GHG Verification
Christine Schuh, P.Eng., PhD
Climate Change Services Leader
Outline

What is verification
Why is verification important
What are the roles and responsibilities
How is verification approached
What happens during verification
Top 10 hints in surviving a verification
Definition of Verification

Verification is an assurance process. Its purpose is to provide comfort that a GHG assertion is, for all intents and purposes, correct.
## Assurance Services

<table>
<thead>
<tr>
<th>Assurance Service</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Validation</td>
<td>An assurance service that examines the potential of a project to result in the stated GHG emission reduction or removal enhancements. It is a forward looking analysis.</td>
</tr>
<tr>
<td>Pre-Verification Check</td>
<td>An assurance service that examines the readiness of a project for verification and does not result in an assurance statement.</td>
</tr>
<tr>
<td>Verification</td>
<td>An assurance service that determines whether the stated GHG emission reductions or removal enhancements are materially complete and accurate. It examines historic data.</td>
</tr>
</tbody>
</table>
Introduction of Climate Change Regulations
Preconditions for Markets to Work

- Homogeneous product;
- Large number of small firms;
- Firms optimize the economics;
- No barriers to entry and exit; and
- Firms and consumers have perfect information.
Verification Approach

Similar to financial audits

Verification standards
  • ISO 14064 part 3
  • CICA 5025
  • ISAE 3000

Verification criteria
  • Defined by GHG Scheme
Third Party Verification

- **Intended User** (2nd party)
- **Responsible Party** (1st party)
- **Validator/Verifier** (3rd party)
- **GHG Statement**

**Accountability**

**Assurance**

**Independence**
Before

Select the verifier
- Organizational systems
- Team
Agree to contract

- Scope
- Criteria
- Objectives
- Level of assurance
- Materiality

Select the team
Agree to contract
Before

Select the verifier
- Organizational systems
- Team
Agree to contract

Draft GHG assertion
- Preliminary data
- Site visit

Follow-up
- Revisions to GHG assertion
- Disclosure

During

- Scope
- Criteria
- Objectives
- Level of assurance
- Materiality

- Assertion
- Data
- Procedures
- Processes
- Records

- Computation
- Observation
- Confirmation
- Enquiry
- Inspection
- Analysis

Select the team
Agree to contract
Risk assessment

Preliminary analytical testing
Gain an understanding

Collection of evidence
Evaluation of assertion
Discussions
Before

Select the verifier
- Organizational systems
- Team
Agree to contract

During

Draft GHG assertion
- Preliminary data
- Site visit

Follow-up
- Revisions to GHG assertion
- Disclosure

After

GHG Report

- Computation
- Observation
- Confirmation
- Enquiry
- Inspection
- Analysis

Select the team
Agree to contract
Risk assessment

Preliminary analytical testing
Gain an understanding

Collection of evidence
Evaluation of assertion
Discussions

Verification Statement
Costs of GHG Verification

- Scope
- Level of Assurance
- Complexity of the Regulations
- Complexity of the Process, Data Management Systems and Calculations
- Availability of Evidence
- Complexity of Reporting Requirements
- Data Controls
Top 10 Hints

1. Same goals.
2. Improve the data management system and controls.
3. The better the data management system the more efficient (less cost) the verification.
5. EMS documentation is generally not relevant.
Top 10 Hints

6. There are no findings in a verification.
7. Verifiers do not expect the GHG assertion to be correct.
8. All issues do not have to be resolved when the verifiers leaves the site.
9. All documentation does not have to be ready at the site.
10. Use the verifiers working paper files.
Concluding Remarks

• Climate change is occurring and we are the cause
• Climate change is a market failure that requires regulation to correct
• Strong preference for a carbon market based systems
• Good data integrity is a fundamental requirement for a functioning market or regulation
• Data integrity can be enhanced many ways; however, GHG verification is a commonly employed tool
• Use verification to enhance your systems
Thank you

They always say time changes things, but you actually have to change them yourself.

Andy Warhol (1928 - 1987), The Philosophy of Andy Warhol
For further information:

Christine Schuh
Climate Change Services Leader
christine.schuh@ca.pwc.com
www.pwc.com