



Australian Government



CHAPTER 5

Reporting and compliance

CARBON POLLUTION REDUCTION SCHEME **GREEN PAPER** JULY 2008

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5. Reporting and compliance

This chapter describes how entities would comply with their obligations under the scheme, including the monitoring and reporting of emissions, the keeping of appropriate records, how liable entities would be defined, the surrender of carbon pollution permits or other eligible compliance permits, and the enforcement provisions that would apply if entities do not meet their obligations under the scheme.

Effective reporting and compliance arrangements would be critical to guarding the environmental integrity and economic efficiency of Australia's Carbon Pollution Reduction scheme.

As part of meeting their obligations under the scheme, liable entities would be required to monitor and report their annual emissions, keep adequate records to enable the assurance of reported emissions, surrender eligible compliance permits equal to their annual emissions, and comply with enforcement provisions. The term eligible compliance permits refers to carbon pollution permits and eligible Kyoto units.

This chapter is structured as follows:

- Section 5.1 discusses the interaction of the scheme with the National Greenhouse and Energy Reporting System (NGERS).
- Section 5.2 discusses how liable entities would be defined for each covered facility or activity and the exact point in the supply chain at which scheme obligations would arise.
- Section 5.3 outlines how entities are to estimate, monitor and report their emissions and how the integrity of emissions estimates would be assured.
- Section 5.4 outlines mechanisms for the surrender of eligible compliance permits and the operation of a national registry.
- Section 5.5 discusses compliance and enforcement provisions.

5.1 The National Greenhouse and Energy Reporting System

Where compliance and measurement regimes are in place for other government reporting processes, the Government would seek to streamline compliance and reporting under the scheme by utilising those existing systems to the maximum extent possible, only complementing those regimes where required. Key regimes the Government would seek to utilise include NGERs and those in place for the reporting of fuel quantities for the fuel excise and customs duty systems.

The *National Greenhouse and Energy Reporting Act 2007* introduces a single national reporting framework for the reporting and assurance of information related to greenhouse gas emissions, greenhouse gas projects, energy consumption and energy production. The *National Greenhouse and Energy Reporting Act 2007* states that one of its key objectives is to underpin the introduction of an emissions trading scheme and the Act has been widely supported by industry and other non-government groups.

To streamline reporting and compliance for entities and to ensure that the emissions trading scheme is implemented smoothly, wherever practical NGERs would be the starting framework for monitoring, reporting and assurance of emissions under the scheme. However, in some areas, NGERs would need to be strengthened to support the financial importance attached to the emissions reported under the scheme. In considering the specific elements of NGERs for emissions trading, it is important that any potential modifications take into account the wider goals of NGERs for improving the collection of energy and emissions data.

5.1 Preferred position

NGERs would be the starting framework for monitoring, reporting and assurance under the scheme, and elements of that system would be strengthened to support the scheme.

Where practical, the scheme would also seek to utilise related provisions in other Australian Government schemes, such as the fuel excise and customs duty arrangements for liquid fuels, to minimise additional compliance burdens.

5.2 Defining the liable entity

For each source, the Government would need to decide the exact point in the supply chain at which obligations under the scheme would arise. As proposed in Chapter 2, facilities that emit 25,000 tonnes of CO₂-e (carbon dioxide equivalent) or more per year would be covered by the scheme, as would entities such as upstream fuel suppliers. Once a facility or activity comes within coverage, it would be important that a single entity be identified as responsible under the scheme for associated obligations.

Under NGERS, obligations to report emissions are imposed on the controlling corporation of a company group where a member of the group has operational control over a facility emitting 25,000 tonnes CO₂-e or more, or which produces or consumes 100 terajoules of energy per year or more. The entity with operational control is generally defined as the entity with authority to introduce and implement operating, health and safety, or environmental policies for a facility.

The feasible options available to the Government in determining where obligations would arise under the scheme are to adopt the same general approach as NGERS, or to develop an alternative framework in which scheme obligations would fall on entities which have financial control over, or own a share in, a covered facility.

In assessing whether operational or financial control is the best framework for allocating obligations under the scheme, it would be important for the Government to consider options that reduce compliance costs for liable entities and minimise implementation risks.

In most cases, a single entity would own and operate a facility that is covered under the scheme. In such cases, defining the point of liability would be straightforward, with no difference between operational or financial control approaches. Selecting a liable entity would be more complex where operational and financial control over a facility are separated or where a facility is owned by a number of entities.

If a financial control approach were adopted for the scheme, the Government may need to apportion obligations in circumstances where a covered facility is jointly owned by several entities. Such a situation could create administrative complexity and increase implementation risks for the scheme. This approach would also amount to a departure from the approach under NGERS, to which entities are currently adapting for the purposes of emissions and energy reporting.

Adoption of an operational control approach would be consistent with reporting obligations that entities have been preparing for since the introduction of the *National Greenhouse and Energy Reporting Act 2007*, thereby reducing compliance costs for the scheme. By placing scheme obligations on the entity that controls the day to day operations of the facility, an operational control approach may also increase opportunities for identifying and implementing behaviour or technology changes at the facility level.

To reduce compliance costs and implementation risks, the Government's preferred position is to adopt an operational control approach, based on that in NGERS, to allocate obligations under the scheme. For corporations, scheme obligations would generally be placed on the controlling corporation of a company group where either the controlling corporation or a member of the group has operational control over a covered facility or activity.

The Government would also need to make decisions about the treatment of facilities where multiple entities are involved in its operation.

In cases where multiple entities exercise a degree of operational control over a covered facility, making the placing of scheme obligations on a single entity more difficult, parties would be required to nominate a single entity responsible for obligations in relation to that facility or activity. In such cases the regulator would also have power to determine the responsible entity.

Unincorporated entities with operational control over a covered facility would also have obligations under the scheme. This could include partnerships, trusts, government and non-government organisations (for example, where waste landfill sites are operated by unincorporated local government councils), or individuals (who are involved in large facilities). The *National Greenhouse and Energy Reporting Act 2007* would be amended to oblige such unincorporated entities to report their emissions to the Government.

The Government intends to undertake further consultation and analysis over the second half of 2008 on how the operational control approach would be defined in relation to other special cases, such as forestry and upstream fuel suppliers (for example, to align with fuel excise and customs duty administrative arrangements).

5.2 Preferred position

In general, entities with operational control over covered facilities or activities would be liable for emissions obligations arising from those facilities or activities under the scheme.

- Where multiple entities exercise a degree of operational control over a covered facility or activity, a single responsible entity would be required to register and meet scheme obligations.
- For corporations, obligations would be placed on the controlling corporation of a company group where either the controlling corporation or a member of the group has operational control over a covered facility or activity.
- Unincorporated entities would also be liable under the scheme if they have operational control over a covered facility or activity.

Further consultation and analysis would be undertaken on the definition of liable entities under the scheme in relation to the forestry sector, upstream fuel suppliers (for example, to align scheme obligations with fuel excise and customs duty liability).

5.3 Monitoring, reporting and assurance

After liable entities are defined, the next steps in the compliance framework relate to monitoring and reporting covered emissions. For the scheme to function efficiently, it would also be important that assurance processes are in place to provide confidence to the market that the reported data are accurate and credible.¹

Given the central role of emissions data in the scheme, a strong monitoring, reporting and assurance regime is needed. Stakeholders recognised this need in submissions to the National Emissions Trading Taskforce. For example, the Australian Industry Greenhouse Network stated that ‘an ETS would require mandatory reporting with stringent verification and auditing protocols’.² Without a strong assurance regime, data reported under the scheme may not effectively underpin an efficient price signal.

An effective monitoring, reporting and assurance regime has three important elements:

- the monitoring of emissions, which describes the methodologies or equipment that entities would use to measure or estimate their emissions
- the reporting of emissions, which describes the format and timeframe for the submission of an entity’s emissions statement under the scheme
- the assurance of emissions, which describes the way in which emissions reported by entities are assured as credible and accurate.³

To promote efficient outcomes, the regime should seek to minimise compliance costs and avoid duplication by adopting current practices and guidelines wherever practical.

5.3.1 Monitoring

Under the scheme, liable entities would be required to monitor their emissions according to defined methodologies to determine their obligation each year, and to keep appropriate documentation and records to enable reported emissions to be assured.

Emissions monitoring and estimation can take several forms, from the use of observable activity data to estimate emissions, to site-specific sampling, through to direct measurement of emissions. The classes of methodologies available for use under NGERs are set out in Box 5.1.

Box 5.1

Classes of methodologies available for NGRS

Method 1: the National Greenhouse Accounts default method

Method 1 provides a class of estimation procedures derived directly from the methodologies used by the Department of Climate Change when preparing the National Greenhouse Accounts. The use of methodologies from the National Accounts anchors Method 1 within the international guidelines adopted by the United Nations Framework Convention on Climate Change for the estimation of greenhouse emissions.

Method 1 specifies the use of designated emission factors in the estimation of emissions. These emission factors are national average factors determined by the Department of Climate Change using the Australian Greenhouse Emissions Information System.

Method 2: a facility-specific method using industry sampling and listed Australian or international standards or equivalent for analysing fuels and raw materials

Method 2 enables entities to undertake additional measurements—for example, the qualities of fuels consumed at a particular facility—in order to gain more accurate estimates for emissions for that particular facility. This method draws on the large body of Australian and international documentary standards prepared by standards organisations to provide benchmarks for procedures for analysing the properties of fuels being combusted.

Method 2 also draws on existing technical guidelines used by reporters under the Generator Efficiency Standards program.

Method 3: a facility-specific method using Australian or international standards or equivalent for sampling and analysing fuels and raw materials

Method 3 is very similar to Method 2, except that it requires reporters to comply with Australian or equivalent documentary standards for sampling (of fuels or raw materials) and documentary standards for analysing fuels.

Method 4: direct monitoring of emission systems, on either a continuous or periodic basis.

Method 4 provides for a different approach to the estimation of emissions. Rather than analysing the chemical properties of inputs (or, in some cases, products), Method 4 aims to directly monitor greenhouse emissions arising from an activity. This approach can provide a higher level of accuracy depending on the type of emission process, however it is more data-intensive than other approaches.

As for methods 2 and 3, a substantial body of documented procedures on monitoring practices and state and territory government regulatory experience provides the principal source of guidance for the establishment of the system proposed under Method 4.

The NGERS methodologies have been developed in conformance with international obligations and with Australia's National Greenhouse Accounts. Consistency with those frameworks is likely to have important implications for the integrity of the Carbon Pollution Reduction Scheme and its potential for international linking.

Even the simplest of the NGERS methods (Method 1) provides estimates using national averages and ensures the accuracy of emissions at the scheme level. While all methods involve some level of inaccuracy, facility-specific accuracy tends to increase as monitoring and estimation moves through the methodologies to those encompassing more direct sampling and measurement. However, because industries and processes vary, using particular methods in different circumstances can produce different levels of data quality. For example, Method 2 used in one sector might provide greater accuracy than Method 4 used in another.

To streamline reporting, the Government's preferred position is that the monitoring methodologies available under NGERS also be used to support emissions reporting under the scheme.

5.3 Preferred position

Emissions estimation methodologies under the scheme would be those available under the National Greenhouse and Energy Reporting System.

Available methodologies

With NGERS methodologies as the starting point, the Government would need to decide which methods entities in each sector would have available to them for monitoring and estimating their emissions, and thus their obligations under the scheme. In general, 'higher order' methods would produce more accurate emissions estimates for sources at the facility level than would lower methods, but also have different compliance costs. The Government could take a number of approaches.

First, the scheme could adopt the approach taken under NGERS, which gives entities the flexibility to choose between methods 1 to 4, for all emission sources. While all methods ensure the accuracy of emissions estimates at the scheme level, it may be that the greater facility-level accuracy provided by methods 2 to 4 is desirable under the scheme. Greater accuracy in facility-level emissions information would increase the fairness of the scheme by ensuring that each facility faces carbon costs that most accurately reflect their specific emissions profile. More accurate facility level information would also increase scheme efficiency by revealing more abatement opportunities because a more detailed understanding of a facility's emissions profile would be available.

However, these benefits need to be weighed against the potential higher costs of more accurate methodologies. There could be a case for limiting the choice of methods allowed under the scheme if the benefits to the fairness and economic efficiency of the scheme outweighed the costs of more accurate methodologies.

Second, the scheme could set a 'statistical uncertainty bound' that entities would need to meet when reporting their emissions. This option would be similar to that adopted in the European Union Emissions Trading Scheme, where allowable levels of uncertainty

vary, depending on the installation involved—larger installations are required to more accurately calculate their emissions. Currently, entities are required to self-estimate and report the uncertainty of their data under NGERs; however NGERs does not mandate the uncertainty range to be achieved.

Specifying a desired uncertainty bound for emissions reporting would allow the Government to set the level of uncertainty acceptable for emissions reporting under the scheme. However, it also requires the specification of methods for calculating uncertainty (which adds complexity) or requires participants to self-estimate uncertainty (which might reduce transparency). The broad coverage of the scheme also means that emissions estimates are likely to be more uncertain in some sectors and sources than in others (for example, in the land-based sectors compared to sectors that burn fuel), leading to the need to specify different uncertainty ranges for different emission sources and adding further complexity. As a result, the Government is not in favour of specifying explicit uncertainty bounds at scheme commencement. If these issues could be overcome in the future, an uncertainty based approach which gave entities the flexibility to choose methods that most efficiently meet required facility level accuracy thresholds could be considered as the scheme matures.

Third, minimum estimation methodologies could be specified for use by liable entities for estimating specific emission sources. This would provide clear guidance to entities on the required methods while allowing for the increased efficiency of the scheme through improvements in the standards over time. This approach would also allow the Government, in consultation with industries, to balance the measurement and compliance costs of raising minimum standards with the overall benefit to the scheme of more accurate emissions information. If a minimum standard was introduced for a source, entities would still be able to choose between that and ‘higher order’ methods. Where no minimum standard was set, entities would be able to choose between all methods available under NGERs.

Assessed against the criteria listed in Chapter 1, the third option is superior to the others. Setting minimum estimation methodologies for emission sources in specific sectors best captures efficiency gains under the scheme while balancing those gains with additional costs to reporting entities. However, it would be most important that the Government seeks to minimise implementation risks and transitional costs, especially at scheme commencement. At commencement, the Government should not require the use of methodologies that are not already in widespread use for current reporting purposes under NGERs, the National Greenhouse Accounts, state-based reporting or other Australian Government programs (for example, Generator Efficiency Standards and Energy Efficiency Opportunities). In most cases, this would mean that entities would be able to choose between the use of unbiased default methodologies to estimate emissions (NGERS Method 1) and more accurate, facility-specific, ‘higher order’ estimation methods (NGERS methods 2–4).

Where facility-specific methodologies (methods 2–4) are already in widespread use for a source, those practices should continue under the scheme. For example, facility-specific methods are widely used for reporting emissions from electricity generation, perfluorocarbon (PFC) emissions from aluminium smelting and fugitive emissions from underground coal mines. In these cases, the continuation of these practices would

increase the efficiency and fairness of the scheme, with minimal additional costs arising from the use of these methods from commencement.

To capture these benefits, it is the Government's preferred position that minimum emissions estimation methodologies be imposed from the commencement of the scheme for electricity sector emissions, PFC emissions from aluminium production and fugitive emissions from underground coal mines. While the electricity sector is currently restricted to methods 2–4 under NGERs, amendments to the NGERs legislation would be required to apply the same restriction for PFC emissions and fugitive emissions from underground coal mines at commencement.

Box 5.2

Higher order methodologies currently used in specific sectors

Electricity sector

Under NGERs, reflecting widespread commercial practice and the current requirements of the Generator Efficiency Standards program, the electricity generation sector is required to use higher order methodologies for calculating entities' emissions from the combustion of coal and gas. Generators that meet certain thresholds are required to report carbon dioxide emissions estimates using methods 2–4.

Perfluorocarbon emissions

PFC emissions from the aluminium sector are currently estimated using facility-specific estimation methodologies as widespread business practice. Aggregated sector estimates voluntarily provided to the Australian Government are used to inform the National Greenhouse Accounts.

Fugitive emissions from underground coal mines

Underground coal mines are currently required by state regulators to monitor emissions via higher order methods for the purposes of occupational health and safety regulations. A number of major companies also voluntarily report these data in annual reports. The data are also used to inform the National Greenhouse Accounts.

To minimise implementation risks it is the Government's preferred position that, apart from the sources mentioned in Box 5.2, entities would have the option of choosing between all methods (methods 1–4) set out for NGERs for at least two years after the scheme begins.

While setting minimum methodologies for other sources from commencement may introduce implementation risks, it is probable that these costs can be better managed once the scheme is established. For example, as the scheme matures and entities gain more experience in monitoring and reporting their emissions, new and improved measurement methodologies would probably be developed around existing technologies and processes. As more accurate methods are increasingly used for a particular source, the additional costs of moving to more accurate minimum level methodologies would fall.

For this reason, the Government's preferred approach is to consider staged increases in the required accuracy of emissions estimates after the scheme has begun, where the benefits to the efficiency of the scheme outweigh the compliance costs of implementing more accurate monitoring methods.

Following industry feedback, the Government considers that some specific emissions sources could move to higher order methods (NGERS Methods 2–4) after 2012. Those sectors are outlined in Box 5.3. Comments are sought on these or other sources that could be considered for higher order measurement methods following the commencement of the scheme.

Box 5.3

Sources for which more accurate emissions monitoring methods could be considered after 2012

Coal (non-electricity uses)

In addition to its use in electricity generation, coal is also consumed directly by a number of large industrial emitters, such as the iron and steel, non-ferrous metal and cement industries. Given the size of these industrial operations and the variation in the carbon content of coal from different sources, the benefits to the scheme of increased accuracy of reporting by those sources may outweigh the additional costs of using more accurate estimation methods. Such an approach would also bring large industrial coal users into line with methodologies used in the electricity sector and remove differences in the treatment of different industries.

Natural gas (non-electricity uses)

Natural gas is also consumed in large volumes by industries other than electricity generation. Emissions per unit of gas vary by about 2 per cent depending on its source; however, the availability of data on the composition of gas within specific transmission and distribution pipelines would need to be assessed before higher methodologies could be imposed. Further investigation would also be required of the extent and reliability of gas composition analyses across Australia, possible problems associated with disclosing commercial information, the appropriate threshold, and the implementation costs of such an approach.

Emissions from solid waste

Emissions from solid waste at different sites depend on such factors as historical waste volumes, organic composition, site management practices, environmental conditions (geographical location) and the oxidation of methane in the landfill cap. The NGERS default factors are based on international estimates for several of these factors and do not currently allow for facility-specific variation in emissions. Several technologies currently available with higher site-specific accuracy, such as 'flux box' technology, may result in higher accuracy that is cost effective. To date, the use of higher order approaches in Australia has been low; however, these methods are being applied more commonly in international technology developments and improved landfill management practices.

5.4 Preferred position

Noting the four classes of methodologies available for NGERS (see Box 5.1), where Method 2 or above is already in widespread use for a source, those methodologies would be imposed as the minimum to be used from the commencement of the scheme.

The following sources would have minimum standards for emissions estimation methodologies imposed from the commencement of the scheme:

- electricity sector emissions (as required for the National Greenhouse and Energy Reporting Scheme and the Generator Efficiency Standards program)
- perfluorocarbon emissions (from aluminium production, as is current business practice and used for the National Greenhouse Accounts)
- fugitive emissions from underground coal mines (as currently mandated by state safety regulations for the large majority of mines).

Staged increases in the accuracy of emissions estimates over time would be pursued by imposing increasing minimum standards for estimation methodologies, where this is cost effective for the scheme overall.

Additional sources would be investigated for the possible imposition of minimum standards for emissions estimation methodologies soon after the commencement of the scheme, but not in the first two years of the scheme. Sources that may warrant investigation include:

- emissions from coal use (non-electricity, such as steel production)
- waste sector emissions
- natural gas combustion emissions (non-electricity)
- fugitive emissions from open-cut coal mines.

Comments are sought on these or other sectors that could be considered for higher order measurement methods following the commencement of the scheme.

Special case: methodologies for upstream fuel liabilities

As proposed in Chapter 2, to minimise compliance costs under the scheme, fuel suppliers would be liable for the greenhouse gas expected to be emitted from the fuel they supply. Fuel suppliers would be obliged to surrender permits equal to the emissions embodied in the quantities of fuel they supply to other entities who do not have direct obligations under the scheme.

Under these arrangements, fuel suppliers would be required to adopt special arrangements for estimating their obligations. These arrangements would involve measuring the quantities of fuel supplied to other entities who do not have direct obligations under the scheme, and determining the factors to be applied to those quantities to reach an estimation of emissions.

There are already some systems which measure the quantity of fuel supplied to other entities and assure the quality of this data. They include the fuel excise and customs duty systems for the supply of liquid petroleum. To streamline compliance, the scheme would seek to utilise these arrangements wherever practical. In preparation for the scheme, the Government would work with industry to further develop and refine the details of these methodologies.

5.5 Preferred position

Further consultation and analysis would be undertaken to establish appropriate reporting requirements and emissions estimation methodologies relating to the obligations of upstream fuel suppliers under the scheme.

Notification of changes to methodologies

Over time, it is likely that the Government would need to amend the methodologies available for use under the scheme. For example, because methodologies are based on international standards, changes to those standards would need to be reflected in scheme methodologies. Alternatively, minimum standards for some methodologies may be increased over time. In these circumstances, the Government would need to consider how much notice is to be provided before an amended domestic methodology takes effect.

Major changes to international estimation methodologies, such as revisions to global warming potentials for gases other than carbon dioxide, have potential implications for the scheme cap and market prices, particularly where such changes have a general effect across all entities. Consistent with the treatment of other significant scheme parameters, it is proposed that five years notice be given before such changes take effect in the Carbon Pollution Reduction Scheme.

On the other hand, less significant revisions to methodologies should be able to be made on a more flexible basis. In considering an appropriate notice period for such revisions, the Government would need to take into account:

- the time needed to implement new minimum-level methodologies
- the need for certainty around available reporting methodologies
- the notice that entities would need to manage transition costs.

Because sectors' response times would vary with their circumstances, current technology and the extent to which higher order methods have permeated a sector, the notice to be given for less significant changes should be determined on a case-by-case basis.

5.6 Preferred position

Consistent with adjustments to the scheme trajectory, five years notice would be given before major revisions of emissions estimation methodologies that affect the majority of stakeholders.

Consultation would be undertaken and appropriate notice would be given before imposing or increasing minimum standards for emissions estimation methodologies.

Consistency of data over time

While the use of Method 1 would be restricted under the scheme in the circumstances outlined above, for all other sources the Government would need to decide whether entities would be allowed flexibility to move between available methodologies at their discretion, or whether there should be restrictions on the frequency and/or the direction of movements between available methods.

Unlimited scope to nominate different methodologies at any time would mean that a liable entity could shift between them, possibly many times, giving rise to different emissions obligations under the scheme without any change in actual emissions or activity. Frequent methodological changes could also allow the selection of favourable methodologies in order to minimise year-to-year obligations, causing monitoring and assurance challenges for the scheme, instability in total measured emissions, and unforeseen financial implications for third-party investors. Such effects could challenge the transparency and fairness of the scheme.

As a way of addressing these issues, limitations could be placed on the scope for entities to switch between emissions estimation methodologies. Entities should reasonably be able to assess the costs and benefits of choosing a particular method several years in advance through their own research. Therefore, where an entity has elected, of its own choice, to use Method 2 or above to estimate its emissions obligations from a particular source, it is the Government's preferred position that this methodology would be the minimum standard for that entity for a period of four years. That is, firms would generally not be able to return to lower order methods for a period of four years, once this election had been made. The scheme regulator would have some discretion to grant exceptions to this rule; for example where it can be demonstrated that movement back to a lower level methodology would not result in any loss of precision in reported emissions data.

5.7 Preferred position

Noting the four classes of methodologies available for NGERS, where an entity has elected to use Method 2 (see Box 5.1) or above for a particular source, that methodology would be the minimum standard for that entity for a period of four years.

The scheme regulator may grant exceptions to this rule in some circumstances.

Documentation and records

Entities would be required to keep records of activities to show that emissions reports have been compiled accurately and to enable auditing of those reports. Section 22 of the *National Greenhouse and Energy Reporting Act 2007* sets out the current requirements for entities and individuals in relation to reporting emissions. Those requirements would be adopted for Australia's Carbon Pollution Reduction scheme. To allow reproducibility of the emissions estimates, information that would need to be retained could include:

- the list of all sources monitored
- the activity data used to calculate the emissions for each source, categorised by process and fuel or material type
- documents justifying the selection of the monitoring methodology
- documents detailing monitoring methods and the results from the development of facility-specific emission factors, biomass fractions and oxidation or conversion factors
- documents describing how activity data for the facility and its sources are collected.

5.8 Preferred position

Provisions relating to documentation and record keeping under the scheme would be based on those set out for the National Greenhouse and Energy Reporting System.

5.3.2 Reporting

Once liable entities have monitored and estimated their emissions, they would need to report them to the Government before surrendering permits. In addition to specifying methodologies, NGERs also establishes a system around the reporting of emissions to the Government, which would provide a starting point for emissions reporting under the scheme. However, the Government would need to consider whether any amendments to this system are required to support the scheme.

NGERS requires the annual submission of emissions reports by 31 October each year. The Government could require entities to report annually on their emissions, or alternatively could allow entities the flexibility of more frequent reporting periods, for example, quarterly.

More frequent reporting of emissions information could be expected to provide some benefits to the scheme, including that the timely flow of price sensitive information to the market throughout the year would result in a more stable market. However, the benefits would need to be weighed against the possibility of higher compliance costs for entities. While the proposal to allow entities the flexibility to report emissions at multiple times throughout the year warrants further investigation, the short timeframe before the scheme is implemented and the system changes it would require, preclude this as an option for when the scheme commences.

To minimise implementation risks, the Government's preferred position is that a single report submitted by 31 October would fulfil an entity's reporting obligations under both NGERs and the Carbon Pollution Reduction Scheme.

As envisaged under NGERs, entities would be able to report emissions data via the Government's Online System for Comprehensive Activity Reporting (OSCAR). Where liable entities currently report to the Government through another system, for example for imports of synthetic gases, the Government would seek to coordinate those systems with OSCAR to minimise compliance burdens.

The Government would need to decide when information provided to the market would be published and the level of detail of that information. In its current form, the *National Greenhouse and Energy Reporting Act 2007* sets a final publication date of 28 February for reported emissions and energy data. There are strong arguments that Australia's Carbon Pollution Reduction Scheme would be more efficient if emissions information is supplied to the market as soon as possible after its submission to the Government. The aim of prompt publication would be to inform the market before the final date for surrender of permits (see Section 5.4). On this basis, the Government's preferred position is that the date for the public disclosure of emissions data under the scheme should be brought forward from the final date set under NGERs (28 February) to as soon as feasible after 31 October.

Market efficiency will also be enhanced through the provision of detailed information to the market. In its current form, the *National Greenhouse and Energy Reporting Act 2007* allows emissions and energy data reported at the entity level to be published (section 24), with provision for entities to request that information not be published in certain circumstances (section 25). The Government needs to decide whether the publication of entity-level information, as allowed for under the *National Greenhouse and Energy Reporting Act 2007*, is sufficient to support an efficient carbon market, or whether the scheme should provide for the publication of more detailed emissions data (such as facility-level data).

The publication of facility-level data would deliver efficiency dividends to the scheme by providing the market with more detailed information about the structure and nature of an entity's obligations under the scheme. However, as envisaged in section 25 of the *National Greenhouse and Energy Reporting Act 2007*, public disclosure of some commercially sensitive data may cause concerns for some entities. Recognising these competing issues, the Government seeks feedback on whether the scheme should provide for the publication of reported information down to the facility level.

5.9 Preferred position

A single report would be sufficient to satisfy an entity's obligations under both the National Greenhouse and Energy Reporting System and the Carbon Pollution Reduction Scheme, with reports to be submitted by 31 October each year.

Emissions obligations under the scheme, the types of assessment methodologies used and any uncertainty estimates reported by liable entities would be published by the Government on the internet as soon as is feasible after reports are submitted.

The Government seeks feedback on whether the scheme should provide for the publication of reported information to the facility level.

5.3.3 Assurance

The Government would also need to decide the standards of assurance (or audit) to which reported emissions are subject in order to effectively underpin the scheme. Two broad options are available:

- assurance undertaken by independent third-party practitioners on a mandatory basis before the submission of an entity's emissions report
- self-assessment by entities, supported by a retrospective assurance regime managed by the Government.

Most trading schemes currently in operation require some form of third-party assurance of entities' emissions statements. Current examples are included in Box 5.4.

Box 5.4

Assurance in related schemes

- European Union Emissions Trading Scheme—All liable entities are required to submit emissions reports that have been assured by an accredited third party. Assurance is undertaken at the liable entity's expense.⁴
- New South Wales Greenhouse Gas Reduction Scheme—A third-party audit is required for all companies seeking to create certificates under the scheme. An audit and technical service panel has been established by the administrator, and audit may only be undertaken by members of that panel.⁵
- Mandatory Renewable Energy Target—The scheme's regulator (the Renewable Energy Regulator) can conduct audits of liability and compliance under the scheme.⁶
- Clean development mechanism (CDM)—All CDM projects are subjected to verification/certification by a designated operating entity, which is a third-party verifier accredited by the CDM Accreditation Panel and subject to regular performance spot checks by scheme authorities.⁷

An alternative approach is suggested for the proposed New Zealand Emissions Trading Scheme: entities self-assure their emissions reports, and the New Zealand Government undertakes any further assurance activity, on suspicion of non-compliance or on a risk management basis, after emissions reports are received.⁸

Assurance under the Australian scheme

It will be important for the Australian scheme's assurance regime to achieve economic efficiency via a stable and credible carbon market while not having to impose excessive compliance burdens on liable entities.

Poor-quality emissions data would affect market confidence and may undermine the credibility of the scheme, weakening its ability to drive efficient investment decisions and emissions reductions throughout the economy. Those risks would be most acute in the early years, when scheme credibility is being established and when the capacity of industries to report emissions is at its most immature. The integrity of emissions estimates under the scheme may also affect perceptions of the scheme internationally

and influence the scheme's ability to link with other schemes. For these reasons, it is imperative that the scheme is supported by a strong assurance regime.

Assurance of emissions reports by an accredited third party before their submission (the approach used in the European Union Emissions Trading Scheme⁹) would provide a high level of confidence to the market that reported data are complete and accurate, increasing the integrity and efficiency of the scheme.

Alternatively, the adoption of a self-assurance model would reduce compliance costs for liable entities but could risk the credibility of the scheme. The absence of third-party assurance could reduce market confidence in data underpinning the demand for permits.

Balancing these tensions, the Government's preferred approach is that the largest emitting entities have their emissions reports assured by third parties before they submit them. This approach would reduce risks to the scheme's credibility by assuring the quality of the information supplied to the market by the most significant emitters, while keeping costs down for smaller entities.

This approach is broadly similar to the regime currently in operation under the *Corporations Act 2001* in relation to the assurance of financial statements prepared by significant financial entities. Under the *Corporations Act 2001*, the most significant entities (publicly traded and large proprietary companies) are required to have their financial statements assured by accredited third-party auditors prior to lodgement with the Australian Securities and Investments Commission. Aligning financial and emissions reporting systems over time warrants further investigation to streamline reporting for entities that have obligations in both areas. However, due to the specific technical expertise required and the lack of agreed standards for assurance of emissions reporting, relying on financial reporting and audit systems for the Carbon Pollution Reduction Scheme at commencement might not provide adequate quality assurance for emissions-related data.

The Government's preferred position is that large emitters (that is, those with obligations of 125,000 tonnes of CO₂-e or more) be required to have their annual emissions reports assured by an independent accredited third party prior before submitting the reports to the Government. This threshold is broadly consistent with the 2008–09 corporate-level reporting threshold under NGERs and the Energy Efficiency Opportunities program. However, the number of entities caught by this threshold under the scheme would be lower than the number of entities reporting under NGERs, as only emissions for which the entity has scheme obligations would be counted towards the threshold test (for example, as proposed in Chapter 2, scheme obligations would exclude electricity and liquid fuel emissions covered upstream). The Government would consider the need to extend this requirement on the basis of experience on the scheme is implemented, developments relating to international linking and the compliance burdens that would be placed on smaller entities.

The regulator would also have powers to review annual emissions reports and amend assessments of entities' obligations under the scheme for up to four years after the date of assessment. However, in the case of suspected fraud this period would be unlimited. These periods of review are broadly consistent with amendment periods under current business tax provisions for entities with complex affairs. Generic enforcement provisions that would apply under the scheme are discussed in Section 5.5.

5.10 Preferred position

Large emitters (those with obligations under the scheme of 125,000 tonnes of carbon dioxide equivalent or more) would be required to have their annual emissions reports assured by an independent accredited third party prior to their submission. The Government would consider the need to extend this requirement on the basis of initial experience, developments relating to international linking and the compliance burdens likely to be placed on small entities.

The scheme regulator would have powers to conduct assurance audits using a risk-based approach for all emissions reports submitted under the scheme, as is the current approach under the National Greenhouse and Energy Reporting System. The regulator would also have the power to review an annual emissions report for up to four years after its submission, except in the case of fraud, in which case the period would be unlimited.

The Government would investigate further the scope to align financial and emissions reporting and verification systems.

Assurance standards, guidelines and accreditation

Assurance standards and guidelines are a key underpinning of any regulatory program requiring reporting of information. While assurance regimes for emissions information currently exist under some Australian Government and state government energy and emission reporting programs (such as Greenhouse Challenge), the Government would need to decide on assurance standards and guidelines to be applied to data reported under the Carbon Pollution Reduction Scheme.

The Department of Climate Change is working with the Auditing and Assurance Standards Board to develop auditing standards to apply under the *National Greenhouse and Energy Reporting Act 2007*. These standards would also take account of the financial implications of data reported under the scheme.

An accreditation system for auditors would also be established, with the form and nature of accreditation (including whether it is conducted by a government or a non-government body) determined with a view to minimising compliance costs while achieving the necessary standards and facilitating adequate capacity development. The Government would seek to streamline this process to ensure that a single accreditation system supports both NGERs and the Carbon Pollution Reduction Scheme.

5.11 Preferred position

Assurance under the Carbon Pollution Reduction Scheme would be carried out in accordance with guidelines made under the *National Greenhouse and Energy Reporting Act 2007* and standards produced by the Australian Government's Auditing and Assurance Standards Board.

All third-party assurance providers would be accredited to ensure the development of a pool of properly trained and qualified providers. The form and nature of accreditation (including whether it is conducted by the Government or a non-government body) would be determined after further consultation, with a view to minimising compliance costs.

5.4 Surrender of eligible compliance permits and the national registry

Liable entities would be required to surrender, for each financial year, a number of permits equal to their annual emissions under the scheme. Chapters 3 and 6 discuss the types of eligible compliance permits that would be accepted from the commencement of the scheme. Eligible compliance permits would include:

- carbon pollution permits
- certified emission reduction units—subject to qualitative and quantitative limits
- emission reduction units—subject to quantitative limits
- removal units.

As discussed in Chapter 3, it is proposed that under the scheme eligible compliance permits would be required to be surrendered annually. The Government would need to decide the exact compliance year for the scheme; for example, whether it operates on an Australian financial-year or calendar-year basis.

NGERS commenced on 1 July 2008 on a financial-year basis. This is consistent with Australia's international reporting under the Kyoto Protocol to the United Nations Framework Convention on Climate Change (Kyoto Protocol), which is also undertaken on a financial-year basis. Alternative compliance periods are not administratively feasible for the first year of NGERS because of technical constraints. As entities are already preparing to meet this requirement, compliance costs would be minimised if the compliance year for the Carbon Pollution Reduction Scheme is also based on the standard Australian financial year. The operation of the Australian scheme also would not hinder the international linking of the scheme if it were on a financial-year basis. The Government's intention is to commence the scheme in 2010. If the scheme does not commence on 1 July 2010, the first compliance period would be a part-year. For example, if it commenced on 1 October 2010, the first compliance period would be nine months.

5.12 Preferred position

The scheme would operate on a financial-year basis.

A national registry would be established to track the ownership of permits issued under the scheme and to manage their surrender. The registry would be used by a range of parties, including for the purposes of holding, transferring and surrendering permits.

Further details on the operation of the proposed national registry are provided in Appendix C.

Providing some time between the reporting of emissions (proposed as 31 October) and the final date for surrender of permits to meet an entity's obligation would reduce risks of price volatility by allowing greater opportunities for liable entities to phase their final purchases from the market. At scheme commencement, it is proposed that the final date for the annual surrender would be six weeks after the final date for emissions reporting. This period would allow enough time for reported emissions to be collated and published to inform the market, and for the regulator to issue assessment notices prior to the final date for the surrender of permits.

5.13 Preferred position

The final date for the annual surrender of permits would be a fixed time after the final date for emissions reporting. At scheme commencement, this period would be six weeks.

Although final compliance with an entity's obligations would not be determined until after the final surrender date, allowing entities to surrender permits throughout the year would give them additional flexibility to manage their carbon obligations. To ensure the integrity of the surrender process, once a permit has been surrendered by an entity, it would not be able to be revived or re-used under the scheme.

It is proposed that voluntary surrender of permits should also be allowed under the scheme to allow parties to contribute to stronger national climate change mitigation, regardless of whether they have obligations under the scheme. The voluntary surrender of permits would reduce the number available to liable entities to meet their obligations and would raise the price of permits. As this action is a reflection of legitimate value placed on voluntary surrender it should be permitted.

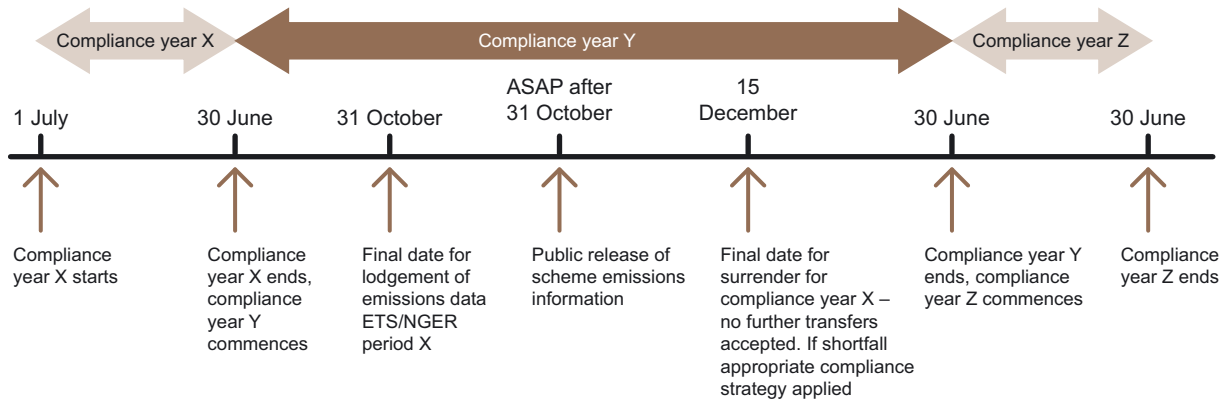
5.14 Preferred position

Liable entities would be allowed to surrender permits at any time before the annual surrender deadline to meet their end-of-year obligations (any permits surrendered would not be available for future compliance periods).

Any entity or individual would be allowed to voluntarily surrender permits regardless of whether they have obligations under the scheme.

Figure 5.1 provides an overview timeline for compliance processes, using 1 July 2010 as an indicative start date for the scheme.

Figure 5.1 Compliance timeline



5.5 Compliance and enforcement

Effective compliance and enforcement arrangements would be vital to achieving the objectives of the Carbon Pollution Reduction Scheme. Non-compliance with obligations (be it misreporting or failure to surrender permits) could bring the scheme into disrepute and undermine its environmental integrity. Detailed compliance and enforcement arrangements would be developed to support the key design elements of the scheme. A broad outline of possible approaches to compliance and enforcement is provided in this section to elicit early views of stakeholders, which could inform further work.

5.5.1 Key obligations in the scheme

The key obligations on liable entities under the Carbon Pollution Reduction Scheme are likely to be:

- to register for the reporting regime
- to lodge accurate emission reports, in accordance with the prescribed methods and standards, and keep associated records for assurance purposes
- to lodge emissions reports on time
- to surrender sufficient permits to balance emissions.

Obligations relating to emissions reporting would be met through NGERs under the *National Greenhouse and Energy Reporting Act 2007*, which would be modified to meet the requirements of the final design of the Carbon Pollution Reduction Scheme.

It is possible that further obligations would be defined as the details of the scheme are resolved.

5.5.2 Broad approach to compliance and enforcement

Compliance and enforcement encompass a broad spectrum of measures that allow a flexible and responsive approach to achieving legislative compliance. Once established, the scheme regulator would frame its own compliance program, setting out strategies, systems, tools and actions to promote the highest levels of compliance with the scheme.

Most liable entities are expected to comply voluntarily with legislation if they are provided with the relevant information and assistance. An initial focus of compliance activities is likely to be education and outreach, such as consultations on the design of administrative processes; provision of information (via the internet, seminars and other ways) to liable entities on how to comply; and providing convenient and inexpensive ways to interact with the regulator.

If these strategies fail to achieve an appropriate degree of compliance, a range of responses would be available, escalating to statutory enforcement of administrative penalties and, in more serious cases, civil and criminal penalties. These sanctions would match the seriousness of non-compliance, consistent with the 'enforcement pyramid' concept applied widely in other Commonwealth legislation.

An administrative penalty could be imposed on liable entities if they surrender too few permits to balance their emissions. In some circumstances a compliance penalty can form an effective price cap in the scheme (see Chapter 3). Enforcement provisions in the emissions trading legislation would be consistent with existing Australian Government policy. The *Guide to framing Commonwealth offences, civil penalties and enforcement powers*, published by the Attorney-General's Department, would be used to assist in the framing of proposed criminal offences, civil penalties and other enforcement provisions under the legislation.

5.5.3 Powers of the regulator

The emissions trading regulator would need powers to ensure that it can monitor compliance with the obligations imposed by the emissions trading legislation, educate liable entities, investigate suspected non-compliance and initiate enforcement action if necessary. These are likely to include powers relating to requesting information, inspection of books and facilities by officers authorised by the regulator, and entry into premises (with consent or with a warrant).

Powers are already available under the *National Greenhouse and Energy Reporting Act 2007* to require an external audit of the emissions report of a liable entity.

5.5.4 Other requirements for compliance and enforcement

The emissions trading regulator may need to be able to exchange information with relevant Australian Government, state and territory governments, and international regulators. For example, the regulator may need to exchange information with the Australian Securities and Investments Commission if it finds evidence of artificial transactions in carbon pollution permits (which are likely to inflate their price). It may also be desirable for the regulator to have the power to delegate monitoring to other agencies, with the responsible minister's approval, to facilitate multi-agency approaches where appropriate.

The application of international mutual assistance arrangements in relation to regulatory and criminal matters would need to be considered, as would mechanisms to prevent the use of emissions trading for money laundering and fraud.

Input would be sought from the relevant law enforcement agencies and stakeholders over the remainder of 2008 to ensure that the scheme embodies best practice approaches to compliance and enforcement.

5.15 Preferred position

The regulator would be given a range of compliance, investigative and enforcement powers, and a broad range of mechanisms to respond proportionately to non-compliance under the scheme.

The emissions trading regulator would be able to exchange information with relevant Australian Government, state and territory governments, and international regulators.

Compliance and enforcement provisions, including penalties, would be finalised over the remainder of 2008.

Endnotes

- 1 Accuracy refers to the general validity of the reported numbers from an accounting system. Accurate estimates are unbiased in that they do not systematically understate or overstate the true number. A related issue is precision. Precise estimates have small standard errors. Accuracy and precision are related, but can be independent. A system can be accurate (unbiased) but produce estimates of limited precision. On the other hand, extremely precise estimates can be biased if the system is not well designed. For the purposes of this chapter, the word 'accuracy' will be taken to include both accuracy and precision.
- 2 Australian Industry Greenhouse Network, *AIGN Response to the NETT*—January 2007, p. 14.
- 3 This chapter refers to the 'assurance' as opposed to the 'verification' of emissions reported by entities. This distinction is made to bring terminology into line with that used in the audit industry, where 'assurance engagements' are undertaken by accredited auditors to provide reasonable assurance that an organisation has complied with its reporting obligations; and to retain the principle that the reporter remains responsible for the accuracy of any reported information, even after assurance is completed.
- 4 Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.
- 5 NSW Greenhouse Gas Reduction Scheme (GGAS): <http://www.greenhousegas.nsw.gov.au>
- 6 Office of the Renewable Energy Regulator: <http://www.orer.gov.au/index.html>
- 7 United Nations Framework Convention on Climate Change, Decision 17/CP.7, modalities and procedures for a clean development mechanism as defined in Article 12 of the Kyoto Protocol.
- 8 New Zealand Climate Change (Emissions Trading and Renewable Preference) Bill.
- 9 Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.

