

PROJECT PROPOSAL**Assurance Engagements on Carbon Emissions Information****1. Subject**

Proposal to develop a new International Standard on Assurance Engagements, ISAE 3xxx, “Assurance Engagements on Carbon Emissions Information.”

2. Project Rationale and Objectives**(a) Issue Identification**

Sources such as the Stern Report¹ and the report of the Intergovernmental Panel on Climate Change² have highlighted the overwhelming scientific evidence that “*climate change presents very serious global risks, and it demands an urgent global response.*” Stern notes that climate change “*is the greatest and widest-ranging market failure ever seen,*” and concludes that “*the benefits of strong and early action far outweigh the economic costs of not acting.*” The primary focus of the actions recommended by Stern is a shift to low-carbon energy systems.

A major step toward reducing carbon emissions is the development of “cap and trade” schemes, in which a central authority sets a limit, or “cap,” on carbon³ emissions, and entities in the scheme are given tradable credits (allowances) that represent the right to emit a specific amount of carbon. The total amount of credits cannot exceed the cap, thereby limiting total emissions to that level. Entities that pollute beyond their allowance must either buy credits from those who pollute less than their allowance, or face penalties. In effect, the buyer is being fined for polluting, while the seller is being rewarded for having reduced emissions. Thus, entities that can easily reduce emissions will do so, and those for which it is harder will buy credits. The rationale behind such schemes is to provide market incentives for emission reductions to take place where the cost of the reduction is lowest.

The robustness of such schemes is subject to the rigor with which emissions are measured, which in turn is affected by the measurement criteria and the assurance systems used.

The ratification of the Kyoto Protocol’s “cap and trade” approach to carbon emissions by all but two of the world’s developed countries (Australia and the USA) has added significant impetus to the development of regional, national and international carbon

¹ “Stern Review on the Economics of Climate Change” www.sternreview.org.uk.

² “Climate Change 2007: The Physical Science Basis” www.ipcc.ch

³ While the term “carbon” is used here, different schemes may regulate different greenhouse gases (GHGs). Carbon dioxide (CO₂) is the major GHG. Other GHGs (e.g., methane, nitrous oxide, sulphur hexafluoride, hydrofluorocarbons, perfluorocarbons and chlorofluorocarbons) are often measured as carbon dioxide equivalents (CO₂-e).

markets. In recent years, numerous carbon trading schemes have commenced, including the EU Emissions Trading Scheme,⁴ Japan’s Voluntary Emissions Trading Scheme, the New South Wales Greenhouse Gas Reduction Scheme,⁵ and the Chicago Climate Exchange⁶ (see Appendix for a table of 14 schemes). Governments currently exploring further greenhouse gas trading schemes include Australia,⁷ and the UK.⁸

While a primary use of carbon emissions information is to facilitate carbon trading schemes, other uses are also evident, including:

- Disclosure by entities seeking to become “carbon neutral,” e.g., News Corporation: “Our carbon footprint last year was 641,150 tons. ... Today, I am announcing our intention to be carbon neutral, across all our businesses, by 2010”.⁹
- Consumer-based innovations, such as Tesco’s plan to feature a “carbon calorie counter” on every own-label product to show the amount of carbon generated during development and distribution; and Rabobank’s carbon-free credit card program, which analyses the type of purchases made with each card and purchases commensurate carbon offsets in accordance with a methodology developed in conjunction with the World Wildlife Fund.
- Disclosure in entities’ sustainability reports, e.g., the leading criteria for sustainability reporting, the GRI Guidelines, include “Total direct and indirect greenhouse gas emissions by weight” as a core indicator.¹⁰
- Disclosure in accordance with regulatory requirements. One example of such regulation is New Mexico’s mandatory greenhouse gas reporting regulations, which require industry in the state, including power plants, oil and gas refineries, and cement plants, to report their emissions from 1 January 2008.¹¹ The New Mexico regulations are akin to those being developed in California under *The California Global Warming Solutions Act of 2006*, which will impose mandatory reporting obligations on entities emitting significant sources of greenhouse gases also from 1 January 2008.¹² Also, the Australian Government has recently passed legislation to establish a national

⁴ ec.europa.eu/environment/climat/emission.htm

⁵ www.greenhousegas.nsw.gov.au/

⁶ www.chicagoclimatex.com

⁷ www.dpmc.gov.au/emissionstrading/index.cfm

⁸ The UK Emissions Trading Scheme, which commenced in 2002, ended in December 2006. The UK government is now consulting on a new scheme, the “Carbon Reduction Commitment” (CRC). Announced in May 2007, the CRC will apply mandatory emissions trading for large commercial and public sector organizations (including supermarkets, hotel chains, government departments, large local authority buildings). www.defra.gov.uk/environment/climatechange/trading/index.htm

⁹ Rupert Murdoch, Chairman and Chief Executive Officer, News Corporation, May 9, 2007

¹⁰ Global Reporting Initiative, Sustainability Reporting Guidelines, indicator EN 16. See also the joint GRI and KPMG research publication: “Reporting the Business Implications of Climate Change in Sustainability Reports.” www.globalreporting.org

¹¹ www.environmentalleader.com/2007/10/12/new-mexico-approves-mandatory-greenhouse-gas-reporting-regulations

¹² www.arb.ca.gov/cc/ccei/reporting/reporting.htm

framework for reporting greenhouse gas emissions, abatement actions and energy consumption and production by corporations from 1 July 2008. This particular legislative example does have an expectation that the disclosure be verified.

- Voluntary carbon registers, e.g. the Carbon Disclosure Project, which is “the largest repository of corporate greenhouse gas emissions data in the world,” and the California Climate Action Registry.¹³

(b) Rationale for IAASB’s Undertaking the Project

The value of the world’s carbon markets is large and is getting larger – according to the World Bank, the value of transactions in the main schemes tripled from USD 8.0 billion in 2005 to USD 24.6 billion in 2006.¹⁴ Yet there is a great deal of variation in the way current carbon trading schemes assure the data used to establish valuable rights and obligations (see Appendix). It is expected that over time, a global trading scheme will emerge, either through global “regulation” like the Kyoto Protocol, or through individual schemes allowing credits to be traded with other schemes.¹⁵ The evolution of a global trading scheme will require a global approach to assurance.

IFAC member bodies and accounting firms, rather than the IAASB, will be liaising with policy makers on the form of verification/audit/assurance that particular schemes should require. However, in the absence of a generally accepted international standard, it is difficult for them to argue that the global accounting profession stands ready to offer a solution. As a recent report by PricewaterhouseCoopers “Building Trust in Emissions Reporting” (February 2007) noted:

Currently...the industry is a long way from a crystal clear set of requirements for verification competences in emissions reporting supply chains... This can result in misunderstandings over the value of the verification outcome, with an expectation gap between what an individual verifier actually assures and what the other actors in the reporting chain assume. This increases the risk of errors and abuse and could undermine trust in the schemes. A new global set of generally accepted emissions verification standards need to be established to address these concerns

¹³ www.cdproject.net and <http://www.climateregistry.org>

¹⁴ http://www-wds.worldbank.org/external/default/main?pagePK=64193027&piPK=64187937&theSitePK=523679&menuPK=64187510&searchMenuPK=64187283&theSitePK=523679&entityID=000020953_20070606144908&searchMenuPK=64187283&theSitePK=523679

¹⁵ “A workable global emissions trading scheme is likely to evolve slowly through a patchwork of linked national and regional schemes. A single comprehensive global emissions trading scheme in which all countries participate under the same rules would deliver least-cost global abatement. Unfortunately, it is unlikely to be achievable in the foreseeable future, not least because of the loss of sovereignty that would be involved. It is more realistic to envisage a global regime emerging through informal and formal linkages between national and regional emissions trading schemes and other arrangements.” Report of the Prime Minister’s Task Group on Emissions Trading, Australia, February 2007.
<http://www.pmc.gov.au/publications/emissions/index.cfm>

The need for a focus on assurance mechanisms is evident in recent consultations, e.g.:

- In “Meeting the Energy Challenge – A White Paper on Energy” (May 2007), the UK Department of Trade and Industry notes that “the approach to monitoring, reporting and verification/audit” is one of four key areas for further consideration during consultation.
- In their response to a recent proposal by the Australian National Environment Protection Council, the three Australian IFAC member bodies noted “that there appears to have been little consideration of the requirement for independent assurance (verification) of any data prepared in accordance with such a framework. It is essential that data being reported in accordance with the framework is credible – for which equally rigorous and robust assurance requirements are needed.”

While some international standards have been developed by private organizations (e.g., ISO 14064-3), these standards are not necessarily freely available, and have not been developed in accordance with the rigor of the IAASB due process, or in the context of the related documents applicable to professional accountants (e.g., ISQC 1, the International Framework for Assurance Engagements, and ISAE 3000).

There is a need for timely development of an ISAE dealing specifically with carbon trading to provide a proper reference point as a global trading scheme evolves. While a global scheme may appear to be some way off, a global assurance standard is needed in the short to medium term so that it can be referenced in national and other schemes and thus evolve as the global standard in time.

Similarly, as the other uses of carbon emissions information mentioned above (assertions of carbon neutrality, consumer-based innovations, and disclosures in sustainability reports, in accordance with regulatory requirements, and in voluntary carbon registers) become more prevalent, the demand for a consistent approach to assurance, and thus the need for an international standard, is likely to grow.

Also, while not a primary focus of this project, an ISAE on this topic will likely be of assistance to financial statement auditors when considering the carrying value of emission trading rights.¹⁶

(c) Objectives to Be Achieved

To address professional accountants’ responsibilities with respect to assurance engagements on carbon emissions information

¹⁶ The IASB is currently considering whether to re-activating its project on Emission Trading Schemes.
<http://www.iasb.org/NR/rdonlyres/6939C5DC-D4A4-4033-A42F-E2243892B8B7/0/0711on04b.pdf>

3. Outline of the Project

(a) Project Scope

The scope of this project includes the development of requirements and guidance on professional accountants’ responsibilities with respect to assurance engagements on carbon emissions information, including the form and content of the assurance report. The task force will consider what specific guidance is necessary beyond the general requirements of ISAE 3000.

(b) List the Major Problems and Key Issues that Should Be Addressed

SUITABILITY OF CRITERIA

Different trading schemes use different sets of criteria, which can, and do, vary in certain significant respects, e.g., how they address the various methods of “offsetting” including tree-planting, energy efficiency projects and the like. Some criteria have been developed for application across schemes also,¹⁷ and can be used along with those specified for a scheme, particularly where the criteria specified for the scheme are silent on an issue. Given that they are currently being used for assurance engagements, and the fact that actual trades are being made based on data generated according to these criteria, it is expected that a number of these sets of criteria will display the characteristics of suitable criteria (relevance, completeness, reliability, neutrality and understandability). The ISAE will provide guidance on how these characteristics should be applied to determine whether a particular set of criteria is suitable. Further, the task force will consider whether the ISAE should specifically name any particular sets of criteria that have achieved general acceptability, perhaps as examples in the text.

USING THE WORK OF AN EXPERT

The ISAE will need to give attention to the need for the engagement team to access specific expertise in the evolving legal/regulatory/trading market environment; the physical processes by which carbon emissions are generated, reduced, avoided or removed (e.g. sequestration); the methods available to quantify, monitor and report on carbon emissions and the uncertainties around these methods; and the determination of appropriate carbon emission boundaries.

LEVEL OF ASSURANCE

The task force will consider whether both “reasonable assurance” and “limited assurance” engagements should be covered by the ISAE. This will be addressed, in part, by evaluating the content of assurance requirements and reports for existing emissions trading schemes. In this regard, AICPA SOP 03-2¹⁸ states “while a review-level service relating to an entity's

¹⁷ Such as the World Business Council for Sustainability Development / World Resources Institute protocols for company and project GHG accounting, and ISO 14064 parts 1 & 2 for GHG measurement & reporting

¹⁸ AICPA Statement of Position (SOP) 03-2, *Attest Engagements on Greenhouse Gas Emissions Information*

GHG inventory is permissible under existing attestation standards, it is most likely that the market will ultimately demand an examination-level service. Accordingly, this SOP provides guidance only on an examination-level service.” A similar approach is likely for the IAASB project.

EVIDENCE GATHERING PROCEDURES

The ISAE should provide guidance on the risk factors professional accountants should consider when obtaining assurance on carbon emissions, and on the nature, timing and extent of further procedures.

FORM AND CONTENT OF THE ASSURANCE REPORT

The ISAE should aim to bring a degree of consistency to the form and content of assurance reports on carbon emission disclosures. Consistency of reporting (in addition to consistency of work effort) is particularly important in evolving areas of assurance to ensure expectation gaps are avoided to the extent possible.

(c) Cost-Benefit Considerations

A decision by the IAASB to amplify the guidance to professional accountants will likely have cost benefit implications for assurance engagements specifically to report on carbon emissions. The task force will consider and explore cost benefit implications in developing its recommendations to the IAASB.

4. Describe the Implications for any Specific Persons or Groups

The project has particular implications for the following:

- (a) The Sustainability Experts Advisory Panel (SEAP), who support this proposal and who will be consulted at key stages as the project develops;
- (b) IFAC Member Bodies and regional groups (in particular FEE) who have requested the IAASB to undertake a sustainability-related project; and
- (c) Non-accounting groups, such as: (i) the ISO, which has produced a standard on the validation and verification of greenhouse gas assertions; and (ii) regulators, such as those in Alberta who are proposing a regulation for carbon emissions that would call for companies' carbon emission reporting to be verified by either registered engineers or public accountants. The task force will monitor important developments with such groups, and keep the IAASB informed, seeking direction regarding any liaison as appropriate.

5. Project Timetable and Project Output

- (a) Project timetable (subject to the availability of Board time in light of the priority to be given to the clarity project)
 - Issues Paper and First Read of draft exposure draft – June 2008
 - Exposure Draft – September 2008
 - Final revised guidance – September 2009

(b) Project output

A new ISAE drafted in accordance with the new drafting conventions under the IAASB Clarity project.

6. Resources Required

A project task force will be created, consisting of up to 5 people, including a member of the IAASB as chair, and a mixture of SEAP members and others with particular expertise in assurance on carbon emissions.

The task force should consult the following groups at appropriate stages of the project:

- The IAASB CAG; and
- National standard setters, due to the potential effect any international standard may have on corresponding national standards, particularly from the perspective of convergence.

One IAASB staff member will provide staff support to the task force. A plain language reviewer will be involved at appropriate stages of the project.

7. List Important Sources of Information that Address the Matter being Proposed

- International Framework for Assurance Engagements
- ISAE 3000, *Assurance Engagements Other than Audits or Reviews of Historical Financial Information*
- AICPA Statement of Position (SOP) 03-2, *Attest Engagements on Greenhouse Gas Emissions Information*, and CICA Practice Guide, *Engagements to Audit GHG Emissions Information* (2003), both developed by a joint AICPA/CICA Task Force
- Royal NIVRA, COS 3410, *Assurance engagements relating to sustainability reports*
- World Business Council for Sustainable Development & World Resources Institute, *The Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard* and *The Greenhouse Gas Protocol – The GHG Protocol for Project Accounting*¹⁹
- ISO 14064-3, *Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions*
- UK Department for Environment, Food and Rural Affairs (DEFRA), *EU Emissions Trading Scheme - Guidance on Annual Verification - Version 3, 12 February 2007*²⁰
- FEE Alert: *Emissions Trading*²¹

¹⁹ <http://www.ghgprotocol.org/standards>

²⁰ www.defra.gov.uk/environment/climatechange/trading/eu/permits/pdf/annverifguide.pdf

²¹ http://www.fee.be/publications/default.asp?library_ref=4&content_ref=252

- CICA , *Environmental Auditing and the Role of the Accounting Profession*, Research Report, 1992 (specific reference to emissions credit schemes on page 66)
- Broader literature on greenhouse gas reporting & assurance, e.g., the references mentioned in section 2 above “Project Rationale and Objectives”

Prepared by Michael Nugent and Roger Simnett

Date November 13, 2007

Approved by _____

Date _____

(Chair on behalf of the IAASB)

APPENDIX – Analysis of known carbon trading schemes

This is a draft of an edited schedule being prepared by Anna Huggins, University of NSW, based on an initial analysis included in “Building Trust in Emissions Reporting”, PricewaterhouseCoopers (PwC, February 2007)

Scheme; Emissions covered; Geographical reach	Emissions sources targeted	Number of sources	Absolute or relative targets?	Start	Reporting requirements	Assurance requirements
EU ETS; CO ₂ ; European Union	Large industrial and energy-intensive installations	~10,000 units	Absolute targets	2005	Binding rules in Monitoring & Reporting Guidelines.	No EU-wide standards for verification; most Member States require third-party verification.
UK Carbon Reduction Commitment Scheme; CO ₂ ; United Kingdom	Large commercial and public sector organizations with electricity consumption over 6,000MWh.					
NSW GGAS; CO ₂ , CH ₄ , N ₂ O, PFCs, HFCs, SF ₆ ; New South Wales (Australia)	Power generation, energy efficiency, industrial processes and carbon sequestration in forests	Approx 200 projects at 31 August 2007	Relative targets	2003 (NSW); 2005 (ACT)	Compliance reporting.	Annual audit of compliance reporting.
JVETS; CO ₂ ; Japan	Direct emissions from combustion of fuels and waste materials; direct emissions from processing chemicals	90 entities	Absolute targets	2006/2007 (participant-dependent)	Participants have to submit CO ₂ monitoring reports for both the past 3 years and the commitment period.	Verification will be conducted by reviewing the monitoring report and on-site visiting by the qualified members

	and materials; and indirect emissions (e.g. use of grid-electricity)					of the Operational Entity Association of Japan.
RGGI; CO ₂ ; A group of Northeast and Mid-Atlantic US states	Electricity generating units that have a nameplate capacity equal to or larger than 25 MW and burn more than 50 per cent fossil fuels	Between a few and a few hundred units per state	Absolute targets	Compliance starts in 2009		
CCX; CO ₂ , CH ₄ , N ₂ O, PFCs, HFCs, SF ₆ ; US, Canada, Mexico, Brazil	Sources in the electric power sector and fossil fuel combustion and process emissions in the manufacturing sectors	43 “Members”	Absolute targets	2003	Emissions reported quarterly. Emissions from electricity generating plants are quantified using Continuous Emission Monitoring Systems.	
CCAR; CO ₂ (other GHGs optional); California	A wide range of sources	>90 participants	No targets	2002	General and industry-specific protocols.	
Clean Development Mechanism (under Kyoto Protocol); CO ₂ , CH ₄ , N ₂ O, PFCs, HFCs, SF ₆ ; Global involvement	A wide range of activities	844 registered projects	No targets	2005	In accordance with the monitoring methodology of each ‘Project Design Document’	The project’s monitored emission reductions are periodically verified and certified.
Joint Implementation	A wide range of activities	>100 JI projects in	No targets	2008	Successfully determined projects are	The monitored emissions reductions are

(under Kyoto Protocol); CO ₂ , CH ₄ , N ₂ O, PFCs, HFCs, SF ₆ ; Global involvement		the pipeline			implemented and monitored.	periodically verified.
SO₂ allowance market of the ARP; SO ₂ ; Continental US (48 states, excluding Alaska and Hawaii)	Fossil-fuel burning units serving electric generating units greater than 25 MW	~3,000 units	Absolute targets	1995	Continuous Emission Monitoring Systems or an approved alternative. All affected sources report hourly emissions data in quarterly reports.	The US Environmental Protection Agency (EPA) conducts automated software audits and periodic on-site audits.
NO_x Budget Trading Program; NO _x ; Most eastern US states	Fossil fuel-fired electric generating units connected to a generator with a nameplate capacity >25MW (in some states >15MW) and fossil-fuel industrial boilers and turbines with a maximum design heat input capacity >250 m British thermal units per hour	~2,500 units	Absolute targets	2003/2004 (state-dependent)	Continuous Emission Monitoring Systems or an approved alternative measurement method.	
RECLAIM; NO _x , SO ₂ ; Los Angeles Basin	Facilities that emit at least 4 tonnes per year of either NO _x or SO ₂	NO _x only: ~300 facilities;	Absolute targets	1994	Continuous Emission Monitoring Systems to determine actual mass	

Area of Southern California (US)		NO _x and SO ₂ : 33 facilities (mostly refineries)			emissions from larger sources, which are reported daily.	
Ontario NO_x & SO₂ Program; NO _x , SO ₂ ; Ontario (Canada) – and 12 US States and the District of Columbia for offset projects	Facilities in 7 industrial sectors plus all fossil-fired electricity generators with >25MW capacity that generate >20,000MWh of electricity per year and emit more than trace amounts of NO _x and SO ₂	67 facilities	Absolute targets	2001 (electricity sector) & 2006 (additional sectors)	Continuous Emission Monitoring Systems approved alternative. Emissions of capped emitters must be reported annually to the regulatory authority.	Annual emissions reports are subject to audits by the regulatory authority. Credits from offset projects must be verified by an independent third party.
Dutch NO_x ETS; NO _x ; The Netherlands	Installations exceeding a 20MW thermal capacity threshold and installations generating NO _x emissions in the production process	148 units	Relative targets	2005	Installations need to have a permit and monitoring plans (comparable to EU ETS obligations).	Participants must submit verified emissions reports to the competent authority.