



U.S. Environmental Protection Agency

# Conducting High Quality Corporate-Wide Greenhouse Gas Inventories: Experiences of EPA and Climate Leaders Partner Companies

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## Abstract

While there are substantial guidance and methodologies developed for conducting greenhouse gas (GHG) inventories at the country and state level there is not as much standardization concerning GHG inventorying at the corporate-wide level. Climate Leaders is attempting to create a standardized U.S. corporate-wide GHG inventory methodology by working with a diverse set of Partner companies. Through the development of Climate Leaders, EPA and pilot-test companies learned some valuable lessons about the details of conducting a corporate level GHG inventory.

## Program Description

Climate Leaders is a new voluntary government-industry partnership that encourages and recognizes credible corporate commitments to GHG emissions reductions. Climate Leaders creates a credible, standardized, and verifiable system for inventorying and reporting corporate GHG emissions & reductions.

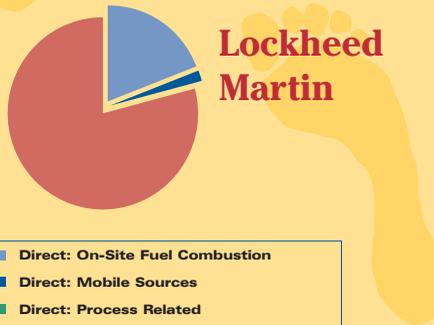
Partner companies commit to:

- A company-wide emissions reduction pledge to be achieved over next 5-10 years
- Reporting high-quality inventory data and progress towards goal annually

## Challenges

- Diverse group of industrial sectors represented
- Need to balance credibility and verifiability with flexibility and ease of use
- Requiring comprehensive data is difficult in a voluntary program
- Partner companies have concerns about data confidentiality

## Greenhouse Gas Footprints



- Direct: On-Site Fuel Combustion
- Direct: Mobile Sources
- Direct: Process Related
- Indirect: Electricity & Steam Purchases

## Lessons Learned

A modular approach allows companies to select activities appropriate to their sector:

### Core Activities

Focus on what is important, since few companies have significant emissions of all six greenhouse gases

- GM's fleet vehicles found to be insignificant
- Lockheed Martin found mobile sources to be insignificant

### Optional Modules

Allow companies to include sources that do not fall under direct but are important to their operations

- Norm Thompson includes product transport
- GM and Interface includes international facilities

Companies generally have all the data available to do a corporate inventory.

### Activity Data

- Most companies track their energy use (e.g., kWh of electricity used).
- Other companies have data available on purchase records, bills, etc.
- Exception is for mobile and HFC sources, which are generally small.

### Emissions Factors

- Emissions factors for fuels are fairly standard in terms of carbon content per energy content of fuel.
- Electricity production emissions factors are less well known but EPA's E-GRID database is good source for purchased electricity emissions factors.

Transparency is key, track activity data and emissions factors used. Can always go back and adjust emissions factors.

## Next Steps

- Modify protocols based on lessons learned
- Balance transparency and confidentiality concerns
- Adjust baselines due to changes in corporate structure
- Develop methodologies for tracking emissions reductions from offsets

## CORE INVENTORY MODULES

## OPTIONAL INVENTORY MODULES

Charter Partner	CORE INVENTORY MODULES					OPTIONAL INVENTORY MODULES				
	Direct-Stationary Fuel Combustion	Direct-Process	Indirect-Electricity	Direct-Mobile	Direct-HFC from Refrigeration / AC	Offset Projects	Product Substitution	Employee Travel and Commuting	Product Transport	International Facilities
Alcan Aluminum	✓	Aluminum	✓							
Alcoa	✓	Aluminum	✓							
Bethlehem Steel	✓	Iron & Steel	✓	✓						
BP	✓	Oil & Gas	✓							
Cinergy	✓	Electricity Distribution				✓				
FPL Group	✓					✓				
General Motors	✓		✓		✓	✓				
Holcim (US)	✓	Cement	✓	✓						✓
IBM	✓	Semiconductor	✓							
Interface	✓		✓							✓
International Paper	✓	Pulp & Paper	✓							
Johnson & Johnson	✓		✓							
Lockheed Martin	✓		✓	✓						
Miller Brewing	✓		✓							
Norm Thompson	✓		✓	✓		✓	✓		✓	
Pfizer	✓		✓							
PSEG	✓		✓			✓				
SC Johnson	✓		✓	✓						
U.S. DOE's NREL	✓		✓							