Measurement to Manage: The Benefits of a Greenhouse Gas Inventory

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New Hampshire Businesses for Social Responsibility
April 14, 2010
Clean Air-Cool Planet

Finding and promoting global warming solutions…

For Corporations

For Campuses

For communities

www.cleanair-coolplanet.org
What is a GHG Inventory?

An entity-wide list of GHG emissions sources & activities and their quantities

- A first step
- A management tool
Inventory Sets Foundation for Business Strategy

- GHG risk management
- Identify energy/operational inefficiencies and GHG reduction opportunities
- Participation in GHG markets and voluntary initiatives
- Improved brand management
- Stakeholder relations
Inventory Work Has Several Stages

- secure management support
- establish a team & prepare budget

- define inventory boundary
- determine sources of emissions
- select base year

- design efficient data management system
- obtain appropriate data, ensure data quality

- apply calculation tools
- guard against calculation errors

- identify emission reduction opportunities
- decide on target type & level

- implement emission reduction activities

- publicly report complete inventory information
REDUCING OAKHURST’S CARBON FOOTPRINT

15.3% Reduction - 2008
- 10.6% Biodiesel Conversion
- 1.0% Refrigeration Savings
- 3.0% Rerouting Software
- 0.7% Solar Thermal

20% Reduction by 2010
(Carbon Challenge Goal)
GHG Protocol Initiative

- Convened in 1998 by WRI and WBCSD
- Mission: to develop international GHG accounting & reporting standards and tools
- Two modules: GHG Protocol Corporate Standard and GHG Protocol for Project Accounting

www.ghgprotocol.org
GHG Accounting - Public Sector

Communities: ICLEI, Torrie-Smith

Campuses: CA-CP
Planning a GHG Inventory

Questions that need to be considered include:

- What business units/facilities will be included in the inventory (organizational boundary)?
- What GHG sources and activities will be included (operational boundary)?
- What base year will be selected?
Collecting Your Data

Scope 1
- Stationary fuels (gallons/mmbtu)
- Fleet vehicles (gallons or kWh)
- Heating – Oil/Propane/Natural gas
- Fertilizers (pounds synthetic or organic)
- Refrigerants/Chemicals

Scope 2
Purchased steam, electricity, or chilled water (kWh or MMBTU)

Scope 3
- Commuting emissions
- Outsourced air travel
- Outsourced ground travel
- Trash
- Wastewater
- Purchased food
- Purchased paper
- Upstream energy

Benchmarking
Per $ Per square foot Per capita Per degree day
CA-CP Footprint 2007

Sector Comparison

- 37 tons (45%)
- 15 tons (18%)
- 12 tons (14%)
- 19 tons (23%)

Legend:
- Blue: Electricity
- Red: Fuel
- Yellow: Business Travel
- Light Blue: Employee Commute
CA-CP Footprint 2007

Business Travel

- Air: 52% (19 tons)
- Train: 43% (16 tons)
- Car: 5% (2 tons)
Benchmarks for CA-CP

*How well does the company measure its climate footprint?* - Score: 13/22

*How much has the company done to reduce its climate impact?*  
Score: 48/56

*Does the company explicitly support progressive climate change legislation?*  
Score: 10/10

*How clearly and comprehensively does the company publicly disclose its climate protection efforts?*  
Score: 9/12

**TOTAL SCORE: 80/100**
The Bottom Line?

- Create a team with a timeline and authority to collect data.

- Calculate carbon footprint & develop a reduction plan.

- Patience….
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