

small business and climate change what affects you and what you can do



Manufacturing businesses

Effect on small to medium manufacturing businesses

- Small to medium manufacturing businesses are unlikely to be liable for direct carbon emissions pricing under the Federal Government's proposed policy, however the planned July 2012 introduction of a carbon price for large emitters is expected to increase the costs of energy and emissions-intensive goods and services
- Changes in the energy market are also putting pressure on energy prices, and increasing the costs of inputs that are energy-intensive to produce
- Even if your business is not a large energy user, you may be subject to increases in prices of inputs from sectors more heavily affected by rising energy prices and businesses liable for carbon pricing
- Local and overseas markets with climate change policies pricing carbon emissions will have an increased demand for low-emissions and energy efficient products, including manufactured goods.
- Cost increases faced by Australia's manufacturing businesses as a result of the carbon emissions pricing scheme may not be shared by overseas producers of the same goods.

What can you do in your small business

- review your exposure to increased prices and other climate change adjustment costs, and the exposure of your competitors
- reduce your exposure to rising prices by improving energy, materials and resource efficiency to reduce costs
- work with your suppliers to find low emission alternatives to the inputs you use in your business
- strengthen the position of your business by making it as efficient as possible, working with your business clients and seeking out new business and product diversification opportunities
- assess the 'life cycle' impact of the product(s) you manufacture provide inputs to as part of a supply chain
- provide information to your customers and business to business clients on your environment and sustainability credentials.

A changing business environment

Small to medium enterprise (SME) manufacturing businesses will be affected by rising energy prices from changes to the energy market, climate change policy responses such as the pricing of carbon emissions, and changing consumer preferences, including those of downstream business-to-business customers. The physical effects of climate change will also have some flow-on effects, particularly in water pricing and access.

Fact sheets in this series

General climate change information:

- business effects of climate change policies
- weathering climate change impacts in your small business
- changing climates for large and small consumer markets.

Sector-specific climate change information:

- accommodation
- business and professional services
- cafés and restaurants
- manufacturing
- retail and wholesale trade
- tourism
- transport.



SMEs in the manufacturing sector produce a range of products, including:

- foods and beverages
- transport equipment
- textiles, clothing and footwear
- chemicals, metals, plastics and rubber
- machinery and equipment
- wood, paper and printing
- furniture.

Many of these goods are used as inputs into other manufacturing industries and other sectors. These links mean that effects in one industry can have consequences for businesses operating in a related industry or sector.

Adjusting to climate change policies and rising prices

Carbon emissions pricing

As a small to medium-sized business, you are unlikely to be liable under the carbon emissions pricing mechanism. This means you will not have to buy and surrender emissions permits. Only businesses that directly produce more than 25,000 tonnes of emissions per year (excluding transport fuel emissions, some synthetic greenhouse gases and legacy waste emissions) will be liable. Only around 500 Australian businesses are expected to exceed this threshold.

Energy and product price increases

Energy price increases due to investment to meet increasing demand, and the renewable energy target, plus a price on carbon emissions, will present challenges and

opportunities to SME manufacturing businesses.

All manufacturing businesses will be affected by increases in energy prices and in the price of products that are energy-intensive and emissions-intensive to produce. Large emitters paying a carbon price from July 2012 may increase the prices of their products and services. In particular, these include electricity, fuels, metal products (aluminium, iron, steel, non-ferrous metals), paper products, glass, cement and basic chemicals.

If you are a SME manufacturer that relies on these products as inputs into your manufacturing process then you will likely face increases in your costs and more pressure to absorb costs to remain competitive with lower cost suppliers.

The ACCC will investigate excessive price increases falsely attributed to carbon pricing.

Assistance to the manufacturing sector

In addition to the assistance to small businesses described in the **Business effects of climate change policies** fact sheet, the government is planning assistance for the manufacturing sector when carbon pricing is introduced.²

- The Jobs and Competitiveness Program has been set up for large emitters with emission-intensive trade exposed manufacturing businesses. Eligible businesses will receive an allocation of carbon permits free of charge.
- The Clean Technology Program will assist investment in energy efficiency and other clean technology
- Manufacturers using more than 300 MWh or electricity or five terajoules of natural gas a year will be eligible to apply for grants from the Clean Technology Investment Program on a co-contribution basis. On average industry will invest three dollars to every dollar from the Government.
- All manufacturers in the food processing, metal forging and foundry industries will be eligible to apply for grants through the Food and Foundries Investment Program. Funding will be on a co-investment basis with industry contributing three dollars to every dollar from the Government.
- The Clean Technology Innovation Program will provide grants to support business investment in Research and Development into renewable energy, clean technology and energy efficiency.

Product standards

Energy efficiency standards will affect SME manufacturers by influencing costs of production and the demand for energy related goods and services.

The Government's Minimum Energy Performance Standards set out efficiency standards for a range of

Trade exposure

Australia's manufacturing businesses often compete with overseas producers for the same goods.

The carbon emissions pricing scheme will increase some costs to your business, but your overseas competitors will not be affected unless they face similar climate change policies at home. This could affect your ability to pass on increased costs from carbon pricing.

Progress in implementing climate change policies worldwide has been slow. However, there are a range of climate change policies in place. The European Union has had an emissions trading scheme since 2005, and New Zealand's emissions trading scheme now covers the energy, industrial, fuel and forestry sectors. Japan and South Korea have each announced plans for an ETS, and China is considering a pilot ETS in some provinces. California has also committed to an ETS. Other countries are pursuing regulatory approaches to reduce greenhouse gas emissions.¹

As well as reducing costs, strategies to improve the energy and resource efficiency of your business, or reduce your emissions profile, could be an effective way to make your products more attractive in local and overseas markets, where energy efficiency and sustainability credentials are highly valued by consumers and large enterprise purchasers.



appliances including refrigerators and freezers, electric water heaters, electric motors, and airconditioners.

Combined with the higher price for energy, changes to the Minimum Energy Performance Standards are likely to influence some consumers' purchasing decisions. Effects may include:

- increased demand for more energy efficient appliances
- increased competition in the industry as more products and providers enter the market.

Certain appliances are also required to carry approved Energy Rating or Water Efficiency Labelling and Standards (WELS) labels.³ The labelling programs will be streamlined to provide national consistency, increase the stringency of standards and include gas products.

What you can do in your small business

Identify sources of carbon emissions

Manufacturing businesses have the highest carbon emissions of all SMEs, producing on average 2190 tonnes CO₂e per year, or 158 tonnes CO₂e per employee.⁴ Around 80 per cent of these emissions are from electricity use, and another 15 per cent are from natural gas combustion. Actions to improve energy efficiency will therefore reduce the carbon footprint of your business.

No regrets to improve energy efficiency

In all cases, we recommend identifying and implementing 'no regrets' actions. No regrets actions are those that will benefit you regardless of the effect of climate change policies. For example, improving the energy, materials or resource efficiency of your business is likely to provide long-term gains from reduced costs.

Actions that can be taken to respond to the new business environment and reduce costs include:

- Instituting sustainable design and product development. This will vary depending on the nature of the product but may include using recycled, biodegradable or less packaging, or where appropriate using inputs with a lower environmental impact, such as sustainably harvested timber rather than aluminium
- Investing in efficiency and new technologies. Some efficiencies may be delivered by efficient production layout and practices. Actions include:
 - switching off lighting and equipment when not in use
 - removing unnecessary lighting, appliances & equipment
 - installing more efficient lighting, heating and air conditioning
 - upgrading or regular maintenance of compressors, engines, pumps, refrigerators and HVAC systems
 - using variable speed drives
 - improving insulation
 - switching to lower emissions fuels.

- Larger scale responses could include process re-engineering involving the adoption of energy efficient manufacturing tools.

Seek out opportunities in new and expanding sectors

New energy efficient and low-emissions technologies, processes and products will increasingly be required by consumers, large enterprises and the commercial sector. Australia's renewable energy target is expected to generate about \$4 billion of new investment and an extra 7,000 giga-watt hours (GWh) of renewable energy just in Victoria over the next ten years mostly in wind power.⁵

In addition to large-scale renewable energy generation, there are also incentives for households and businesses to invest in small-scale generation technologies like roof-top solar, small wind turbines, solar hot water heaters and heat pump water heating systems.

Parts and products required by emerging industries, such as hybrid vehicles and renewable energy generation, are likely to be closely linked to the requirements of other sectors of the economy.

These changes present opportunities for manufacturers to gain from the growth of these industries, as component producers, product developers and manufacturers or in highly technical equipment servicing.

Life-cycle analysis and sustainability - where to start

Providing information to your customers and business to-business clients on your contribution to the sustainability and 'life cycle' impact of product(s) you manufacture or supply inputs for will help meet customer demands for more information.

What to consider in your life-cycle assessment?

- the source products and their production and supply to your premises
- the manufacturing processes and any impacts on the environment (waste)
- the growing or transportation of the good (for example agricultural based food products)
- packaging materials and processes used in distribution and sales
- energy and consumables used in service
- final disposal and recycle-ability of waste material from your product.

1 Australian Government (2011) *Carbon Emission Policies in Key Economies*. Productivity Commission Research Report, p.xvii-xviii

2 Australian Government (2011), *Securing a clean energy future*. The Australian Government's Climate Change Plan

3 See www.energyrating.gov.au for energy rating labelling information and www.waterrating.gov.au for water efficiency labelling information

4 Rothberg. A. (2011), *The Carbon Footprint of Victoria's Small and Medium Enterprises*. East Melbourne: Carbon Down

5 Victorian Government (2010), *Jobs for the Future Economy – Victoria's Action Plan for Green Jobs*, p.20

VECCI's business sustainability products and services for SMEs

Carbon Compass

Carbon Compass provides free access to a range of energy, water and waste reduction hints, tips and resources to support business reduce costs and their carbon footprint at the same time.

Visit www.carboncompass.com.au

Grow Me The Money

A 12-step program, Grow Me The Money will take your business through strategies to reduce your carbon footprint, save money and report credibly on your savings to customers, staff and the community. Successful Grow Me The Money participants save an average of 13 per cent or \$8,300.26 across all three utilities (electricity, gas and water), and deliver more than 69 tonnes of carbon abatement.

Join Grow Me The Money today at

www.growmethemoney.com.au or by calling 03 8662 5480. Prices start from \$199 and are tax deductible.

Sustainability Consulting

VECCI's experienced Sustainability Consultants can show you how to achieve great outcomes for your business, your community and the environment, with expertise in:

- Sustainability strategy, policy and environmental management system development
- Energy and waste opportunity assessment
- Action planning and implementation
- Carbon footprint assessment

VECCI consultants come to you, saving valuable time, and their assistance is tailored to your unique circumstances. Visit www.vecci.org.au/sustainability or call 03 8662 5196. Discounts apply for VECCI members.

Energy Bill Review

VECCI consultants can review your business's electricity plan to identify whether you could be saving money with a different plan or retailer.

Call us for more information on 03 8662 5196.

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Sustainability Training

Want to know more and learn from other businesses? In a new era of 'green choices', VECCI's dedicated training and briefings can help your business reduce its environmental footprint, save money, and give you a competitive advantage. Delivered throughout Victoria, prices start from just \$45.

The following programs are currently available:

Carbon Management 101: cutting through the carbon jargon. Who should attend? All small business representatives interested in climate change and related policies, carbon management practices as well as identifying opportunities for making environmental and financial savings.

Resource Efficiency and Your Business: hands on sustainability practices for SMEs. Who should attend? Small business representatives interested in tools and techniques that assist to track their resource use and realise financial savings.

Marketing Your Environmental Business Credentials: essentials of environmental marketing. This half-day workshop explores the potential of the 'green' consumer as a target market, how to avoid 'greenwashing', and identifies easy steps you can undertake to communicate your environmental achievements and initiatives.

Creative Thinking and Sustainability workshop: Your sustainable edge in changing times. This half-day workshop is packed with practical tips and hands on examples demonstrating the four cornerstones of creative thinking and uniting these with opportunities for sustainable business practice. Who should attend? All business representatives interested in smarter decision-making and sustainable business practices.

Green Office Briefing: simple steps to green your office. This two hour briefing is for SMEs and larger businesses who wish to educate their staff regarding electricity consumption, paper use, waste disposal and purchasing practices in the office. This interactive briefing empowers staff to take immediate action in implementing green office practices.

To book, visit www.vecci.org.au/training or call VECCI on 03 8662 5333.



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