Helping Organizations Manage their GHG Portfolio

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Overview

• Context: why do ISO and CSA care about climate change?
• Why standardize?
• Newly released ISO standards can help organizations manage their GHG portfolio through:
  ▪ GHG Inventory
  ▪ GHG emission reducing projects resulting in GHG credits
• Raising awareness of the uses of the standard is key
• Potential benefits of using ISO standards for managing GHG portfolio.
ISO was born out of a market need

- The International Organization for Standardization (ISO) established in 1947 - based in Geneva, Switzerland
- A federation of the national standards bodies of 157 countries and 500+ international/regional liaison members
- Mission to “to facilitate the international coordination and unification of industrial standards”
- Over 16,000 international standards published
- Designed to be implemented world-wide
- Develops standards by transparent, consensus-based procedures based on national input
- 3,000+ technical groups that develop standards with the broadest possible base of stakeholder groups
- ISO meetings attract some 50,000 experts a year
In Canada, CSA makes standards work for people and business

- CSA is a national, independent, not-for-profit organization established in 1919
- It maintains over 2,600 standards, including the electrical and gas codes
- Over 40% of CSA standards are referenced in government regulation
- CSA relies on the expertise of 9,000 volunteer members to:
  - Enhance public health and safety
  - Improve quality of life
  - Preserve the environment
  - Facilitate trade
- CSA is part of the CSA Group
• Adaptation of infrastructure to a changing climate.

• Mitigation strategies:
  - Emerging Renewables
  - Distributed Generation
  - Green Fleets
  - Fuel Cells
  - Cleaner Fossil Fuels
  - Buildings and Infrastructure

• GHG Accounting and Management:
  - Quantification Protocols
  - ISO 14064
  - GHG Registries
The risks from a changing climate can be severe

Source: Intergovernmental Panel on Climate Change, Third Assessment Report, 2001
Insurance companies are worried...

- Munich Re Foundation (a reinsurer), said 2005 was the costliest year for weather-related disasters, with $200 billion in economic losses.

- The World Health Organization has assessed that the world’s warming climate is contributing to 150,000 deaths per year and 5 million illnesses due to increased rates of malaria, malnutrition and diarrhea throughout the world.

- University of Arizona and Scripps Institute of Oceanography said the length of the fire season in the US has increased almost 2 and a half months compared with climate normals between 1971 and 1986.

- U.S. National Association of Insurance Commissioners (NAIC) voted unanimously to form a task force to examine the impact of climate change on the insurance industry and on insurance consumers.
...and investors are worried.

• The Investor Network on Climate Risk (INCR), managing over $3 trillion in assets, was formed to promote better understanding of the financial risks and investment opportunities posed by climate change;

• In June, 2006, 28 institutional investors, managing $1 trillion in assets, called on the US Securities and Exchange Commission (SEC) to require publicly traded companies to disclose the financial risks of climate change in their securities filings.

• The Carbon Disclosure Project, representing 211 institutional investors with more than $31 trillion in assets issued its 4th report in September. 72% of companies surveyed in the report responded to the questionnaire. More than half of the companies who identified that they were at risk didn’t have a plan to manage their GHG emissions.
...but why should businesses standardize?

Value = \frac{1}{Risk}

- Competitive Advantage
- Lower Investment in Development Costs
- More Consistent Health, Safety and Environment
- Safer Products
- Customer Knows What to Expect
- Reputation is Protected
- Expanded Markets
- Location-flexible Manufacturing
- Location-flexible Supply Chain
- Pre-draft Regulations
| ISO/TC 207 Climate Change Task Force | **Purpose**: ISO’s initial consideration of climate change issues, focusing on the linkage to existing ISO 14000 standards.  
**Timeline**: Pre-2000 |
| ISO Technical Management Board – Ad Hoc Group on Climate Change | **Purpose**: Research market needs for ISO climate change standards and provide strategic advice to the Technical Management Board  
**Timeline**: January 2000 – February 2002 |
| ISO/TC 207 Working Group 5 on Climate Change | **Purpose**: Develop standards for GHG quantification, monitoring, reporting and verification.  
**Timeline**: June 2002 – present |
| Joint ISO CASCO/TC 207 Working Group 6 on Validation AND Verification Bodies | **Purpose**: Develop standards for the accreditation of GHG validation and verification bodies.  
**Timeline**: September 2004 – present |
Who is Doing the Work?

ISO TC 207 – Environmental Management

Managed by CSA (Canada)

Working Group 5 (ISO 14064) – Climate Change

Managed by CSA (Canada) & DSM (Malaysia)

- Started work in late 2002.
- 175 experts, 45 countries.
- Liaisons/observers include:
  - World Business Council on Sustainable Development (WBCSD)
  - World Resources Institute (WRI)
  - World Bank
  - Intergovernmental Panel on Climate Change (IPCC)
  - United Nations Framework Convention on Climate Change (UNFCCC)

Working Group 6 (ISO 14065) – Recognition of GHG V/V Bodies

Managed by CSA (Canada) & SSA (South Africa)

- Started work in late 2004.
- 75 experts, 30 countries.
- Liaisons/observers include:
  - International Accreditation Forum
  - United Nations Framework Convention on Climate Change (UNFCCC)
  - International Emissions Trading Association (IETA)
In March 2006, ISO announced the approval of ISO 14064 standards by all countries participating in their development.

Approvals include:
- The US and Australia
- China, India, Brazil, South Korea, Indonesia, South Africa
- Russia, Venezuela, Libya, Norway
- EU members (including UK, Germany, France, Italy)
- Canada and Japan

ISO standards can be adopted “as is” by national standards organizations, or with deviations:
- Canada adopted without deviations in April, 2006.
## Four Distinct Standards

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<th>Scope</th>
<th>Standard</th>
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<td>Organizations</td>
<td>Greenhouse gases - Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals <em>(ISO 14064-1)</em>.</td>
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<tr>
<td>Projects</td>
<td>Greenhouse gases - Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions and removal enhancement <em>(ISO 14064-2)</em>.</td>
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<tr>
<td>Validation and</td>
<td>Greenhouse gases - Part 3: Specification with guidance for the <em>validation and verification</em> of greenhouse gas assertions <em>(ISO 14064-3)</em>.</td>
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<tr>
<td>Accreditation</td>
<td>Greenhouse gases - Specification for greenhouse gas validation and verification bodies for use in <em>accreditation</em> and other forms of recognition <em>(ISO 14065)</em>.</td>
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Key Features

• Voluntary and regime/program neutral
  ▪ focused on the technical aspects of GHG accounting.

• Different from management systems standards (such as ISO 9000 and ISO 14000):
  ▪ Do not require registration/annual third party audits/conformity assessments.

• But compatible with ISO management system standards
  ▪ For example: verification standard considers the types of controls that are in place for data management

• Written in a language compatible with requirements from the financial and accounting sectors.

• Compatible and complimentary with other widely used GHG accounting standards (GHG Protocol, CDM)

• Could form the architecture of an international, liquid, GHG market.
ISO 14064-1: Organizations

1 Scope
2 Definitions
3 Principles
4 GHG inventory design and development
   4.1 Organizational boundaries
   4.2 Operational boundaries
   4.3 Quantification of GHG emissions and removals
5 GHG Inventory components
   5.1 GHG emissions and removals
   5.2 Organizational activities to reduce GHG emissions or increase GHG removals
   5.3 Base year GHG inventory
6 GHG inventory quality management
   6.1 GHG information management and monitoring
   6.2 Document retention and record keeping
7 GHG reporting
   7.1 GHG report planning
   7.2 GHG report content
   7.3 GHG report format
   7.4 GHG report dissemination
8 Verification (1st party)
ISO 14064-2: Projects

1 Scope
2 Definitions
3 Principles
4 Introduction to GHG projects
5 Requirements for GHG projects
   5.1 General requirements
   5.2 Describing the project
   5.3 Identifying GHG sources, sinks and reservoirs for the project
   5.4 Determining the baseline scenario
   5.5 Identifying GHG sources, sinks and reservoirs relevant to the baseline scenario
   5.6 Selecting GHG sources, sinks and reservoirs for regular monitoring and quantification
   5.7 Quantifying greenhouse gases
   5.8 Managing data quality
   5.9 Monitoring the GHG project
   5.10 Documenting the GHG project
   5.11 Validating or verifying the GHG project
   5.12 Reporting the GHG project
1 Scope

2 Definitions

3 Principles

4 Validation and Verification Requirements
   4.1 General
   4.2 Competence of the validator or verifier
   4.3 Validation or verification objectives, scope, criteria and level of assurance
   4.4 Validation or verification approach
   4.5 Assessment of GHG information system and information system controls
   4.6 Assessment of GHG data and information
   4.7 Assessment against validation or verification criteria
   4.8 Evaluation of the GHG assertion
   4.9 Validation and verification statement
   4.10 Validation or verification records
Potential benefits of ISO 14064

- Presents a complete architecture for GHG accounting (inventory and projects) at the organization level that is verifiable
- Will provide the infrastructure for organizations to become accredited verifiers (14065).
- Focused on technical requirements, therefore can be made compatible with jurisdictional reporting requirements.
- Can support new, non regulatory requirements for GHG reporting:
  - SMEs not covered by mandatory reporting can account for a significant portion of GHG emissions
Potential benefits of 14064 (cont.)

- GHG Inventory is essential to identify opportunities for:
  - Energy and other costs savings on site or throughout the supply chain
  - Identifying new product lines to take advantage of new market opportunities
  - Establishing market and product differentiation (i.e. going carbon neutral)
  - Identifying regulatory or other risks the organization may face

- GHG projects are an important component of organizational action plans to reduce emissions:
  - Can create a new revenue stream (i.e. credits)
  - Can demonstrate the GHG performance of new products or technologies to the marketplace
Benefits for the investment and banking community

- Provides a framework for global compatibility of voluntary and mandatory GHG programmes;
- Can help improve the consistency and transparency of GHG accounting and reporting to global initiatives (e.g. CDP, GRI, etc.);
- Improved decision making on carbon risk and value for investors;
- Credible architecture to support the evolution of GHG markets;
Thank you

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