

# Third Party Verification of GHG Assertions in Alberta

A&WMA Conference  
GHG Strategies in a Changing Climate  
November 16-17, 2011  
San Francisco, CA



- About RWDI
- Alberta and AENV
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- Summary



## Engineering Consulting

- Buildings and Structures
- Environmental Solutions

## GHG Quantifications and Verifications

- Regulatory
- Facility-level

## Disclosure

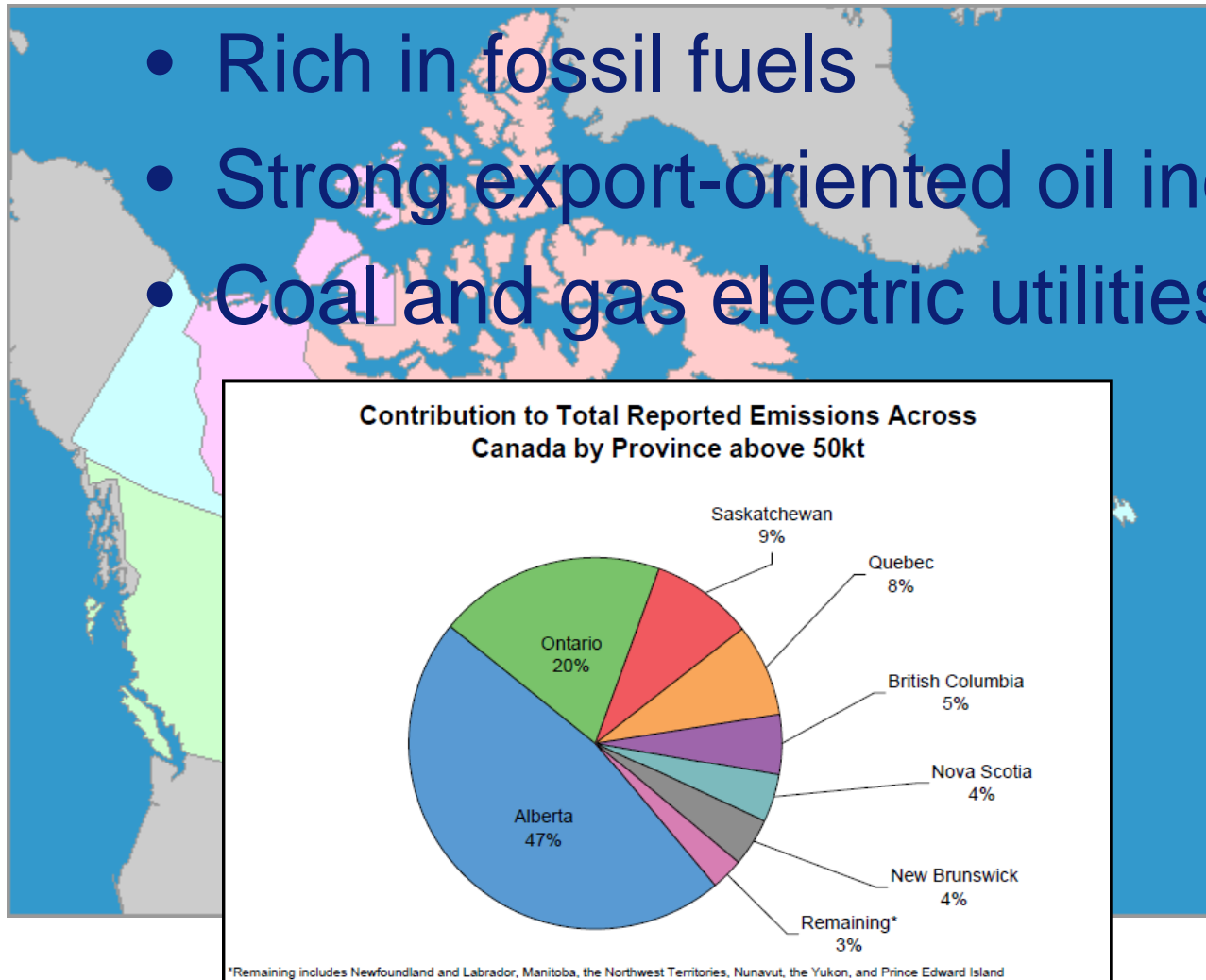
- RWDI has conducted audits on behalf of Alberta Environment in the past

## Disclaimer

- Not affiliated with Alberta Environment
- All information herein is publicly available or based on project experience

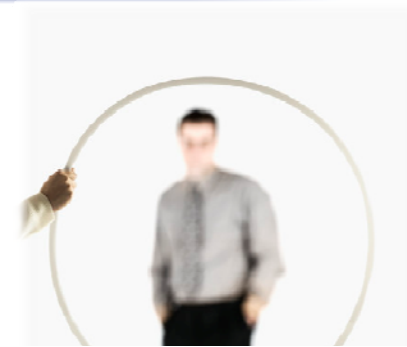
# Province of Alberta

- Rich in fossil fuels
- Strong export-oriented oil industry
- Coal and gas electric utilities



Source: Alberta Environment: Report on 2009 Greenhouse Gas Emissions, June 2011

- Alberta Environment (AENV)



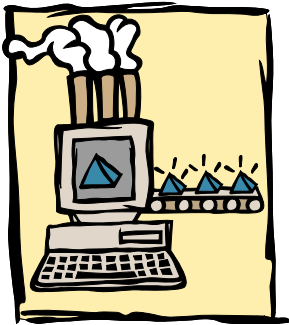
Date	Legislation	Notes
2002	Climate Change & Emissions Management Act	<ul style="list-style-type: none"><li>• Enabling legislation</li></ul>
2003	Specified Gas Reporting Regulation (SGRR)	<ul style="list-style-type: none"><li>• 100 kt CO<sub>2</sub>-e reporting threshold</li><li>• Reduced to 50 kt in 2009</li></ul>
2007	Specified Gas Emitters Regulation (SGER)	<ul style="list-style-type: none"><li>• 100 kt CO<sub>2</sub>-e applicability threshold</li></ul>

# Specified Gas Emitters Regulation



- Baseline and credit model
- Targets emissions intensity
- 12% reduction from baseline
- 4 compliance options
  - Facility Improvements
  - Emission Performance Credits
  - Offset Credits
  - Climate Change and Emissions Management Fund Credits
- Need for assurance

# Third Party Verification



- Mechanism for providing assurance to the intended user (AENV)
- Risk-based assessment of GHG assertion
- Conducted by independent experts
- Based on principles established by international standards (e.g., ISO 14064-3)

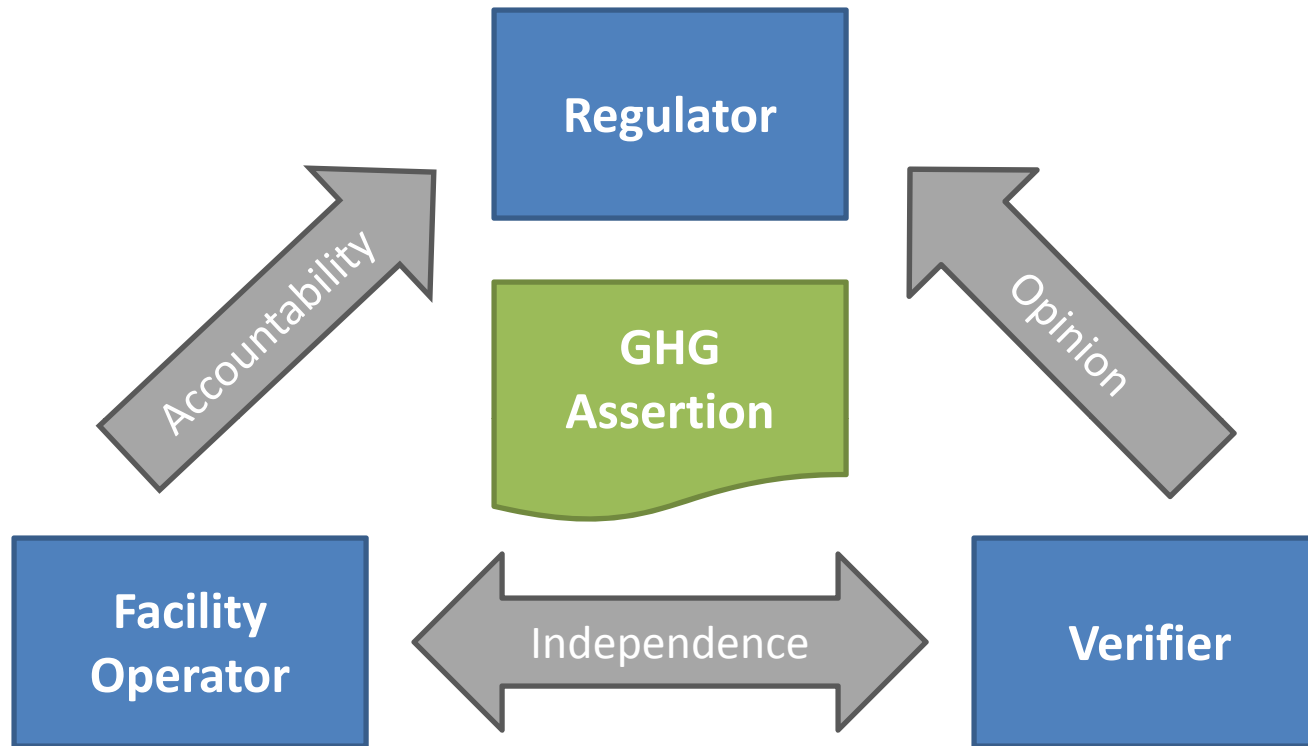


# Verification Process



1. Facility hires verifier
2. Verifier conducts site visit and field work
3. Verifier documents errors, inconsistencies or other insufficiencies
4. Facility may address deficiencies
5. Verifier reviews changes
6. Verifier issues verification report and statement
7. Facility submits assertion and verification statement to AENV

# Roles & Responsibilities

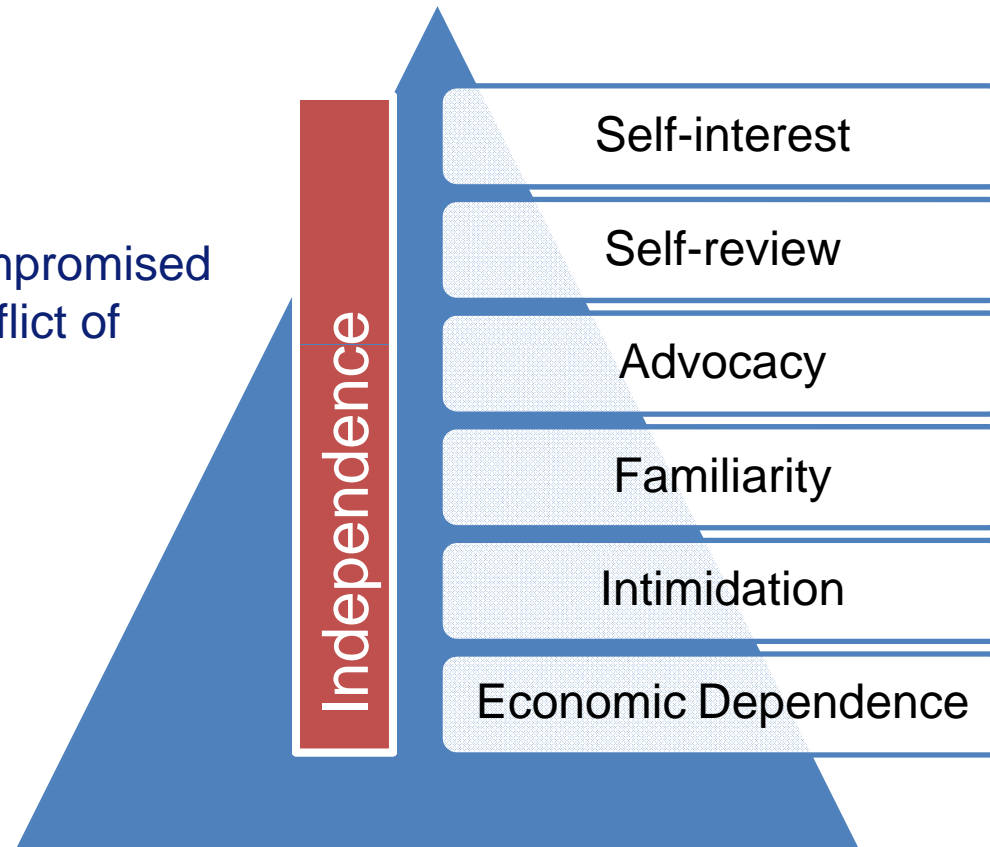


- Accountability to Regulator (not verifier)
- Maintain independence

# Verifier Qualifications



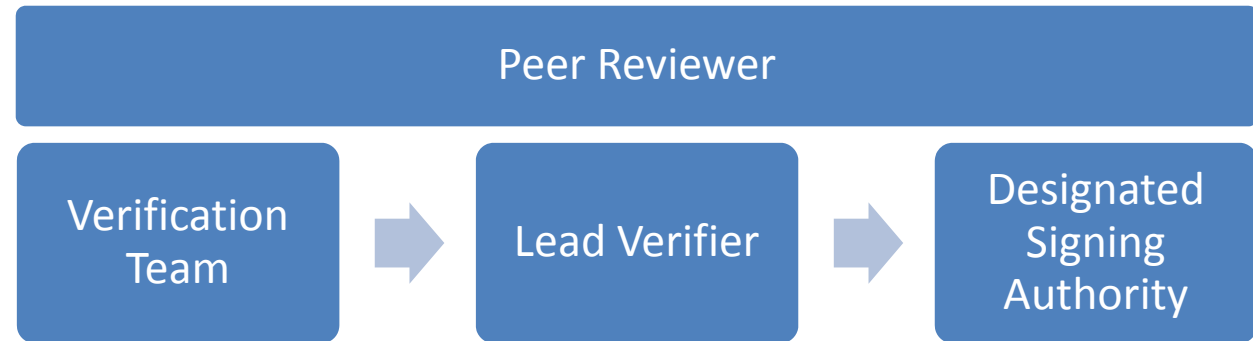
Little to no risk of compromised independence or conflict of interest.



**Max service period of 5 compliance cycles**

# Verifier Qualifications

## Team-oriented



- Sector-specific knowledge
- Auditing standards and practices
- Engineer and/or Accountant
- Currently no certification or accreditation requirements

# Level of Assurance

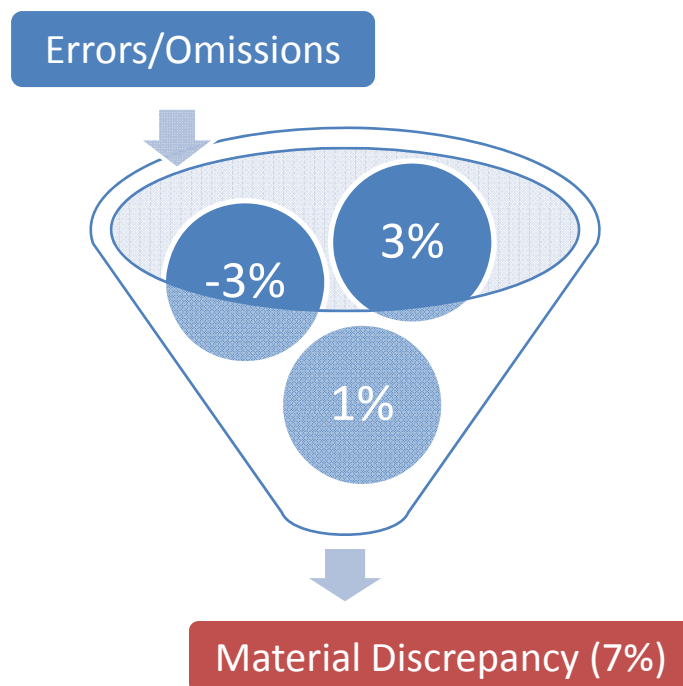
- Limited-level
  - “Negative” assurance
- Reasonable-level
  - “Positive” assurance
- Moving to reasonable-level for 2012 compliance cycle
- Improvement in assertions still needed



# Materiality

Threshold	Total Annual Emissions
5%	< 500 kt CO <sub>2</sub> e
2%	≥ 500 kt CO <sub>2</sub> e

- Aggregated (not netted)



- Quantitative & Qualitative
  - Equally important
  - Facility boundary issues
  - Data handling & QA/QC
  - Transparency

- Unresolved material discrepancy

↓  
Adverse conclusion

- AENV re-verifications (audits)
  - Conducted by third-party
  - ~10% of submitted assertions annually
- From 3 years of data:
  - 101 audits conducted
  - 20 adverse findings (some at reasonable-level)

# Summary

- Alberta is a continental leader in developing and testing verification policy and practice
- System is not perfect, many lessons have been learned
- Lessons transcend borders







CONSULTING ENGINEERS  
& SCIENTISTS

# Thank You

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