provide a linked forum or bulletin board for updates and feedback
- the report can be quickly forwarded to a large number of stakeholders – managers, clients and suppliers and
- you could include a video podcast of management promoting the program, or a description of how a task has been implemented.

The Certified Accountants Educational Trust (CAET, 2001) notes some issues with web-based reporting, which could be applied to any electronic document, even if only circulated internally within the company. These include 'death by download', when you provide the report as a PDF which is too large, discouraging feedback and dialogue and leaving users in the dark as to how current the report is.

Acknowledging achievements, leadership opportunities and networking success

It is also important to acknowledge achievements made by the implemented work practices. Consider how those who have successfully implemented practices can be awarded, and how the company as a whole can celebrate its achievements. (But remember to refer to the environmental sustainability of your party!)

Implementing environmentally sustainable work practices may identify leadership opportunities and you may be able to share your success with other companies looking to undertake a similar program. Look to the skills of your 'sustainability champions' to assist in promoting your company to others, and maximise your success through promotion and networking.

Resources

This Section provides a range of resources that you can use to obtain more information on particular topics. It also includes programs and organisations that can assist you.

Programs and organisations

Business

https://secure1.impactdata.com.au/reputex/	RepuTex, an independent organisation which assesses companies across many industries on their level of social responsibility.
http://www.vecci.org.au	Victorian Employers' Chamber of Commerce and Industry - under Sustainability you can access free information on eco-efficiency, government, leaders, awards, case studies, research, articles, resources, and tools for businesses.
http://www.interfaceinc.com/	Interface Inc., 'Sustainability Overview'
http://sustainability.bhpbilliton.com/2005/repository/sustainabilityBHPBilliton/sustainableDevelopment/businessCase.asp	BHP Billiton Sustainability Report 2005
http://www.telstra.com.au/environment/docs/telv_per04.PDF	Telstra: Report on their Green Office Program in a 2004 Environment Report
http://www.telstra.com.au/supplying_to_telstra/environment.htm	Telstra's policy for suppliers – Green Purchasing Policy
http://www.pwcglobal.com.au	Price Waterhouse Coopers
http://www.sustainability.com/network/global-influencer.asp?id=325	Starbucks - Coffee Sourcing Guidelines
http://www.vicsuper.com.au/www/html/964-sustainability.asp	VicSuper and Sustainability
http://www.sustainability.com/	SustainAbility is an independent think tank and strategy consultancy with experts in corporate responsibility and sustainable development including advisors on market risks and opportunities.
http://www.csrwire.com/	CSRwire corporate social responsibility and sustainability, press releases, reports and information on a weekly basis by and for members including companies, NGOs, agencies and organisations interested in communicating their corporate citizenship, sustainability, and socially responsible initiatives globally.
http://www.icaa.org.au/upload/download/Emap_print.PDF	Additional Case Studies are located at Environmental Management Accounting: An introduction and case studies for Australia 2003 report commissioned by CPA Aust, EPA Vic and Environment Australia

Business

http://tool.ncsustainability.com.au/public_case3.html

Printbound – Victorian printing company

<http://www.mecu.com.au>

MECU Financial Co-operative

<http://www.accountability.org.uk/>

AccountAbility (est. 1995) is the leading international non-profit institute that brings together members and partners from business, civil society and the public sector from across the world.

<http://www.solonline.org/>

SoL research and networking

<http://www.iag.com.au/>

IAG – Insurance Australia Group

<http://www.lucita.net/>

Lucità - A socially conscious media consultancy firm, including design, an image house, a communications company and media firm.

Government

http://www.ibsa.org.au	Innovation and Business Skills Australia
http://www.epa.vic.gov.au/bus/sustainability_covenants/question.asp	EPA Victoria Sustainability Covenants
http://www.environment.nsw.gov.au/education/sustaincompacts.htm	EPA NSW Sustainability Compacts
http://www.deh.gov.au/settlements/waste/covenant/index.html	National Packaging Covenant – Department of Environment and Heritage
http://www.environment.sa.gov.au/sustainability/index.html	South Australian Government – Sustainability Office Information for business and finance
http://www.deh.gov.au/settlements/publications/government/purchasing/waste-reduction.html	National Government waste reduction and purchasing guidelines – The Department of the Environment and Heritage
http://www.deh.gov.au/about/legislation.html	Government Legislation
http://www.deh.gov.au/esd/links/local.html	The Department of Environment and Heritage (DEH) provides federal government sustainability information and lists relevant Australian Local Governments links, including links to: Local Government Sites Local Government Associations Local Government Case Studies Australian Government Programs for Local Governments International Local Government Sites Sustainability Case Studies
http://www.greenhouse.gov.au/local/ccp/index.html	Australian Greenhouse Office and Cities for Climate Protection

Local government associations and programs

http://www.alga.asn.au/	Australian Local Government Association
http://www.iclei.org/	International Council for Local Environmental Initiatives

Also check the local government associations for each State. Many local government sites have good case studies on sustainability and business.

Global associations and programs

http://www.un.org/esa/sustdev/mgroups/success/success.htm	United Nations Success Stories
http://portal.unesco.org/education/en/	UNESCO Decade of Education for Sustainable Development

Environmental

http://www.greenhouse.gov.au/challenge/	Greenhouse Challenge Plus aims to help Australian companies to reduce emissions while improving efficiency.
http://www.deh.gov.au/settlements/waste/	National Packaging Covenant aims to reduce waste and increase the materials efficiency of materials used for packaging.
http://www.sustainability.vic.gov.au	Sustainability Victoria supports many initiatives which lead the way for other states and territories.
http://www.deh.gov.au/settlements/industry/construction/	Waste Wise Construction Program

Australian government environment sites

http://www.deh.gov.au/esd/	Department of Environment and Heritage
http://www.greenhouse.gov.au/	Australian Greenhouse Office
http://www.environment.gov.au/erin/	Environmental Resources Information Network
http://www.packagingcovenant.org.au/	National Packaging Covenant
http://www.npi.gov.au/	National Pollutant Inventory
http://www.environment.gov.au/soe/	State of the Environment
http://www.environment.gov.au/esd/national/nsesd/index.html	National Strategy for Ecologically Sustainable Development

Social

http://www.ilo.org/public/english/standards/norm/whatare/fundam/index.htm	ILO International Labor Standards
http://www.un.org/Overview/rights.html	Universal Declaration of Human Rights
http://www.erc.org.au/busethics/index.shtml	Edmund Rice Business Ethics Initiative - Supports discussions on values and ethics in the workplace to develop research and further discussions to support and encourage a better understanding of the needs of both the community and business objectives.
http://www.rainforest-alliance.org/	Rainforest Alliance – Their mission is to protect ecosystems and the people and wildlife that depend on them by transforming land-use practices, business practices and consumer behaviour.
http://www.ciwmb.ca.gov/WPIE/Cleaning/	Cleaning and Custodial Supplies and Waste Prevention from the California State Government, Waste Advisory Board
http://www.sa-intl.org	Social Accountability International – International standards for improving working conditions
http://www.sustainability.com/downloads_public/insight_reports/humanrights_2005.PDF	SustainAbility Think Tank Publication April 2006

Industry tools

http://www.ciwmb.ca.gov/BizWaste/FactSheets/Printing.htm	Waste Reduction in the Printing Industry
http://www.finance.gov.au/procurement/procurement_guidelines.html	Australian Government Department of Finance and Administration: Commonwealth Procurement Guidelines
Earthscan Publications	Natural Capitalism: The Next Industrial Revolution, Hawkins, P et al (2000)
http://www.aries.mq.edu.au/PDF/Volume4_Final05.PDF	AIRES, A National Review of Environmental Education and its Contribution to Sustainability in Australia, Volume 4: Business & Industry Education
http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/ser_program.html	HP Purchasing – Supply Chain, Social and Environmental Responsibility Tools, e.g., policy, supplier agreements, codes of practice and standards, recycling
http://www.ecorecycle.sustainability.vic.gov.au/www/html/463-reducing-office-waste.asp?intSiteID=1	Waste Reduction Programs Sustainability Victoria (formally Eco-Recycle Victoria) has established Green Office Tips for Waste Reduction through the Waste Wise program.
http://www.nzbcscd.org.nz/supplychain	Implementing a sustainable supply chain - The New Zealand Business Council for Sustainable Development (NZBCSD) has produced a practical Business Guide to a Sustainable Supply Chain which details five steps to implementing a sustainable supply chain with a number of suggested models and templates.
http://www.cbsr.bc.ca/files/AdvisoryServices/InternalizingCSRToolkit.doc	Canadian Business for Social Responsibility (CBSR) has developed an "Internalizing CSR Toolkit" to support the implementation of corporate social responsibility by assisting you with options and providing a framework.
http://www.vecci.org.au/vecci/sustainability/business+and+environment+handbook/index1.asp	Business and Environment Handbook is a resource from the Victorian Employers' Chamber of Commerce and Industry to assist businesses manage environmental issues and support business operations. Topics include environmental management, identifying and managing impacts, waste/energy/water/air/noise management, site contamination, dangerous substances management, regulatory authorities and other assistance.
http://www.bba.org.uk/bba/jsp/polopoly.jsp?d=123	The FORGE Group's Corporate Social Responsibility: Guidance for the Financial Services Sector addresses the risks, benefits, challenges and possible action points for a number of different business units in the financial services industry (general insurance, life assurance, fund & asset management, property portfolio management, retail banking, commercial investment & corporate lending and debt recovery services).

Industry tools

<http://www.iisd.org/publications/publication.asp?pno=307>

Attracting investment for sustainable enterprises: The International Institute for Sustainable Development (IISD) EarthEnterprise™ Toolkit contains advice and checklists for SMEs and entrepreneurs seeking investment for sustainable products and services and lists American and Canadian sources of capital for sustainable enterprises.

<http://deh.gov.au/settlements/industry/finance/publications/mays-report/insurance-sector.html>

Insurance providers recognise sustainability as a key challenge: View Sustainability Strategy and Corporate Sustainability - an Investor Perspective: The Mays Report Department of the Environment and Heritage 2003

http://www.epa.vic.gov.au/bus/unep/finance_sector.asp

The Environment and the Finance Sector: EPA Victoria

<http://www.icaa.org.au/upload/download/Report.PDF>

Extended performance reporting – An overview of techniques: The Institute of Chartered Accountants in Australia 2005 Professor Wai Fong Chua from the University of New South Wales in Sydney, Australia. All material in this report is current as at October 2005, published in 2006. This report includes a variety of Australian and international reporting techniques

<http://www.cdproject.net/>

Carbon Disclosure Project (CDP): The CDP is a secretariat through which institutional investors ask the world's largest companies to disclose investment-related information about their greenhouse gas emissions. This website is the largest registry of corporate greenhouse gas emissions in the world and information can be downloaded freely.

<http://www.socialfunds.com/>

Socially Responsible Investing (SRI) SocialFunds.com features over 10,000 pages of information on SRI mutual funds, community investments, corporate research, shareowner actions and daily social investment news.

<http://www.epa.vic.gov.au/Lifecycle/What-can-i-do/default.asp#1>

Life Cycle Management Business Portal – This website has been developed to provide information and tools to help businesses adopt a life cycle approach in their business decision making.

<http://www.bsdglobal.com/>

Business and Sustainable Development This site explains the strategies and tools companies can use to support implementation of sustainability including case studies from around the world.

<http://www.bitc.org.uk/index.html>

http://www.bitc.org.uk/resources/publications/reporting_1.html

Business in the Community is a unique movement of over 700 of the UK's top companies committed to improving their positive impact on society. They provide a wide range of free resources.

Industry tools

<http://www.globalreporting.org/>

Global Reporting Initiative – Sustainability Reporting Framework with Sustainability Reporting Guidelines which has ~ 1000 organisations across the globe reporting on sustainability by using the guidelines to benchmark against other industries.

http://www.conferenceboard.ca/GCSR/CR_AT/default.htm

The Conference Board of Canada – Corporate Responsibility Assessment Tool – For more information about this tool or to request a demonstration of the on-line C RAT, contact Prem Benimadhu, Vice-President, Organizational Performance on (613) 526-3090, ext. 370, or e-mail benimadhu@conferenceboard.ca

<http://www.swinburne.edu.au/ncs/news/0029nextwave.htm>

Bob Willard, the author of 'The Sustainability Advantage: Seven Business Case Benefits of a Triple Bottom Line' 2002 and 'The Next Sustainability Wave Building Boardroom Buy-In' 2005

http://www.bsddglobal.com/sd_journey.asp

Business & Sustainable Development: A Global Guide – The sustainable development journey.

<http://www.egeneration.co.uk/centre/services/benchmarking/index.asp>

Egeneration in the UK - Benchmarking tool for waste, water and energy and case studies on Green Office programs

http://www.mpso.unimelb.edu.au/mpso/publications/green_guide/paper

University of Melbourne's The Little Green Guide to Design & Printing – This guide will help you to select paper, a printer, inks and creative design solutions to minimise environmental impacts while still delivering a quality product within budget.

<http://www.energyrating.gov.au>

Energy Rating – a resource designed to help you choose energy efficient appliances to reduce your greenhouse emissions

<http://www.energystar.gov.au>

Energy Star – similar to Energy Rating (above) this site provides information about energy efficient electronic equipment. An essential resource for a Green Office program.

<http://www.travelsmart.gov.au>

Travelsmart – a federal government program designed to help you make informed travel choices to reduce greenhouse emissions.

<http://www.greenfleet.com.au>

GreenFleet – a program that offsets your greenhouse emissions from motorised transport by planting trees.

<http://www.greenpower.com.au>

Greenpower – information about government accredited renewable energy. Purchasing GreenPower from sources such as wind, solar and hydro is the easiest way to reduce your greenhouse emissions from stationary energy (excluding transport related emissions) to virtually zero.

Industry tools

http://www.seav.vic.gov.au	Energy and greenhouse management toolkit – provides information tools, case studies and guidance to help you achieve real cost savings, improved productivity and compliance with legislation and licence conditions (if relevant). The toolkit is broken into six modules; however module 4 – Developing an Energy Management System – is arguably the most relevant and useful to small to medium-sized businesses.
http://www.sustainability.vic.gov.au	Fact Sheets - Air conditioning, Energy management, Lighting, Refrigeration, Cogeneration, Heat recovery, Motor systems, Steam systems, Compressed air, Insulation, Office equipment
http://www.oecd.org	OECD Guidelines for Multinational Enterprises
http://www.unglobalcompact.org	United Nations Global Compact
http://www.iso.org	ISO 14001 – refer to ‘General Terminology’ for a further explanation.
http://www.cepaa.org/	SA8000 is an international standard for working conditions and improvements including standards certification, training, and accreditation.
http://www.ethicaltrade.org/	Ethical Trading Initiative
http://www.quality.co.uk/emas.htm	Eco Management & Audit System
http://www.deh.gov.au/settlements/industry/corporate/eecp/publications/profitting.html	‘Profiting From Environmental Improvement in Business - An Eco-Efficiency Information Kit for Australian Industry’ Environmental Management tools to improve the business bottom line by the Department of Environment and Heritage
http://www.aries.mq.edu.au/project.htm#industry_toolkit	AIRES Industry Sustainability Toolkit Project 2005 A review of sustainability resources for industry.
http://www.paperspecs.com/paperprofile/images/EcoMonad.PDF	Printing Guide including quick Eco-Friendly Checklist
http://www.sustainability.vic.gov.au/www/html/1829-publications---w-z.asp	Waste publications and fact sheets from Sustainability Victoria
http://www.sustainability.vic.gov.au/www/html/2038-energy-saving-fact-sheets.asp	Energy saving publications and factsheets from Sustainability Victoria
http://www.greenhouse.gov.au/publications/index.html	Energy saving publications and factsheets from the Australian Greenhouse Office (AGO)
http://www.swin.edu.au/ncs/resourcebank/welcome.htm	A Resource Bank was established by the National Centre for Sustainability (NCS) at Swinburne University in 2006 and can be used to source up-to-date resources relevant to specific sectors of industry, sustainability and levels of training. In addition, NCS can provide up to date advice and support for the implementation of the standards, including the development and distribution of learning resource materials.

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http://www.footprintnetwork.org/gfn_sub.php?content=glossary

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