



*cutting through complexity*



# Managing the commercial implications of a price on carbon

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# Contents

Foreword .....	1
At a glance .....	2
The policy context and regulatory structure .....	4
Pricing and reporting of carbon emissions .....	6
Understanding the consequences for your organisation .....	13
Collecting and processing carbon emissions data .....	17
Managing the financial and commercial impacts .....	22
Overseeing reporting and assurance .....	30
Key terms .....	35
Related publications .....	36
Key contacts .....	37

## **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.

# Foreword

With the passage of the Clean Energy legislative package by the Australian Parliament, a price on carbon emissions is now a reality for the Australian economy.

The impact of the legislation along with the complementary measures and assistance packages for business and households included in the government's plan for a clean energy future will be cumulative. Over time these initiatives will have a transformative effect on the Australian economy.

Organisations of all types and sizes and across all industry sectors will need to act decisively to manage the broad commercial implications of a price on carbon, and to access the assistance packages available under the government's plan.

KPMG and the Group of 100 are pleased to publish *Managing the commercial implications of a price on carbon*. It is designed to provide Chief Financial Officers (CFOs) and other business leaders charged with leading their organisations through the transition to a low carbon economy, with a practical guide on the key issues, challenges and opportunities that will be presented.

We trust that readers find this guide to be a useful and practical reference.



**Terry Bowen**  
President  
Group of 100



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# At a glance

On 8 November 2011, the Australian Parliament passed the *Clean Energy Act 2011* and associated legislation.

Business leaders, such as CFOs and others charged with leading their organisation successfully through the transition to a low emissions economy, need to fully understand and consider the commercial implications, opportunities and risks, and the reporting and compliance obligations inherent in the implementation of the legislation.

Key areas of focus for business leaders are as follows.

## The policy context and regulatory structure

Business leaders need an appreciation of the policy context, regulatory structure and design of the key elements of the Clean Energy legislation. This will enable an assessment of the macro-economic and transformative effect, that the legislation will have on the Australian economy. This understanding is a useful starting point when considering the short, medium and long-term commercial implications of the legislation for organisations.

The Clean Energy legislation seeks to reduce Australia's greenhouse gas emissions by at least 5 percent by 2020 and 80 percent by 2050 compared with emissions in 2000, while transitioning Australia to a low emissions, clean energy economy.

The legislation includes initiatives in a range of areas, including carbon pricing, support for the development of renewable energy, energy efficiency and enhancements in land management. The legislation is expected to be broadly revenue neutral to the government.

Central to the legislation is the introduction of a carbon pricing mechanism. The carbon pricing mechanism will take the form of an emissions trading scheme with a fixed emissions price for the first 3 years from 1 July 2012, moving to a flexible, market-based price thereafter.

## Pricing and reporting of carbon emissions

Each business needs to define its position under the legislation.

Generally, entities responsible for facilities which emit in excess of 25,000 tonnes of carbon dioxide equivalents (CO<sub>2</sub>-e) per annum of so-called Scope 1 emissions will be required to acquire permits for their emissions.

Main sectors covered are stationary energy, industrial processes, gas and non-transport fuel, fugitive emissions and non-legacy waste e.g. landfill or waste treatment.

The obligation to purchase permits applies to the entity with operational control of a facility. However, the obligation can be transferred to another entity through an obligation transfer certificate. It is important to note that this is different to the reporting obligation under the *National Greenhouse and Energy Reporting Act*, (NGER Act) which falls on the controlling corporation.

Irrespective of where the liability to purchase permits lies, all organisations will need to consider the emissions embedded within their supply chain as well as the extent of their electricity usage, in order to manage changes to their cost base arising from the carbon price.

## Understanding the consequences for your organisation

The first step for any entity is to understand its status under the relevant legislation and which of the three categories, Liable Entity, Non-Liable Entity and Participating Entity, it falls into. Whilst there are likely to be only approximately 500 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 Entities.

A key action for all entities is to consider the risks and opportunities that the new legislation creates. These risks and opportunities will vary depending on the category the entity falls under but all entities will need to consider issues such as the implications of the price of carbon on asset impairment testing and disclosure.

To support organisations to make the transition to a low emissions economy, a range of assistance measures are available including grants, loans, tax deductions and other incentives. There is a real opportunity for organisations of all sizes to access these incentives to support their successful transition. Business leaders need to make sure their organisations are familiar with the funding available, the criteria for eligibility and the action required to secure financial assistance.

### **Collecting and processing carbon emissions data**

In many organisations, governance and accountability for carbon emissions data collection and reporting may not yet be well defined or subject to effective controls.

A price on carbon emissions has now been imposed, and legislative reporting requirements under the NGER Act are in place. Therefore reliable and verifiable carbon emissions data is essential to ensure compliance and also to enable precision in assessing and managing the impact of a price of carbon on the business.

High quality, robust data is particularly critical for organisations required to buy carbon emissions permits. The same rigor that applies to financial reporting needs to apply to emissions data including clear formalised reporting guidelines, effective use of systems and processes, and controls for capturing, calculating, collating and reporting emissions.

### **Managing the financial and commercial impacts**

In a competitive market the carbon metrics of a company relative to its competition will determine the winners or losers from the introduction of a carbon price. Organisations required to purchase permits will seek to recover the costs through the supply chain and their customers will attempt to do the same. As a result there are broad financial and commercial implications for many organisations. How a company responds can significantly influence its competitive position.

The financial and commercial implications will vary but will include issues such as:

- considering the impact of a carbon price on decisions related to mergers and acquisitions
- the viability of investments to reduce carbon exposure
- options for carbon offsets such as the creation of carbon credits under the Carbon Farming Initiative
- customer negotiations, costing and pricing strategies for products and services.

In addition, attention should be given to managing financial impacts such as:

- a changing cost base
- acting on opportunities to pass through costs
- the profit and loss impacts associated with the purchase of permits
- the risk of financial penalties for any shortfall in permits surrendered
- the impact of a cost of carbon on asset impairment testing
- identifying and responding to tax implications
- developing emissions trading strategies.

### **Overseeing reporting and assurance**

It is likely that in many organisations it will be the CFO who has overriding responsibility for emissions reporting and assurance. As there are likely to be many channels for the collection and reporting of emissions data, it will be important to ensure the consistency of collection and reporting processes, the streamlining of these processes and the creation of a single source of emissions data.

Some Liable Entities will be required to obtain independent external assurance of their reported emissions data, while others may voluntarily obtain assurance.

A key consideration is obtaining the appropriate assurance in the most efficient manner.

This guide discusses each of these six key areas in detail, and seeks to provide a useful reference to business leaders as they lead their organisations through the transition to a low emissions economy.

# 1 The policy context and regulatory structure

## Policy context

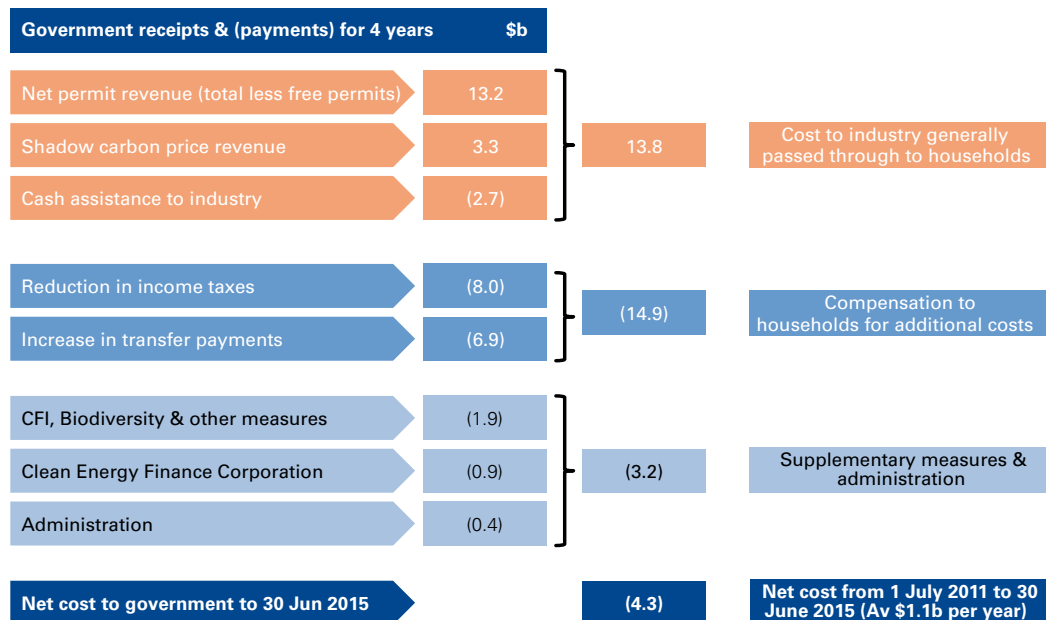
On 8 November 2011 the Australian Parliament passed the *Clean Energy Act 2011* and associated legislation. The legislative package (embracing 18 separate pieces of legislation) is a cornerstone of the government’s plan for reducing Australia’s greenhouse gas emissions. The government’s Clean Energy Future is a comprehensive plan for transitioning Australia to a low emissions economy through initiatives in four key areas: carbon pricing, renewable energy, energy efficiency and land management. Central to the plan is the introduction of a carbon pricing mechanism along with a significant package of complementary measures and assistance for organisations and households. The package aims to minimise the immediate financial impacts of a carbon price. Over time the government expects it to have a transformative effect on the Australian economy.

The Clean Energy Future policy seeks to meet the following targets:

- reducing greenhouse gas emissions by at least five percent compared with 2000 levels by 2020
- reducing greenhouse gas emissions by 80 percent of 2000 levels by 2050
- generating 20 percent of Australia’s electricity from renewable sources by 2020.

The Clean Energy Future policy is expected to be broadly revenue neutral to the government. That is, the government will use the revenue received from the sale of units to provide assistance to households and organisations.

Diagram 1: Summary of fiscal impact from Clean Energy Act to 30 June 2015



Source: KPMG summary derived from exposure draft on the Clean Energy Bill 2011

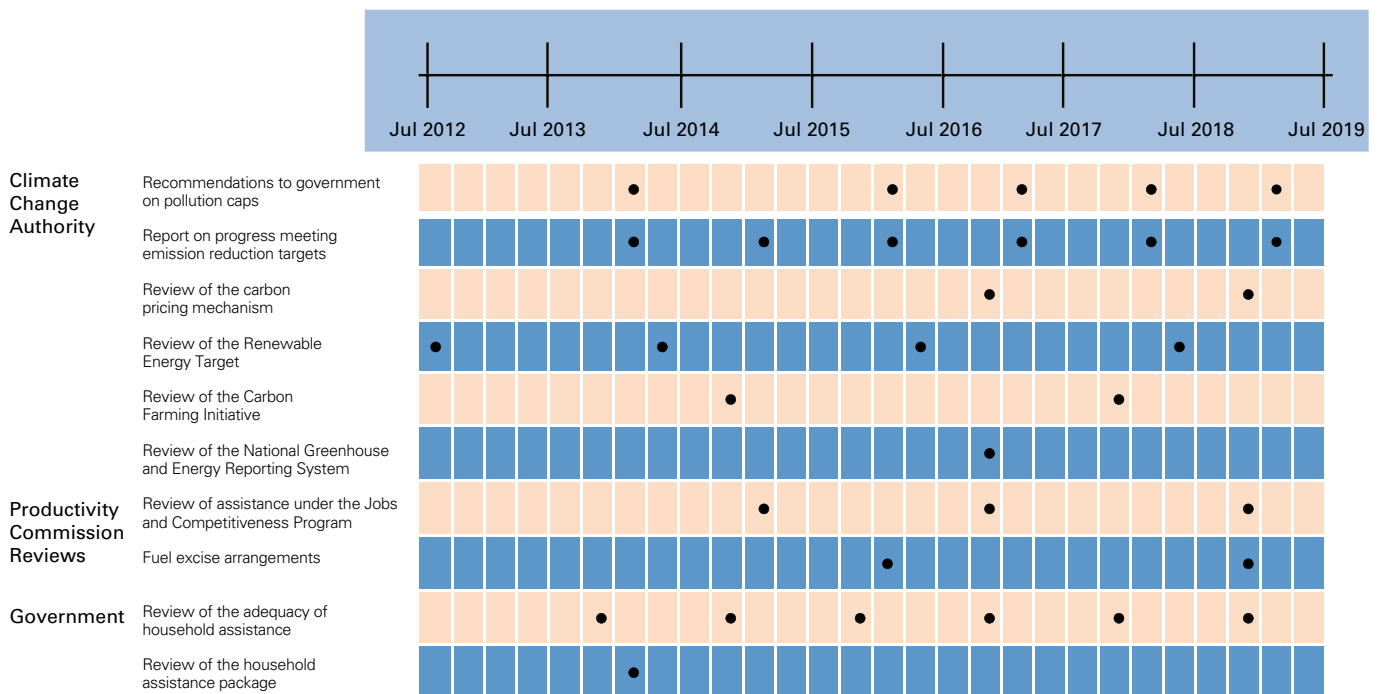
## Governance

The legislation has created a governance framework that assigns responsibility for different aspects of the legislation to a newly established Clean Energy Regulator and a new Climate Change Authority (CCA), as well as the Productivity Commission who each have the following functions:

- 1 The Clean Energy Regulator will administer all elements of the carbon pricing mechanism, including the issuing and surrendering of emission permits, the Carbon Farming Initiative, the Renewable Energy Target and the National Greenhouse and Energy Reporting System.
- 2 The Climate Change Authority will be established as an independent advisory body to provide oversight and recommendations to government on the level of pollution caps, operation of the carbon pricing mechanism, other climate change mitigation initiatives and progress towards achieving the national pollution targets.
- 3 The Productivity Commission will undertake reviews in relation to international policy developments and the impacts on the Australian economy, including competitiveness, and the levels and types of assistance provided by the government.

Regular reviews will also support the ongoing development and continued relevance of the plan.

Diagram 2: Timetable of reviews



Source: KPMG in Australia, November 2011

## 2 Pricing and reporting of carbon emissions

### Key points

- Legislation to put a price on carbon emissions make this issue highly relevant to business leaders.
- Carbon emissions relevant to an organisation can be direct (e.g. through burning fuel), indirect (e.g. through using electricity) or embodied (e.g. emissions embodied within products). These are referred to as Scope 1, Scope 2 and Scope 3 emissions respectively. Regardless of where the liability for paying the price of carbon lies, the majority of the cost is expected to be passed on, making it important to understand both an entity's own liability and the exposure it has to carbon in its supply chain.
- A carbon pricing mechanism will come into effect from 1 July 2012. It will commence with a 3-year fixed price period. The fixed price will start at \$23 per tonne of carbon dioxide equivalent (CO<sub>2</sub>-e), rising at 2.5 percent per annum in real terms over the 3-year period. This fixed price charge will be payable to the government regulator.
- At the end of the fixed price period, pricing will convert to a flexible, market-based mechanism. The primary market for permits will be at auction from the government. Permits will be surrendered to the government regulator.
- Main sectors covered are stationary energy, industrial processes, gas and non-transport fuel, fugitive emissions and emissions from waste.
- The obligation to purchase permits applies to the entity with operational control at a facility level, although it can be transferred to another entity through an obligation transfer certificate.
- The existing NGER Act continues to place reporting obligations on organisations emitting carbon and/or energy production and energy consumption over certain thresholds, even if they are not directly liable under the Clean Energy legislation.
- Entities generating carbon offsets under the Carbon Farming Initiative can also participate in the carbon pricing mechanism.
- A voluntary carbon offset market (the National Carbon Offset Standard (NCOS) Carbon Neutral Program), will continue to operate alongside the carbon pricing mechanism.

### Introduction of pricing and reporting of carbon emissions

Carbon emissions relevant to an organisation can be direct (e.g. through burning fuel), indirect (e.g. through using electricity) or embodied (e.g. emissions embodied within products). These are referred to as Scope 1, Scope 2 and Scope 3 emissions respectively. Irrespective of where the point of carbon liability lies, subsequent cost pass-through will result in a financial impact to the majority of organisations in Australia. In addition to the carbon pricing mechanism, the NGER Act introduced carbon emissions and energy reporting requirements for many companies. Both applying a cost to carbon emissions and imposing a reporting requirement will bring carbon emissions into the typical responsibilities of the CFO and the finance team in many organisations.

The activities of CFOs in relation to carbon pricing and the NGER Act will vary across companies. It is expected that CFOs will have responsibility for the financial impacts of the legislation. This would include ensuring that there are sufficiently robust data collection processes for carbon emissions across any internal and external emissions reporting.

Some of the questions CFOs need to ask themselves include:

- Are you prepared to purchase carbon emissions permits, at \$23 a tonne and above, based on the reliability, robustness and quality of data collected by your current carbon emissions reporting system?
- Do you understand how much the cost of electricity will rise due to the price on carbon?

## 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. Note that two of these greenhouse gases (sulphur hexafluoride and hydrofluorocarbons) are excluded from the carbon pricing mechanism. A shadow carbon price will apply to these gases through changes to existing excise arrangements.

### Calculating and reporting carbon emissions

Chapter four provides a more detailed explanation of how the impacts of carbon emissions are determined and estimated. This brief overview outlines the key requirements of the carbon pricing mechanism and the NGER Act.

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

Table 1: Types of carbon emissions

Emission type	Scope 1	Scope 2	Scope 3
	Direct	Indirect	Embodied
	Emissions from within the organisation	Emissions from purchased energy	Emissions embedded in inputs
Examples	<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> </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>
Carbon pricing mechanism*	Liable (if > threshold and at point of obligation)	Impacts compensation calculations only	Supply chain cost impacts only
Mandatory reporting* (NGER Act)	Report (if > threshold)	Report (if > threshold)	Voluntary

\* Refer to table 3 (carbon pricing mechanism) and table 4 (NGER Act) for relevant thresholds.

Source: KPMG in Australia, November 2011

- **Scope 1** (direct emissions) – carbon emissions occurring within the boundary of a facility from sources such as power stations and industrial processes that 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 emission factors which have been set for different types of fuels.
- **Scope 2** (indirect emissions) – carbon emissions occurring outside the boundary of a facility. They are measured by multiplying the electricity consumed by emission 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 from the consumption of electricity. These emissions are determined by using estimates of carbon embedded within goods or services that have been purchased (upstream) or sold (downstream).

The effects of the pricing of carbon emissions will depend on a company’s carbon footprint plus its negotiating power with suppliers and customers. 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 not mandatory.

**The Clean Energy Act 2011**

The implementation date for the *Clean Energy Act 2011* (The Act) is 1 July 2012 and the details below are based on the legislation passed in November 2011.

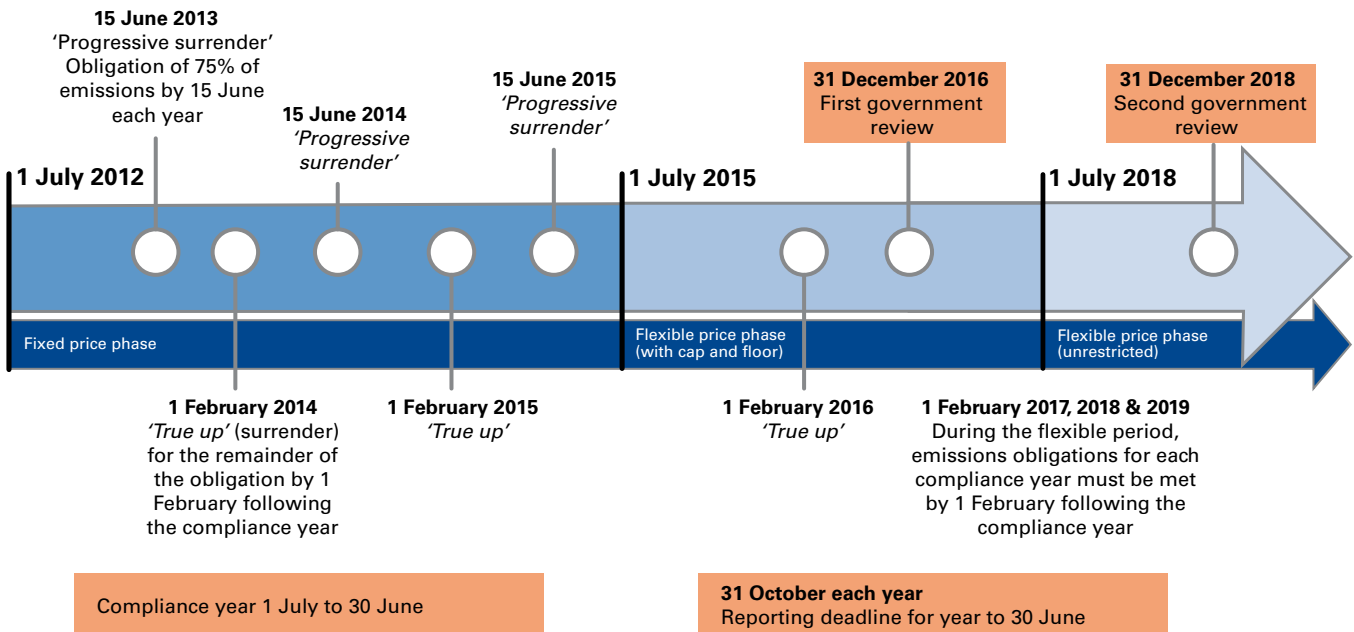
**Carbon pricing mechanism**

The carbon pricing mechanism is the means under which the Australian Government has introduced a market-based pricing of carbon dioxide and other greenhouse gas emissions. The flexible price phase will be preceded by a 3-year period (commencing 1 July 2012) during which the price of permits will be fixed at \$23 per tonne of CO<sub>2</sub>-e emitted, rising at 2.5 percent per annum in real terms, to \$25.40 per tonne of CO<sub>2</sub>-e in 2014–15.

The introduction of the fixed carbon price has implications for all business sectors. Everything from small business and domestic property through to power generation and inward investment will be influenced by this change. A carbon price set at a fixed price for 3 years provides a degree of certainty and represents a pragmatic approach to aligning the Australian economy to the market based policy responses to climate change that are emerging in other developed economies.

Reporting dates for the carbon pricing mechanism are based on a year ending 30 June. No substituted reporting periods are available.

Diagram 3: Key carbon emissions data reporting dates for the carbon pricing mechanism



Source: KPMG in Australia, November 2011

The carbon pricing mechanism is expected to impact approximately 500 businesses operating in Australia. The following table highlights the number of organisations expected to be impacted from covered industries based on their reported Scope 1 emissions.

**Table 2: Estimated organisations covered by the carbon pricing mechanism**

Industry	Number of organisations
Waste disposal	190
Coal mining and other mining	100
Electricity generation	60
Industrial processes	60
Fossil fuel intensive sectors	50
Natural gas retailers	40
<b>Total</b>	<b>500</b>

Source: Department of Climate Change and Energy Efficiency 2011

### Scope 2 Exposure

Organisations should also consider their exposure to Scope 2 emissions. While there is no direct obligation to purchase permits, there will be a financial impact as a result of the cost being passed on by the generators.

In the case of the electricity sector, the liability for purchasing permits rests with the generators as a result of their Scope 1 emissions. This 'cost of carbon' will result in a higher price of electricity. The carbon intensity of all electricity generators varies, and is dependent on many factors, including the energy content of the fuel source and the generation technology being used.

Organisations with direct exposure to an individual generator will need to understand the carbon intensity of that generator. Carbon intensities can vary significantly across states.

The table below sets out the key elements of the carbon pricing mechanism.

**Table 3: Key elements of the carbon pricing mechanism**

Scheme phase	Fixed price phase	Flexible price phase
Dates of operation	1 July 2012 – 30 June 2015.	Starts 1 July 2015.
Greenhouse gases (GHG) covered	Four GHG classes as defined under the Kyoto Protocol. <ul style="list-style-type: none"> <li>Carbon dioxide, methane, nitrous oxide, and perfluorocarbons.</li> <li>Two gases, sulphur hexafluoride and hydrofluorocarbons are excluded, however, still subject to a shadow carbon price through other legislation.</li> </ul>	Same as fixed price phase.
Emission scopes covered	<ul style="list-style-type: none"> <li>Included: Direct emissions (Scope 1).</li> <li>Excluded: Indirect emissions from electricity (Scope 2) and indirect emissions from the supply chain (Scope 3).</li> </ul>	Same as fixed price phase.
Sectors and sources covered	<ul style="list-style-type: none"> <li>Stationary energy.</li> <li>Industrial process.</li> <li>Fugitive emissions.</li> <li>Emissions from non-legacy waste (post 1 July 2012).</li> <li>Transport fuel use in rail, domestic shipping and aviation, off-road uses and non-transport uses of fuel. Heavy on-road transport is intended to be included from 1 July 2014.</li> </ul>	Same as fixed price phase.
Sectors not covered	<ul style="list-style-type: none"> <li>Forestry.</li> <li>Agriculture.</li> </ul>	Same as fixed price phase.
Inclusion criteria	<ul style="list-style-type: none"> <li>The controlling entity.</li> <li>Scope 1 emissions at a facility level for emissions sources &gt; 25,000t CO<sub>2</sub>-e / year (&gt;10,000t CO<sub>2</sub>-e / year for some landfill sites)</li> <li>Retailers of natural gas.</li> <li>Opt-in for users of fuel.</li> </ul>	Same as fixed price phase.

Scheme phase	Fixed price phase	Flexible price phase
Mechanism of carbon constraint	<ul style="list-style-type: none"> <li>Price: Uncapped supply of permits from the government at a fixed price of \$23 to \$25.40 per tonne.</li> </ul>	<ul style="list-style-type: none"> <li>Supply: Capped supply of Australian permits creating a flexible price.</li> <li>Price floor and cap for first 3 years.</li> </ul>
Compliance basis for all sectors	<ul style="list-style-type: none"> <li>Annual, based upon 30 June year-end.</li> </ul>	<ul style="list-style-type: none"> <li>Same as fixed price phase.</li> </ul>
True up/ Surrender date	<ul style="list-style-type: none"> <li>75 percent by 15 June of the relevant reporting period with true up of the remainder of the obligation by 1 February in subsequent calendar year.</li> </ul>	<ul style="list-style-type: none"> <li>1 February in subsequent calendar year.</li> </ul>
Permit allocation by Australian Government.	<ul style="list-style-type: none"> <li>Free for emissions-intensive trade-exposed (EITE) activities at a percentage of average emissions for the industry declining at 1.3 percent per annum.</li> <li>Purchased from the government at a fixed price for all other emissions sources and for permits in excess of free permits.</li> </ul>	<ul style="list-style-type: none"> <li>Free for EITE activities at a percentage of average emissions for the industry declining at 1.3 percent per annum.</li> <li>By auction for all other emissions sources.</li> <li>By market intermediaries at spot and forward prices.</li> </ul>
Types of domestic permits	<ul style="list-style-type: none"> <li>Australian emissions units (AEUs).</li> <li>Australian Carbon Credit Units (ACCU) from Kyoto compliant carbon farming projects Carbon Farming Initiative (CFI).</li> <li>Limited to 5 percent of a business' liability.</li> </ul>	<ul style="list-style-type: none"> <li>AEUs.</li> <li>ACCU from Kyoto compliant CFI projects.</li> <li>There is no limit to use of domestic permits.</li> </ul>
International linking	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>	<ul style="list-style-type: none"> <li>Overseas permits can be surrendered for up to 50 percent of a business' liability.</li> <li>Certified Emissions Reductions (CERs) from overseas Kyoto projects.</li> <li>Emissions Reduction Units (ERUs) from overseas Kyoto projects.</li> <li>Removal Units (RMUs) from overseas Kyoto compliant land use and forestry carbon sink projects.</li> <li>Potential for permits from other schemes e.g. New Zealand and European Union to be accepted.</li> </ul>
Permit vintages, banking and borrowing	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>	<ul style="list-style-type: none"> <li>Yearly vintages available in advance by auction.</li> <li>Limited borrowing of 5 percent of following year vintage.</li> <li>Unlimited banking.</li> </ul>

Source: KPMG in Australia, November 2011

The 'Point of Obligation' in the carbon pricing mechanism is where permits have to be acquired. This is generally at the point of physical production of carbon emissions such as during industrial, manufacturing or electricity production processes where fossil fuels are burnt. The important exception to this rule is for retailers of natural gas and for transport fuel products.

Natural gas suppliers are relieved of the liability for carbon permits when they receive an Obligation Transfer Number (OTN) from the purchaser of natural gas. A large gas consuming facility must quote an OTN. When the gas is used as a feedstock or in the manufacture of CHG, LNG or LPG, quoting an OTN is voluntary.

Users of fuel products (i.e. petroleum, liquid natural gas or diesel) such as transport companies or mine sites, produce Scope 1 carbon emissions. Fuel users that do not 'opt-in' to the scheme, will effectively pay a 'shadow carbon price' through adjustments to the existing fuel tax credit/excise they currently receive/pay to reflect the carbon price.

## Grants and incentives

The legislation includes the provision of assistance to a number of different sectors of the economy in order to ease both the direct and indirect consequences of a carbon price and support jobs in exposed sectors of the economy. Assistance can be in the form of:

- free permit allocation under the Jobs and Competitiveness Program to emissions-intensive trade-exposed industries
- investment in innovation in renewable energy and across manufacturing industries under the Clean Technology Program
- payments and permits to electricity generators under the Energy Security Fund
- specific support to the coal and steel industries.

The free permit allocation under the Jobs and Competitiveness Program is calculated on an industry average, which provides an incentive for individual entities to reduce the carbon intensity of their production. This is explained further in Table 8: Key design features of the Jobs and Competitiveness program.

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

The NGER Act requires entities 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 Act reports require sign-off by the chief executive officer. A high level of accuracy is also required, with the Act prescribing that uncertainties in emissions estimates must be minimised and any estimate must be neither over nor under estimates of the true value 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 emissions only. The purpose of the NGER Act, as defined in the legislation, is to:

- inform government policy and the Australian public
- help meet Australia’s international reporting obligations
- assist Commonwealth, State and Territory government programs and activities
- avoid the duplication of similar reporting requirements in the States and Territories
- underpin an emissions trading scheme.

As such, the NGER Act helps to define which facilities are above the threshold for requiring permits under the carbon pricing mechanism. The Act also aims to provide an economy-wide inventory of the major carbon emissions to support the operation of the carbon pricing mechanism. Energy production and consumption is also included within the NGER Act.

**Table 4: NGER Act thresholds and reporting requirements**

Reporting year-ends	30 June
Facility threshold: <ul style="list-style-type: none"> <li>• Carbon emissions</li> <li>• Electricity</li> </ul>	<ul style="list-style-type: none"> <li>• 25,000 tonnes</li> <li>• 100 terajoules</li> </ul>
Corporation threshold: <ul style="list-style-type: none"> <li>• Carbon emissions</li> <li>• Electricity</li> </ul>	<ul style="list-style-type: none"> <li>• 50,000 tonnes</li> <li>• 200 terajoules</li> </ul>
Reporting due date for 30 June year-end	31 October

Source: KPMG in Australia, November 2011

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

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

In Australia, there is an active voluntary market which has operated partly outside and partly within formal mechanisms, such as *Greenhouse Friendly*<sup>TM</sup> which closed on 30 June 2010, and its successor, the National Carbon Offset Standard (NCOS) Carbon Neutral Program.

The NCOS program was introduced by the Australian Government on 1 July 2010, with the aim of providing national consistency and consumer confidence in the voluntary carbon market. The standard serves two functions – it provides guidance on what is a genuine voluntary offset and sets minimum requirements for calculation, audit and offsetting of the carbon footprint of an organisation's operations or Australian products to achieve 'carbon neutrality'.

Carbon neutral status indicates that the net emissions associated with a product or business operation are equal to zero. Neutrality is achieved through the reduction of emissions and acquisition of offsets that meet relevant criteria. Eligible offset units must meet the principles of additionality, permanence, measurability, audit, transparency and registration.

Several types of carbon credits are eligible to be used to meet obligations under the NCOS, including *Kyoto Protocol* units and units issued under voluntary market standards – the Verified Carbon Standard and the Gold Standard. In addition, offsets generated under the Carbon Farming Initiative (CFI) will be recognised under the NCOS.

### **Carbon Farming Initiative**

Legislation establishing the CFI was passed in the Australian Parliament on 23 August 2011. The scheme is operational from December 2011. The CFI is a scheme which recognises and rewards farmers and other landholders for taking actions that are considered to reduce the net amount of greenhouse gases produced in Australia. This can be through activities which remove greenhouse gases from the atmosphere (sequestration) or reduce the normal amount of emissions associated with an activity (mitigation). The NCOS will recognise domestic offsets generated under the CFI, even those which are not compliant with the *Kyoto Protocol*.

The commencement of the carbon pricing mechanism in 2012 will develop a market for CFI offsets. Likely buyers will include organisations that have a mandatory requirement to reduce net emissions associated with their business activity.

# 3 Understanding the consequences for your organisation

## Key points

- Entities with Scope 1 emissions greater than 25,000 tonnes at a facility level will have to purchase permits.
- Entities with Scope 1 and 2 emissions above 50,000 tonnes in their corporate group or 25,000 tonnes at a facility, have reporting obligations under the NGER Act.
- Financial assistance and transitional arrangements are available to many sectors and industries.
- All entities will need to consider the carbon embedded within their supply chain (Scope 3) and from electricity usage to anticipate and/or mitigate increased costs through cost pass-through.

## Risks

The legislation creates new risks for organisations. Organisations need to consider their response to these risks and the impacts on their strategies. Key risks and relevant areas in this guide discussing actions to be considered are summarised below.

**Table 5: Managing the commercial implications of a price on carbon**

Risk	Reference
Non-compliance with legislation	Understanding the consequences for your entity – Chapter 3
Inaccurate data	Collecting and processing carbon emissions data – Chapter 4
Permit purchasing and trading risks	Managing the financial and commercial impacts – Chapter 5
Impairment of assets	Managing the financial and commercial impacts – Chapter 5
Not responding to increased costs in supply chain	Managing the financial and commercial impacts – Chapter 5
Non-compliance with reporting requirements	Overseeing reporting and assurance – Chapter 6
Unreliable information and data projections for decision-making	Overseeing reporting and assurance – Chapter 6

## Categories of entities

The first compliance step for any entity is to understand its status under the relevant legislation. This is best viewed by considering an entity's obligations under both the Clean Energy legislation and the NGER Act as summarised in Table 6.

Entities with facilities in covered sectors with carbon emissions greater than the 25,000 tonnes threshold (some landfill sites >10,000 tonnes) are referred to as 'Liable Entities'. Those without such facilities are referred to as 'Not Liable Entities' and those entities that acquire permits for resale are referred to as 'Participating Entities'.

Whilst there are likely to be only approximately 500 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 Entities. It is this linking of a carbon emission cost with consumption that provides the incentive to reduce production and consumption of carbon emission intensive goods and services and switch to less emission intensive goods and services.

Table 6: Position of entities under the carbon pricing mechanism and NGER Act

Carbon pricing mechanism	Liable		Not Liable		Participating	
	Registered	Registered	Registered	Not registered	Registered	Not registered
<b>Sectors</b>	Generators Oil companies Large manufacturers Some mining Gas retailer Landfill sites*	Transport Medium manufacturers Large retail Some mining Property	Households Low emitters Low electricity users		Large financial institutions	Smaller financial institutions CFI participants
<b>Permit activity</b>	Compliance buyer/seller	No participation	No participation		Voluntary buyer/seller	Voluntary buyer/seller
<b>Reporting:</b>						
– NGER	Yes	Yes	No		Yes	No
– Carbon Pricing Mechanism	Yes	No	No		No	No
– Financial statement impact	Yes	Potential	Unlikely		Potential	Potential
<b>Main source of costs</b>	Acquisition of permits	Supply chain	Supply chain		Supply chain	Supply chain

\* Some landfill sites may not have previously been registered under the NGER Act.

Source: KPMG in Australia, November 2011

### All entities

Key actions for all entities to consider the risks and opportunities the new legislation creates:

- assess the impact of carbon costs passed through the supply chain
- consider the eligibility of the assistance and transitional arrangements offered by the government
- assess the implications of the price of carbon on asset impairment testing and disclosure
- investigate potential for improvements in energy (and carbon) efficiency.

### Liable Entities

Key actions for entities that are Liable Entities under the carbon pricing mechanism:

- understand reporting requirements under the carbon pricing mechanism and the NGER Act
- ensure adequate controls and governance exist around collecting and processing of carbon emissions data
- acquire and surrender permits by the reporting deadline
- determine whether the entity will participate in carbon trading and establish a carbon trading strategy
- determine the financial impacts that will arise through the recognition of carbon related assets and liabilities and the related profit and loss impact
- consider the need for independent assurance over emissions data reported.

### Not Liable Entities

Not Liable Entities can be either registered or not registered companies.

Key action for entities that are not liable who are registered companies:

- understand reporting requirements under the NGER Act.

## Participating Entities

Participating Entities can be either registered or not registered entities.

Key actions for Participating Entities who are registered companies:

- understand reporting requirements under the NGER Act
- determine the financial impact of holding permits as assets in the financial statements.

Key action for Participating Entities who are not registered entities:

- determine the financial impact of holding permits as assets in the financial statements.

## Assistance and transitional arrangements

To support organisations to make the transition to a low emissions economy, the Australian Government has initiated several assistance measures. This support comes in the form of grants, loans, tax deductions and other incentives. Assistance will be provided across a wide range of industries and sectors, and will support a variety of activities. All entities should consider their eligibility for these assistance measures. A summary of the main programs and funding available to industry is provided below.

### New investment opportunities

Innovation in renewable energy, energy efficiency and low-pollution technologies.

There are several new measures to encourage innovation and research and development in renewable energy and other low-pollution technologies. The programs work to support the existing legislated Renewable Energy Target to ensure 20 percent of Australia's energy supply comes from renewable sources by 2020.

#### Key programs

Program	Amount	Form of assistance
Clean Energy Finance Corporation	\$10 billion	Investment in the commercialisation and deployment of renewables, energy efficiency and low emission technologies. Includes investment for component manufacturers for these sectors.
Australian Renewable Energy Agency (ARENA)	\$3.2 billion	Competitive grant project funding for projects in renewable energy.
Clean Technology Innovation Program	\$200 million	Competitive grants to support business investment in R&D, proof-of-concept and early stage commercialisation in renewable energy, low emissions technologies and energy efficiency.

### Farmers and landholders

While the government has decided to exclude the agricultural and land sectors from the carbon pricing mechanism, there are incentives available for farmers, forest growers and landholders for lowering carbon pollution.

#### Key programs

Program	Amount	Form of assistance
Carbon Farming Initiative	Existing	Carbon offsets scheme.
Carbon Farming Initiative non-Kyoto carbon fund	\$250 million	Government purchase of non-Kyoto compliant credits to increase incentives for activities that are not counted towards Australia's emissions targets.
Carbon Farming Futures Program	\$429 million	Funding for research, methodologies, on-farm abatement and new extension officers.
Biodiversity Fund	\$946 million	Funding for establishing biodiverse carbon plantings, prevention of the spread of invasive species and management of existing carbon stores.
Indigenous Carbon Farming Fund	\$22 million	Funding for specialists to work with Indigenous communities to develop carbon farming projects and also for estimation and reporting tools for abatement activities with high Indigenous participation.

### Jobs and business competitiveness

There are three key programs for supporting jobs and business competitiveness as Australia moves to a clean energy future.

#### Key programs

Program	Amount	Form of assistance
Jobs and Competitiveness Program	\$9.2 billion	Allocation of carbon permits to entities undertaking emissions-intensive, trade-exposed activities.
Clean Energy Skills Program	\$32 million	Funding for industry and educational institutions to develop materials and expertise in clean energy.
Coal Sector Jobs Package	\$1.3 billion	Transitional assistance to energy intensive coal mines for the implementation of carbon abatement technologies.

### Key industry sectors

The government has established programs to encourage continuing investment and innovation in a low carbon economy. This is particularly important for those manufacturing companies which could be significantly impacted by a price on carbon.

#### Key programs

Program	Amount	Form of assistance
Clean Technology Investment Program	\$800 million	Competitive grants for manufacturing businesses to invest in energy efficient capital equipment and low emission technologies, processes and products.
Clean Technology Food and Foundry Investment Program	\$200 million	Competitive grants for investment in energy efficiency and low emission technologies for the food and foundry industries.
Steel Transformation Plan	\$300 million	Assistance to encourage investment and innovation, to improve environmental outcomes and to promote workforce skill development in the Australian steel industry.
Coal Mining Abatement Technology Support Package	\$70 million	Grants to assist the coal industry in implementing carbon abatement technologies.

### Electricity generators

The government has recognised that a price on carbon will severely impact coal-fired power stations. Through consultation with the energy market agencies, a support program has been specifically developed for the energy sector.

Program	Amount	Form of assistance
Energy Security Fund and Transition Loans	\$5.5 billion	Administrative allocations of carbon permits and cash to cover permit liability, payments for closure of some sites, as well as loans to purchase future vintage carbon permits.

Source: KPMG in Australia, November 2011

# 4 Collecting and processing carbon emissions data

## Key points

- In many organisations, governance and accountability for carbon emission compliance still need to be fully defined.
- Historically controls around carbon emissions data collection systems have not been strong and will need to be improved. Defining the reporting boundary and identifying sources are key first steps in data collection and processing.
- Carbon emissions measurement equipment, calibration, reliability and testing will impact on the financial results of companies.
- Clear formalised reporting guidelines are the foundations of data accuracy.
- As a tool for capturing, calculating, collating and reporting carbon emissions across a number of energy sources, sites and activities present information management systems are immature. Improved controls need to be developed and implemented.

## Governance

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

Key governance issues for CFOs in these situations include:

- 1 To what extent should the CFO supervise 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?
- 4 Who should ensure sufficient permits are surrendered by 1 February of each year to match carbon emissions?

Useful analogies are 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 and valuation. 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 a business, the CFO will have obligations concerning controls relating to collecting and processing the data, though the CFO may not be responsible for the data itself.

## 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 sub-ledger and general ledger control account mechanism such as occurs with inventory to ensure all transactions that occur in the business are accurately captured
- checks and cross-checks common in financial systems are often missing due to the lack of maturity of systems.

Controls that feature in strong carbon emissions data collection systems include:

- regular checks and calibrations of monitoring devices or measurement equipment
- sign-off by the person taking measurements or making calculations
- review and 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.

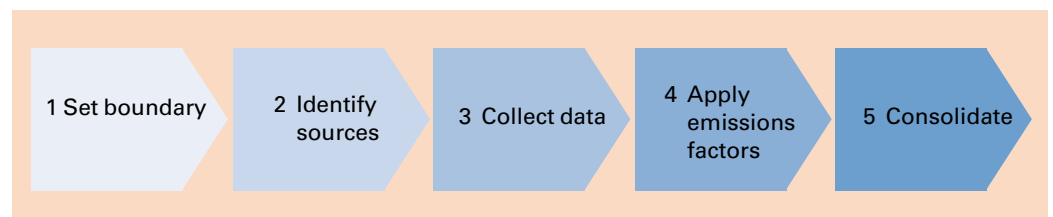
The CFO might consider expanding existing controls questionnaires used for balance date financial reporting to include emissions data collection and processing so that there is a framework in place to ensure accountability for these processes.

Some organisations may incur the financial cost of a carbon price without the direct control over the reporting systems. For example, certain joint venture arrangements, electricity contracts with a specific generator or contractor activities may include an agreement to pass on the cost of carbon. Where these costs are passed on, an organisation will want to understand the existence of controls over emissions reporting at the third party and consider the need for any additional review controls.

### Carbon emissions data collection and processing stages

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

Diagram 4: Carbon emissions data collection and processing stages



Source: KPMG in Australia, November 2011

#### Set boundary

The entity needs to assess definitions of the boundary for collecting Australian carbon emissions data, and understand the extent to which any definitions are different to those used for financial data.

When assessing the boundary under the NGER Act, entities need to consider this at two levels:

- The extent of the corporate group – considering joint ventures and using the *Corporations Act 2001* definition of subsidiaries
- The extent of operational control over facilities – operational control can exist separately from financial ownership. In this context, operational control means authority to introduce and implement operational, health and safety, and environmental policies over the facility.

Likely areas of interest for CFOs in this stage include:

- joint venture arrangements where the carbon liability will either be shared between participants, or in some cases assumed by a third party operator
- contractual arrangements, outsourced activities, associated companies and franchises
- any transfer of liability between entities using a Liability Transfer Certificate.

**Identify sources**

The entity 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
- transport – planes, ships, etc
- process carbon emissions – from physical or chemical processes
- fugitive carbon emissions – from waste, coal mining, gas pipelines, etc.

Likely areas of interest for CFOs in this stage include:

- whether the entity has 'opted-in' to the carbon pricing mechanism for use of transport fuel
- the treatment of fuel for internal transport arrangements between facilities within the corporate boundary.

**Collect data**

Carbon emissions data can be obtained in various ways:

- Method 1: 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 the estimation of emissions by reference to quantities of fuel consumed multiplied by specified emissions factors
- Methods 2 and 3: Sampling and estimation of a fuel consumed for its carbon content and other qualities that will affect actual emissions generated by its combustion at a facility
- Method 4: Direct monitoring through metering devices.

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

**Apply emissions factors**

This process should involve those with appropriate levels of technical knowledge. Accordingly, the role of the CFO should be to:

- understand that the skills and experience of the preparer of the emissions data are appropriate
- seek assurance from the preparer of the information that the emissions factors are consistently applied in accordance with the NGER Act Regulations
- obtain details of any areas of uncertainty or significant judgement applied in this process.

**Consolidate**

The consolidation of facility carbon emissions data at the corporate level should be reviewed to confirm accuracy, reasonableness and completeness and to avoid double counting.

**It should be noted that the consolidation may be different for reporting under the NGER Act than for the carbon pricing mechanism, due to some differences in scope, boundaries and liability.**

### Data accuracy

The need for accurate emissions data is emphasised by the financial consequences for the company. The carbon liability for Liable Entities will be based on the reported emissions. Any shortfall in permits purchased is subject to severe penalty rates of 1.3 times during the fixed price phase, and two times during the flexible price phase. These penalties are non-deductible for tax. During the fixed price phase, there will be no penalty applied to any shortfall in the 75 percent surrender in June of each compliance period where the 75 percent surrender is based on the prior year reported emissions.

Data collection processes need to be sufficiently robust to support reliable carbon emissions reporting.

Common problems include:

- Incompleteness
  - boundary issues for complex contracting arrangements and joint ventures
  - omission of sources, especially multiple small sources.
- Data inaccuracy
  - complexity in deriving site-specific data
  - lack of a formalised calibration and maintenance regime for key meters
  - spreadsheet and calculation errors
  - human error when inputting data
  - errors that occur when transferring data from one system to another
  - insufficient controls to minimise data integrity issues including regular system ‘back-ups’ and system checks
  - reliance upon meters not within the company’s control
  - erroneous conversion factors, calculations, units of measurement.

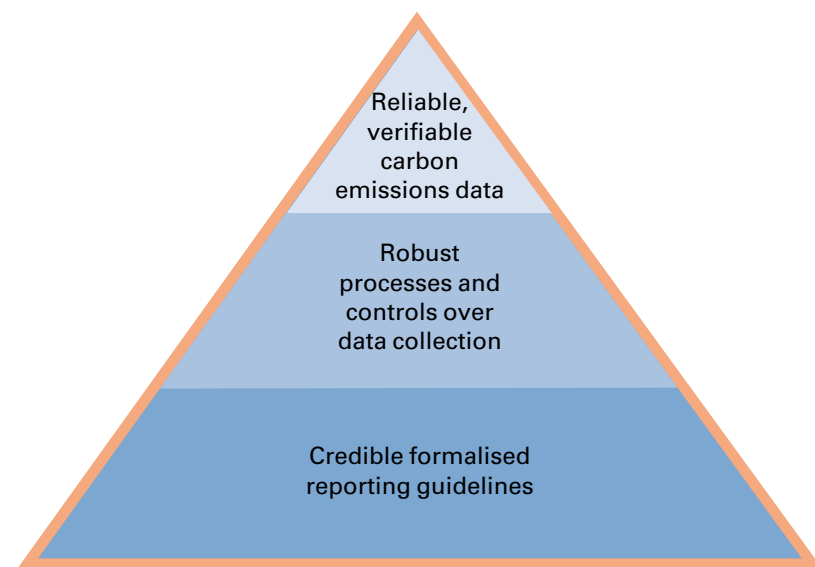
Inadequate review controls (e.g. analytical reviews, second party reviews)

- lack of formalised internal review
- failure to retain supporting information and documentation.

Accordingly, entities should ensure carbon emissions data systems are underpinned by formalised processes that are well documented and communicated to those responsible for applying them. Adequate training and resources are also important to enable these new tasks to be performed.

Diagram 5 illustrates the building blocks of a carbon emissions data collection system that provides reliable information.

**Diagram 5: Emissions data building blocks**



Source: KPMG in Australia, November 2011

## 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 data and energy information. This weakness in systems poses a significant risk for an entity. As spreadsheets, renowned for lacking controls and overview, are commonly used to record such data, the entity should consider whether this potential weakness and the related risk exposure is being managed effectively.

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 legislated reporting requirements
- the availability of an appropriate IT system
- the capabilities of the system for migrating data
- the adequacy of the training of 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.

This raises an important question for CFOs: Are you prepared to purchase carbon emissions permits, at \$23 per tonne and above, based on the reliability, robustness and quality of data collected by your current carbon emissions reporting system?

## Internal audit

A robust internal audit function enhances the quality of carbon emissions data. Internal audit can assess the design and operation of emissions data collection and processing systems and report findings to management and audit committees. Where necessary, the internal audit team will generally need to be supplemented with a carbon emissions specialist who is not involved with the underlying systems.

# 5 Managing the financial and commercial impacts

## Key points

### Profit and loss

- Profit and loss impacts are likely from the cost of acquiring permits for Liable Entities and costs flowing through the supply chain for all entities.
- Assistance and transition packages will have varying effects on the profit and loss for eligible entities.
- Responses to the price on carbon to mitigate profit and loss impacts include:
  - evaluating the marginal abatement cost from reducing carbon emissions
  - assessing cost pass-through to customers
  - developing a permit trading strategy (for flexible price phase)
  - assessing opportunities under the assistance and transition packages.

### Balance sheet

- Entities need to consider the price of carbon when considering the recoverability of assets at 31 December 2011 and subsequent financial periods.
- From 1 July 2012 the carbon pricing mechanism will lead to additional recognition, measurement and disclosure requirements within financial reports, which need to be supported by robust, auditable systems and processes to facilitate the financial reporting and audit process.

### Tax

- The purchase of carbon permits is treated similarly to trading stock using a rolling balance method with the effect that expenditure on carbon permits affects taxable income in the year the units concerned are surrendered/sold.
- Allocation of free permits to emissions-intensive trade-exposed entities and electricity generators gives rise to different tax treatments.
- Under-surrender of carbon permits gives rise to tax penalties of up to two times the 'value' of the under-surrender.
- Supply of eligible emissions units is GST-free.
- Adjustments to fuel tax credits and excise will be used to apply a carbon price to relevant fuels/sectors.

### Financial impacts

The introduction of a price on carbon is best managed by considering the financial impact on individual entities through:

- the profit and loss
- the balance sheet
- cash flow
- related processes.

**Accounting standards**

Currently there is no specific accounting standard which deals with the accounting for carbon related assets and liabilities for Liable Entities. A project on emissions trading schemes has been on the International Accounting Standards Board (IASB) agenda for some time. The IASB is currently seeking feedback from relevant stakeholders to consider whether the project will remain on the agenda, with a decision expected in the first half of 2012. The Australian Accounting Standards Board (AASB) is closely monitoring the IASB developments and is discussing the implications of applying Australian Accounting Standards under a carbon pricing mechanism during a fixed price phase.

**Profit and loss impacts**

The introduction of a price on carbon emissions is likely to affect individual entity profit and loss statements as detailed in Table 7.

**Table 7: Likely profit and loss impacts of the price on carbon emissions**

Entity type	Likely profit and loss impact
Liable	<ul style="list-style-type: none"> <li>• The recognition of a liability (obligation to surrender permits) will ultimately lead to an expense (debit) to the profit and loss.</li> <li>• The cost of permits may increase the cost of production and lead to increased costs of goods sold and inventory.</li> </ul>
Liable and Not Liabe	<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 overheads (e.g. where electricity is not treated as a variable cost)</li> <li>• Variable overheads (e.g. transport costs)</li> <li>• Impairment charges may be necessary if future cash flows are negatively impacted.</li> </ul>

Source: KPMG in Australia, November 2011

In a competitive market it is the carbon emissions metrics of a company relative to its competition that determines winners and losers from the carbon pricing mechanism. Liable Entities will seek to recover from their customers the costs of acquiring permits and their customers, in turn, will attempt to do the same, and so on down the supply chain. How a company responds can significantly influence 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. Reducing carbon emissions, after considering the relationship between the marginal abatement cost versus increased direct or indirect carbon emission costs.
2. Cost pass-through to customers, depending on price elasticity.
3. Minimising cost impacts through a permit trading strategy during the flexible price phase (Liable Entities) and/or negotiation with suppliers (Liable and Not Liabe Entities).

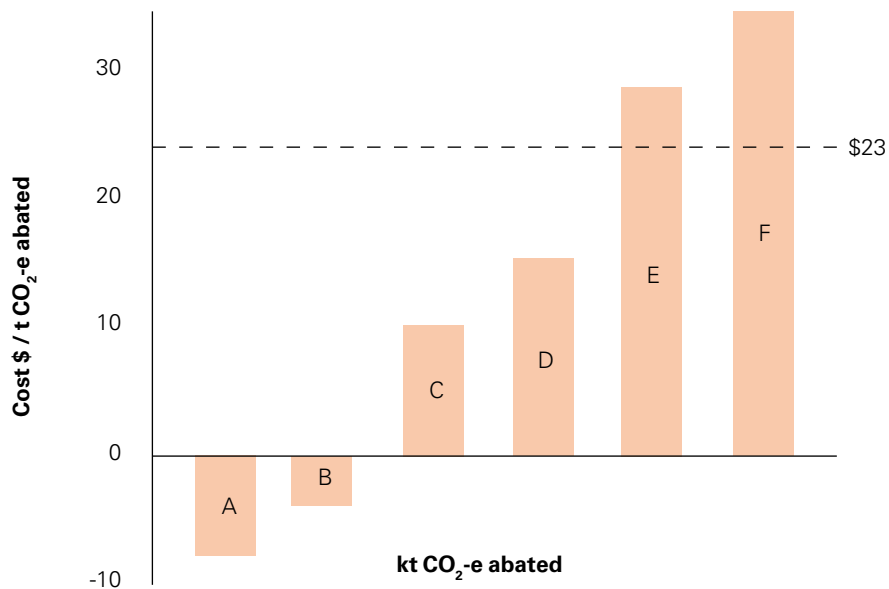
Funding opportunities under the government’s various assistance and transition packages is a further factor to consider.

How an entity responds to the price on carbon in managing its exposure will contribute to the market’s risk assessment of the entity and could affect its cost of capital.

### 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 6.

Diagram 6: Marginal abatement cost curve



Source: KPMG in Australia, November 2011

Diagram 6 illustrates an example of possible projects to reduce CO<sub>2</sub>-e emissions depicted as costs per tonne of CO<sub>2</sub>-e abated. If \$23 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 an entity is the end result of analysis and financial modelling that should involve the CFO. This requires compiling and summarising 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 permits from their customers who, in turn, will attempt to recover those costs from their customers. The major costs incurred are likely to arise from the purchase of electricity, fuel and manufactured goods. Negotiations between suppliers and customers will be affected by their relative bargaining power, industry assistance and price elasticity factors.

There are several cost pass-through issues for affected entities to consider:

- The extent to which individuals familiar with the carbon pricing mechanism should be involved in the supplier and customer negotiation process.
- The impact in relation to margins – for example, an approach that 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 effect on overhead levels and allocations and whether there is a need to allocate overheads such as electricity and fuel to the user departments to encourage more efficient use.
- The potential fallout from long-term supply and sales contracts where pricing may be locked in or where there is a mis-match between the timing of the review of these contracts and the commencement of the carbon pricing mechanism. This could be a significant difficulty to regulated companies that have to seek regulatory approval for price rises necessary to recover their cost increases.
- Any potential opportunities to work with customers/suppliers in order to realise mutual benefits from reducing carbon exposure.

### Permit trading

During the fixed price phase the Liable Entity purchases permits direct from the government or from a third party. Entities with excess permits can sell the permits, or the government will operate a buy-back mechanism for permits issued under the Jobs and Competitiveness Program.

During the flexible price phase, for Liable and Participating Entities permit trading is a means of managing the costs of acquisition of permits. There will be advance auctions of future vintage carbon permits (permits valid for a certain year in the future), and permits are anticipated to be auctioned on a monthly basis from 2013-14 as the primary source of permits.

The secondary market will therefore consist of:

- Liable Entities buying/selling permits that they under/over purchased at auctions (during the flexible price phase)
- Liable Entities selling permits that they were allocated for free which are in excess of their forecast liability
- participating companies generating offsets under the CFI which wish to realise the value of the resulting permits
- participating companies (or individuals), such as financial institutions, buying and selling permits into their portfolios and providing forward sale arrangements to their customers (during the flexible price phase).

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 up to 50 percent of an entity's permit obligations.

Carbon permits have been designated a financial product. Entities providing any type of financial service associated with carbon permits, carbon credits and offsets must carefully consider whether they need to hold an Australian Financial Services Licence.

The annual reporting of Scope 1 carbon emissions subject to permit obligations under the carbon pricing mechanism is due by 31 October each year. Permits must then be surrendered by 1 February following the compliance year. CFOs and treasurers of Liable Entities and participating companies should therefore consider the following:

- Governance – are appropriate delegations of authority in place for the purchase of permits (which could be significant transactions)?
- Trading strategy – is the trading strategy in place approved in accordance with delegations of authority?
- Accounting treatment – what are the accounting outcomes of the selected trading strategy?
- 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 managed to ensure sufficient permits are available to be surrendered on 1 February?

### Assistance and transitional arrangements

With the introduction of a price on carbon, support will be available for a range of transitional activities for electricity generators, energy retailers, emissions-intensive industries, the manufacturing sector, small business, local councils, unions, educational institutions and community groups. The different forms of support available possess different implications for organisations. Ultimately, the arrangements may provide opportunities for organisations to develop a competitive advantage. For example:

- Using matched funds from grants for capital improvements that increase energy efficiency or reduce carbon intensity in the production process, and hence reduce the cost base.
- Allocation of free permits to EITE industries on the basis of industry benchmarks. More efficient production processes and implementation of cost-effective abatement opportunities can generate surplus permits that can be sold on the secondary market.

- Leveraging measures to encourage innovation and R&D in renewable energy and other low-pollution technologies to increase market share.

The grant application processes from the government will be competitive. Entities should take a proactive approach to evaluating their eligibility for different programs. The design of the Jobs and Competitiveness program also has significant cash flow and profit and loss implications for affected entities. The key design features and implications are outlined in Table 8. There are accounting policy choices on the treatment of free permits from assistance arrangements, as outlined in Table 10.

**Table 8: Key design features of the Jobs and Competitiveness program**

Design feature	Implication
<ul style="list-style-type: none"> <li>• Assistance will be based on an individual entity's actual level of production.</li> <li>• Allocative baselines will be based on the historic industry average level of emissions per unit of production for all entities conducting an activity during the assessment period.</li> <li>• There is no maximum cap on allocations to existing facilities.</li> <li>• Allocations to new facilities will be limited by regulations to avoid windfall gains.</li> </ul>	<p>A number of factors may result in actual carbon emissions being lower than the number of free permits allocated, allowing certain existing businesses to make 'windfall gains':</p> <ul style="list-style-type: none"> <li>• The assistance is linked to production not emissions, providing an incentive for companies to reduce emissions for the same level of production. That is, a company producing 100 tonnes of glass containers, will receive 53 permits, regardless as to its actual carbon liability.</li> <li>• The allocative baselines were established using emissions data for the two years up to 30 June 2008. Therefore, many industries will have already improved the efficiency of their production process since this baseline period.</li> <li>• The allocative baseline is based on an industry average for the activity, therefore those facilities with a lower level of emissions per unit of production than the average may receive surplus permits; whilst those facilities with a higher level of emissions per unit of production than the average will be disadvantaged relative to their competitors.</li> </ul>
<p>During the fixed price period, early in each compliance period eligible entities will receive:</p> <ul style="list-style-type: none"> <li>• 100 percent of permits allocated in respect of indirect emissions</li> <li>• 75 percent of permits in respect of direct emissions.</li> </ul> <p>The remaining 25 percent of permits relating to direct emissions will be allocated early in the following financial year.</p>	<p>This feature assists with cash flow management.</p> <ul style="list-style-type: none"> <li>• The indirect emissions arise from the use of electricity and steam, for which payment occurs throughout the year. Therefore, entities should receive the permits before they incur the liability for increased cost of electricity.</li> <li>• During the fixed price period direct emissions do not need to be surrendered until 15 June (75 percent) and 1 February (25 percent). The timing of these allocations may have cash flow implications.</li> </ul>
<p>The electricity allocation factor is set at one permit per megawatt hour.</p>	<p>The price of electricity will rise as a result of the carbon pricing mechanism. Entities should analyse the allocation of permits for electricity to determine the extent it will cover the increase to the cost of electricity passed through. Relevant factors effecting the carbon costs associated with electricity include:</p> <ul style="list-style-type: none"> <li>• The location of the facility (the carbon emissions per megawatt hour vary significantly between Australian states).</li> <li>• The energy mix of the retailer.</li> </ul>

Source: KPMG in Australia, November 2011

## Balance sheet impacts

The introduction of a price on carbon emissions is likely to affect individual entity balance sheets as shown in Table 9.

**Table 9: Likely balance sheet impacts of the price on carbon emissions**

Entity type	Likely balance sheet impact
Liable	<ul style="list-style-type: none"> <li>• Recognising a new asset for permits acquired.</li> <li>• Recognising a new carbon emissions liability as emissions occur.</li> </ul>
Liable and Not Liab	<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 negatively impacted.</li> </ul>

Source: KPMG in Australia, November 2011

There are key factors that will determine these balance sheet impacts:

1. The accounting policy selected for permit asset and carbon emissions liability recognition and measurement.
2. The nature of the impairment tests.
3. The use of derivatives.

### Accounting policy for permit asset and carbon emissions liability recognition and measurement

Currently there is no specific accounting standard dealing with the accounting for carbon emissions assets and liabilities. However, the requirements of AASB 137 *Provisions, Contingent Liabilities and Contingent Assets* are relevant to the recognition and measurement of any liabilities arising from the carbon pricing mechanism.

In summary, an entity covered by the scheme will need to recognise a liability to reflect its obligation arising from its carbon emissions. There are policy choices on how this liability is measured. Broadly these choices are:

- market based – measuring the liability at market value
- settlement based – measuring the liability on the same measurement basis as the permits which will be used to settle the obligation (see table 9). The permit assets used for settlement can be a combination of:
  - permits purchased by year-end
  - free permits.

Excess emission liability, that is, where the emission liability is in excess of the permits held at year-end, will be measured at market value.

The recognition of a liability (obligation to surrender permits) will ultimately lead to an expense (debit) to the profit and loss. The cost of permits may increase the cost of production and lead to increased costs of goods sold and inventory.

The measurement options for the permits are shown in Table 10, and are all subject to review for impairment.

**Table 10: Permissible accounting treatment for permit assets**

	Initial recognition	Subsequent measurement
Asset: Purchased permits	Cost	Cost or fair value
Asset: Free permits	Nil	Nil
	or	
AASB 120 <i>Accounting for Government Grants and Disclosure of Government Assistance</i>	Fair value	Fair value at reporting date or at date of initial recognition

Source: KPMG in Australia, November 2011

During the fixed phase of the carbon pricing mechanism, the price of permits is fixed and excess permits can be sold back to the government.

### Trading of permits

During the flexible phase, some entities may elect to buy and sell permits for trading purposes. These permits may be treated as inventories and the entity is likely to be considered to be a commodity broker/trader which under *AASB 102 'Inventories'* can elect to measure the inventory at fair value less costs to sell with changes in value recognised through the income statement. In addition, a market for derivatives over the price of carbon may develop. Entities entering into such arrangements will apply derivatives measurement and recognition accounting policies under *AASB 139 Financial Instruments: Recognition and Measurement*.

### Impairment testing

Under *AASB 136 Impairment of Assets* (AASB 136) the introduction of the carbon pricing mechanism is likely to be 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. These entities will need to reassess the recoverable amount of their assets to determine whether they are impaired and need to be written down.

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'. As such, some entities may already be incorporating the effects of the carbon pricing mechanism in asset impairment testing. For other entities, directors may have been of the view that they could not reasonably estimate the effect of the carbon pricing mechanism on the recoverability of assets due to uncertainty regarding the nature and timing of the proposed scheme. With the passing of the legislation, this uncertainty has been removed and entities should be considering the impact of the carbon pricing mechanism on their impairment models for both interim and annual financial reports. AASB 136 requires key assumptions used in the impairment test to be disclosed.

### Cash flow impacts

The introduction of a price on carbon emissions is likely to affect individual entity cash flows as described in Table 11.

**Table 11: Likely cash flow impacts of the price on 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> <li>The cash value of any free permits sold (for eligible entities).</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> <li>Cash flow from any grant funding for eligible entities.</li> </ul>

Source: KPMG in Australia, November 2011

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

- During the 3-year fixed price period, those Liable Entities with greater than 35,000 tonnes CO<sub>2</sub>-e will be required to purchase and surrender their emissions obligations in two parts:
  - a 'progressive' surrender obligation of 75 percent of their emission obligation (based on prior year) by 15 June of the relevant compliance year
  - a 'true up' (surrender) for the remainder of the obligation by 1 February following the compliance year.
- During the 3 year fixed price period those Liable Entities with less than 35,000 tonnes will purchase and surrender their omission obligation by 1 February following the compliance year.
- During the flexible price phase, liable entities will need to purchase permits prior to the surrender date of 1 February following the compliance year from either government run auctions, the secondary market or from accredited overseas projects.

### Other considerations

There are various processes that entities should review in order to incorporate the introduction of a price on carbon emissions, including:

- contracting (suppliers and customers)
- risk management policies and processes
- budgeting and forecasting

- capital expenditure forecasts
- impairment calculations
- delegation and authority mechanisms
- mergers and acquisitions due diligence.

### Taxation considerations

Key taxation considerations arising from the carbon pricing mechanism include the tax treatment of carbon permit related transactions, including:

- permits and related derivatives
- free carbon units allocated to emission-intensive trade-exposed industries and electricity generators
- assistance and transitioning.

### Carbon pricing related transactions

#### Tax treatment of permits

The carbon pricing legislation confirms the introduction of the 'rolling balance method', which uses principles broadly akin to the trading stock rules. This has the effect that expenditure on carbon permits affects taxable income in the year the unit is surrendered or sold. The consequences are significant:

- the cost of a carbon permit is deductible
- the proceeds from selling a carbon permit are assessable
- differences in the value of carbon 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 for a selected permissible valuation method, which may be changed only once every 4 years.

#### Free permits

The allocation of free carbon permits to emission-intensive trade-exposed entities and electricity generators will give rise to assessable income for tax purposes, subject to a special 'no disadvantage rule' for trade exposed entities.

EITE entities will benefit from a concessional tax treatment for free carbon permits. By way of contrast, generators must recognise permits that are held at the end of the income year in which they are received as part of their assessable income. The value of such carbon permits will then be included in the opening balance of the entity's carbon permits for the following year, meaning that a deduction is effectively deferred until the carbon permits are surrendered.

#### GST

The issue and sale of carbon permits will be GST free. However the trading of derivatives will reflect the normal GST treatment and potentially could result in an additional tax cost.

#### Fuel excise adjustments

Households and light commercial vehicles will be unaffected under the legislation. Off-road vehicles (excluding those used in agriculture, forestry and fisheries) will receive a reduced fuel tax credit to reflect a shadow carbon price. This is based on the carbon content of the fuel using the average of the carbon price for the previous six months during the flexible price phase. The government has also stated that it intends to include on-road heavy vehicles in the shadow carbon price from 2014-15 onwards.

#### Opt-in

Fuel users may opt-in to the carbon pricing mechanism rather than having an adjustment to the fuel tax credit as described above.

### Broader tax issues for all entities

Other carbon pricing related tax issues to consider include:

- Effective life recalculations for existing assets – where the price 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 – these may be immediately assessable even if used for capital purposes.
- Thin capitalisation position – particularly where impairment reviews lead to write downs as a result of the carbon price.

## 6 Overseeing reporting and assurance

### Key points

- As there are many channels for the reporting of carbon emissions information, CFOs should aim to maximise consistency in reporting, streamline processes and establish a single source of carbon emissions data.
- Many Liable Entities are obtaining independent assurance for their emissions data reported under the NGER Act.
- CFOs should note that all data will ultimately be subject to audit processes: all facilities emitting more than 125,000t CO<sub>2</sub>-e per annum are likely to be subject to annual mandatory assurance by the regulator and all new assets/liabilities on the balance sheet will be subject to financial statement audit.
- CFOs should ensure that appropriate assurance is obtained in the most efficient manner.

### Reporting and assurance linkages

As there are many channels for the reporting of carbon emissions information entities 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 12.

Table 12: Emissions reporting and assurance linkages

External reporting	Impacts	Assurance
Clean Energy Act (Liable) (30 June year-end)	<ul style="list-style-type: none"> <li>• Mandatory reporting of direct greenhouse gas emissions (Scope 1) to the Clean Energy Regulator for Liable Entities.</li> <li>• Reporting of interim emissions.</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>• Mandatory pre-submission audits for entities eligible for assistance (EITEs, generators, coal sector).</li> <li>• Regulator expected to have power to impose post submission compliance audits.</li> </ul>
NGER (Registered) (30 June year-end)	<ul style="list-style-type: none"> <li>• Mandatory reporting for companies which meet the reporting threshold for greenhouse gas emissions (Scope 1 and 2) or energy use or production.</li> <li>• 95 percent accuracy requirement.</li> <li>• Requirement to report statistical uncertainty of Scope 1 emissions for 2010-11 and subsequent years.</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>
Energy Efficiency Opportunities (EEO) (30 June year-end)	<ul style="list-style-type: none"> <li>• Assessment of energy efficiency opportunities every 5 years.</li> <li>• Mandatory public reporting on the outcomes for registered companies.</li> <li>• Fines for non-compliance.</li> </ul>	<ul style="list-style-type: none"> <li>• Voluntary pre-submission.</li> <li>• Regulator may request post submission compliance audits.</li> </ul>
Sustainability reports and other reporting such as Carbon Disclosure Project (CDP) Reports, and National Carbon Offset Standard (NCOS) (Financial year)	<ul style="list-style-type: none"> <li>• Not mandatory.</li> <li>• Consistency needed with mandatory emissions reporting.</li> </ul>	<ul style="list-style-type: none"> <li>• Not mandatory but many companies are seeking assurance in order to add credibility.</li> <li>• Number of companies seeking assurance is increasing year on year.</li> <li>• Integrated reporting developments likely to require assurance in the medium term.</li> </ul>
Financial statements (Financial year)	<ul style="list-style-type: none"> <li>• For Liable Entities inclusion of permit asset and emission liability in financial statements.</li> <li>• Determination of 'value in use' for impairment models.</li> </ul>	<ul style="list-style-type: none"> <li>• For Liable Entities reasonable assurance will be required as part of the financial statement audit.</li> <li>• Integrated reporting developing in the medium term.</li> </ul>

Source: KPMG in Australia, November 2011

Entities should consider:

- the opportunity provided by the interrelationships in the reporting outlined in Table 12 to establish a streamlined reporting process and single source of carbon emissions data
- the extent to which an internal audit should precede an external audit of carbon emissions reporting
- whether an annual pre-submission external audit of *Clean Energy Act 2011*, NGER Act, EEO, or CDP reporting should be commissioned regardless of any regulatory requirement taking into account the likelihood and risks of regulator initiated compliance audits.

### Financial statements

The accounting impacts of the introduction of the *Clean Energy Act 2011* on the financial statements will vary over time as follows.

**Table 13: Timeline for accounting/reporting**

Periods ending on, or before 30 June 2012	Periods ending after 1 July 2012	2014 onwards
↓	↓	↓
<p><b>Position</b></p> <ul style="list-style-type: none"> <li>• Legislation in place</li> </ul> <p><b>External reporting</b></p> <ul style="list-style-type: none"> <li>• Consider asset impairment</li> <li>• Possible note to the accounts on anticipated impacts of a carbon price</li> </ul>	<p><b>Position</b></p> <ul style="list-style-type: none"> <li>• Carbon pricing mechanism commenced</li> </ul> <p><b>External reporting</b></p> <ul style="list-style-type: none"> <li>• New assets and liabilities for Liable Entities</li> <li>• Cash flow impacts</li> <li>• Profit and loss impacts</li> <li>• Consider asset impairment</li> </ul>	<p><b>Position</b></p> <ul style="list-style-type: none"> <li>• Flexible price phase activities commenced</li> </ul> <p><b>External reporting</b></p> <ul style="list-style-type: none"> <li>• Accounting for carbon derivatives</li> <li>• Disclosure of carbon risk management policies and strategies</li> <li>• Valuation of flexible price permits</li> <li>• Integrated Reporting developments and standards</li> </ul>

Source: KPMG in Australia, January 2012

### Reporting and assurance for companies liable under the Clean Energy Act 2011

The lodgement date for reporting under the carbon price mechanism is 31 October for the preceding year to 30 June. Liable Entities are required to comply with the following reporting requirements:

- The controlling corporation must submit a report according to the existing NGER Act reporting requirements.
- Entities with operational control over facilities with Scope 1 emissions must submit an additional report for Scope 1 emissions from those facilities.

There are different types of audits required under the legislation:

- Large emitters – assurance required for facilities above a threshold (anticipated to be 125,000 tonnes of CO<sub>2</sub>-e per annum) prior to submission of the report to the regulator.
- Emissions-intensive trade-exposed entities – reasonable assurance over production data for entities eligible under the Jobs and Competitiveness program.
- LNG – reasonable assurance over production and emissions data.
- Coal-fired generators applying for assistance – reasonable assurance over aspects of the application (historical energy and emissions intensity).
- Under the Coal Sector Jobs Package assurance on production may be required in some circumstances.

The legislation requires reasonable assurance over the data submitted as well as over the fair disclosure of the basis of preparation in the supporting documentation submitted with the data template.

For facilities with carbon emissions under the threshold, whilst pre-submission assurance is not required, voluntary assurance can add credibility to this information.

### **Reporting and assurance under the NGER Act**

As set out in Table 4, the lodgement date for NGER Act reporting is 31 October in respect of the preceding year to 30 June. For companies and/or facilities above the threshold, the reporting includes:

- Scope 1 and 2 greenhouse gas emissions
- energy production
- energy consumption
- other information specified under the NGER Act, such as statistical uncertainties of Scope 1 emissions for 2010-11 and subsequent years.

Pre-submission audits of the reported information are not mandatory, but under the NGER Act the regulator can request either a compliance audit or commission a random audit.

- Compliance audits 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 and the range of next steps that may be taken.
- Random audits involve the regulator appointing the auditor. The regulator has the flexibility to determine the scope of matters to be covered in the audit and the level of assurance required and the range of next steps that may be taken appropriate to the circumstances existing at the time. Approximately 20 audits for the 2010 data were commissioned by the regulator (the Greenhouse and Energy Data Officer). Additional audits on 2011 data are expected.

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 from which the data is extracted.

### **Energy Efficiency Opportunity (EEO) reporting and assurance**

The Australian Government's Energy Efficiency Opportunities (EEO) program requires companies using over 0.5 PJ (peta-joules) of energy annually to undertake an assessment of their EEOs to a minimum standard in order to identify cost effective energy savings and efficiency opportunities with up to a four-year payback. Companies are required to report publicly on the outcomes of their assessments in order to demonstrate to the community that they are effectively managing their energy efficiency.

To ensure that assessments are rigorous and comprehensive, the company and responsible entities must meet the requirements of six key elements of the Assessment Framework which builds on the *Australian/New Zealand Energy Audit Standard (3598:2000)*.

Pre-submission audits are not mandatory under the EEO Act, although the regulator may request post submission compliance audits. Such audits are regularly performed by the regulator.

### **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. In KPMG's *International Corporate Responsibility Reporting Survey 2011*, sustainability reporting has increased to 57 percent in Australia (up from 45 percent in 2008) for the top 100 organisations by revenue.

Assurance of sustainability reports is not mandatory. However, assurance of sustainability reports provides stakeholders, including capital markets, with confidence in the data provided.

## Types of assurance

The overriding objective of external assurance is to express an independent conclusion 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 adapted for carbon emissions assurance to support the NGER Act, *Clean Energy Act 2011* and, ultimately, the emissions trading market. For Liable Entities the data that will be generated for the purpose of NGER/*Clean Energy Act 2011* reports will also be used as the basis for calculating assets, liabilities and profit arising from the *Clean Energy Act 2011*. It is therefore important to consider whether the assurance provided satisfies both carbon emissions reporting and financial reporting requirements to avoid unnecessary duplication of assurance services.

There are three levels of assurance under the NGER Act assurance regulations 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 Act regulations such as identification of corporation or operational boundaries, or correct application of emissions factors.
- Limited assurance – where the assurance provider issues a negative assurance conclusion (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 regulations. The work required to support a conclusion of this nature generally comprises enquiries and analytical reviews.
- 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 regulations. The amount of work to achieve this level of assurance is greater than for limited assurance and includes tests of underlying systems and source data.

As of 16 January 2012 the assurance regulations for the *Clean Energy Act 2011* have yet to be finalised.

Entities also should be aware that certain 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 consultants 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, entities should consider:

- the level of understanding by the assurance provider 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
- the entities' reliance on NGER/*Clean Energy Act 2011* assurance or audits of financial statements and other reports.

### **Preparing for assurance**

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

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

Agreement should be reached with the assurance provider at an early stage on logistics (including site visits), expectations around recommendations provided to management arising from the audit, and the process for resolving issues.

### **The sustainability reporting challenge and the need for integrated reporting**

For many entities, the level of their carbon emissions is an important measure of environmental performance and forms part of their annual sustainability reporting. However, sustainability reporting often lacks a context and framework that connects environmental, social and governance (ESG) information with the information needs of capital markets. There have been various attempts at developing a sustainability reporting framework. In general, these frameworks have not been focused on the capital markets as primary users. In addition, there has been little attention given to how ESG performance contributes to performance prospects, or how this information should be communicated in management commentary. These are critical matters for CFOs, as well as for CEOs and boards of directors, in communicating with external stakeholders and maintaining business reputations.

Current aspirations for business reporting revolve around an integrated report prepared according to the International Integrated Reporting Committee's (IIRC's) integrated reporting framework, which is currently under development. In September 2011 the IIRC released a discussion paper that sets out its plan to move towards a reporting framework that provides the information needed to assess organisational value in the twenty first century. An exposure draft of an integrated reporting standard is expected in late 2012. Only then will widespread global adoption be feasible. An integrated reporting standard, endorsed by the G20 and the IASB, is targeted for 2013.

Consistency in the reporting of non-financial metrics, such as greenhouse gas emissions, to regulators with the same data in an integrated report will be essential.

# Key terms

<b>AASB</b>	<b>Australian Accounting Standards Board</b>
<b>ASX</b>	<b>Australian Securities Exchange</b>
<b>CCA</b>	<b>Climate Change Authority</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>CFI</b>	<b>Carbon Farming Initiative</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>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>MACC</b>	<b>Marginal Abatement Cost Curve</b>
<b>NCOS</b>	<b>National Carbon Offset Standard</b>
<b>NGER Act</b>	<b>National Greenhouse and Energy Reporting Act</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>TOFA</b>	<b>Taxation of Financial Arrangements</b>

## Related publications

KPMG has a range of publications providing further detail on the Australian Government's plan for a clean energy future and the business implications of the plan. The following publications are available on [kpmg.com.au](http://kpmg.com.au) and KPMG's iPhone app. The app is free and is available to download from the **iTunes app store**. Search for *KPMG Insight*.

- **Australia's Climate Change Plan**

- A summary of assistance packages
- How it will work and the implications for business



- **The impact of a carbon price – sector impact series**

- Retail
- Agribusiness
- Consumer Products
- Food & Beverage
- Property & Construction
- Coal Mining




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