KEVIN BOEHMER and ALEG CHERP **outline the progress so far on the International Organization for Standardization's greenhouse gas accounting and verification standard**

An emerging global standard

In mid-2002, the International Organization for Standardization (ISO) identified a need to standardise aspects of greenhouse gas (GHG) accounting and verification to support the credibility, comparability and environmental integrity of existing and emerging GHG emissions reduction schemes.

The ISO's goal (see box) in developing a standard for GHG accounting and verification is to provide a set of unambiguous, verifiable requirements or specifications to support organisations and GHG project proponents in using quantification, monitoring and verification that ensures "a tonne of carbon is always a tonne of carbon". The ISO standard could be used also to enable GHG scheme administrators to design systems using standardised 'building blocks', which support the compatibility of rules and comparability and credibility of GHG quantification.

Governments, companies and voluntary initiatives currently use a number of approaches to account for GHG emissions and reductions. The most widely used approach for corporate GHG inventories is the Greenhouse Gas Protocol: a Corporate Accounting & Reporting Standard, which was developed under the auspices of the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD)[1]. Several voluntary GHG registries have built scheme rules based on this Protocol, including the California Climate Action Registry, US Environmental Protection Agency Climate Leaders and the WWF Climate Savers programme. Also, existing and emerging emissions trading schemes, such as the UK's and European Union's respectively, have developed or are developing rules for entity-level GHG emissions accounting consistent with the Protocol.

In September 2003, the WRI and WBCSD released a 'road test' draft of its GHG Protocol Project Quantification Standard and initiated its testing across a range of GHG projects. Unlike the standard for quantifying corporate GHG emissions, the GHG Project Standard provides guidelines for project developers to quantify GHG reductions from schemes with specific activities and fixed durations. These, and other efforts, provide useful best-practice guidance but are not verifiable international standards. Moreover, no internationally-recognised guidelines on GHG emissions verification exist at present.

Aims

The ISO's GHG accounting and verification standard, called ISO 14064, aims to be of interest to companies and organisations, GHG scheme administrators, project proponents, validation and/or verification bodies and environmental NGOs, among others. The ISO also envisages that the standard will:

- ☐ Enhance environmental integrity by promoting consistency, transparency and credibility in GHG emissions quantification, monitoring, reporting and verification;
- ☐ Enable organisations to identify and manage GHG-related liabilities, assets and risks through the systematic development and maintenance of GHG inventories;
- ☐ Facilitate the trade of GHG allowances or credits; and
- ☐ Support the design, development and implementation of comparable and consistent GHG schemes or programmes.

The ISO's GHG accounting standard will have three parts:

- ☐ *Part 1, greenhouse gases: specification for the quantification, monitoring and reporting of organisation emissions and removals*, will specify verifiable requirements for organisations to design, develop, maintain and report on organisational-level GHG inventories. This part will be of interest to organisations participating in voluntary GHG registries, regulatory allowance-based schemes or GHG scheme administrators designing such programmes or schemes.
- ☐ *Part 2, greenhouse gases: specification for the quantification, monitoring and reporting of project emissions and removals*, will specify verifiable requirements for GHG project proponents to

WHAT IS ISO AND WORKING GROUP 5?

ISO, a federation of some 148 national standards bodies and 550 international or regional liaison bodies, is a non-governmental organisation based in Geneva, Switzerland. Delegates nominated by national standards bodies or liaison organisations develop and negotiate ISO standards through a rules- and consensus-based process. All ISO standards are voluntary.

The ISO's Technical Committee 207 (TC207) on Environmental Management is responsible for the ISO 14000 family of standards, the best known of which is ISO 14001 on Environmental Management Systems.

In mid-2002, a joint Malaysia–Canada proposal to start development of GHG accounting and verification standards was approved by ISO TC207 and Working Group 5 on Climate Change was established to undertake the work. Some 140 international experts from 24 countries and three liaison organisations have participated in Working Group 5 work to date.

[1] See www.ghgprotocol.org

plan, monitor, quantify and report on projects, including resultant GHG emission reductions. This part of the standard is aimed at project proponents participating in voluntary programmes, regulatory credit-based schemes or GHG scheme administrators designing such programmes or schemes.

☐ *Part 3, greenhouse gases: specification and guidance for validation, verification and certification*, will specify verifiable requirements for validators and/or verifiers in providing assurance against GHG claims from organisations, for example in Part 1, or projects, for example in Part 2. This aims to be applicable to any GHG scheme and will be of interest to validation/verification bodies, validators/verifiers and GHG scheme administrators.

Technical development of the standard, which embodies the active committee work and negotiation by experts from ISO member bodies, is scheduled for completion in mid-2004. Those organisations interested in participating in the technical development of ISO 14064 are encouraged to contact their national standards body or relevant international liaison organisation (see www.iso.org). After consensus has been reached, the ISO's approval process takes over and the member bodies vote on the document. After the technical development phase is completed, the formal approval and editing process will take about a year, culminating in publication. ISO 14064 is planned for publication in mid-2005.

Equal footing

The ISO has developed international standards since 1947 and the ISO 'brand' builds from its infrastructure and processes. ISO standards are technical agreements that provide the framework for compatible technologies, products or services worldwide.

All ISO members have equal footing. This means every ISO member body has the right to take part in the development of any standard that it judges to be important to its country. No matter what the size or strength of that country's economy, each participating member in ISO has one vote.

The ISO is market-driven and so it develops only those standards for which there is a market requirement. ISO work is carried out by experts on loan from industrial, governmental, technical, business, non-governmental or other sectors which have asked for the standards, and which subsequently put them to use.

The ISO standards are voluntary and based on consensus among interested parties. However, two qualifications are helpful here. First, despite the voluntary nature of ISO standards, they may be made mandatory through their adoption into legislation or regulation. Second, 'consensus' is defined by the ISO as the "absence of sustained opposition" and does not imply unanimity in voting. ISO requires a review of its standards at least every five years to decide whether they should be maintained, updated or withdrawn.

But the developers of ISO 14064, ISO TC 207 Working Group 5, while taking advantage of ISO's reputation and process strengths, are not immune from the complexities and politics of developing such standardisation. They have therefore established four guiding principles to adhere to through the standard's development process.

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First, ISO 14064 will be GHG regime or scheme neutral. While being scheme neutral, ISO 14064 must maintain its applicability and relevance. This means the developers of ISO 14064 need to balance being 'scheme sensitive' with becoming 'scheme selective' or being 'policy relevant' with becoming 'policy prescriptive'.

Second, it is realised that anything short of a technically rigorous standard will lose market credibility and relevance. To this end, ISO TC 207 Working Group 5 will aim to align with the WRI and WBCSD GHG Protocol. Ongoing discussions with the WRI and WBCSD on compatibility with this Protocol will continue as the ISO standard is developed. Other relevant technical best practices, including IPCC methodologies and Kyoto Protocol Clean Development Mechanism requirements, are being considered by the ISO developers.

Third, the ISO recognises that the credibility of ISO 14064 may be impacted by the extensiveness of participation in the standards development process. The participation of various countries, regions, stakeholder groups and technical experts is important to ensure different perspectives, needs and expertise is accounted for.

Fourth, in recognition that much of GHG accounting and verification best practice is relatively new and evolving, the Working Group has committed to an ambitious, but responsible, schedule to complete the standard. As a variety of GHG emissions reduction schemes are under development or are being planned, the ISO hopes that the timely publication of its GHG accounting and verification standard will encourage its wide application.

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Conclusions

By regularly revisiting these four process principles – regime neutrality, technical rigour, extensive participation, speed-to-market – the Working Group aims for an ISO 14064 that will provide many users with a flexible, credible, verifiable standard applicable across a variety of voluntary or regulatory GHG emissions reduction schemes. However, the ISO is under no illusion that the standard will represent a 'total solution' to GHG accounting and verification needs. It is confident that ISO 14064 will provide an important 'building block' for participants in voluntary or regulatory initiatives and administrators responsible for designing and implementing GHG emission schemes or programmes. **CF**

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