

## Case Studies from Climate Change 13.04.10

[The following are extracts from Climate Change Law and Policy in Australia which attempts to provide some discussion on the practical aspects of climate change.]

### 1. Extract from Chapter 13 Business and Climate Change

#### **The Nature of Climate Change Risk for Business** **[13-010] Material risks to a business**

[Current to August 2009]

A Director's managerial and fiduciary responsibility requires him to consider all material risks to a business and to develop an appropriate strategy to steer the business through those risks, enhancing shareholder value wherever possible. Climate change should be considered as a key business risk on the agenda of all responsible Australian business. Climate change should also appear on the audit risk register of all listed companies and should be subject to the same level of risk assessment and mitigation as any other key business risk.

#### **Key Point**

[Current to August 2009]

To not act now, in order to achieve savings in the short term, is to put the medium and long-term sustainability of operations at risk and itself a breach of this responsibility to shareholders.

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#### **Emerging Trends for Business** **[13-115] Introduction**

[Current to August 2009]


Amongst the emerging trends for business in a low carbon economy, the following three have been identified by the author as those which are becoming more commonplace and are the natural "next steps" for business in an emerging carbon constrained economy:

- (1) Emissions Lifecycle Assessment and Labelling;
- (2) Voluntary carbon reporting; and
- (3) Learning how to trade carbon.

Each of these trends are discussed below.

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**[Editor's note – Some examples of companies which have adopted emissions lifecycle assessments and voluntary carbon reporting are as follows:]**

 Case study

[Current to August 2009]  
Food retail carbon labelling



[Current to August 2009]

**Tesco**

Tesco is a British-based international grocery and merchandise and services chain and Britain's largest retailer by both domestic and global sales. Employing over 440,000 people worldwide and with group sales of over US\$100 billion, it is the third largest grocery retailer in the world. Tesco aims to be a global leader in engaging consumers on big picture climate change issues and to raise consumers' carbon literacy. It also aims to help customers to reduce their carbon footprint.

The company recently joined the Carbon Trust's product carbon footprinting and labelling initiative to implement supply chain carbon footprinting on products ranging from potatoes to light bulbs.

Tesco engaged the help of Environmental Resources Management (ERM) to develop systems to capture and record complex supply chain footprint data on materials, transport, emissions and waste. In December 2007, 11 ERM consultants then worked with nine Tesco suppliers to calculate the footprint of selected Tesco own-brand products. The Carbon Trust certified the results against the (draft) BSI Publicly Available Specification for the assessment life cycle GHG emissions of goods and services (PAS 2050), which in turn draws on ISO standards for life cycle assessment. Twenty Tesco own-brand products now carry the Carbon Trust's Carbon Reduction Label, in stores. The Label quantifies carbon dioxide (and other greenhouse gas) of life cycle emissions.

**Pepsico**

Pepsico in the United States have recently completed a similar project in conjunction with the Carbon Trust and ERM to calculate the CO<sub>2</sub>-e content embedded in its Tropicana fruit juice brand. Using a process based on PAS 2050, the estimated carbon footprint for a 64-ounce (1.9litres) carton of Tropicana Pure Premium Orange Juice was calculated at 1.7 kilograms.

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**Alcoa**

Alcoa, one of the world's leading aluminium companies has undertaken various research programs to demonstrate the potential emission savings by using aluminium in vehicle production to reduce weight. In China they worked with Zhengzhou Yutong Bus Company, China's largest bus manufacturer to design the commuter busses for China Olympics. The new aluminium-intensive bus body was approximately 46% lighter than a traditional bus and, therefore, required less fuel and emitted significantly less greenhouse gases. Working with Ford, Alcoa identified that the use of aluminium in wheel construction could create a 10% weight saving with a resultant 7% saving in emissions.

However, from an embedded carbon perspective, aluminium is one of the most carbon intensive metals in production (sometimes referred to as pure carbon due to the energy requirement to produce it generating emissions equal in weight to the finished product). In a lifecycle assessment context, the embedded carbon in the aluminium becomes a potential barrier to use if a business is seeking to de-carbonise the supply chain. The solution is therefore to seek a low carbon aluminium alternative. This can be found by

looking to another leading Aluminium producer, Alcan, who produce a large percentage of its output using renewable hydro energy. Incidentally, Alcan were purchased by Rio Tinto in 2007 at what appeared to be a significant price premium (US\$38.1 billion). Alcan, as the world's low carbon supplier of aluminium offer Rio Tinto a very real source of competitive advantage as capital markets begin to factor in the carbon price advantage.

This example provides is an excellent case of how carbon emission reduction is a highly complex problem that requires a systemic approach to identifying solutions. When carbon is included in with all the other factors that influence key business decisions, the problem becomes very complex indeed.

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### **[13-120.15] Benefits of undertaking lifecycle assessments**

[Current to August 2009]

The following benefits can be achieved through the use of lifecycle assessment in determining emissions for reporting, or if used for the purposes of low carbon, and environmentally responsible procurement:

- identification of unexpected opportunities for energy efficiency and reductions in waste;
- reductions in packaging with resulting cost savings;
- ability to leverage reductions in the supply chain (at their cost). This is an approach that Walmart have taken to reduce their wider environmental footprint; by obliging their suppliers (167,000 of them) to measure and reduce their footprints if they wanted to retain the precious status of a Wal-Mart supplier;
- to gain competitive advantage in a low carbon economy and the ability to establish a baseline for your own supply chain emissions and start to make efficiencies in advance of large-scale shifts in consumer expectations. This provides the very real potential to save money by acting now, thereby achieving the competitive advantage holy grail, of undertaking the same task at a lower cost than your competition.

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### **[13-125.5] Carbon Disclosure Project**

[Current to August 2009]

The Carbon Disclosure Project (CDP) (see [13-030]) is the world's largest repository of carbon emissions data. Initially the survey focussed only on the recording and reporting of emissions. This scope has gradually extended through to the latest (CDP6) survey.

In CDP6 the list of questions to the CEO's of the worlds largest companies include questions relating to the responsibility for carbon risk and questions relating to the specific strategy responses and activities being considered by the organisation. The response rate to this voluntary initiative is good (1550 Responding Companies participated in CDP6 in 2008, out of a total 3,700 that were sent requests including the Global 500, FTSE 350 and S & P 500 indices). The level of rigour being applied by responding companies in their submissions is good. Some companies (including those in the ASX200) have even engaged consultants specifically to assist in the preparation of a comprehensive and credible response. This is in recognition that the responses are made publically available through the CDP website unless specifically requested to be kept confidential. The CDP presents the following benefits for companies to respond to its information requests:

- participation provides companies with an opportunity to analyse greenhouse gas emissions and the use of energy in a structured way
- the ability to measure carbon emissions represents the first step towards managing such emissions

- the response exercise can yield various internal benefits, particularly in terms of cost savings
- response to the Information Request provides a high level of visibility and accountability to all stakeholders including institutional investors; and
- the exercise permits companies to benchmark against their peer group.

### Good corporate governance

In Australia, Sydney based governance research group Regnan believe that long term investment performance requires attention to more than short term financials focus. Their work in encouraging good greenhouse gas governance and risk management across the ASX 200 is a good reference point for understanding where voluntary carbon reporting fits into good corporate governance in an Australian context ([www.regnan.com.au](http://www.regnan.com.au)).

The following case study on the brewing industry demonstrates a link between carbon management, emissions lifecycle assessment and product labelling — all wrapped up in voluntary reporting.

#### Case study

[Current to August 2009]

Responsible Brewing



[Current to August 2009]

In March 2008, Fosters launched the first Australian Government Greenhouse Friendly™ certified, carbon neutral beer. Cascade Green promises to offset all the greenhouse gas emissions associated with the production of the beer throughout the product's life cycle, from picking the hops to delivering to retailers and including the brand's advertising. Fosters expect to have spent \$150,000 in offsets during the first year of production to counter the 15kg CO<sub>2</sub>-e "lifetime footprint" of each case of the beer.

The brand also embraces a growing trend in Australia for low carbohydrate beer and so promotes itself as a healthier and greener alternative. According to Foster's Sustainability Manager, Scott Delzoppo, Cascade Green's sales have been performing strongly and it has been publicly recognised for its environmental credentials after winning the 2008 Tasmanian Premier's Climate Change Award.

Ben Summons, the group marketing manager of Foster's premium beer products recognised the risk that the business was taking by so publically voicing its green credentials with a high profile addition to the brand. Summons has stated that "if [the initiative] was not authentic or sincere, then it's a risk for Foster's image... we had to take our time to do everything with a lot of rigour and to ensure it was done properly."

The Cascade Green project also realised unexpected benefits across the Fosters organisation in energy efficiency and cost savings. In identifying lifecycle emissions for a generic product, and then applying it to a new line, opportunities for waste reduction and other efficiencies were realised that have since been applied to other products in the Fosters stable. This has led to wider benefits for the group through recognition of its positive environment efforts.

Since the Japanese brewer Kirin took a majority stake holding in Lion Nathan (April 2009),

Fosters is by far the largest Australian owner brewer. Through the Cascade Green initiative, they are also recognised as one of the most environmentally responsible.

Fosters scored two major goals with their Cascade Green project. First, they took all possible (economically practical) steps to “reduce” emissions before purchasing offsets for the residual 15kg CO<sub>2</sub>-e. Examples of these measures include:

- the use of renewable energy from Tasmania;
- lightweight packaging; and
- implementing energy efficiency across all production facilities).

Secondly, and of crucial importance, they followed a process that allowed for independent certification (provided by the Greenhouse Friendly™ program).

A lack of certification caused Coopers brewery (now Australia’s second largest), a lot of problems after they claimed to have “greened” their whole company, but failed to back it up with verifiable facts. Coopers claims included that it was meeting world’s best practice for water and energy use in producing beer. Australian brewers consumer advocates CHOICE suggested that Coopers’ concept of “greening” the whole company was admirable, Coopers generates its own electricity onsite, has water recycling facilities, and avoids additives and preservatives.” The trouble is, CHOICE reported, “Coopers doesn’t provide the reassurance of third-party certification, or support its claims with much evidence”.

## 2. Chapter 8 Climate Change Litigation

### [8-005] Overview

[Current to May 2009]

This chapter considers the phenomenon of climate change litigation in Australia. Climate change litigation takes many forms with cases generally falling into the category of:

- (1) common law tortious actions suing industrial polluters on the basis of claims in negligence or nuisance; or
- (2) administrative law actions challenging government decision-making alleging a failure to give adequate consideration to climate change.

In Australia, there is also an emerging body of case law in the field of planning and development law that deals with adaptation to the predicted effects of climate change, such as sea level rise and increased flooding in some areas.

### [8-010] Development of Australian case law

[Current to May 2009]

An early harbinger of climate change litigation in Australia was the case of *Greenpeace Australia Ltd v Redbank Power Co Ltd* (1994) 86 LGERA 143; [BC9403585](#) which raised issues over the contribution to global warming that would be made by carbon dioxide emissions from a new power station in New South Wales (NSW). However, litigation dealing with the effects of climate change only really emerged as a significant feature of Australian environmental law with *Australian Conservation Foundation v Latrobe City Council* (2004) 140 LGERA 100; [2004] VCAT 2029 (the *Hazelwood* decision). Since that time there have been over a dozen major cases raising climate change issues, which span the jurisdictions of federal and state courts. There have also been a number of cases in which climate change was raised as an issue though did not form a substantial part of the decision. A notable feature of this case law is that those initiating cases have primarily been individuals or environmental non-governmental organisations (NGOs).

#### Key Point

[Current to May 2009]

The motivation for the cases seems to have been concern over the perceived inaction on climate change at the national political level in Australia, particularly during the term of the former Howard government.



The following sections of the chapter consider the facts and key findings in each of the main climate change cases decided to date in Australia. These cases demonstrate a trend towards environmental/administrative law challenges to the adequacy of environmental impact assessment (EIA) undertaken for projects likely to contribute significant quantities of greenhouse gas (GHG) emissions. As yet, Australia has not seen the emergence of climate change litigation raising tortious claims as has occurred in other jurisdictions like the United States (see *California v General Motors* 2007 US Dist LEXIS 68547).

The final section of the chapter draws out the key issues that have emerged in judicial decision-making in climate change litigation. These relate to matters such as causation and scientific proof of harm, indirect and cumulative impacts, and the role of ecologically sustainable development principles like the intergenerational equity and precautionary principles. Judicial development in this regard (especially in merits review) is likely to ensure a continuing role for litigation in Australian climate change law, notwithstanding a greater pace of legislative reform with efforts to introduce a GHG emissions trading scheme at the national level (see the Carbon Pollution Reduction Bill 2009).

## Chapter 14 Taxation and Climate Change

### [14-070] Practical tax outcomes for acquiring, holding, disposing and surrendering emissions units

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### [14-075] Valuing permits under the rolling balance method

[Current to November 2009]

For income tax purposes, the sale or surrender of emissions units will be brought into account under the CPRS by a mechanism known as the rolling balance method. The rolling balance method is a similar concept to the trading stock rules, whereby the difference between the value of units held at the beginning and end of an income year will be recognised for tax purposes. Any increase in value will be recognised as assessable income and any decrease will be allowed as a deduction.

The Tax Law operates on a default 30 June year end basis. However, whilst the CPRS operates on a 30 June basis, the surrender date for liabilities in respect of emissions in relation to a particular year does not occur until after 30 June. As outlined above, this means that for taxpayers with 30 June year ends, effectively a tax deduction does not arise in the income year in which an emissions liability exists. Rather, it arises in the year of surrender, which may be the following income year.

An example of how the rolling balance method operates is provided by the following table:

**Table 1: Calculation of assessable income and deductions from the rolling balance**

	2011–12	2012–13	2013–14
<b>ROLLING BALANCE</b>			
Opening value	0	100	50
Closing value	100	50	0
Change in value	100	(50)	(50)
Assessable income resulting from rolling balance	100	0	0
Deduction resulting from rolling balance	0	50	50

Following the calculation of assessable income and deductions under the rolling balance method as shown above, the following table illustrates how taxable income or loss will be determined:

**Table 2: Calculation of taxable income/tax loss**

	2011–12	2012–13	2013–14
<b>ASSESSABLE INCOME</b>			
Sale of permits	0	0	60
Increase in rolling balance	100	0	0
<b>Total assessable income</b>	100	0	60
<b>DEDUCTIONS</b>			
Purchase of permits	100	0	0
Decrease in rolling balance	0	50	50
Total deductions	100	0	50
<b>Taxable income/(tax loss)</b>	0	(50)	10

The CPRS Bills provide for three valuation methodologies:



- (1) Cost using first-in first-out (FIFO) methodology (the default method if a taxpayer does not elect otherwise);
- (2) Actual cost methodology; and
- (3) Market value methodology.

Taxpayers may elect to change their valuation method once at any time before the 2016-2017 income year, after which a change will only be available once a method has been used for 4 years.

The value of an emissions unit may change under other provisions of the Tax Law, such as where their value may be reset under the tax consolidations regime.

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