

9 Emissions monitoring, reporting & verification

This Chapter describes the high-level requirements for mandatory emissions monitoring, reporting and verification under a possible NETS. Mandatory reporting in covered sectors would be required at least two years in advance of the scheme commencing. All Governments recognise the need to streamline the current array of greenhouse and energy reporting requirements. The Council of Australian Governments (COAG) aims to reach agreement on national purpose-built legislation by December 2006 for cost-effective mandatory reporting and disclosure at the company level.

9.1 Monitoring, reporting and verification requirements for emissions trading

An effective, credible and efficient emissions monitoring, reporting and verification system would be required to underpin the NETS.

The data requirements within the covered sectors for emissions trading may actually be simpler than those applying under many current programs. However, the quality and integrity of the system requirements would be much higher than in some existing schemes (particularly voluntary schemes), and there would be requirements to establish and verify monitoring systems and emission reports.

The principles guiding monitoring, reporting and verification are accuracy, completeness, consistency, transparency and timeliness.

Essential requirements for emissions monitoring, reporting and verification under an emissions trading scheme include:

Monitoring requirements

- mandatory monitoring by liable parties
- verified monitoring systems
- protocols for accurate emissions calculation, including protocols for calculating imputed emissions⁸⁹
- national and international consistency
- appropriate penalties for non-compliance with monitoring requirements (including for providing false, misleading or late information).

⁸⁹ To enable gas retailers to calculate the emissions arising from the gas that is used by their customers.

Reporting requirements:

- mandatory reporting above specified thresholds by liable parties, based on standardised reporting formats
- appropriate penalties for non-compliance with reporting requirements
- public disclosure of emissions data at an appropriate level.

Verification requirements:

- mandatory verification of monitoring systems and reports by accredited auditors
- verification procedures, including auditor accreditation processes
- appropriate penalties for obstructing auditors
- sanctions against auditors who breach their obligations.

Desirable elements of an emissions monitoring, reporting and verification system include:

- cost-effective, standardised reporting formats and methodologies
- protocols built on the established body of work in Australia and internationally (for example, NGGI, IPCC, ISO 14064 and ISO 14065), adapted to Australian conditions and to Australian NETS design, including sectoral coverage and point of liability for monitoring and reporting
- use of Australian standards for uncertainty estimation, and development of Australian standards for estimation of facility- or source-specific emission factors.

Liable parties would need to monitor emissions and have emissions verified at a disaggregated level, to give accurate information on the emissions by covered facilities. A separate calculation should be made for each installation and for each fuel or greenhouse gas. For most industries this would be at a facility level to ensure the appropriate verification of the data. Public disclosure of the data might be by facility or at a more aggregated level, such as at company level.

Many respondents to the Background Paper agreed that reporting needed to be mandatory, accurate, timely and robust. Many stakeholders indicated a preference for use of existing reporting frameworks, primarily to minimise the reporting burden. However, if either this or cross-jurisdictional harmonisation were not possible, stakeholders were of the view that introduction of a new reporting system should be carried out in conjunction with the streamlining of existing reporting requirements.

Respondents varied in their views of the appropriate level at which reporting should occur. The Centre for Energy and Environmental Markets considered that:

Reporting should be based on the facility level since merger and acquisitions are likely to occur and data can be more easily managed. Furthermore, data verification is more easily performed at a facility level rather than company level. (submission 59, p. 19)

Some submissions suggested that a high level of transparency would be required. WWF, for example, wrote:

Reporting must be on an annual basis, must be included in formal Annual Reports and must be publicly accessible on the internet. Late reporting must be subject to penalties. (submission 41, p. 7)

A number of the issues raised by stakeholders are likely to be addressed under the national processes described in Section 9.3, particularly in relation to streamlining and harmonisation of reporting requirements.

9.2 Coverage and timing of monitoring, reporting and verification

If the scheme were to start on 1 January 2010, it is proposed that emissions monitoring, reporting and verification commence at least 2 years before the start of the scheme—that is, no later than 1 January 2008—for liable parties. If it is decided to include new sectors after the commencement of the scheme, then monitoring, reporting and verification requirements should apply at least two years before their inclusion as liable parties. This would provide sufficient time to develop, implement and refine monitoring and reporting systems and protocols, and to establish an audit program.

The introduction of monitoring before commencement of liability requirements was supported in the few submissions on the Background Paper that expressed views on timing. Santos wrote:

A scheme should be introduced as soon as possible but should allow for reasonable transition time to enable participants to put in place the necessary measurement and reporting systems. We envisage start-up before the end of the decade coinciding with the requirement for new (gas fired) base-load electricity generation in Eastern Australia. (submission 36, p. 2)

TRUenergy stated that:

A transition period is appropriate for industry to establish a new reporting regime and prepare for reporting emissions that may be required in addition to current reporting arrangements. (submission 39, p. 6)

9.3 Adoption of national emissions monitoring and reporting processes

State and Territory Governments recognise that there is a large number of greenhouse and energy monitoring and reporting programs (see box) and fully support efforts to reduce, streamline and harmonise existing reporting requirements.

The National Environment Protection Council⁹⁰ and the Ministerial Council on Energy and the Environment Protection and Heritage Council (MCE/EPHC) are carrying out investigations into future national emissions monitoring and reporting options. On 14 July 2006, COAG agreed that a single streamlined system that imposes the least cost and red tape burden is the preferable course of action. To this end, COAG agreed that Senior Officials should report back to COAG in December 2006 with a proposal for streamlining emissions and energy reporting in line with those objectives. The report should be based on the preparation of national purpose-built legislation to provide for cost-effective mandatory reporting and disclosure at the company level at the earliest practicable date. The report will also need to include advice on timing, thresholds and governance arrangements. COAG also agreed that every effort should be made to reach agreement on a national purpose-built legislation by December 2006.⁹¹

It is the strong preference of the State and Territory Governments that the national processes under way result in the timely delivery of a national emissions monitoring and reporting program that meets the requirements of a NETS, as described above. The State and Territory Governments are working within the national processes to achieve that outcome.

Legislation—either national or NETS-specific—would need to specify data quality and reporting and verification standards appropriate for emissions trading.

This view is also in line with many stakeholder comments. For example, the Energy Supply Association of Australia (ESAA) and the Energy Users' Association of Australia (EUAA) stated in their submissions:

esaa supports the work currently being undertaken by the joint working group formed under MCE and EPHC on the streamlining of energy and greenhouse reporting. The Taskforce should firstly look to use the outcomes of the MCE / EPHC greenhouse reporting work before proceeding with a new or additional reporting requirement or facility specifically for the proposed ETS. (submission 55, p. 7)

In terms of reporting, the EUAA supports using existing reporting regimes wherever possible. The basis for this view is that the administrative costs of the scheme should be minimised at all times. (submission 58, p. 8)

⁹⁰ A statutory body of Ministers with law-making powers under the *National Environment Protection Council Act 1994* (Cth) and corresponding Acts in other jurisdictions. Administratively, it operates under the umbrella of the EPHC.

⁹¹ See COAG Communiqué 14 July 2006 at www.coag.gov.au

Existing greenhouse and energy monitoring and reporting programs

Today there are several monitoring and reporting initiatives on the national level and a similar number of programs at State and Territory level. An electricity generator based in NSW could be subject to (or choose to participate in) nine separate greenhouse and energy programs or initiatives in reporting greenhouse and energy data—four of which are mandatory.

National programs include:

- National Greenhouse Gas Inventory (NGGI)
- National Pollutant Inventory
- ABARE Fuel and Energy Survey
- Greenhouse Challenge Plus
- Energy Efficiency Opportunity Assessment subset of the NFEE
- Australian Petroleum Statistics
- Generator Efficiency Standards
- Mandatory Renewable Energy Target (MRET)
- Greenhouse Friendly.

State and Territory programs include:

- Queensland EcoBiz
- Northern Territory Greenhouse Gas Reporting Program
- NSW & ACT Greenhouse Gas Abatement Scheme
- NSW Energy Savings Plans and Fund
- South Australian Greenhouse Strategy
- Victorian State Environment Protection Policy (Air Quality Management)
- WA Greenhouse Gas Inventory
- WA Greenhouse Registry.

9.4 Costs of monitoring, reporting and verification requirements

The additional costs to businesses for monitoring, reporting and verification under an emissions trading scheme should be relatively low, as businesses will already have systems in place to meet existing greenhouse and energy reporting requirements. However, as described above, the data quality and auditing requirements for emissions trading may be more stringent than those of current programs. At the same time, any increased costs should be offset by removal or streamlining of the reporting requirements for other programs, particularly once the MCE/EPHC process is completed.

In order to achieve a reasonable balance between accuracy and administrative costs, it may be necessary to differentiate monitoring requirements by the scale of a facility's emission levels and hence the significance of a source. In such a case, large emitters would need to

meet more accurate monitoring requirements for the main emission sources than would small emitters or less significant fuel or material streams. If this approach were to be adopted, the criteria for determining such accuracy requirements would need to be unambiguous.⁹²

9.5 Conclusion

An effective, credible and efficient emissions monitoring, reporting and verification system would be required to underpin the NETS. The system would make reporting mandatory and would require reporting (but not necessarily disclosure) at facility level, with stringent verification and auditing protocols.

Ideally, State and Territory Governments would like to base emissions monitoring and reporting on streamlined national processes that are currently under development, and to have monitoring and reporting in place by no later than 1 January 2008 if the NETS were to commence in 2010.

If other sectors are included after the commencement of the scheme then they would be required to report at the level required by the emissions trading scheme⁹³ at least 2 years before their inclusion as liable parties under the scheme's coverage.

Cost impacts of emissions monitoring and reporting under an emissions trading scheme are expected to be relatively low, as monitoring and reporting will be a requirement of separate national processes. Cost savings are expected to occur through the streamlining of reporting requirements under those national processes, and these would act to offset some of the costs of meeting the additional requirements for data quality and auditing that are needed to underpin an emissions trading scheme.

⁹² In the EU ETS the criterion of cost effectiveness was used to determine the level of accuracy. The experience was that such a term was too vague and was interpreted differently by different jurisdictions, leading to discrepancies in data quality (See Ecofys et al. 2005, *First Interim Report Results from Stakeholder Consultation on the Review of the EU-Monitoring and Reporting Guidelines*, http://ec.europa.eu/environment/climat/emission/pdf/first_interim_rep.pdf).

⁹³ Such facilities are likely to have to report to the national greenhouse and energy reporting framework from a considerably earlier date, but may not have to meet the more stringent requirements of the NETS at that time.

It is proposed that:

- *emissions monitoring, reporting and verification at the level required for a NETS commence no later than 1 January 2008 (if the NETS were to commence in 2010), covering all power stations of greater than 30 MWe capacity. Legislation would be required in 2007 to achieve this.*
- *the emissions trading scheme be underpinned by a national emissions monitoring and reporting framework, based on the outcome of processes being carried out by the NEPC and jointly by the MCE and the EPHC.*
- *given the stringent requirements that must be met for emissions monitoring, reporting and verification under an emissions trading scheme, State and Territory Governments are likely to need to establish additional requirements for accuracy and verification for emissions trading. It is expected that most of the costs associated with this would be offset by the removal or streamlining of other reporting requirements.*
- *for verification purposes, data would be monitored at the level that gives the highest accuracy and is verifiable (for example, site / facility level).*

Comments are sought on these proposals, and on:

- *the appropriate level of aggregation at which data should be reported to the regulator*
- *the level of aggregation at which data should be made available to the market*
- *the possibility of differentiating the stringency of monitoring and reporting requirements according to the quantity of emissions from a liable party.*