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Maximising Profits in the Low Carbon World

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MAXIMISING PROFITS IN THE LOW CARBON WORLD

For Australian business, the debate is no longer about the science of climate change. Nor are there any “ifs” about the low carbon future. In July 2008 the Australian Federal Government released the Carbon Pollution Reduction Scheme (CPRS) Green Paper setting out a broad policy framework for reducing emissions. Draft exposure legislation will be published in December, and the first compliance period is due to commence on 1 July 2010. By the end of December 2011, Australian companies are expected to have surrendered more than \$8 billion worth of carbon assets to the Commonwealth.

Already, leading companies have strategies in place for a carbon-constrained world and have moved to implementation. Herein lies the hard work: retooling day-to-day operations for sustained profitability in a low-carbon future, with one eye on the Emissions Trading Scheme. In other words, responding to new rules to maximise profits.

Implementing low-carbon measures can be as simple as making sure an analyst looking at an acquisition includes the most up-to-date carbon curve in their model. But as with all grassroots change, setting up the necessary processes and tools requires considerable effort. Time is critical because, as with all structural adjustment, companies that adapt most quickly win the competitive advantage.

This paper presents a brief view of the sectors most affected by the proposed Emissions Trading Scheme and the five strategic imperatives that affected companies have to address if they are to maximise profits in the low-carbon world. While much of this analysis is specific to the Australian

situation in September 2008, this paper highlights common issues faced by companies looking to operate and thrive in a low carbon future.

Likely Impact of the CPRS on Australian Companies

The Government's proposed CPRS will affect different sectors and companies in different ways, as summarised in Exhibit 1 and detailed below:

(a) High emitters

Those approximately 1,000 facilities that generate 25,000 tonnes of CO₂-equivalent emissions directly per annum will be obliged to surrender Australian Emission Units (AEUs) corresponding to these emissions. This category of 'high emitters' will include the materials production, energy, paper and glass sectors.

High emitters so defined will have a clear liability under the new scheme and will have to manage

the associated risk. However, some compensation for these companies is contemplated in the Green Paper, as follows:

- Companies engaged in the most emissions-intensive and trade-exposed activity will be provided with free permits accounting for up to 60% or 90% of total emissions, depending on the emissions-intensity of their sector;
- Coal-fired electricity generators will be eligible for assistance to develop carbon capture and storage and to address the impact of any structural adjustment on workers, communities and regions;
- A proposed Climate Change Action Fund will assist business transition to a cleaner (that is, low emissions) economy through funding investment in emissions reduction and energy efficiency.

(b) Financial services

AEUs will be defined as financial products and regulated as such, with

trading taking place on a bilateral basis via exchanges. Permit auctions, conducted by the scheme regulator, will provide opportunities for non-emitters to enter the market. The auctions, as proposed, will result in \$2.5 billion of financial flows from industry to the Australian Government – extra cash which emitters and their customers will need to source, probably in advance of their sales receipts.

The scheme will see approximately 100 million permits being sold at auction every quarter for \$20 to \$50 per tonne of CO₂, as well as about 400 million permits being surrendered annually to the Australian Government. The creation of a compliance asset (like AEUs) presents an excellent opportunity for fast-moving banks to offer structured products, hedging opportunities, and other risk management options and services, particularly in the early learning years.

Exhibit 1:
Summary of Impacts of the proposed Carbon Pollution Reduction Scheme

	High Emitters	Agriculture	Financial Services	Other Industry	Households and SMEs
Downside:	<ul style="list-style-type: none"> ▪ Surrendering AEUs for emissions ▪ Compliance costs 	<ul style="list-style-type: none"> ▪ Increased energy costs 	<ul style="list-style-type: none"> ▪ Minor increase in input costs 	<ul style="list-style-type: none"> ▪ Passed through compliance costs ▪ Increased energy costs ▪ Increased costs of inputs due to embodied emissions 	<ul style="list-style-type: none"> ▪ Increased energy costs ▪ Increased cost of goods due to embodied emissions
Upside:	<ul style="list-style-type: none"> ▪ Support for high emitting Trade Exposed Export Industries ▪ Coal industry assistance ▪ Transition funding assistance 	<ul style="list-style-type: none"> ▪ Additional revenue for revegetation of degraded land 	<ul style="list-style-type: none"> ▪ Opportunities in carbon banking, derivatives, and client services 	<ul style="list-style-type: none"> ▪ Funding to assist to reduce energy consumption 	<ul style="list-style-type: none"> ▪ Support for low- and middle- income households ▪ Energy efficiency assistance

(c) Agriculture

While agriculture is the only sector not covered by the emissions trading component of the CPRS, the Government's intention is to cover agricultural emissions from 2015 onwards if technical issues with measurements can be overcome. Global research to date suggests there are unlikely to be viable options for major abatement in the agricultural sector. Deliberations regarding coverage of the agricultural sector will continue beyond the commencement of the CPRS.

Under the proposed scheme, farmers and land managers will have opportunities to profit from the revegetation of degraded land through the creation of AEU's. Forests will play an interesting role in the evolution of the market (in Australia and internationally), particularly as the Kyoto rules are renegotiated. These are long term projects which can have substantial co-benefits for sustainable agricultural productivity, while at the same time providing some stability for the market in its search for permit supply options.

(d) Other industry sectors

Other sectors will not be eligible for direct compensation, and will feel the impact in the form of compliance obligations and a premium on electricity and fuel costs. The impact on individual companies will depend on their energy consumption and the emissions embodied in the products sold. Minimising these costs, and strategies to pass them through

to customers where possible, will be critical to maintaining profit margins.

Businesses in this category may be able to access assistance through the Climate Change Action Fund for capital matching and technical services to reduce energy consumption. AusIndustry has commenced the process for the provision of funding under 'Retooling' and 'Climate Ready' programs, and 'Green Buildings' will start soon. These programs may form the basis for large scale deployment of funds to industry, fueled by the proceeds of permit auctions.

(e) Households and SMEs

Some compensation has been earmarked for households and SMEs facing higher energy prices. Low and middle-income households have been singled out for special assistance. In concert with energy-efficiency schemes in New South Wales, Victoria and South Australia, improved energy efficiency at the household level could offset energy price increases. The take-up of these energy efficiency options continues to be the Government's greatest challenge in this area. Much pain could be avoided via energy efficiency, so long as residents and SMEs fully embrace the energy efficiency opportunities.

Maximising Profits in a Time of Structural Change

In our experience, maximising profits when operating parameters undergo permanent change is not about taking radical steps or risky bets. Instead, it is about designing

and bedding down throughout the organisation new systems and processes to respond to the new rules – in this case, rules related to the carbon economy.

Specifically, there are five Carbon Imperatives required to adapt to a low-carbon world, as outlined in Exhibit 2. While many companies have begun to address some of the disciplines in an effort to protect and extend profits and secure early-mover advantage, few have mastered all five. We explore each discipline in more detail.

1) Understand the impacts

There are three categories of impact from carbon and climate change – the physical impacts, community action and perceptions, and economic impacts. For Australian companies, understanding the economic impact is the current challenge. This requires:

- Developing a thorough understanding of and quantifying the impacts of the variety of proposed legislation (e.g. EEO, MRET, CPRS, Feed-in laws) on your company;
- Developing a position, and feeding back to the Government (using fact-based discussion) through their consultative processes;
- Engaging with industry associations to represent your interests in shaping legislation.

These steps are especially important at this early stage when legislation is being developed and rules formulated around how allowances are distributed and complementary

measures designed. Shaping the rules in your favour creates a sustainable competitive advantage.

2) Manage risks

The proposed Emissions Trading Scheme exposes companies to new operating, capital and compliance risks. These change the overall risk profile of many companies and demand a new approach to risk management. Climate change is already shifting the physical and operational risk profiles of assets and supply chains. The adjustments to costs and prices which will flow through the Australian economy will impact many companies' working capital and cash requirements. And for many, the compliance risk created by the Australian emissions trading scheme is a completely new concept involving the implementation of reporting systems and asset transfer procedures in line with new Government requirements.

For example, managing a large emitter's annual AEU permit liability includes:

- Quantifying the company's carbon footprint (something many companies have already done but are yet to implement in ongoing management reporting metrics);
- Developing a merit order of carbon reduction opportunities and associated costs to inform permit auction bids and trading activities;
- Agreeing a carbon hedging strategy at CEO/Board level;
- Reducing the company's liability (discussed in Discipline 3);
- Acquiring AEU's via over-the-counter trades, exchanges or regular auctions;
- Carbon trading – taking short and long positions to better manage net exposure and risk;
- Implementing risk management systems throughout the

organisation, ensuring, for example, that carbon liability is assessed as part of due diligence in evaluating acquisition targets;

- Reporting emissions and surrendering AEU's.

The amount of effort required for a company to actively trade in AEU's and other carbon assets means that many medium emitters will seek out "compliance products" as an alternative. For the financial services sector, the trading in AEU's and the creation of "compliance products" provides an opportunity for them to assist customers to manage their capital risks as well as their compliance risks.

3) Minimise footprint

The cost of carbon to Australian companies will be direct (if they operate a "covered" facility) and also indirect (through electricity and other operating costs). Booz & Company has developed the ISSR

Exhibit 2
The Five Carbon Imperatives



framework for reducing operating costs and emissions. It recognises that emissions can be Inherent, Structural, Systemic or Realised, and reduced with appropriate action.

Areas where we have seen emissions savings most easily generated are:

- Energy efficiency (a Systemic issue);
- Supply chain optimisation (a Structural issue);
- Technology switching (a Structural issue);
- Product redesign (an Inherent issue).

For example, in our experience with manufacturing companies, a 20% reduction in energy use through energy efficiency measures is possible with a payback period of three years or less - a very attractive return on investment.

4) Protect margins

With rising input costs across the board and increased customer power in some industries, margins are already under pressure. The impact of a carbon price adds further stress to price negotiations.

As a result we are seeing refreshed interest in strategic pricing to minimise margin impact and in some instances grow margins.

Strategic pricing starts with understanding customer value drivers to develop new offerings and pricing approaches which maximise margins by more thoroughly addressing customer needs, preferences, and emotions. Success depends on rigorous customer decision analytics and customer

Case Study - UK Carbon Trust supply chain work

Booz & Company developed a detailed methodology for the UK Carbon Trust examining carbon reduction opportunities for an end-to-end supply chain – from raw material through to disposal/recycling.

The methodology was employed in pilot studies focused on supply chains for snack foods and news publishing. Through these pilots Booz & Company successfully base-lined carbon emissions and identified reduction opportunities beyond those achieved previously through alternative methodologies. The project uncovered savings of 28,000 tonnes of CO₂, equal to £2.7M in energy costs per annum.

research to quantify customers' willingness to pay.

Innovative pricing approaches are emerging which will help companies to respond to the low carbon future.

Examples include:

- Quarantining energy costs as a pass-through (for example, airlines with fuel surcharges, electricity retailers with Renewable Energy Certificate obligations);
- Higher pricing of "green" products to capture the brand value from taking an early leadership position (e.g. Origin's Green Power, Toyota Prius);
- Pricing ex factory gate to pass transport costs and risks to the customer;

- Using raw material substitutes which reduce emissions liability, reduce costs and increase the green image of the product and company (e.g. blended cement).

The key to a successful pricing strategy is a rigorous approach, involving close collaboration with Marketing, Sales, and Product Development departments.

5) Realise growth opportunities

The low carbon future presents opportunities for early movers who can secure a competitive advantage ahead of their peers in areas where new growth will emerge. Based on Booz & Company's international experience, successfully capturing carbon-related opportunities requires:

"The proposed Emissions Trading Scheme exposes companies to new operating, capital and compliance risks [changing] the overall risk profile of many companies and demand a new approach to risk management."

- Appropriate assessment criteria allowing for uncertainty in carbon prices and different value accretion paths;
- An organisational structure and skills suited to identifying and assessing opportunities in the low carbon space;
- A Board and leadership group prepared to seize opportunities early, and thereby secure competitive advantage (such as by acquiring IP).

Implications

For large emitters, maximising profits in a carbon-constrained world is a whole-of-enterprise issue. Other sectors must address the Five Carbon Imperatives outlined if they too are to sustain high levels of profitability in a low-carbon market.

Enterprises that respond early will mitigate the worst impacts of an ETS, while positioning themselves to maximise profits and secure competitive advantage.

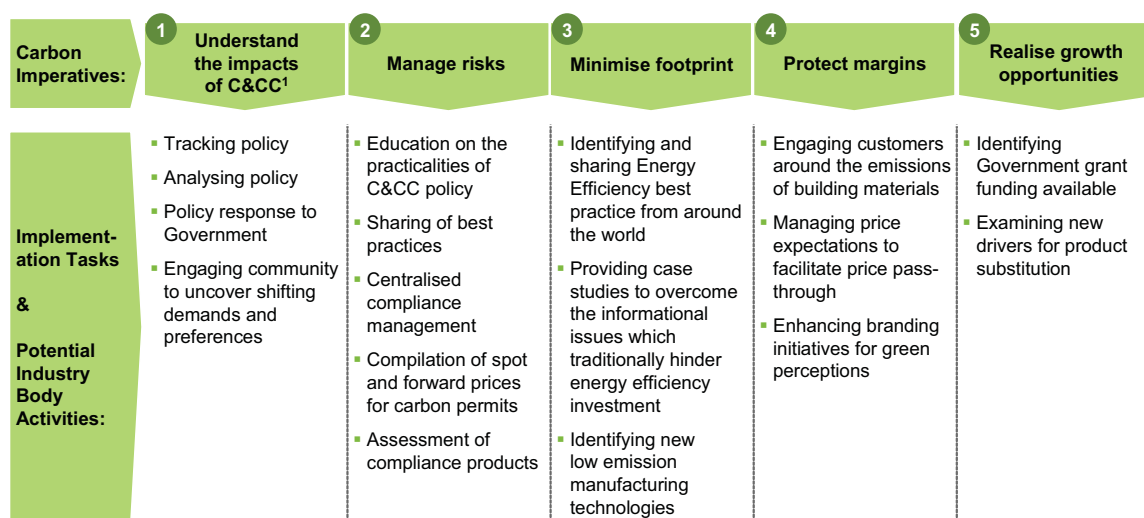
The race is on therefore to design and implement change across the enterprise. Our experience across thousands of change programs demonstrates that the keys to winning this race are:

- Dedicated, responsible and accountable resources, including a Program Management Office and Change Manager;
- A powerful and robust case for change (with buy-in from the Board and staff);
- A strong fact-based (that is, informed by quantitative analysis) approach to making decisions;

- Good benchmarks for setting targets, identifying savings and assimilating learnings;
- An independent approach to identifying improvements that is shielded from incumbent staff protecting past decisions or personal interests;
- Sufficient know-how within the organisation to design change for minimal disruption and maximum impact;
- A rigorous process for identifying opportunities, with appropriate screening criteria.

Case Study - Defining the role of a building industry association

Booz & Company advised a building material industry association considering how it could best assist members' transition to the low-carbon future. Using the framework for the Five Carbon Imperatives, potential roles for the organisation were mapped out.



1) Carbon and Climate Change

About the Authors

Rob Fowler is recognised globally as an expert in climate policy, carbon markets, and their impact on business. Rob is part of Booz & Company's Carbon and Climate Change team, based in Sydney.

Rob provides advice to the UN, Australian governments, major corporations, banks, service providers and non-profit organisations. He is active in the design of emissions trading schemes, development of the market infrastructure, and the operation of existing carbon markets.

Rob has a unique perspective in the Australian sphere, spanning the policy, regulation, commercial and technical aspects of this new and dynamic sector. His perspective is grounded in corporate strategy consulting across the Asia Pacific and a technical background in engineering.

Greg Lavery is a senior associate with Booz & Company. Greg founded Booz & Company's Carbon and Climate Change team in the ANZSEA region and has over a decade of experience across a broad range of low carbon solutions including renewable energy, green buildings and energy efficiency.

With a strong Engineering and technical background, Greg specialises in corporate 'Green' strategy specifically for growth and profit improvement within the commercial sector



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