ICF CONSULTING

The GHG Emissions Audit Process:

- Emissions Trading
- Disclosure/Assurance
- Strategic Management

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CEAA – Ottawa 2003

powered by perspective

Topics to be covered

1. Corporate Overview
2. Background
3. The GHG Inventory Audit
4. The GHG Project Audit
5. Key Issues

ICF Consulting: Corporate Overview

- Founded 1969
- US$140+ million company
- 850 Employees
- Core competencies in:
  - Energy
  - Environmental Management
  - Transportation
  - Economic and Community Development
- Strategy and policy consulting firm providing advisory services to industry, financiers, governments, and international organisations
- Offices in Bangkok, London, Los Angeles, Melbourne, Moscow, San Francisco, Toronto, and Washington.

- Over a decade of leadership in advising international agencies, governments, and leading companies
- International reputation for credibility and technical integrity on climate change issues
- Experience on climate change in over 60 countries
- Over 230 specialists on staff world-wide who are involved in climate change consulting assignments
- Reputation for innovative methods, models, and software tools
- Launched world's first e-business resource to help companies strategically manage emission assets

Background

- Evolving domestic / international regulation
- Market based mechanisms
  - minimizing cost
- Large Industrial Emitters (LIEs) will bear a burden

Investment Risk

- *"Shareholders of companies that are ignorant about the coming carbon-constrained economy will not enjoy much bliss"*
- The Carbon Disclosure Project
- a coalition of fund managers with more than $6 trillion in assets under management

Insurance Risk

- *"Emissions reductions are going to be required, so companies that are not looking to develop a strategy for that are potentially exposing themselves and their shareholders"*
- Christopher Walker Managing Director Swiss Re

Risk Management

- As a result;
  - Pressure to provide greater disclosure
  - Identify ***early*** actions to mitigate risk
- Internal:
  - In-company abatement
- External:
  - Purchase of emission reduction credits (ERCs) - **Offsets**
  - Potentially cheaper compliance / ***greater uncertainty***

Risk Management

Reasons for undertaking audit/verification:

- Demonstrate due dilligence
- Add credibility to publicly reported information
- Credible assurance
- Reduce uncertainty/risk/liability
- Meet requirements of trading program

Audit/Verification

- **Audit activities related to GHG emissions fall into two main categories:**
  - Audit/verification of **corporate-wide inventories**, and
  - *Validation/Verification of **emission reduction (offset) projects**.*

Objective

- **external party**
- evaluate a **subject matter**
- express a **conclusion** concerning the relevance and reliability of the information
- provide user(s) of information with a high, but not absolute, level of comfort

GHG Inventory Audit/Verification

Fundamentals

Characteristics of Useful "GHG" Information

- **Relevance** – refers to the appropriateness of the information being collected and reported
- **Completeness** – refers to the recording, disclosure, and classification of all GHG sources in accordance with applicable reporting guidelines
- **Consistency** – refers to that quality of GHG information that allows users to compare data year on year
- **Transparency** – refers to factual and coherent manner of GHG information presented
- **Accuracy** – refers to the likely range of deviation of a reported figure (precision needed for intended use)

Specific Issues – Materiality

- **Materiality** - the extent to which GHG information may be omitted or misstated before it has the potential to change or influence the opinions or decisions made by the **users** of the verified information.
  - Omissions or misstatement can result from either an error or inherent uncertainty.
  - Users of GHG information can include management, shareholders, analysts, government, NGOs etc...

Evidence

Evidence –

- Sufficient and appropriate – quantity/quality
- Reliability - source and nature

Verifying Emission Inventories

- **Material needed for a GHG Verification:**
  - Company information (activities, boundaries, sources)
  - Description of quantification methodology (factors, assumptions)
  - Information gathering process
  - Activity data
  - Uncertainty analysis

General Areas of Focus

- Areas of particular interest in the data integrity audit will include:
  - data inconsistent with expected results
  - areas where reported data could be misinterpreted
  - areas where double counting could occur
  - areas where alternative methodologies are applied
  - areas where transcription errors are likely

Technical - Areas of Focus

- Scope (boundaries)
- Large contributors
- High uncertainty
- Inventorying of high GWP gases
- Indirect
- Opportunities for improvement

Emission Reduction Project Validation/Verification

Fundamentals

Terminology

- **Validation**
  - pre project implementation
  - review of project information (baseline, monitoring, quantification and verification plan)
  - relevant program criteria
- **Verification**
  - post project assessment
  - completeness and accuracy
  - conformance with pre-established criteria

Terminology

- **Certification** –
  - independent body
  - Formal declaration claiming emissions reductions have been achieved
- **Accreditation** –
  - credentials provided by an authoritative body
  - provided to verifiers
  - indication of qualifications

Emission Reduction (Offset) Project Cycle

- Design
- ***Validate***
- Implement
- Monitor/Report
- ***Verify***
- Certify

Common Credit Creation Criteria

- Real
- Measurable
- Unique
- Surplus
- ***Verifiable***

Roles and Responsibilities

- A project developer must:
  - Develop a Project Design Document
  - Implement
  - Monitor
  - Quantify emission reductions

Roles and Responsibilities

- The Validator/Verifier must:
  - Review project information
  - Audit vs. ***relevant requirements***
  - Verify emission reductions

Relevant Requirements

- The validation process must confirm conformance with:
  - External pre-established criteria
- The verification process must confirm conformance with:
  - Internal project documentation – PDD, reported ERs

Validating Emission Reduction Projects

- "Typical" Project Criteria for Domestic Offset, CDM and JI projects:
  - reductions that would not otherwise have occurred (additionality)
  - real, measurable, and long term benefits (CDM)
  - contribute to sustainable development (CDM)
  - host country approval

Activities - Areas of Focus

- Validation (Typically desk study)
  - Project scope (boundaries)
  - Technology
  - Start date and crediting period
  - Additionality
  - Leakage
  - Monitoring methodology
  - Quantification methodology
  - QA/QC
  - Assessment of uncertainties

Verifying Emission Reduction Projects

- Verification
  - Adherence to Project Design Documentation

Is the project proponent doing what they say they are doing?

Activities - Areas of Focus

Verification activities (on site) include:

- Retracing data to identify any omissions or transcription errors,
- Re-computing emissions estimates to confirm engineering calculations, and
- Reviewing documents attesting to an activity.

Key Issues - Criteria

- No "**Standard Criteria**"
  - that which is audited against
- Currently relying on;
  - **Contract language** – bilateral arrangements, IFC, PCF
  - **Guidelines** – WRI, IPCC, UNFCCC, ISO (evolving)
  - **Foreign regulation** – UK, EU, Netherlands, Australia, EPA climate leaders

Changing Role of Environmental Managers

- Market based mechanisms
- “Compliance” becoming a strategic management issue
- Managing the portfolio of allowances/offsets
- Maximizing shareholder value

- Audit –
- External - necessity for disclosure and to support ET
- Internal – essential tool for Strategic Management