

# Introducing The UNSM Energy and Greenhouse Gas Accounting Toolkit

Presenter:

Date:

Venue:

## In This Presentation

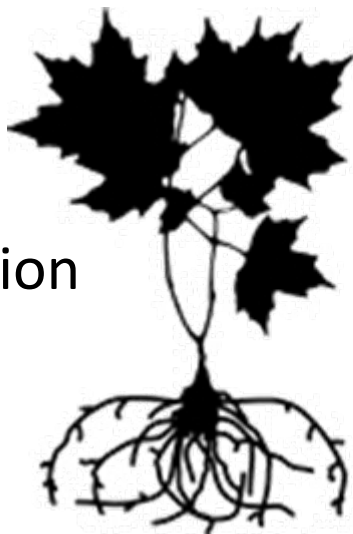
- Introduction
- Rationale
- Toolkit
- Implementation
- Next Steps
- Project Context and Introduction
- Why Energy and GHG Accounting?
- The UNSM Toolkit Structure
- Issues in Implementation
- Next Steps for Municipalities

- **Introduction**
  - Rationale
  - Toolkit
  - Implementation
  - Next Steps
- Growing importance of Energy and GHG Accounting
  - Several quantification tools available – but are they appropriate for smaller NS municipalities?
  - Joint project of UNSM, NS Department of Energy, and Service NS Municipal Relations
  - Jacques Whitford Ltd Chosen as consultant

## Project Approach

- Introduction
  - Rationale
  - Toolkit
  - Implementation
  - Next Steps
- Research into existing tools - > ICLEI Quantification Spreadsheet chosen as a basis
  - Focus group with municipal staff
  - Creation of Toolkit and Instruction Manual

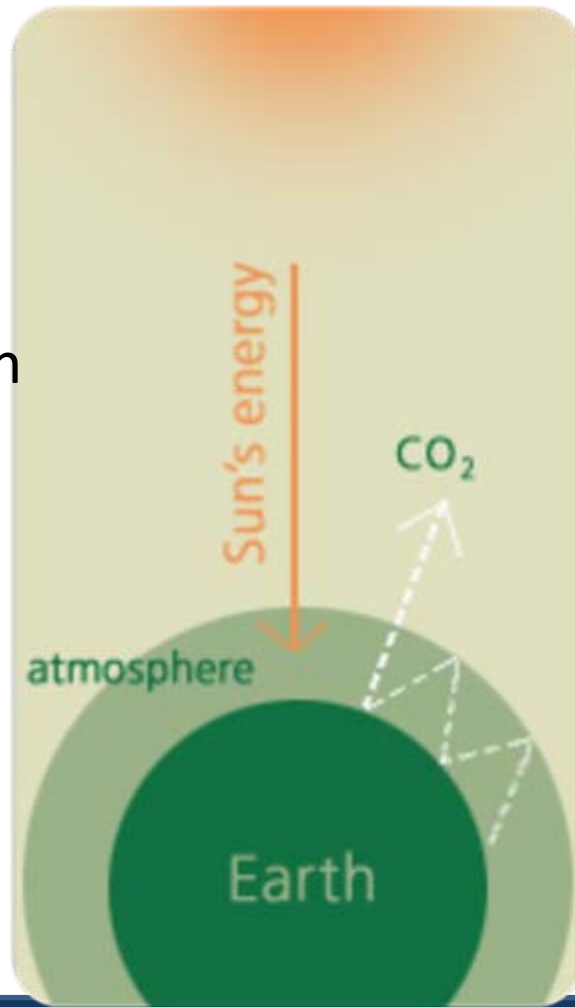
- Introduction
- **Rationale**
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Federation  
of Canadian  
Municipalities

**Partners for**  
**Climate Protection:**  
150+ municipalities  
committed to  
reducing GHG  
emissions

- Introduction
- **Rationale**
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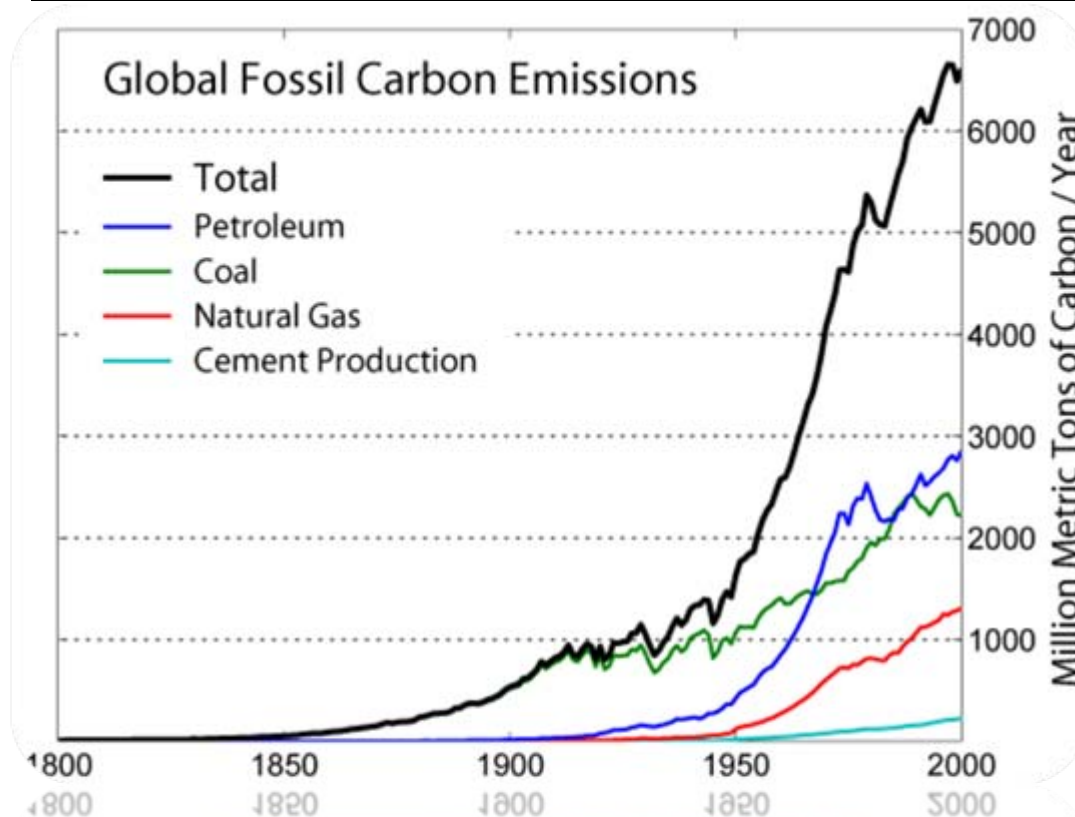


## What are Greenhouse Gases?

Greenhouse Gases (GHGs) are an assortment of gases, carbon dioxide being the most prominent, which are produced as a result of burning fossil fuels.

## The World's Challenge

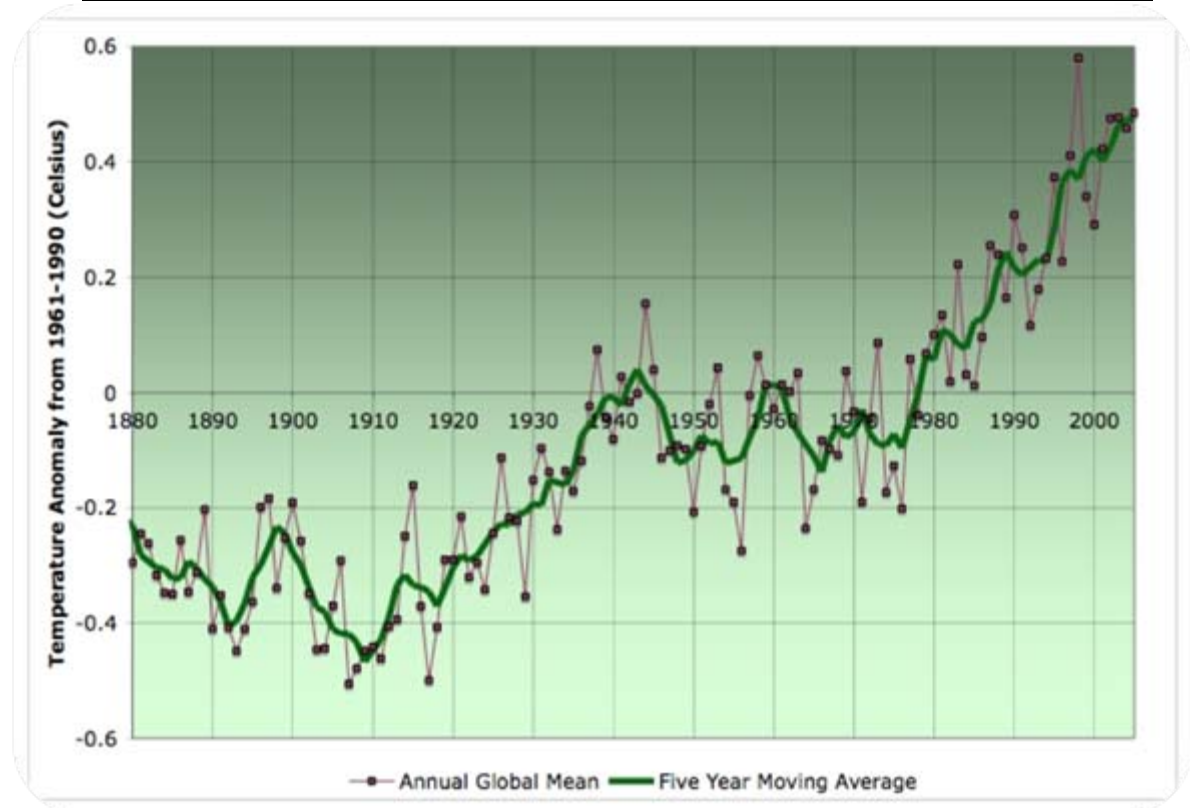
- Introduction
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Global Fossil Carbon Emissions are Cascading

## The World's Challenge

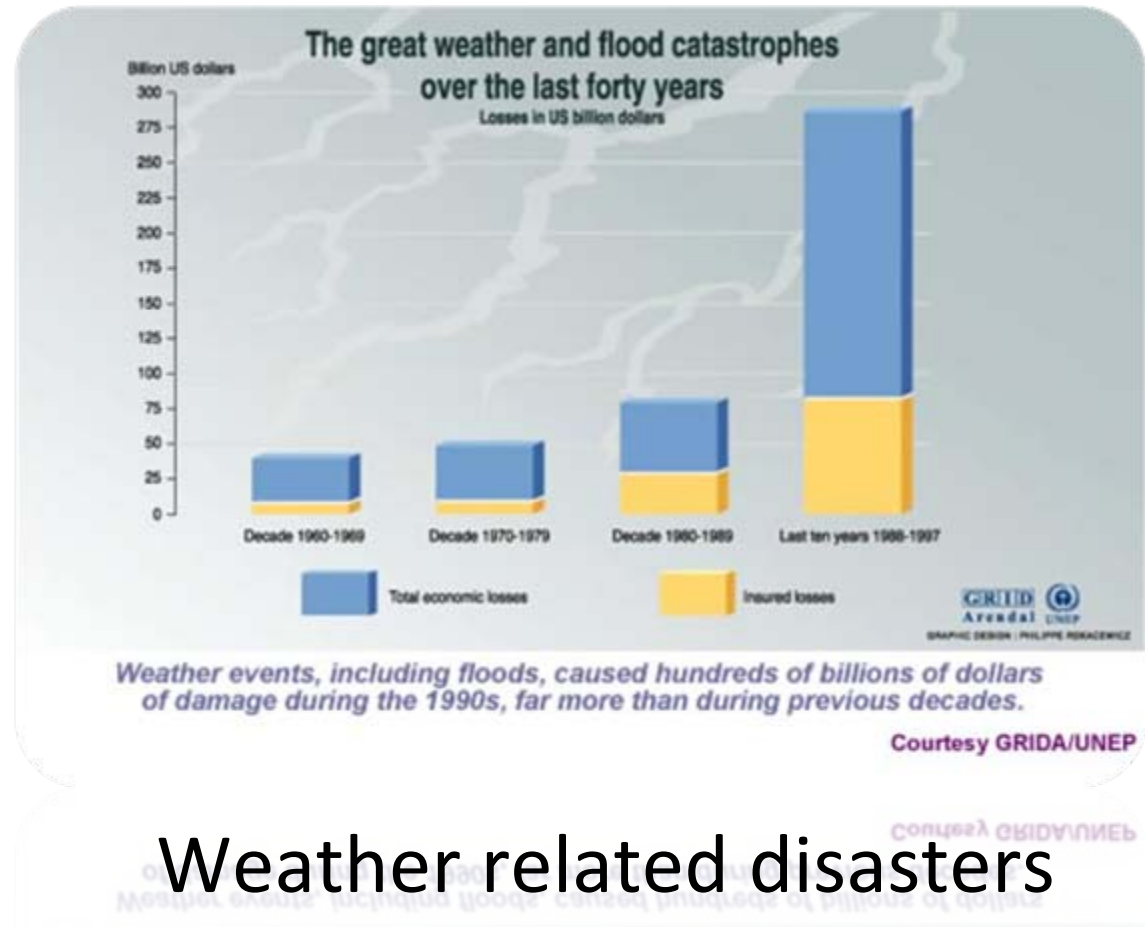
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- **Rationale**
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- Next Steps



Average Temperature Increasing

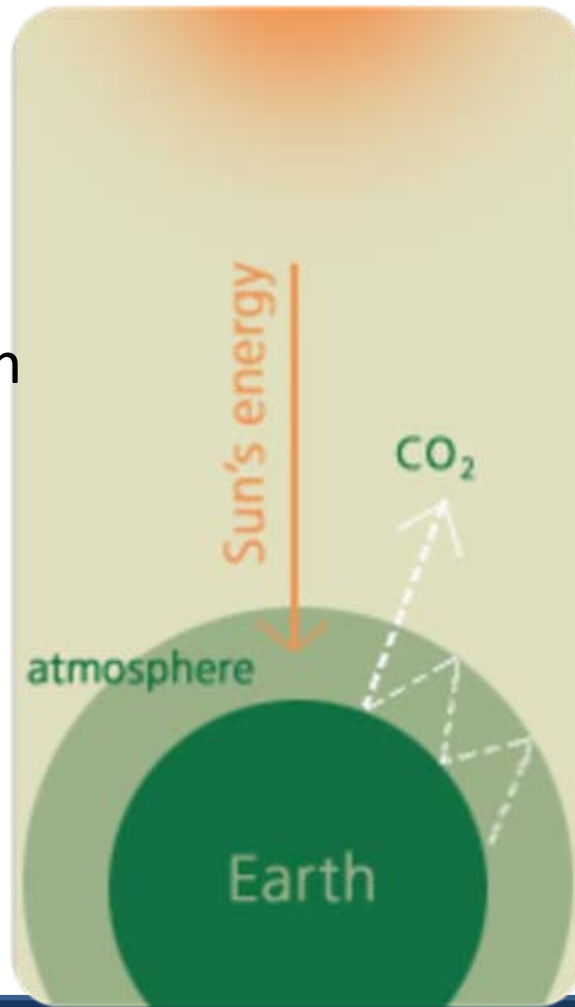
## The World's Challenge

- Introduction
- **Rationale**
- Toolkit
- Implementation
- Next Steps



Weather related disasters

- Introduction
- **Rationale**
- Toolkit
- Implementation
- Next Steps



## What is Climate Change?

...the excessive burning of fossil fuels to generate energy has led to a build-up of greenhouse gases that is causing a series of unnatural and often unwanted changes on Earth.

## Rationale

- Introduction
- **Rationale**
- Toolkit
- Implementation
- Next Steps

1. Being accountable for our municipalities contribution to global climate change
2. Realizing cost savings from savings in energy

## The Business Case for

## Energy/GHG Accounting and Saving

- Introduction
- **Rationale**
- Toolkit
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City of Calgary's Energy Performance Contracting (EPC) program -> 60 kt in annual greenhouse gas emission reductions, \$7 million in energy bill savings

Greater Sudbury Community Energy Plan to increase energy efficiency across all sectors -> reduce energy costs by \$5 million annually

Other benefits: health benefits, local job creation, improved municipal service delivery, support for local businesses etc.

## Energy and GHG Quantification

- Introduction ...you cannot manage what you do not measure...
- Rationale
- **Toolkit**
- Implementation
- Next Steps



## Quantification as a first step

- Introduction
- Rationale
- **Toolkit**
- Implementation
- Next Steps



...future steps include...

1. Forecasting
2. Setting reduction targets
3. Developing an action plan
4. Implementing the action plan
5. Evaluating and monitoring

## Toolkit Structure

### Collection of Excel Spreadsheets

- Introduction
- Rationale
- **Toolkit**
- Implementation
- Next Steps

#### Corporate

- Buildings
- Vehicle Fleet
- Streetlights
- Water and Sewer
- Waste

#### Community

- Transportation
- Residential
- Commercial
- Industrial
- Waste



## Supplemented by:

- Introduction
- Rationale
- **Toolkit**
- Implementation
- Next Steps

- Detailed Instructions on Data Input Methodology
- Suggested Data and Information Sources
- Assumptions and Coefficients

Adjusted to best represent the Nova Scotia context in 2007

## Implementation Considerations:

- Introduction
  - Rationale
  - Toolkit
  - **Implementation**
  - Next Steps
- Deciding who will carry out the quantification
  - Agreeing to the reasons behind energy and GHG accounting
  - Entering data to an appropriate level of detail
  - Documenting the process

## Recommended Skills for a Summer Student

- Introduction
  - Rationale
  - Toolkit
  - **Implementation**
  - Next Steps
- Strong research and analytical skills
  - Interest/experience in climate change/greenhouse gas emissions
  - Competency in Microsoft Excel required
  - Able to work in data management/entry for extended periods of time
  - Excellent team player and communicator
  - High level of independence and responsibility expected
  - Strong organizational skills, neatness, and attention to detail

## What to do next...

- Introduction
- Rationale
- Toolkit
- Implementation
- **Next Steps**
  - Get a copy of the Toolkit and accompanying Instructions Manual from UNSM
  - Understand what is involved in energy and GHG accounting given your municipality's specific situation
  - Decide who should be involved and ensure they have the mandate
  - Have a clear sense of why you are doing this and where you want to go

Questions or Comments?  
Please Contact:

Presenter: