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Business Must Prepare for Emissions Trading

The responsibilities and management issues presented by the introduction of an Emissions Trading Scheme are very substantial. In this full article, Fred Rowley, actuary and Principal at Professional Financial Solutions comments on the need for business to develop new processes, and to improve information quality and quantity.

Emissions Trading - The Implementation Background

The release, in December, of the government's White Paper on the Carbon Pollution Reduction Scheme (CPRS) has been partly overshadowed by coverage of the Global Financial Crisis, but it was certainly timely.

Despite some falls in energy production globally, the current financial crisis has not materially reduced the expected damage arising from global warming. Put simply, the government now has two major challenges to meet instead of one.

Sadly, the design of the package seems not to recognise adequately the chance to get some major synergies, by addressing both problems at the same time.

Nevertheless, the CPRS is still a major part of government policy. The recent release of guidelines covering assistance to the energy-intensive trade-exposed (“EITE”) sectors of the economy shows that the departments are moving urgently forward, towards implementation in accordance with the published commencement date in 2010.

Of course the legislation still has to run its course in the parliament: but the wisest thing for almost any business to do is to consider

- what costs and risks it will be exposed to, and
 - what opportunities it may be able to exploit,
- when the ETS comes fully into play.

Mechanics of Emissions Trading

It's worth reviewing the key elements of the ETS design here, since some of the details from the White Paper may have been lost when the focus shifted to Labor's economic stimulus package.

The CPRS White Paper is a very weighty document, and the following is only a very limited summary of the main points.

- The quantity of the major greenhouse gasses (GHGs) produced by the top 1000 emitters in Australia will be monitored and audited. Those emitters will need to acquire and then surrender a 'carbon pollution permit' issued by the government for every (CO₂-equivalent) tonne that they emit each year. Emissions for 'retail' fuels, like petrol, will generally be measured and managed 'upstream' from the user of the fuel, in the manufacture/supply chain.
- Emitters and suppliers covered by the ETS will compete to buy the permits that they need, either at government auction, or via the secondary or derivatives markets. Once acquired, permits will be freely tradable.
- Auctioned permits will be issued in 'vintages' - denoting the year in which each permit can first be used - but can normally be 'banked' by retaining the permit beyond its stated 'vintage' year, for use in any subsequent year. At each auction, permits will be sold from the current vintage and from each of the three following vintages.

- The number of permits issued by the Government will generally be limited to a 'cap' level consistent with the government's total emissions target for the entire Australian economy. The number issued each year will be based on a planned trajectory, but some year-on-year timing flexibility will be permitted.
- A price cap will apply for the first 5 years of the scheme, which will give participants an over-riding right to buy an unlimited number of permits at the cap price (for use in the current year only). To the extent this feature is used by the market, and causes emissions to go beyond the planned emissions trajectory, the government will need to make balancing adjustments to underpin its commitments under the Kyoto Protocol.
- Agriculture is mainly excluded from the scheme, but a voluntary 'opt-in' provision for qualifying forestry schemes will effectively generate extra permits in addition to the cap.
- Future emissions caps may be adjusted from time to time, but with at least 5 years' notice to all participants. Adjustments can be expected to be mainly downward, as international negotiations progress. However, full integration of the Australian scheme with overseas schemes, although seen as desirable long-term, is not likely to take place for many years.

The impact of all of this on the economy is to tilt the price structure of all products with energy content, in favour of clean energy sources, and against those with high emissions.

The resulting price signals are expected to stimulate economic restructuring that reflects the economic cost of GHG emissions. In effect, investment in low-emissions processes will be equivalent to receiving a tax break, equal to the permit costs avoided.

The intention is to motivate the efforts of the current emitters to mitigate their emissions - by lowering the emissions content of their products, through process modifications, and/or product redesign or substitution.

Analysing the Importance of the CPRS and Emissions Trading

Despite the inevitability of the current emphasis on the economic crisis and economic stimulus in various forms, the CPRS – and the emissions trading scheme ETS integral to it – still represent a cornerstone of government policy.

It is unlikely the CPRS will provide the impetus for Australia to take full advantage of the opportunity to use elements of the current economic stimulus package to transform the Australian economy's energy and emissions profiles. However, the ETS in particular will still be transformative for Australian businesses.

The recent release of guidelines covering assistance to the energy-intensive trade-exposed (EITE) sectors of the economy demonstrates the sense of urgency Government is applying to the implementation tasks. Of course the legislation still has to run its course, but the wisest thing for business to do is to consider:

- what costs and risks it will be exposed to, and
- what opportunities it may be able to exploit.

Strategy and Planning a Must for Every Business

All Australian businesses will feel some impact from the ETS.

The 'top 1000' emitters, mainly in the EITE and coal-fired generating sectors, will be the most deeply involved. They will face additional activities in measuring and reporting their emissions, in permit trading, compliance and risk management activities.

Most importantly, big emitters will feel direct business and pricing impacts, leading them to programs of selective and well-timed actions, to reduce or eliminate emissions.

This 'top 1000' may need to hedge the emissions component of input costs, by buying and selling permits to match the estimated emission component of future production. Where there are long-term supply contracts, this type of hedging may be crucial to maintaining profit stability. If hedging is undertaken, then it might feed into contractual terms.

Emissions reductions will involve significant decisions on capital equipment and operations. Strategy will therefore involve complex project analysis, with strong engineering and financial aspects. Implementation timing will be crucial.

Large emitters may find it favourable, both financially and to demonstrate their commitment to emissions reductions, to create their own emissions mitigation projects, or to seek joint ventures. There are already several available in domestic plantation forestry. While participation in voluntary offsets is an option, these must be rigorous and robust. Government has recently issued a further consultative paper on this topic.

Listed companies need to consider and adapt 'triple bottom line' reporting to address their emissions profiles and emissions reduction efforts. These businesses should expect even more attention in the future.

There will be new opportunities in trading permits and potentially in insurance, banking, and wealth-management products.

We should expect to see some re-financing – and even merger and acquisition activity – as larger groups restructure to face the new trading situation.

New projects will generate massive capital demand as whole industry sectors are restructured, and major infrastructure projects are pushed forward. In turn, prolific additional investment opportunities are expected in technology solutions, research and development, and product developments.

Investor Opportunities and Risks Require Proper Responses

Investors may be more aware of the scale of the potential impact of the ETS than many within the community. However, the impenetrable fog surrounding the policy and data upon which many key decisions will be based is only just clearing. More concrete data will be key to investor decision making.

Businesses without robust emissions data will find capital raising and investor support all the more difficult. They will likely face detailed stakeholder questioning on diverse topics, including:

- revenues and profitability
- employment levels and security
- corporate social responsibility, including the veracity of product and labelling claims and
- investment potential and long term return profiles.

These questions will require improved financial modelling capabilities, including product-level analyses, especially for new financial products based on emissions trading and risk-management, and for emissions reduction projects.

Investor questions on risk-management will be equally crucial. The structure and capabilities of hedging and compliance processes will be tested both in public and during internal and external audit processes.

All these stakeholder questions, and especially those supporting investment analysis, will require consistent and reliable answers - and must equally be reflected within business decision making, analysis and data systems.

Prepare Now - The ETS Will Be Here Soon Enough


Regardless of its start date, business must expect the ETS to be a vital and permanent feature of government policy for years to come.

Certainty around government policy, and the quality and quantity of business information, are both improving and can increasingly be relied upon. However, investors and other stakeholders will require more information than is currently available in many cases.

In the process of dealing with climate change, the ETS will be a vital and permanent feature of government policy for years to come.

The relatively sudden reversal in the attitude of government has left industry with little time to consider this important change and to put in place change-management processes to deal with its impacts - either directly, through compliance with the ETS itself, or indirectly through its economic impact, which will be very far-reaching.

We have now reached the stage when information quality is finally beginning to improve. Action is becoming much more pressing, and more feasible.

Businesses that prepare well for the inevitable changes the ETS will bring will find it far easier to prosper, grow and take advantage of the opportunities. 

About the author

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Fred Rowley is an actuary who has held a variety of senior positions in financial, IT, and general management. He has a wide experience of risk management, economic valuations, project management, and financial reporting, in the UK and Australia.

The actuarial profession is well known for its objectivity in commenting on financial matters, often with very long time horizons. In relation to climate change, actuaries are active in the more traditional fields, such as insurance and risk management, but also in areas like infrastructure asset valuations and energy trading.

As President of the Institute of Actuaries of Australia in 2007, Fred stressed the potential for the profession to contribute to dealing both with climate change itself, and with our economic policy responses to it. In 2008, he was principle author of the Institute's submissions to the Garnaut Review.

Fred is now a consultant with Professional Financial Solutions in Sydney. He can be contacted at fred.rowley@ozemail.com.au

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