

Emissions Trading: An Economic Business Perspective

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Abstract

Understanding the evolution of Government policy on Carbon Reduction and the implications for ones business enterprise, industry and region are one of our current challenges.

The objective of this paper is to outline some of the steps that can be taken by individuals or groups to be better informed about what they can do to adapt to and manage Carbon Reduction.

In order to reach this objective this paper will:

- First, provide an overview of the seven key knowledge areas for business in responding to the Australian Carbon Reduction Policy.
- Second, provide an overview of some of the main objectives and operation features of the system including the proposed reporting thresholds, taxation and legislative requirements.
- Third, provide some of the main implications for business operating under the proposed emissions trading scheme giving consideration to both the challenges and opportunities that will emerge. This paper acknowledges that businesses can profit in a carbon constrained economy and sustainable business practice will emerge where good business sense and proactive strategies are employed, paving the way for an economically workable scheme both nationally and internationally.

Introduction

Our world is currently undergoing an age of fundamental change. With the race on to find cleaner technology energy solutions experts are working with Governments to provide solutions on a broad scale to reduce emissions through market intervention and through cleaner energy transformations. As we progress towards an emissions trading scheme, Australian business will need to prepare and plan for the changes that this new scheme will inevitably bring forth.

Change in any environment provides both challenge and opportunities. Business, as usual, in the new eco friendly age will establish a different landscape, which will provide the opportunity for investment in new commodities, technologies and financial products. If Australian business is to gain the competitive advantage then we must lead the way in forward thinking and planning under the new scheme.

The paper outlines seven key knowledge areas for business in responding to the Australian emissions trading system.

Seven key knowledge areas

There are seven key knowledge areas that will assist business in responding to the Australian emissions trading system:

- 1) **Government's aim:** What is the Government trying to achieve through the introduction of an Australian carbon trading system?
- 2) **The trading system:** What are the proposed design and operation elements of the new cap and trade system including threshold levels and reporting requirements?
- 3) **Expected impact:** What are the flow-on effects for businesses and the impact that the trading system is expected to have on Australian businesses?
- 4) **Large liable emitters and non-liable business segments:** What are the expected effects on business and what initiatives can businesses put in place to accommodate the impacts of the trading system?
- 5) **Value-add strategies:** What are the challenges that will be presented for business, what strategies could business put in place to overcome these challenges and how could the trading system work as a value-add for business?

- 6) **Proactive strategies:** What strategies are needed to give business the ability to make well informed proactive strategic business decisions to obtain the leading edge on their competitors?
- 7) **Five-year strategies:** Assess other lead on market and financial opportunities both from a personal and business perspective and discuss and assess where the business wants to be in five years time. This includes expanding activities both nationally and internationally.

The relevance of these knowledge areas to three types of persons: Un-informed person, reasonably informed person and well informed person are:

Seven key knowledge areas	Un-informed person	Reasonably informed person	Well informed person
Government's aim	Yes		
The trading system	Yes		
Expected impact	Yes	Yes	
Large liable emitters and non-liable industry segments		Yes	
Value-add strategies		Yes	Yes
Proactive strategies			Yes
Five-year strategies			Yes

Sources to keep informed on the Australian emissions trading scheme:

- i) Australian Government Department of Climate Change:
<http://www.climatechange.gov.au>
- ii) Australian Government Department of the Environment, Water, Heritage and the Arts:
<http://www.environment.gov.au>
- iii) Australian Government Department of Infrastructure, Transport, Regional Development and Local Government – Grants Link:
<http://www.grantslink.gov.au>
- iv) Federal & State Government environment grants and assistance:

Government's aim:

The Government's main objective is to protect Australia's environment through the provision of a low pollution economy and to introduce a system that provides the country with an economically sustainable low carbon future.

The signing of the Kyoto Protocol by the Rudd Government in 2008 set the way forward for an Australian emissions trading scheme which is proposed to commence on 1 July 2011.

This trading scheme will be introduced to combat the greenhouse effect and carbon reduction targets in the long term. It has also resulted in the Government committing to a 60 percent reduction below year 2000 levels by 2050 as stated in the Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future (2008: p 4.1). Medium term reduction targets have been one of the most difficult issues for Government and interested parties to come to agree on. The white paper has provided indicative reduction targets for the medium term of between 5 and 15 percent below year 2000 levels by 2020 (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 4.1). It is anticipated that implementation levels will commence at 5 percent below year 2000 levels.

The economic financial crisis combined with this new reporting regime will provide many businesses with new challenges. The economic downturn has had an enormous financial impact on many businesses forcing many businesses to look at new strategies and cost effective ways of undertaking business transactions. Process efficiency and waste minimisation is high on the agenda for most. This will align well with the strategies required to operate under the new system.

The trading system:

The Australian emissions trading scheme known as the Carbon Pollution Reduction Scheme (CPRS) will operate under a cap and trade system (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 5.1).

There will be an annual limit on carbon pollution and permits will be issued by the Australian Climate Change Regulatory Authority each year up to the set cap in accordance with Australia's national and international obligations. At the end of each year an entity responsible for emissions sources covered by the CPRS will need to surrender a permit for each tonne of carbon emitted during the year (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 5.9).

These entities can choose to either reduce emissions or obtain permits. Emitters will receive permits either by auctioning or for free. These permits will be available to be purchased from Government auctions or on the trading markets (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 5.10).

There are also eligible compliance units under the Kyoto protocol that entities may surrender under the CPRS for compliance which include:

- Certified emission reductions created from emission reduction projects in developing countries under the clean development mechanism (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 11.10).
- Emission reduction units created from emission reduction projects in developed countries under the Kyoto Protocol joint implementation mechanism (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 11.11).
- Removal units issued by a Kyoto Party with an emission reduction target on the basis of land use, land use change and forestry activities (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 11.11).

Non-Kyoto international units may also be eligible for surrender once regulations which allow units issued by another country to be included under proposed linking arrangements (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 3.3).

All six gas emissions included in the Kyoto Protocol will be included. This means the system will have broad coverage and sectors covered will include transport, stationary energy which includes electricity production, oil and gas production fugitive emissions, industrial processes such as cement and aluminium production and waste (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 6.2, 6.3).

Forestry will also be included however it will be given the choice of whether it wants to opt in.¹ It is anticipated that agriculture will not be included until at least 2015, however further consultations on this sector are continuing (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 6.46).

There will be approximately 1,000 businesses directly affected from commencement of the scheme. This will include those businesses that are large liable emitters and meet specified thresholds and upstream fuel suppliers.

Directly effected businesses will be required to report the emissions for which they are responsible, and surrender an eligible emissions unit for each tonne of emissions (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 6.1).

The *National Greenhouse and Energy Reporting Act 2007* required a controlling corporation that exceeded the facility or corporate group thresholds to be registered by 31 August 2009 and penalties may apply for non compliance (ss 12 (1), 4, 29) .

The thresholds for controlling corporations at the facility and corporate group level for the 2009 financial year are as follows (*National Greenhouse and Energy Reporting Act 2007*: ss 13(1)(a)(1), (d) (1)):

- **Facility Level**
 - GHG emissions 25,000 Tonnes
 - Energy produced or consumed 100 Terajoules
 -
- **Corporate Group Level**
 - GHG emissions 125,000 Tonnes
 - Energy produced or consumed 500 Terajoules

The National Greenhouse and Energy Reporting Act requires reports to be completed before 31 October each year by liable entities (*National Greenhouse and Energy Reporting Act 2007*: s 19). This information will be published by the Greenhouse and Energy Data Officer by the 28 February each year (*National Greenhouse and Energy Reporting Act 2007*: s 24). If an entity considers its greenhouse gas emissions data is commercially sensitive they may request that the information not be published (*National Greenhouse and Energy Reporting Act 2007*: s 25).

Where businesses emit over 125,000 tonnes of greenhouse gas per annum an independent audit report will be required before submission of the information to Government. Where emissions are below the threshold then the materiality of the businesses carbon position will need to be understood (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future (2008: p 7.34).

The scheme regulator will also have authority to conduct an external audit if there are reasonable grounds to suspect there has been a contravention of the Act (*National Greenhouse and Energy Reporting Act 2007*: ss 74, 75).

It will therefore be important for large liable emitters to introduce reliable measurement tools to comply with these new reporting requirements.

The National Greenhouse and Energy Reporting Measurement Technical (NGER) Guidelines 2008 v 1.1 applicable to the 2008-2009 reporting year and the 2009 NGER

Guidelines outline the various calculation methods for measuring greenhouse gas emissions, energy production and consumption.

The income tax legislation will have provisions that will allow a deduction for the purchase of a permit and income from the sale of a permit will be included in assessable income (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 14.9, 14.10). The green paper has indicated that a permit will be an asset for capital gains tax purposes however the sale of a permit will not result in a capital gain or loss (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 14.4). Where a permit is banked for use in a later year the deduction will be deferred until the permit is surrendered or sold (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 14.12).

There will be a rolling balance method which will apply to the purchase of permits which will be accounted for at year end similar to trading stock rules (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 14.6). It is anticipated that permits will be accounted for at historical cost or market value (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 14.9).

No deduction will be available for penalties (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 14.19). Free permits and grants made available to business will be assessable in the year the permit or grant is received, with the exception of a 'no disadvantage rule' applying to EITE industries (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 14.12 – 14.14).

The normal goods and services tax (GST) rules will apply to transactions involving permits. Hence where there is a supply of a permit GST will apply and generally no GST will be applicable where permits are supplied for free or surrendered for no consideration (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 14.24). Government cash grants, penalties on non compliance and imports of permits will not be subject to GST (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 14.24).

Australian Government and regulators are working to introduce a system which is compatible with other countries. This will improve the long term prospects of success for a totally integrated global emissions trading market resulting in trading gains both onshore and offshore.

Expected impact:

Transition adjustment costs will be high and the Government will be providing initial assistance to Emissions Intense Trade-Exposed (EITE) industries through the allocation of free permits within set thresholds and coal fired electricity stations will receive assistance through the Electricity Sector Adjustment Scheme.

Eligibility for EITE assistance will be available and based on the industry-wide emission intensity of an activity or process being above a threshold of about 1,000 tonnes carbon dioxide equivalent CO₂-e per million dollars of revenue (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 12.44).

Initial assistance will cover around 90 per cent of emissions for EITE activities that have emissions intensities above about 2,000 tonnes CO₂-e per million dollars of revenue and around 60 per cent of emissions for EITE activities that have emissions intensities between 1,000 and 1,999 tonnes of CO₂-e per million dollars of revenue (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 12.44).

The rates of assistance will be reduced overtime at a pre-announced rate to ensure that EITE activities share in the national improvement in carbon productivity.

Where coal-fired generators who were in operation on 3 June 2007 have an emissions intensity above 0.86 tonnes of carbon per megawatt hour generated assistance will be available. The scheme will provide a fixed administrative allocation of permits to generators over five years. A windfall gain review will be undertaken over a fifteen year period. If a windfall gain is likely the last two years of assistance can be withheld (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 13.32).

Fuel taxes will be cut on a cent for cent basis to offset initial costs with periodic reviews undertaken to adjust the offset mechanism (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 6.12).

The Climate Change Action Fund will also be established to assist both business and households adjust under the new carbon trading economy. The Australian Carbon Trust is being established to provide business and households with information and tools to encourage participation in Australia's low carbon future.

Low income households will receive direct cash assistance and rebates to assist with the impacts of adjustment (Commonwealth of Australia Carbon Pollution Reduction Scheme: Australia's Low Pollution Future, 2008: p 17.71). Financial assistance to home owners, renters and landlords may also be available for activities that result in energy and/or water savings.

Implementation of these initiatives is expected to increase the number of businesses and households taking action to reduce their amount of carbon output. These actions are expected to include the promotion of an environmentally responsible culture, education campaigns targeted towards awareness and reductions in energy and waste, purchasing environmentally friendly products, integrating greenhouse issues into business decision making and implementing reporting measures of greenhouse gas emissions.

These initiatives by Government may work well to reduce the chances of a price collapse in the early start up phase which the European Union experienced. This appeared to be directly attributable to an over allocation of permits in the initial stage whereby permits were allocated free of charge providing some participants with windfall profits, increased electricity costs for consumers and high abatement costs for the economy as a whole (Betz, 2009).

The Government will need to monitor key economic indicators during the transition phase in process to determine whether the scheme has been implemented successfully. Where problems are identified early economic instruments may be applied to assist in the delivery of successful outcomes.

It is crucial that the Government gets this process right as it will set the path for the way forward. In particular ensuring business and consumer confidence is instilled to ensure that the new system provides our nation with the fundamentals of strong economic growth for all industries while also providing long term and ongoing cuts in emissions.

Large liable emitters and non-liable business segments:

The new trading system will present both challenges and opportunities for all industries. Therefore an assessment should be undertaken by large liable emitters and non-liable business segments to review issues that are expected to affect the financial and non financial aspects of the business. These issues will span from human resource issues through to consumer confidence, social, legal and reporting matters. Where informed decisions are made it is more likely that economic sustainability in both the short term and long term will result.

All businesses will have to manage increased costs, therefore viability assessment will need to be undertaken early to put procedures in place that can work to counter act the increased expenditure. This could include assessing waste management policies, including recycling initiatives and introducing energy efficiency strategies and products into production processes and business as usual practice.

The introduction of the emissions trading scheme will see large liable emitters and non-liable business segments operating under a new system with a completely different mirage of rules and boundaries. In the short term it will be vital for key stakeholders and management to keep up to date and informed of the changes and/or legislative obligations that will be placed on them under the new scheme.

Value-add strategies:

Cost benefit analysis should be undertaken early to identify the value-add component. This element may be available at various levels from employer of choice, through to new production processes and lines, product differentiation and branding, waste management strategies and customer satisfaction outcomes. This assessment will work

to reduce waste, retain staff and improve profits maintaining short term and long term viability for the business.

The new system will see a new generation of consumers evolve. This will affect business at all levels. It will therefore be important for business to adapt quickly if they want to have the leading edge on competitors, generate growth and increase profit margins.

While this will present a challenge for some it will also provide opportunities for a value-add component for others. For example a high emitting industry operating under a carbon reduction system could become involved or extend their research and development activities to include low emissions technology. This would work well to promote eco-friendly initiatives providing consumers and stakeholders with confidence to invest in the business. Grant funding is also available providing industry with incentives to invest in these types of activities.

The CPRS once regulations are passed and enforced will have the effect of shifting many technologies, processes and investment ideas to apply environmentally friendly initiatives and value-add strategies will evolve in many facets of the business. To work towards success and overcome the challenges that the new system presents the key for all business and stakeholders will be to employ strategies and have a mindset that seeks out new opportunities.

Proactive strategies:

Every business should review the expected impacts on balance sheet, earnings and cash flow to understand the financial effects that this new system will have on their particular industry. Where problems are identified early actions can be implemented to resolve the issue. This will include reviewing processes at all levels to ensure that the business is operating in the most cost effective way under the new carbon reduction scheme.

A review of the availability of Government assistance needs to be undertaken for the short, medium and long term. This includes the eligibility for free permits, grant funding, loans and rebates.

A review of current product lines should be undertaken to ensure marketability conforms with the standards demanded by consumers and stakeholders in the new eco-friendly age. Management will need to continually assess current product lines to determine those lines which will become obsolete and ensuring procedures are put in place to determine timing of cut off lines.

Systems analysis for some businesses will be required to ensure that information is recorded accurately and produces the reports required to assist in vital decision making processes.

A proactive approach employed in the initial implementation stage will work to identify Government start up incentives that are available and ensure that business is in a strong financial position to operate under the new system from the outset. It will ensure that the business is using the right methodologies to report and comply under the new system. Products and services will be up to date and employees will be trained and ready to do business in the new eco friendly age.

Where goals are defined early procedures and people can be put in place with set objectives to achieve them. Priorities can be identified and processes that allow the business to scale and grow can be implemented. This will put the business in a strong position as the market becomes more sophisticated allowing the business to secure business opportunities that arise and will allow them to emerge strong and resilient under the new system.

Five-year strategies:

Effective and successful business outcomes will evolve through firms being proactive and using good planning techniques and innovative initiatives. This will work well for businesses who want to have the competitive advantage and maintain the leading edge on competitors. Society as it heads towards an environmentally friendly environment will demand those products which provide an eco-responsible benefit.

The new eco-friendly age has already seen the emergence of new markets and opportunities spanning from sugar based ethanol fuel through to the production of green product lines. The aviation industry is well on its way to changing the way it does business in the new carbon reduction age. This includes adopting fuel efficiency measures and undertaking research in bio fuels.

Retail investors are already seeking opportunities to invest in direct equities and stocks in the clean energy market and there will be many more new market based opportunities and technologies that will emerge in all industries once trading is underway.

Superannuation funds are currently offering opportunities to invest in socially responsible options. Five year measurement performance indicators show that super funds which offer ethical style investments are reflecting returns that are about the same as those performing in standard mainstream investments (SuperRatings, 2009).

It will be important for all businesses to look at future growth opportunities and where the business would like to be in five years time. This can be undertaken from both a personal and business perspective and may include expanding activities both nationally and internationally.

If the business wants to expand its operations offshore it will be important that management understand and respect the culture they are dealing with and engage in the correct market mix of products for that particular overseas country.

The treatment of overseas transactions under the income tax legislation and other regulations will also need to be clearly understood so costs can be factored in to pricing models and compliance with national and international laws are adhered to. When engaging in overseas transactions ensure they are undertaken with secure and credible sources. Continual monitoring of the exchange rate is required and entering into hedging transactions such as forward contracts may sometimes work well to offset price fluctuations.

The CPRS is designed to link with other countries and is intended to provide future export and import opportunities for emission units. It will extend the Australian system and allow liable Australian entities to access abatement opportunities overseas. The Government's role under the new system in relation to entering into overseas linking opportunities and agreements will require the same approach as any other business manager. It is therefore important that the decisions made and regulations passed by Government provide business with the certainty and security required for confident decision making.

Conclusion

In the long term, say six to ten years, the goal of Government to reduce greenhouse emissions will be well and truly underway. It will be a period where carbon reduction is included in the corporate values of the business. We will see a new wave of innovation and technologies that are targeted towards greener solutions. Green stocks will be a common feature on Australian and world wide trading indices. High emitting industries will have changed many of their production processes to reduce their carbon footprint. The new carbon constrained era will see major changes in corporate and social attitudes and business will need to conform with the changes if they are to be competitive and profitable.

Emissions trading brings both challenges and opportunities to all of us and those who will survive and perhaps become market leaders will be those who take the time to assess current business practices and work with regulators, markets, customers and other stakeholders to make proactive informed business decisions which incorporate socially and economically responsible ideas and actions that will benefit both current and future generations through the provision of a cleaner and sustainable economic future.

References

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