

# Managing Financial Impacts and Reporting of Carbon Emissions

A guide for CFOs

AUSTRALIA



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# Foreword

The policy and regulatory landscape relating to greenhouse gas (GHG) emissions is changing significantly both locally and internationally.

Governments are responding to the challenge of climate change through a range of policy responses. At the cornerstone of many, including the Australian Government's response, is the creation of pricing mechanisms for carbon and new regulatory reporting requirements around greenhouse gas emissions, energy consumption and production. Both have significant and broad impacts on business.

The pricing of carbon emissions impacts organisations of all shapes and sizes either directly, through the requirement to purchase carbon pollution permits, or indirectly through the supply chain. Many are also subject to new regulatory reporting requirements.

As a result, CFOs have expanded responsibilities that involve dealing with new and sometimes complex concepts.

KPMG and the Group of 100 (G100) are pleased to publish, *Managing Financial Impacts and Reporting of Carbon Emissions: A guide for CFOs*. It is a guide designed to provide a starting point for CFOs and their finance teams to assist them to enhance the management of the financial impacts and reporting of carbon emissions.

This guide is based on information available as at 31 July 2009 in relation to existing and proposed regulations in Australia. While the details of the proposed *Carbon Pollution Reduction Scheme* may change, the core issues confronting CFOs will still need to be addressed. We trust users find this guide a useful and practical ongoing reference.



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# Executive summary



As governments introduce a range of policy responses to the challenge of climate change, business leaders including CFOs will be confronted with new risks and opportunities.

The ultimate aim of global action is to decouple economic growth from GHG emissions and create a low carbon global economy. To do so, local and international policy responses are necessarily multifaceted. They include initiatives to drive energy efficiency, support the development of viable renewable energy sources, carbon capture and storage and clean technologies along with the creation of a pricing mechanism for carbon.

Underpinning these initiatives are related reporting obligations essential to enable accurate measuring and monitoring of emissions and support decision-making by all stakeholders including governments, investors, financiers and business leaders.

### **Impact of a price for carbon emissions**

The introduction of a price for carbon through the proposed *Carbon Pollution Reduction Scheme* (CPRS) is a central element of the Australian Government's policy response to the challenge of climate change.

The CPRS will require heavy emitters to purchase carbon pollution permits, introducing a new cost to business. The cost of permits will flow through the supply chain impacting other businesses and consumers.

In doing so, the CPRS will create a market-based pricing mechanism for carbon emissions. This price signal will change the pricing relativities between carbon intensive energy sources and low emission technologies and renewable energy.

The CPRS will also introduce new regulatory reporting and compliance requirements. Reporting required under the *National Greenhouse and Energy (NGER) Act 2007* will underpin the CPRS. The NGER Act requires companies meeting certain criteria to report their carbon emissions, electricity consumption and production annually.

The introduction of a new cost to business and associated reporting and compliance requirements will impact the activities of CFOs and their finance teams, introducing new responsibilities and complexities.

As the CPRS and requirements of NGER will impact organisations differently, the activities required of CFOs and their finance teams will also vary across different companies. However, there are four key areas all CFOs need to consider in response to the introduction of a price for carbon and associated reporting and compliance requirements.

## Four key actions for CFOs

### 1. Understanding the entity's position

The first key action for CFOs is to understand their entity's position in relation to the CPRS and NGER. For some companies this can present new concepts and complexities. This is a critical step and will drive the nature and extent of other activities for the CFO in relation to carbon emissions and reporting.

### 2. Overview of the collection and processing of carbon emissions data

The responsibility for collecting and processing carbon emissions data for most companies usually lies with an operating executive or environmental officer and is not often directly within the CFO's realm of responsibility. However, with a price imposed on carbon emissions, CFOs need to have much greater involvement and, in some cases, responsibility for carbon emissions reporting.

Where carbon emissions are material to the business, the CFO will have obligations concerning controls relating to the collecting and processing of the data, though they may not be responsible for the data itself.

Reliable, verifiable carbon emissions data is essential and requires formalised reporting guidelines and robust processes and controls. Important governance issues also need to be considered and resolved.

A key question for all CFOs is: Do you understand your organisation's exposure to carbon and the impact of a price for carbon (either through a requirement to purchase emission permits or increased costs passed through the supply chain) on the business?

CFOs of companies required to purchase emission permits also need to consider whether they would be confident purchasing carbon emission permits based on the quality of data collected by the company's current carbon emissions reporting system.

### 3. Managing the financial impacts

In a competitive market place the carbon emissions metrics of a company relative to its competition determines the winners and losers from the CPRS.

Entities required to purchase permits will seek to recover the costs of acquisition through the supply chain and their customers will attempt to do the same along the supply chain. This has broad financial and commercial implications for many businesses.

CFOs have a key role to play in enabling their company to understand and act on a range of issues related to managing the financial and commercial impacts of the CPRS. These issues will vary depending on the company and may include supporting commercial and strategic decision-making in relation to the impact of a low carbon economy on the business, assessing the financial and commercial viability of investments to reduce the company's exposure to carbon and the impact of carbon issues on decisions related to mergers and acquisitions. It can also include permit trading, involvement in supplier and customer negotiations along with input to costing and pricing strategies for products and services.

This is in addition to managing the impact on the balance sheet in areas such as permit asset valuation, carbon emissions liability and asset impairment, implications for cash flow and the tax treatment of CPRS-related transactions.

The introduction of a price for carbon will also require adjustments to a range of financial management processes such as budgeting, forecasting and risk management.





#### **4. Overseeing reporting and assurance**

CFOs also need to take into account reporting and assurance considerations.

Carbon emissions data may be reported in many forms such as NGER/CPRS reports, financial statements and sustainability reports. As a result, the linkages between emissions-related reporting, both in terms of consistency of data and assurance coverage, needs to be considered by CFOs.

Other issues to be considered include the opportunities for streamlined reporting processes to provide a single source of carbon emissions data, the role of internal audit in enhancing the quality of reporting systems and processes and pre-submission external audit of NGER/CPRS reporting.

This guide provides a detailed discussion and practical guidance for each key action for CFOs and their finance teams as they design and execute the necessary financial, reporting and compliance responses to a price for carbon emissions.

# 1 Pricing and reporting of carbon emissions



## **Introduction of pricing and reporting of carbon emissions**

Imposing a cost on carbon emissions through the introduction of the CPRS will impact most companies in Australia through the need for about 1,000 entities to acquire permits and the subsequent cost pass through impact on supplies. The CPRS and the NGER Act 2007, which establishes the *National Greenhouse and Energy Reporting System* (NGERS), also introduce carbon emissions and electricity consumption/production reporting requirements for many companies. Both of these changes will impact the activities of CFOs and introduce new complexities.

As the impacts of the CPRS and NGERS vary across different companies, this guide explains these impacts for different types of entities. The activities of CFOs following the introduction of the CPRS and NGERS will also vary across different companies. It is assumed that CFOs are responsible for cost control and have an overview role for the internal and external reporting of carbon emissions in addition to their current role in relation to internal and external financial reporting.

## *Carbon emissions*

Throughout this guide the term carbon emissions is used to refer to the emission of the six greenhouse gases included under the *Kyoto Protocol*. These carbon emissions are expressed in tonnes.

## Key actions for CFOs

There are four key actions for CFOs with the introduction of a price for, and the reporting of carbon emissions.

|   |               |
|---|---------------|
| 1. Understanding the entity's position                                | See Chapter 2 |
| 2. Overview of the collection and processing of carbon emissions data | See Chapter 3 |
| 3. Managing the financial impacts                                     | See Chapter 4 |
| 4. Overseeing reporting and assurance                                 | See Chapter 5 |

## Calculating and reporting carbon emissions

Chapter 3 provides a more detailed explanation of how carbon emissions are determined and estimated. This brief overview outlines the key requirements and impacts of the CPRS and NGERs.

Under globally agreed greenhouse gas (GHG) protocols there are three types of carbon emissions which are referred to as Scope 1, Scope 2 and Scope 3, as described in Table 1.

**Table 1: Types of carbon emissions**

|                                    | Scope 1   | Scope 2   | Scope 3  |
|------------------------------------|---|---|--|
| <b>Emission type</b>               | <b>Direct</b>   | <b>Indirect</b>   | <b>Embodied</b>  |
|                                    | Emissions from within the organisation  | Emissions from purchased electricity                                      | Emissions embedded in inputs   |
| <b>Examples</b>                    | <ul style="list-style-type: none"> <li>Electricity generation</li> <li>Industrial processes</li> <li>Fuel usage for transporting inputs</li> <li>Fugitive emissions</li> <li>On site waste</li> </ul> | <ul style="list-style-type: none"> <li>Electricity consumption</li> </ul> | <ul style="list-style-type: none"> <li>Waste disposal</li> <li>Purchased materials</li> <li>Business travel</li> <li>Fuel usage for transporting outputs</li> <li>Outsourced activities</li> </ul> |
| <b>Supply chain</b>                | <b>Impacted</b>   | <b>Impacted</b>   | <b>Impacted</b>  |
| <b>Mandatory reporting (NGERS)</b> | <b>Report (if &gt; threshold)</b>   | <b>Report (if &gt; threshold)</b>   | <b>Voluntary</b>   |
| <b>Emissions trading (CPRS)</b>    | <b>Liable (if &gt; threshold and at point of obligation)</b>  | <b>Impacts compensation calculations only</b>                             |  |

Source: KPMG in Australia, July 2009

- **Scope 1 (direct emissions)** – Carbon emissions occurring within the boundary of a facility from sources such as stationary power stations and industrial processes which are measured at the source of the emission. Scope 1 emissions also include carbon emissions from the burning of fuel. These emissions are calculated by multiplying the fuel usage by emissions factors which have been set for different types of fuels.
- **Scope 2 (indirect emissions)** – Carbon emissions occurring outside the boundary of a facility and are measured by multiplying the electricity consumed by emissions factors that have been set for the different types of electricity sources and generators.
- **Scope 3 (embodied emissions)** – Carbon emissions occurring as a result of activities outside the boundary of a facility other than electricity. These emissions are determined by using estimates of carbon embedded within goods or services that have been purchased (upstream) or sold (downstream).

The impact of the pricing of carbon emissions will depend on a company's 'carbon footprint' plus its negotiating power with suppliers and customers within its supply chain. A 'carbon footprint' is the sum of carbon emissions in Scopes 1, 2 and 3. However, in practice many organisations do not include Scope 3 carbon emissions as the process is complex and time consuming, and thus their inclusion is made on a voluntary basis.

### National Greenhouse and Energy Reporting (NGER) Act 2007

The NGER Act requires companies above certain thresholds of carbon emissions and energy production or consumption at the facility or entity-wide level to report their carbon emissions to the Regulator. NGER reports require sign-off by the CEO and must not exclude sources or facilities totalling more than 5 percent of total carbon emissions. A high level of accuracy is also required with the Act prescribing that emissions estimates must neither be over nor under estimates of the true values at a 95 percent confidence level. A fine of \$220,000 or jail is possible for non-compliance.

As set out in Table 1, the carbon emissions required to be reported under the NGER Act are Scope 1 and Scope 2. The purpose of the NGER Act is to define which facilities are above the threshold for requiring permits under the CPRS, as well as an economy-wide inventory of the major carbon emissions to support the design and operation of the CPRS. Electricity production and consumption is also included within NGER to enable a reconciliation of electricity generation (Scope 1) and consumption (Scope 2) as stationary power generation contributes about 50 percent of Australia's carbon emissions.

Reporting thresholds under the NGER Act for facilities and corporate groups are outlined in Table 2.

**Table 2: NGER Act thresholds and reporting requirements**

|   | Year 1             | Year 2          | Year 3          |                |
|---|--------------------|-----------------|-----------------|----------------|
| Reporting year ended                    | 30 June 2009       | 30 June 2010    | 30 June 2011    |                |
| THRESHOLD                               | Facility:          |                 |                 |                |
|   | • carbon emissions | 25,000 tonnes   | 25,000 tonnes   | 25,000 tonnes  |
|   | • electricity      | 100 terajoules  | 100 terajoules  | 100 terajoules |
|   | Corporation:       |                 |                 |                |
| • carbon emissions                      | 125,000 tonnes     | 87,500 tonnes   | 50,000 tonnes   |                |
| • electricity                           | 500 terajoules     | 350 terajoules  | 200 terajoules  |                |
| Reporting due date for 30 June year-end | 31 October 2009    | 31 October 2010 | 31 October 2011 |                |

This guide refers to companies that have registration and reporting obligations under the NGER Act as 'Registered companies'.

### Carbon Pollution Reduction Scheme (CPRS) at 31 July 2009

The implementation date for the proposed CPRS is 1 July 2011 and the details below are based on the CPRS White Paper released in December 2008, the draft Legislation released in March 2009 and subsequent amendments announced 4 May 2009. The CPRS is the mechanism under which the Australian Government will impose a price for carbon emissions by introducing requirements to acquire and surrender permits within a total emissions cap for the Australian economy. This cap has been set by the government at a 5 percent to 25 percent reduction on 2000 carbon emissions levels by 2020.

Subject to the Point of Obligation rules set out below, permits are required at a Scope 1 carbon emission threshold for facilities in covered sectors of 25,000 tonnes of CO<sub>2</sub>-e per annum, other than waste which has a threshold of 10,000 tonnes of CO<sub>2</sub>-e per annum in certain circumstances. The Point of Obligation in the CPRS is where permits have to be acquired. This is generally at the point of physical production of carbon emissions such as the production of electricity or industrial processes. The important exception to this rule is for fuel products; even though many users of petroleum, natural gas or coal, such as transport companies or mine sites, produce Scope 1 carbon emissions, permit obligations will be imposed at the fuel producer or importer stage. However, certain large liquid, gas and solid fuel users may be required to, or in certain circumstances may voluntarily opt to take on the permit obligation through the Obligation

Transfer Number (OTN) mechanism. A large fuel user is defined as a fuel user who emits 25,000 tonnes of CO<sub>2</sub>-e per annum from a single fuel.

Covered sectors for the CPRS are:

- stationary energy
- industrial processes
- fugitive emissions
- waste (at the time of writing, the methodology was yet to be finalised)
- transport (excluding international transport)
- forestry on an 'opt in' basis
- possibly agriculture in 2015, to be decided in 2013.

Entities with facilities above the carbon emission threshold are referred to as 'Liable Entities', those without such facilities are referred to as 'Not Liable Entities' and those opting to acquire permits for resale are referred to as 'Participating Entities'. Whilst there are likely to be approximately 1,000 Liable Entities, the cost of permits that they incur will to some extent be passed through the supply chain to customers who are Not Liable. It is this linking of a carbon emission cost with consumption that provides the incentive to reduce production and consumption of carbon intensive goods and services and switch to less carbon intensive goods and services.

Permits can be acquired from three sources: monthly auctions held by the Regulator, the secondary market normally through intermediaries and approved offshore credits such as Certified Emission Reductions (CERs) from the Clean Development Mechanism (CDM) of the *Kyoto Protocol*.

During the first year of the CPRS, the government has proposed a fixed permit price of \$10 per tonne with unlimited permits available for purchase and available for use in 2011-12. Full auctioning of permits will commence in 2010-11 for permits related to years 2012-13 and beyond.

Some entities, most of whom are Liable Entities, will be eligible for compensation under the provisions for Emissions-Intensive Trade-Exposed Industries (EITEs) or Strongly Affected Industries (SAIs). Compensation will be in the form of free permits which will have important accounting implications. With the broad sector coverage in the CPRS, the opportunities for offsets under the CPRS are so limited that they will be rare.

### **The voluntary carbon offset market**

In Australia, there is an active voluntary carbon offset market which has operated partly outside and partly within formal mechanisms, such as *Greenhouse Friendly*<sup>TM</sup>, established by the Department of Climate Change (previously the Australian Greenhouse Office – AGO). Participants in this market, including airlines, petroleum companies and brokers, elect to purchase offsets (or carbon credits) from various sources, to partly or wholly match their carbon footprint. Many such companies have marketed their 'green' credentials often claiming carbon neutral status – meaning they have acquired offsets equivalent to their carbon footprint.

The Australian Competition and Consumer Commissioner (ACCC) has released guidance on how these claims may be assessed as deceptive and misleading conduct under the *Trade Practices Act*. In December 2008, the Department of Climate Change issued a *Draft National Carbon Offset Standard* (the draft Standard) and a Discussion Paper which elaborates on these 'green claims' and requires the use of accredited offsets which have been subject to independent assurance.

The draft Standard puts forward the case that carbon neutrality for an organisation means that the organisation has not contributed to aggregate emissions of the economy rather than an organisation wide concept of neutrality. This concept would have a significant impact on the utilisation of the voluntary carbon offset market and with the introduction of the CPRS in 2011-12; the future of the voluntary market is unclear.

This guide does not cover participation in the voluntary carbon offset market.

## 2 Understanding the entity's position



### Categories of entities

The first key action for CFOs is to understand the entity's position as this will drive the nature and extent of other activities for the CFO in relation to carbon emissions. This is best viewed by considering the entity's obligations under both the CPRS and the NGER Act, as summarised in Table 3.

**Table 3: Position of entities under the CPRS and NGER Act**

| CPRS                         | Liable  |  | Not Liable  |  | Participating  |  |
|------------------------------|---|--|---|--|--|--|
|                              | Registered  | Registered   | Not registered  | Registered   | Not registered   |  |
| NGER                         | Registered  | Registered   | Not registered  | Registered   | Not registered   |  |
| <b>Sectors</b>               | <ul style="list-style-type: none"> <li>- Generators</li> <li>- Oil companies</li> <li>- Large manufacturers</li> <li>- Some mining</li> </ul> | <ul style="list-style-type: none"> <li>- Transport</li> <li>- Medium manufacturers</li> <li>- Large retail</li> <li>- Some mining</li> <li>- Property</li> </ul> | <ul style="list-style-type: none"> <li>- Households</li> <li>- Low emitters</li> <li>- Low electricity users</li> </ul> | <ul style="list-style-type: none"> <li>- Large financial institutions</li> </ul> | <ul style="list-style-type: none"> <li>- Smaller financial institutions</li> </ul> |  |
| <b>Permit activity</b>       | Compliance buyer  | No participation   | No participation  | Voluntary buyer  | Voluntary buyer  |  |
| <b>Reporting:</b>            |   |  |   |  |  |  |
| - NGER                       | Yes   | Yes  | No  | Yes  | No   |  |
| - CPRS                       | Yes   | No   | No  | No   | No   |  |
| - Financial statement impact | Major   | Medium   | Low   | Medium   | Medium   |  |
| <b>Main source of costs</b>  | Permits   | Supply chain   | Supply chain  | Supply chain   | Supply chain   |  |

Source: KPMG in Australia, July 2009

## Liabe Entities

Entities which are companies that are Liabe under the CPRS will also need to be Registered to report under the NGER Act and will have the most significant carbon emissions reporting obligations.

Liabe Entities which are Registered companies will be required to:

- annually report Scope 1 and 2 carbon emissions under the NGER Act on a 30 June year-end basis by 31 October
- annually report on Scope 1 carbon emissions under the CPRS on a 30 June year-end basis by 31 October
- acquire and surrender by 15 December, permits for Scope 1 carbon emissions from facilities exceeding the threshold of 25,000 tonnes per annum to the previous 30 June
- recognise in their financial statements permit assets and carbon emission liabilities.

## Not Liabe Entities

Entities that are companies that are Not Liabe under the CPRS, and who do not elect to participate by buying and selling permits, may either be required to be Registered or Not Registered under the NGER Act.

Not Liabe Entities who are companies who are Registered will include large electricity users with Scope 2 carbon emissions exceeding the NGER threshold and/or groups with multiple facilities with Scope 1 carbon emissions each below the 25,000 tonne of CO<sub>2</sub>-e threshold but which, in aggregate, exceed the corporate NGER threshold.

Not Liabe Entities who are Registered companies will be required to:

- report on Scope 1 and Scope 2 carbon emissions under the NGER Act on a 30 June year-end basis by 31 October
- deal with the potentially significant cost impacts of carbon emissions pricing flowing through from their suppliers.

Not Liabe Entities and Not Registered companies will:

- have no regulated carbon emissions reporting obligation
- need to respond to the cost impacts of carbon emission pricing flowing through from their suppliers.

## Participating companies

Entities that are companies that elect to buy permits under the CPRS may be either Registered or Not Registered under the NGER Act. Participating companies who are Registered are likely to be large electricity users whose Scope 2 carbon emissions exceed the NGER threshold.

Participating Registered companies will be required to:

- report on Scope 1 and 2 carbon emissions under the NGER Act on a 30 June year-end basis by 31 October
- deal with the potentially significant cost impacts of carbon emission pricing flowing through from their suppliers
- include permits as trading stock assets in their financial statements.

Participating Not Registered companies and entities will be required to:

- deal with cost impacts of carbon emission pricing flowing through from their suppliers
- include permits as trading stock assets in their financial statements.

# 3 Overview of the collection and processing of carbon emissions data



## Governance

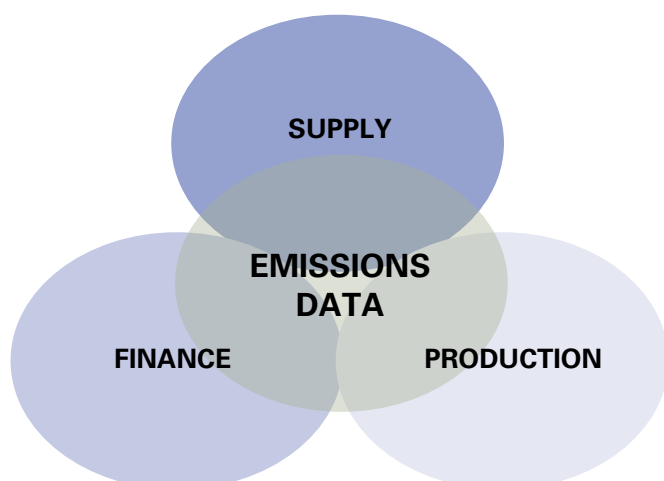
The responsibility for the collection and processing of carbon emissions data for most companies usually lies with an operating executive or environmental officer and is not directly within the CFO's realm of responsibility. With a price being imposed on carbon emissions, either directly (through acquisition of permits) or indirectly (through suppliers recovering the cost of permits), the CFO can be expected to have a much greater involvement, and in some cases, responsibility for carbon emissions reporting.

Some key governance issues for CFOs in these situations include:

- 1 To what extent should the CFO overview the collection and processing of carbon emissions data?
- 2 Who should approve the results of the carbon emissions data collection and processing?
- 3 Who should sign-off to the CEO on the accuracy of the data to enable the CEO to sign-off the NGER Report?
- 4 Who should ensure sufficient permits are surrendered by 15 December to match carbon emissions?

A useful analogy is the responsibilities involved with managing and controlling inventory. The CFO does not ordinarily have responsibility for the management of inventory but may have a role in its costing. Where inventory is material, the CFO also has an obligation to ensure the process controls over inventory are effective and that stocktakes are accurate. Similarly, where carbon emissions are material to the business, the CFO will have obligations concerning controls relating to collecting and processing the data, though they may not be responsible for the data itself. The positioning of carbon emissions data is illustrated in Diagram 1.

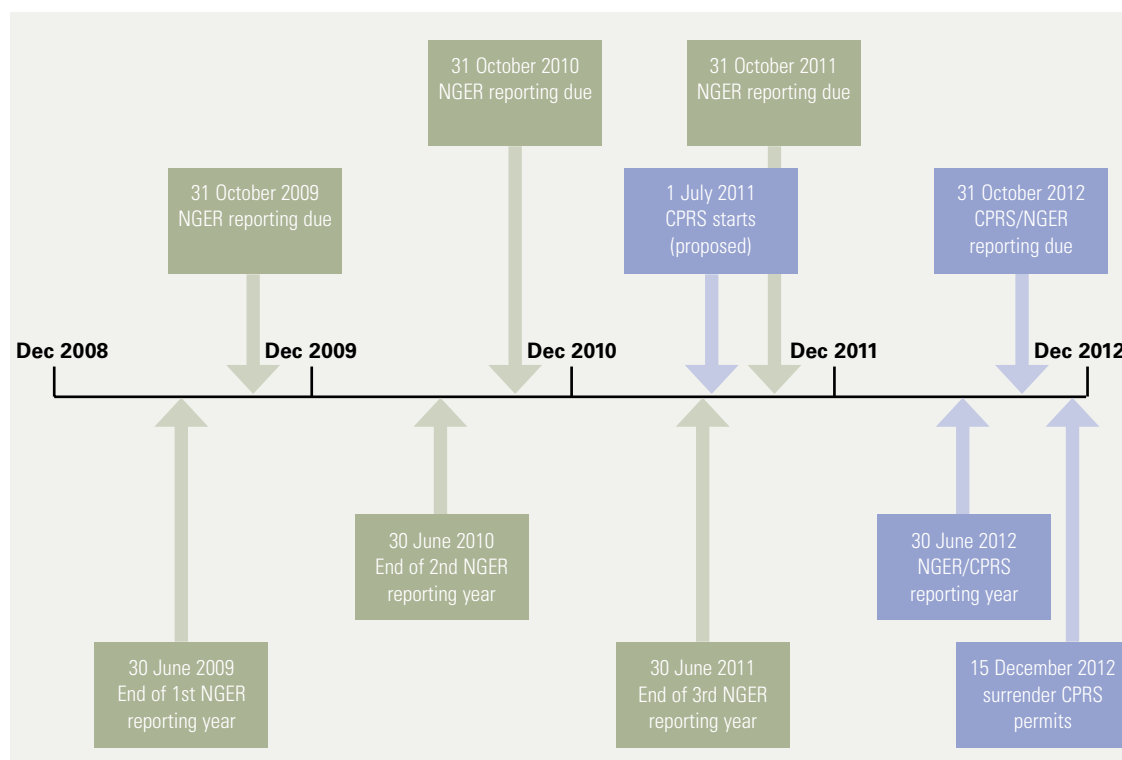


**Diagram 1: Positioning of carbon emissions data**

Source: KPMG in Australia, July 2009

### Carbon emissions data reporting timetable

For Liable Entities, complying with the timetable for collecting, processing and reporting carbon emissions data is critical as non-compliance can lead to significant penalties. The key dates are as follows:

**Diagram 2: Key carbon emissions data reporting dates**

Source: KPMG in Australia, July 2009

## Controls

The controls inherent in carbon emissions data collection systems, whilst improving in many organisations, are often not strong because:

- they are usually in sites remote from head office without a direct focus of attention
- they do not have a general ledger control account such as occurs with inventory
- checks and cross-checks common in financial systems are often missing due to the lack of maturity of systems.

Some controls that are features of strong systems of carbon emissions data and collection would include:

- regular checks and calibrations of monitoring devices or measurement equipment
- sign-off by the person taking measurements or making calculations
- approval by a more senior knowledgeable person of the recorded readings or calculations
- reconciliation of periodic measurements or calculations to 6-monthly or annual results
- cross-checks, with an analysis and explanation of variations, of qualitative data to:
  - other data such as production levels where a relationship exists
  - budgeted data and/or data from previous periods.

The CFO should consider expanding existing controls questionnaires used for balance date financial reporting to include emissions data collection and processing so that there is a framework in place to ensure accountability for these processes.

## Carbon emissions data collection and processing stages

The stages for collecting and processing carbon emissions data can be summarised as follows.

**Diagram 3: Carbon emissions data collection and processing stages**



Source: KPMG in Australia, July 2009

Some suggested responsibilities for CFOs in each of these stages are set out below.

### Set boundary

The CFO should ensure the definitions of the boundary for collecting Australian carbon emissions data are consistent with those definitions used for financial data unless sound reasons for a difference exist.

The NGER Act applies two levels to define the boundary:

- the corporate group – using the *Corporations Act* definition of subsidiaries
- operational control for facilities. Operational control means authority to introduce and implement operational, health and safety, and environmental policies over the facility.

Aspects to consider in relation to determining the boundary include: joint ventures, contractual arrangements, outsourced activities, associated companies and franchises. Contractor arrangements are proving a particularly difficult area of interpretation of the meaning of operational control and so the relationship with other financial aspects such as the terms of trade and ownership of goods is an area of focus for the CFO.

### **Identify sources**

The CFO should check that the different emission Scopes set out in Table 1 have been considered by those responsible for data collection. The likely sources for Scope 1 carbon emissions are:

- stationary combustion – engines, boilers furnaces etc
- mobile combustion – cars, trucks, planes, ships etc
- process carbon emissions – from physical or chemical processes
- fugitive carbon emissions – from waste, coal piles, gas pipelines etc.

Likely areas of interest for the CFO in this stage include:

- the option for large fuel users to take on permit obligations of upstream fuel suppliers using the OTN mechanism
- the treatment of fuel for internal transport arrangements between facilities within the corporate boundary.

### **Collect data**

Carbon emissions data can be obtained by:

- direct observation (rarely used)
- estimation by reference to readily observable variables that are closely related to carbon emissions such as the quantity of fossil fuels consumed. Technical guidelines provide methods that allow for both direct emissions monitoring and the estimation of emissions through the tracking of observable, closely related variables. Carbon emissions may be estimated by reference to reportable data such as fossil fuel consumption, evidenced by invoices, and the use of specified emissions factors provided in these technical guidelines
- sampling and analysis of a fuel consumed for its carbon content and other qualities that will affect actual emissions generated by its combustion at a facility
- direct monitoring through reliable metering devices.

The CFO should consider expanding existing questionnaires used for balance date financial reporting to emissions data collection and processing so that there is a framework in place to ensure accountability for these processes and to provide a defensible position in order to respond to the event of questioning from the Regulator.

### **Apply emissions factors**

This process is briefly described in Chapter 1 and requires levels of technical knowledge beyond the skills of many CFOs. Accordingly, the role of the CFO should be to:

- seek assurance from the preparer of the information that the emissions factors are consistently applied in accordance with the NGER Regulations
- seek details of any areas of uncertainty or significant judgement applied in this process.

### **Consolidate/aggregate**

The consolidation of facility carbon emissions data to the corporate level should be overviewed by the CFO to confirm accuracy and completeness and to avoid double counting.

### Data accuracy

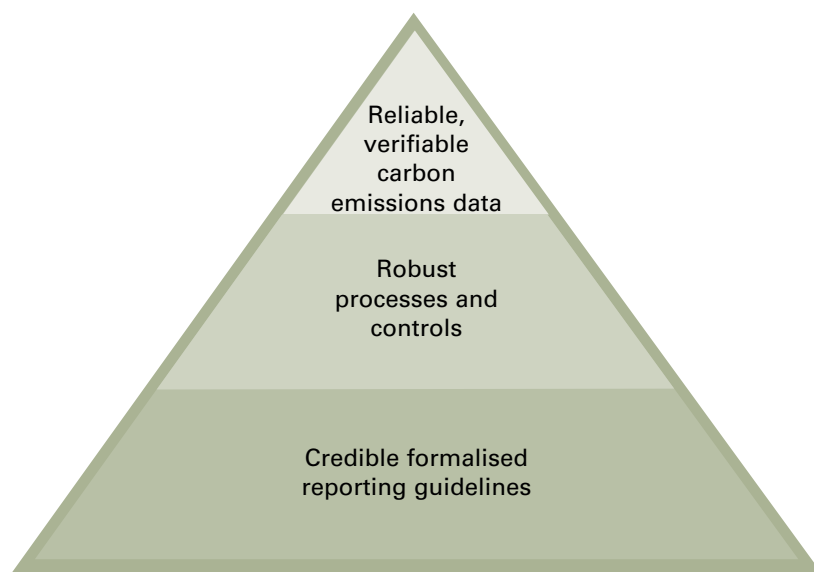
Data collection processes need to be robust enough to support reliable carbon emissions reporting. Common problems may include:

- Completeness:
  - boundary issues for complex contracting arrangements and joint ventures
  - omission of sources, especially multiple small sources
  - consideration of all emission sources.
- Data accuracy:
  - complexity in deriving site-specific data
  - lack of a formalised calibration and maintenance regime for key meters
  - input, spreadsheet/database and calculation errors
  - human errors when inputting data
  - errors that occur when transferring data from one system to another
  - methods to minimise data integrity issues including regular system 'back-ups'
  - erroneous conversion factors, calculations, units of measurement.
- Review controls (e.g. analytical reviews, second party reviews):
  - lack of formalised internal reviews and evidence
  - retention of supporting information and documentation.

Accordingly, CFOs should ensure carbon emissions data systems are underpinned by formalised processes that are well documented and communicated to those responsible for applying them, and that adequate training and resources are provided to enable these new tasks to be carried out 'in good faith'.

Diagram 4 illustrates the building blocks of a carbon emissions data collection system that provides reliable information.

**Diagram 4: Emissions data building blocks**



Source: KPMG in Australia, July 2009



## Information and management systems

An integral element of successful data collection is the integrity, robustness and adaptability of the information systems being used. Most organisations' existing systems have limited capabilities to collect carbon emissions and energy information, and this may pose a significant risk for a company. As spreadsheets, renowned for lacking controls and overview, are commonly used to record such data, the CFO should consider whether this and the related risk exposure is acceptable.

Some of the key considerations regarding new and existing carbon emissions data systems include:

- the ability to capture, calculate and report carbon emissions accurately from a number of energy sources, sites and activities
- the system's ability to collect and process information necessary to meet legislative reporting requirements
- the availability of an appropriate IT system
- the capabilities of the system for migrating data
- the adequacy of the training of the people to use the systems correctly.

Many IT organisations are developing commercial software solutions for carbon emissions data collection and management. This is likely to be a significant growth area resulting in many opportunities for organisations to select an appropriate information system.

In summary, a key question for CFOs is: Would you purchase carbon emissions permits based on the reliability, robustness and quality of data collected by your current carbon emissions reporting system?

## Internal audit

An important activity for CFOs to enhance the quality of carbon emissions data is internal audit. Internal audit can assess the design and operation of emissions data collection and processing systems and report findings to management and the audit committee. Where necessary, the internal audit team may need to be supplemented with a carbon emissions specialist who is not involved with the underlying systems.

## 4 Managing the financial impacts



### Financial impacts

The introduction of a cost of carbon emissions is best managed by considering the financial impact on individual companies through:

- the profit & loss (P&L)
- the balance sheet
- the cash flow
- related processes.

These impacts are discussed below.

### P&L impacts

The introduction of a cost of carbon emissions is likely to impact individual entity P&L statements as detailed in Table 4.

**Table 4: Likely P&L impacts of the cost of carbon emissions**

| Entity type             | Likely P&L impact   |
|-------------------------|---|
| Liabile                 | <ul style="list-style-type: none"> <li>• The recognition of a liability (obligation to surrender permits) will lead to an expense (debit) to the P&amp;L</li> <li>• The cost of permits will increase the cost of production and lead to increased costs of goods sold and inventory</li> </ul>   |
| Liabile and Not Liabile | <p>The costs flowing through the supply chain could increase:</p> <ul style="list-style-type: none"> <li>• the cost of production/operations and lead to increased costs of sales and inventory</li> <li>• fixed overhead (e.g. where electricity is not treated as a variable cost)</li> <li>• variable overheads (e.g. transport costs)</li> <li>• capital expenditure costs</li> <li>• impairment charges may be necessary if future cash flows are significantly negatively impacted</li> </ul> |

Source: KPMG in Australia, July 2009

In a competitive market place it is the carbon emissions metrics of a company relative to its competition and alternatives that determines winners and losers from the CPRS. Liable Entities will seek to recover the costs of acquisition of permits through the supply chain and their customers will attempt to do the same and so on down the supply chain. How a company responds can significantly impact its competitive position.

There are three possible responses to the introduction of a price on carbon emissions that an entity may contemplate in isolation or combination:

- 1 Minimising cost impacts through a permit trading strategy (Liable Entities) and/or negotiation with suppliers (Liable and Not Liable Entities).
- 2 Reducing carbon emissions after considering the relativity of the marginal abatement cost versus the increased direct or indirect carbon emission costs.
- 3 Cost pass through to customers depending on carbon elasticity and price elasticity.

These P&L management actions are considered below.

### **Permit trading**

For Liable and Participating Entities permit trading is a means of managing the costs of the acquisition of permits. As there are virtually no offsets (carbon credits) under the proposed design of the CPRS, trading will be almost exclusively in permits.

Permits will be auctioned on a monthly basis from 2010-11 as the primary market. The secondary market will therefore consist of:

- Liable Entities buying/selling permits for which they under/over purchased at auctions
- Forestry entities who have opted to be Liable Entities and who wish to realise the value of permits that have been provided to them by the Regulator
- Participating companies (or individuals), such as financial institutions, buying and selling into their portfolios and providing forward sale arrangements to their customers.

In addition, approved offshore credits such as Certified Emission Reductions (CERs) from the Clean Development Mechanism (CDM) of the Kyoto Protocol are able to be used to meet permit obligations.

The annual reporting of Scope 1 carbon emissions subject to permit obligations under the CPRS is due by 31 October each year. Assessment notices will then be issued and permits must be surrendered by 15 December. The intervening 6-week period provides an opportunity for an entity to participate in two auctions, the secondary market or the international market.

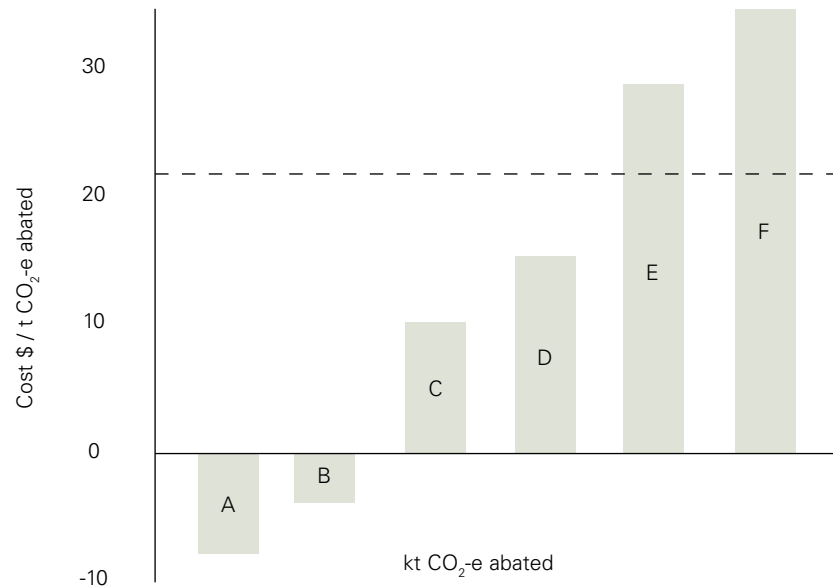
CFOs of Liable Entities and Participating companies should therefore consider the following:

- Governance – are appropriate delegations of authority in place for the approval of the purchase of permits which could be significant transactions?
- Trading strategy – is the trading strategy in place approved in accordance with delegations of authority and consistent with the accounting treatment adopted?
- Controls – are appropriate controls in place, particularly around segregation of duties (back office and front office), authorisations and reconciliations?
- Monitoring – is the trading strategy being implemented to ensure permits surrendered equal reported Scope 1 carbon emissions by 15 December?

### Marginal abatement cost

CFOs of both Liable and Not Liable Entities have a major role to play in providing information for commercial decision-making about investment in abatement activities. The need to make these decisions has led to the development of the concept of the marginal abatement cost curve (MACC) as illustrated in Diagram 4.

**Diagram 4: Marginal abatement cost curve**



Source: KPMG in Australia, July 2009

Diagram 4 illustrates an example of possible projects to reduce CO<sub>2</sub>-e depicted as costs per tonne of CO<sub>2</sub>-e abated. If \$20 is the price per tonne for permits (Liable Entities) or represents the incremental costs flowing through the supply chain (Liable and Not Liable Entities) then projects A to D are cost effective and projects E and F are not. Projects A and B are represented as negative costs as these represent projects that produce other cost saving benefits.

Determining the MACC for a business is the end result of significant work and financial modelling that should involve the CFO. This requires compiling and summarising large amounts of financial data into a meaningful form, allowing comparisons of abatement and permit acquisition strategies to be made.

### Supply chain cost pass through

Liable Entities will seek to recover the cost of the acquisition of permits from their customers who, in turn, will attempt to recover those costs from their customers and so on down the supply chain. The major costs incurred are likely to be in relation to electricity, fuel and manufactured goods. Negotiations between suppliers and customers will be impacted by the relative bargaining power, price and carbon elasticity. Some sectors may find a cost squeeze where there are no alternative electricity and fuel suppliers and a concentration of customers.

Issues for CFOs to consider in relation to supply chain cost pass through include:

- The extent to which the CFO should oversee the supplier and customer negotiation process as the results may have significant financial impacts
- The objective in relation to margins – for example, an approach that only passes through the cost to customers would maintain gross margin as an absolute amount but result in an erosion of gross margin as a percentage of sales
- The impact on overhead levels and allocations and whether there is a need to allocate more material overheads such as electricity and fuel to the user departments to encourage efficient use
- The impact of long-term supply and sales contracts where pricing may be locked in or where there is a mis-match between the timing of review of these contracts and the introduction of the CPRS. This may apply to regulated companies who have to seek regulatory approval for price increases to recover cost increases.



## Balance sheet impacts

The introduction of a cost of carbon emissions is likely to impact individual entity balance sheets as shown in Table 5.

**Table 5: Likely balance sheet impacts of the cost of carbon emissions**

| Entity type              | Likely balance sheet impact  |
|--------------------------|--|
| Liable                   | <ul style="list-style-type: none"> <li>• Recognising a new permit asset</li> <li>• Recognising a new carbon emissions liability</li> </ul>   |
| Liable and Not<br>Liable | <ul style="list-style-type: none"> <li>• The costs flowing through the supply chain could increase the cost of inventory</li> <li>• Impairment in asset values may occur if future cash flows are significantly negatively impacted</li> </ul> |

Source: KPMG in Australia, July 2009

There are three key determinants of these balance sheet impacts:

- 1 permit asset valuation and carbon emissions liability recognition and valuation
- 2 the nature of the impairment tests
- 3 the use of derivatives.

These balance sheet management actions are considered below.

### Permit asset valuation and carbon emissions liability recognition and valuation

Currently there is no specific accounting standard which deals with the accounting for CPRS assets and liabilities for Liable Entities. At this stage, the International Accounting Standards Board (IASB) expects to issue an Exposure Draft in late 2009 and intends to issue a standard during 2010. The Australian Accounting Standards Board (AASB) is closely monitoring the IASB developments. The CPRS White Paper supports adopting the IASB standard rather than the AASB issuing a standard independently.

In summary, the permissible treatment of permit assets and carbon emission liabilities for Liable Entities is shown in Table 6.

**Table 6: Permissible accounting treatment for permit assets and carbon emission liabilities**

| Asset/liability           | Purchased permits                          | Allocated free permits                        | Permit shortfall  |
|---------------------------|--|---|---|
| Permit asset              | Purchase price                             | Nil value or fair value                       | N/A   |
| Carbon emission liability | Carrying value of permits (purchase price) | Carrying value of permits (nil or fair value) | Trading price of permits at balance date (market value) |
| P&L impact                | Expense = purchase price                   | Expense = nil or fair value                   | Expense = market price                                  |

Source: KPMG in Australia, July 2009

For Participating Entities who elect to buy and sell permits they will be held for trading and therefore will be treated similar to trading stock with permits held for resale shown at the lower of cost or net realisable value.

### The nature of impairment tests

Under the requirements of AASB 136 *Impairment of Assets* (AASB 136) the introduction of the CPRS is an indicator of asset impairment for Liable Entities that are large direct emitters because the cost of buying permits is likely to be significant. For Not Liable Entities that are carbon intensive the costs flowing through the supply chain are also likely to be significant. Some of these entities will therefore need to reassess the recoverable amount of their assets to determine whether they are impaired and need to be written down.

If the recoverable amount of an entity's assets is based on a value-in-use calculation (that is, the discounted expected net cash inflows from the continuing use of the asset), the entity would need to consider whether those cash flows should be adjusted for the impact of the proposed CPRS. Key assumptions used in the impairment test must be disclosed. Depending on the type of entity, this may include an explanation of whether the proposed CPRS is included in the impairment calculation and, if so, how.

The impacts of the CPRS on impairment tests is likely to be first felt for 31 December 2009 reports irrespective of whether the CPRS legislation is in place or substantially enacted. This is because AASB 136 requires future cash flows to include management's 'best estimate of the range of economic conditions that will exist over the remaining useful life of the asset'.

### The use of derivatives

Forward contracts to acquire permits on the secondary market will either be considered financial assets or intangible assets of the entity, as follows:

- To qualify as a financial asset, the forward purchase contract must be able to be settled net in cash and it must not be held for the entity's own use. The contract would be recognised initially and subsequently at fair value with any changes in the fair value recognised in profit or loss. In other words, the entity is trading.
- It is possible other contracts may be considered intangible assets, being the right to acquire the future permits. These contracts would be recognised initially at cost, and subject to impairment testing if the price for carbon pollution permits falls below cost. Revaluation to fair value is allowed if an active market for these rights to acquire permits exists. For this to be the case there must be willing buyers and sellers at any time and prices must be available to the public. It is not expected that there would be an active market for some time after the introduction of the scheme.

### Cash flow impacts

The introduction of a cost of carbon emissions is likely to impact individual entity cash flows as described in Table 7.

**Table 7: Likely cash flow impacts of the cost of carbon emissions**

| Entity type           | Likely cash flow impact  |
|-----------------------|--|
| Liable                | <ul style="list-style-type: none"> <li>• The cash cost of permits less the cash recovered from customers</li> </ul>                        |
| Liable and Not Liable | <ul style="list-style-type: none"> <li>• The cash costs flowing through the supply chain less the cash recovered from customers</li> </ul> |

Source: KPMG in Australia, July 2009

The timing of cash flows for acquisition of permits is as follows:

- For the year to 30 June 2012 permits will be required to be purchased at \$10 each between reporting date (31 October 2012) and surrender date (15 December 2012).
- Permit auctions are held on a monthly basis with Liable Entities having a limit of 25 percent of their permit requirement from any one auction.
- Permits acquired from the secondary market or from accredited overseas projects are more likely to be able to be matched to cash flow availability.

## Process adjustments

There are a range of processes that CFOs should ensure are adjusted to incorporate the introduction of a cost of carbon emissions including:

- contracting (suppliers and customers)
- risk management
- budgeting and forecasting
- capital expenditure
- impairment calculations
- feasibility studies
- mergers and acquisitions.

## Taxation considerations

Key taxation considerations of the introduction of the CPRS include the tax treatment of CPRS related transactions, being:

- permits and related derivatives
- 'administratively allocated permits' allocated to EITEs and SAls
- penalties including 'make good' provisions and fixed price permits issued under the transitional price cap.

### CPRS related transactions

#### *Tax treatment of permits*

The draft CPRS legislation confirms the introduction of the 'rolling balance method', which uses principles broadly akin to the trading stock rules and has the effect that expenditure on permits impacts taxable income in the year the permit is surrendered/sold. This means that:

- the cost of a permit is deductible
- the proceeds from selling a permit are assessable
- differences in the value of permits held at the start of an income year and at the end of that year are reflected in taxable income, and any increase/decrease in value is assessable/deductible. Companies will make an election to value permits by historical cost or market value methods. Companies can change valuation methods once during an initial transitional period ending prior to the 2015/16 income year.

Importantly, a tax deduction will not be available for the cost of a permit where the permit is surrendered for 'non-commercial purposes'. Further clarification is required to understand the breadth of this exclusion.

These new tax rules will apply to transactions in permits with the result that other tax provisions such as the new Taxation of Financial Arrangements (TOFA) rules will not apply to actual permits, but may apply to derivatives over permits.

#### *Free permits*

The allocation of free permits (administratively allocated permits) to EITEs and SAls will give rise to assessable income for tax purposes, subject to a special 'no disadvantage rule' for EITEs.

EITEs will benefit from concessional tax treatment for administratively allocated permits. Such permits will have zero value at the end of any income year ending before 15 December following the end of the permit's vintage year. By contrast, SAls must recognise permits that are on hand at the end of the income year in which they are received, as part of their assessable income. The value of such permits will then be included in the opening balance of the entity's permits for the following year, meaning that a deduction is effectively available when these permits are surrendered.

### ***Penalties and price cap***

A penalty imposed under the CPRS, including one imposed on a Liable Entity for failing to surrender sufficient permits, will not be deductible for income tax purposes.

To the extent that the penalty includes a 'make-good' provision, whereby a liable entity must surrender additional permits to make good a previous shortfall, a tax deduction will be available in respect of the costs incurred in purchasing such additional permits.

The cost of purchasing fixed price permits issued under the transitional price cap will be deductible for tax purposes (such permits cannot be banked or traded).

### ***GST***

The draft CPRS legislation confirms that there will be changes to the GST law so that GST applies to some CPRS transactions and not others as follows:

GST applies to:

- the acquisition of permits at auction or from the secondary market (GST invoices will be issued)
- use of financial derivatives of permits (input taxed).

There is no GST on:

- the acquisition of international permits such as CERs (GST does not apply)
- the supply of free permits (no consideration)
- surrender of a permit (no consideration)
- payment of a penalty (GST does not apply).

Accordingly, there will be some compliance and financial costs of GST. CFOs should also be aware that there may be real risks of GST 'sticking' where taxpayers bear the GST without full input tax relief, for example where permits or units are acquired by entities that are not fully eligible for input tax relief. Further, the cash flow and compliance costs may impact the value and trade in permits and derivatives.

### ***Fuel excise adjustments -- Private motorists***

Fuel excise will be reduced for all fuels currently subject to the general excise rate of 38.143 cents/litre. The excise reduction on 1 July 2011 will be based on the permit price established in the first half of 2010 through auctions and market transactions.

Fuel excise rates will be assessed and adjusted every six months for three years. After 1 July 2013, a final assessment will be made and, if required, a final fuel tax cut will take effect from 1 August 2013.

### ***Fuel excise adjustments - Agriculture, fishing and heavy on-road transport businesses***

Transitional assistance to the agriculture, fishing and heavy on-road transport industries will be delivered through a new CPRS fuel credit scheme. The CPRS fuel credit will be equal to the fuel excise cuts. It will be payable to agriculture and fishing businesses for three years and heavy on-road transport for one year. These measures will be reviewed at the time that each measure is due to cease.

To maintain some relativity between LPG, LNG and CNG and petrol and diesel, a CPRS fuel credit will be provided to LPG for 3 years and to CNG and LNG (predominantly used by heavy vehicle road users) for 1 year. The credit rates will vary between fuels and will be less than the fuel tax cuts because these fuels have substantially lower carbon emissions than petrol or diesel. These measures will be reviewed at the time that each measure is due to cease.

**Broader tax issues for all entities**

Other CPRS related tax issues for CFOs to consider include:

- Deductibility of 'soft' expenditures – expenditure such as business impact studies may only be deductible over time as a capital allowance rather than as an outright deduction.
- Effective life recalculations for existing assets – where the cost of carbon emissions changes the effective life of assets from an economic point of view there may be some tax issues around the obsolescence rules.
- Treatment of grants – may be immediately assessable even if used for capital purposes.

# 5 Overseeing reporting and assurance



## Reporting and assurance linkages

As there are many channels for the reporting of carbon emissions information CFOs should aim to maximise consistency in reporting processes and also determine that appropriate assurance is obtained in the most efficient manner. The key linkages in carbon emissions reporting are outlined in Table 8.

**Table 8: Emissions reporting and assurance linkages**

| External reporting   | Impacts   | Assurance  |
|--|---|--|
| NGER (Registered)<br>(30 June year end)  | <ul style="list-style-type: none"> <li>• For Registered companies reported carbon emissions will determine permit obligations</li> <li>• Broad range of new information to report</li> <li>• 95 percent accuracy requirement</li> <li>• Fines for non-compliance</li> </ul> | <ul style="list-style-type: none"> <li>• Voluntary pre-submission</li> <li>• Regulator may request assurance based on:               <ul style="list-style-type: none"> <li>- suspicion of non-compliance, with an appropriate auditor appointed by the Company at the request of the Regulator</li> <li>- a risk-based approach with an appropriate auditor appointed by the Regulator</li> </ul> </li> </ul> |
| CPRS (Liable)<br>(30 June year end)  | <ul style="list-style-type: none"> <li>• Annual carbon emissions report drives assessment for permits to be surrendered</li> <li>• Fines for non-compliance</li> </ul>  | <ul style="list-style-type: none"> <li>• Voluntary pre-submission</li> <li>• Mandatory pre-submission audits for large emitters (&gt;125,000 tonnes per annum)</li> <li>• Regulator has power to impose post submission compliance audits up to 4 years after reporting period</li> </ul>  |
| Sustainability and Carbon Disclosure Project (CDP) Reports<br>(Financial year) | <ul style="list-style-type: none"> <li>• Not mandatory</li> <li>• Less developed framework</li> <li>• Consistency needed</li> </ul>   | <ul style="list-style-type: none"> <li>• Not mandatory but adds credibility</li> <li>• Lack of established standards and varying quality</li> </ul>  |
| Financial statements<br>(Financial year)                                       | <ul style="list-style-type: none"> <li>• For Liable Entities inclusion of permit asset and emission liability</li> <li>• Determination of 'value in use' for impairment models</li> </ul>   | <ul style="list-style-type: none"> <li>• For Liable Entities reasonable assurance would be appropriate as it impacts the financial statements</li> </ul>   |

Source: KPMG in Australia, July 2009

CFOs should consider:

- the opportunity provided by the interrelationships in the reporting outlined in Table 8, to establish a streamlined reporting process and single source of carbon emissions data
- the benefit of the appointment of a single assurance provider
- the extent to which any internal audit should precede an external audit of carbon emissions reporting
- whether an annual pre-submission external audit of NGER/CPRS reporting should be commissioned regardless of any regulatory requirement.

## Financial statements

The accounting impacts of the introduction of the CPRS in the financial statements will vary over time as follows:

**Table 9: Timeline for accounting/reporting**



Source: KPMG in Australia, July 2009

## NGER reporting and assurance

As set out in Table 2, the lodgement date for NGER reporting is 31 October for the preceding year to 30 June. For companies and/or facilities above the threshold, the reporting includes:

- Scope 1 & 2 carbon emissions
- electricity purchased
- electricity produced.

Pre-submission audits of the reported information are not mandatory but under the NGER Act, the Regulator can request either:

- Compliance audit – these will be used by the Regulator to examine the compliance of Registered companies in situations where there are reasonable grounds to suspect non-compliance. The auditor is appointed by the Company and audits may be undertaken as a precursor to the application of available enforcement measures, which include civil penalty and criminal proceedings. The Regulator has the flexibility to determine the scope of matters to be covered in the compliance audit, the level of assurance, if any, and the range of next steps that may be taken.
- Random audits – where the Regulator appoints the auditor. The Regulator has the flexibility to determine the scope of matters to be covered and the level of assurance, if any, required and the range of next steps that may be taken appropriate to the circumstances existing at the time.

Whilst pre-submission audits are not mandatory, assurance can add credibility to the reported information and can encompass the data itself and/or the systems and processes that have been established from which the data is extracted.

### **CPRS reporting and assurance**

The lodgement date for CPRS reporting is 31 October for the preceding year to 30 June covering Scope 1 carbon emissions for facilities above the threshold. This reporting forms the basis for the issue of assessments for the surrender of permits by the following 15 December. There are two types of audits required under the legislation:

- pre-submission audits – required for facilities above 125,000 tonnes per annum prior to submission of the report to the Regulator
- post-submission audits – for facilities under 125,000 tonnes per annum, the Regulator can require an audit at any time up to four years following submission of the report.

For facilities with carbon emissions under 125,000 tonnes per annum, whilst pre-submission assurance is not required, voluntary assurance can add credibility to this information that will have a direct impact on the assets and liabilities in the financial statements.

### **Sustainability reporting and assurance**

Sustainability reports are not mandatory but are increasingly common and are typically issued annually for the financial year, often at the same time as the annual report. For many organisations, sustainability reports include information about carbon emissions.

Assurance of sustainability reports is also not mandatory. The current lack of generally accepted reporting and assurance frameworks in this area leads to a range of practices being used, many of which do not match the rigour of financial statement audits and may not be suitable for the carbon emissions data included in NGER and CPRS reports.





## Types of assurance

The overriding objective of external assurance is to express an independent opinion designed to enhance the degree of confidence of the intended users in this case the Regulator, government and market participants, about the representations in and content of the underlying report.

There are various fundamental principles applied in the financial reporting assurance framework that can be adopted for carbon emissions assurance to ensure that the same robust credible framework can be achieved to support the NGER Act, CPRS and ultimately the emissions trading market. For Liable Entities the data that will be generated for the purpose of NGER/CPRS reports will also be used as the basis for calculating assets, liabilities and profit impact arising from the CPRS. It is therefore important to consider whether the assurance provided satisfies both carbon emissions reporting and financial reporting requirements to avoid any unnecessary duplication of assurance services.

The assurance regulations for NGER and CPRS are yet to be finalised (as at 31 July 2009) but it is expected there will be three levels of assurance in increasing order of scope and cost.

- Specific compliance checks – where the assurance provider checks whether the reporter has complied with specific aspects of the NGER or CPRS regulations such as: corporation or operational boundaries and application of emissions factors.
- Limited assurance – where the assurance provider issues a negative assurance opinion similar to the review on half-year financial statements stating that based on the work done, the assurance provider is not aware of any reason why the report is not fairly prepared and presented in accordance with the criteria, being the regulations. The work required to support a conclusion of this nature generally comprises enquiries and analytical reviews and is much less extensive than an audit/reasonable assurance.
- Reasonable assurance (or audit) – where the assurance provider issues a positive assurance opinion similar to the audit report on full year financial statements stating that the assurance provider believes the report has been prepared and presented in accordance with the requirements of the criteria, being the regulations. The amount of work to achieve this level of assurance is significantly greater than for limited assurance and includes tests of underlying systems and source data.

CFOs should be aware that some sustainability reports have attached reports styled as assurance or verification reports that may not meet the requirements for the above. These reports involve the evaluation of reporting against sustainability principles and do not include an evaluation of the reliability of reported data.

## Selecting an assurance provider

Assurance providers of carbon emissions range from specialised engineering firms to specialised audit firms. In practice a combination of assurance and carbon emissions technical skills are needed to effectively provide assurance on carbon emissions reports. In selecting a carbon emissions assurance provider CFOs should consider:

- level of understanding of the entity's operations
- the skills and experience of the assurance team in both assurance and carbon emissions technical areas
- independence
- capacity to deal with all aspects of emission reporting frameworks
- experience with carbon emissions assurance
- experience with the type of carbon emissions subject to assurance
- reliance on NGER/CPRS assurance or audits of financial statement and other reports.

### Preparing for assurance

CFOs experienced in preparing for financial statement audits should adopt the same concepts and discipline when preparing for carbon emissions assurance. Pre-planning will improve the process. Some suggested preparations include:

- background details on the entity, its business and its facilities
- documentation of the key decisions such as organisational and operational boundaries and risks
- methodology in identifying carbon emission sources
- documentation of processes and the selection of emissions factors
- detailed calculations
- sign-offs by those responsible for preparation and approval.

Agreement should be reached with the assurance provider at an early stage on:

- the extent of assurance work
- the type of assurance opinion
- addressee of the report
- distribution of the report
- logistics including site visits
- expectations around recommendations provided to management arising from the audit
- process for resolving issues.

### Other non-financial reporting

Non-financial reporting frameworks, guidelines and stakeholder expectations continue to evolve in response to increasing demands for information about non-financial performance measures. This evolution is also partially driven by the potential materiality of climate change and carbon emission-related issues and the wider economic and social implications. The challenge for CFOs is to:

- understand associated regulatory, market and stakeholder trends
- ensure the reliability of prepared reports (and underlying data)
- encourage consistency in their use and interpretation across multiple reports and amongst key stakeholder groups.

CFOs are well versed in providing leadership in relation to the provision of accurate, relevant and timely financial information – through board and management reporting processes, and to the market through a well-established financial reporting framework. The challenge for CFOs is to leverage this experience into non-financial reporting to achieve efficient and effective reporting across a spectrum of potential non-financial indicators, including but extending beyond carbon emissions and climate change.

Specifically, in order to respond to this challenge it is anticipated that CFOs will need to:

- understand the potential impact of trends in non-financial reporting on their company – for example in relation to shareholder expectations, required strengthening of internal board and management reporting.
- identify specific aspects of non-financial reporting that need to be strengthened.
- ensure credibility and reliability of prepared reports and underlying data/information sources.
- encourage consistency amongst stakeholders in relation to their interpretation of contextual and performance information contained within non-financial reporting.

In 2008, the Group of 100 and KPMG jointly published a revised *Guide to Sustainability Reporting*; this document addresses the many challenges of non-financial reporting. Climate change and carbon emissions reporting will need to be integrated into sustainability reports.

It is important to recognise that a number of non-financial reporting frameworks exist that must also be revisited to ensure that the consideration of climate change and carbon emissions data has been reported consistently.

Table 10 provides an insight into some of these non-financial reporting frameworks.

**Table 10: Established non-financial reporting frameworks**

| Internal drivers  | External drivers   |
|---|--|
| <ul style="list-style-type: none"> <li>• Public discretionary reports:               <ul style="list-style-type: none"> <li>- sustainability reports</li> <li>- community reports</li> <li>- staff reports</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Regulatory compliance:               <ul style="list-style-type: none"> <li>- NGER</li> <li>- CPRS</li> <li>- Specific programs – such as Energy Efficiency Opportunities, National Pollutant Inventory</li> </ul> </li> <li>• Voluntary carbon emissions programs:               <ul style="list-style-type: none"> <li>- Carbon Disclosure Project (CDP)</li> <li>- Greenhouse Challenge</li> </ul> </li> <li>• Annual Report disclosures:               <ul style="list-style-type: none"> <li>- ASX Principle 7 Risk Management disclosures around sustainability risk</li> </ul> </li> <li>• Supply chain disclosure requests from suppliers or customers</li> </ul> |

Source: KPMG in Australia, July 2009



## 6 Latest developments



### **Status of CPRS legislation**

At the time of writing, two Senate enquiries into the design and timing of the CPRS are underway and there is continued debate about elements of the CPRS design and timing for implementation. The CPRS Legislation was introduced to parliament 14 May 2009, and consideration deferred. This guide is prepared on the basis of the information available at 31 July 2009.

### **Lessons from EITE submissions**

In the period to 1 May 2009, and in some cases beyond that date, many Liable Entities and some Not Liable Entities who believe they have activities that may qualify for free permits under the EITE assistance program have been preparing submissions for the Department of Climate Change. These submissions required the compilation of carbon emissions and associated financial data with sign-off required from the CEO, responsible manager and assurance provider.

The preparation of this data ready for assurance has been a challenge for some entities and the need for strengthening carbon emissions data systems has been recognised by some CFOs.

### **Key message – get ready**

The introduction of a cost of carbon emissions is inevitable, even if the current CPRS Legislation is delayed or modified. The key message of this guide is that the role of the CFO in this new area is significant and as the preparation effort is substantial, priority should be given to getting ready.

# Key terms

|                         |  |
|-------------------------|--|
| <b>AASB</b>             | <b>Australian Accounting Standards Board</b>           |
| <b>ACCRA</b>            | <b>Australian Climate Change Regulatory Authority</b>  |
| <b>ASX</b>              | <b>Australian Securities Exchange</b>                  |
| <b>CDM</b>              | <b>Clean Development Mechanism</b>                     |
| <b>CDP</b>              | <b>Carbon Disclosure Project</b>                       |
| <b>CEO</b>              | <b>Chief Executive Officer</b>                         |
| <b>CERs</b>             | <b>Certified Emission Reductions</b>                   |
| <b>CFO</b>              | <b>Chief Financial Officer</b>                         |
| <b>CNG</b>              | <b>Compressed Natural Gas</b>                          |
| <b>CO<sub>2</sub>-e</b> | <b>Carbon dioxide equivalent</b>                       |
| <b>CPRS</b>             | <b>Carbon Pollution Reduction Scheme</b>               |
| <b>EEO</b>              | <b>Energy Efficiency Opportunity</b>                   |
| <b>EITE</b>             | <b>Emissions-Intensive Trade-Exposed</b>               |
| <b>ETS</b>              | <b>Emissions Trading Scheme</b>                        |
| <b>GHG</b>              | <b>Greenhouse gas</b>                                  |
| <b>GST</b>              | <b>Goods and Services Tax</b>                          |
| <b>IASB</b>             | <b>International Accounting Standards Board</b>        |
| <b>LNG</b>              | <b>Liquefied Natural Gas</b>                           |
| <b>LPG</b>              | <b>Liquefied Petroleum Gas</b>                         |
| <b>NGER</b>             | <b>National Greenhouse and Energy Reporting</b>        |
| <b>NGERS</b>            | <b>National Greenhouse and Energy Reporting System</b> |
| <b>NPI</b>              | <b>National Pollutant Inventory</b>                    |
| <b>OTN</b>              | <b>Obligation Transfer Number</b>                      |
| <b>SAI</b>              | <b>Strongly Affected Industry</b>                      |
| <b>TOFA</b>             | <b>Taxation of Financial Arrangements</b>              |

## Further information

| Useful references   |  |                      |
|---|--|----------------------|
| <b>The Greenhouse Gas Protocol Initiative</b>             | The Greenhouse Gas Protocol (GHG Protocol) is the most widely used international accounting tool for government and business leaders to understand, quantify, and manage greenhouse gas emissions. The GHG Protocol, is a decade-long partnership between the World Resources Institute and the World Business Council for Sustainable Development.  | ghgprotocol.org      |
| <b>World Resources Institute</b>                          | The World Resources Institute (WRI) is an environmental think tank that provides, and helps other institutions provide, objective information and practical proposals for policy and institutional change that will foster environmentally sound, socially equitable development.  | www.wri.org          |
| <b>World Business Council for Sustainable Development</b> | The World Business Council for Sustainable Development (WBCSD) is a global association of some 200 companies. The council provides a platform for companies to explore sustainable development, share knowledge, experiences and best practices. The council has been developing innovative ways for business to address global warming within a sustainable development framework since 1999. | wbcSD.org            |
| <b>KPMG</b>   | KPMG is one of the world's leading professional services firms and provides both advisory and assurance services relating to climate change and carbon emissions. The firm publishes a range of reports and surveys to assist companies better understand and respond to developments in regulatory reactions to climate change.   | kpmg.com.au          |
| <b>IETA - International Emissions Trading Association</b> | IETA promotes an integrated view of the ETS as a solution to climate change, participates in the design and implementation of national and international rules and guidelines and provides an up-to-date and credible source of information on emissions trading and greenhouse gas market activity.   | ieta.org             |
| <b>Department of Climate Change</b>                       | The Department of Climate Change was established 3 December 2007 as part of the Prime Minister and Cabinet Portfolio. The website brings together a large range of information including details of the CPRS and NGER programs and carbon emissions determination methodologies.   | climatechange.gov.au |
| <b>Garnaut Climate Change Review</b>                      | The Garnaut Climate Change Review was an independent study conducted by economist Professor Ross Garnaut, commissioned by Australia's Commonwealth, state and territory governments in 2007. Although the review is now complete, this website is an ongoing resource for reports, papers and transcripts from public addresses.   | garnautreview.org.au |
| <b>Carbon Disclosure Project</b>                          | The Carbon Disclosure Project is an international investor led initiative promoting the disclosure of corporate information relating to climate change related risks and opportunities.  | cdproject.org        |
| <b>Various industry bodies and associations</b>           | Many industry bodies and associations have developed frameworks and guidance material to assist companies better understand, respond to and disclose their carbon emissions. It is suggested that companies contact relevant industry bodies and associations for further information.   |                      |

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## **Group of 100**

The Group of 100 is an organisation of chief financial officers from Australia's largest business enterprises whose primary purpose is to advance Australia's financial competitiveness.

## **KPMG**

KPMG is one of the world's leading professional services firms and provides advisory, tax and assurance services relating to climate change and carbon emissions. Our approach focuses on helping organisations create value and competitive advantage in a low carbon economy.

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August 2009. QLDN04038AUD.