

CLIMATE LEADERS

SETTING THE STANDARD IN GREENHOUSE GAS MANAGEMENT

Corporate Climate Change Strategy: Ensuring a High Quality GHG Inventory

Workshop on a Climate Neutral UN
September 8, 2008



An EPA-government partnership that works with companies to develop comprehensive climate change strategies

- Partner companies commit to reducing their impact on the global environment by completing a corporate-wide GHG emissions inventory based on a quality management system, setting aggressive reduction goals, and annually reporting their progress to EPA
- Through their participation in the program, companies create a credible record of their accomplishments and receive EPA recognition as corporate environmental leaders
- Total annual U.S. revenue of the partnership represents 10 percent of the U.S. GDP and 8 percent of total annual U.S. GHG emissions
- Every year Partners prevent the equivalent of the emissions of 8 million cars



Credible Corporate Climate Strategy

Climate Leaders works with companies to develop a long-term comprehensive GHG management strategy

- Based on WRI/WBCSD GHG Protocol
- Road-tested with over 200 partners from every major sector across the country
- Annual reporting to EPA creates lasting record of accomplishments and identifies company as corporate environmental leader
- 3 critical components to credible strategy
 - Component 1: Complete Corporate-Wide GHG Inventory
 - Component 2: Develop Inventory Management Plan (IMP)
 - Component 3: Set Aggressive Corporate-Wide GHG Reduction Goal

First Component: Develop a Customized Inventory

Required

- Company-wide (all U.S. operations)
- 6 major GHGs (CO₂, CH₄, N₂O, HFC/PFC, SF₆)
- Direct emissions (Scope 1)
- Indirect emissions from electricity, heat, and steam (Scope 2)

Optional

- International operations, employee travel and commuting, product transport (Scope 3)
- Offset projects, renewable energy credits

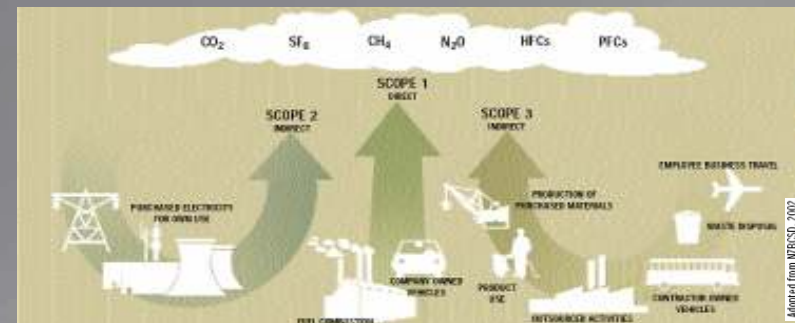
First Component: Proper Inventory Components

Step 1

- Organizational Boundaries
 - Equity share or control (financial/operational) approaches – Adequately represents GHG emissions from company
 - All owned operations/facilities as well as leases and joint ventures

Step 2

- Operational Boundaries
 - Scope 1 – Direct sources
(Stationary combustion, process emissions, mobile sources, refrigerant fugitive emissions, wastewater treatment, landfills, etc.)
 - Scope 2 – Indirect sources (Electricity, steam, chill water, etc.)
 - Scope 3 – Optional sources (Air travel, commuting, truck and rail product transport, hotel and meeting venues, etc.)



First Component: Proper Inventory Components

Step 3

- Inventory Calculation
 - Proper methodologies, protocols and emission factors (EPA, EU ETS, WRI/WBCSD, etc.)

Step 4

- Quality Assurance and Verification
 - Internal and external checks
 - Third party verification
 - Inventory Management Plan (IMP)



Second Component: Inventory Development

- 
- Establish an Inventory Team
 - Responsible for implementing the Inventory Management Plan
 - Develop an IMP
 - Perform Quality Checks
 - Generic quality checking procedures for inventory data and processes
 - Perform Source Category-Specific Quality Checks
 - Rigorous investigations into the appropriate application of boundaries, recalculation procedures, data quality, uncertainty analysis, and adherence to accounting and reporting principles
 - Review Final Inventory Estimates and Reports
 - Institutionalize Formal Feedback Loops
 - To address corrections and improvements are made following quality checks
 - Establish reporting, documentation, and archiving procedures
 - Internal recordkeeping procedures, information for external stakeholders, etc.
 - Should include formal feedback mechanisms

Second Component: Fundamentals of an Inventory Management Plan

Provide specific information used to develop GHG inventory

- **Methods – Technical aspects of inventory preparation**
 - Define inventory boundaries, treatment of joint ventures, identify sources, etc.
 - Identify methodologies for estimating emissions
 - Establish procedures for applying and updating inventory methodologies in response to new business activities, new technical information, or new reporting requirements
- **Data – Basic information on activity levels, emission factors, processes, and operations**
 - Develop approach, and assign roles and responsibilities to facilitate collection of high quality inventory data.
 - Create process for the maintenance and improvement of data collection procedures

Second Component: Fundamentals of an Inventory Management Plan

- Inventory processes and systems – Institutional, managerial, and technical procedures for preparing GHG inventories
 - Define all institutional, managerial, and formal procedural aspects required to develop and maintain the GHG inventory
 - Integrate these processes with other corporate processes
- Documentation – Record of methods, data, processes, systems, assumptions, and estimates used to prepare the inventory
 - Identify internal and external audiences and develop procedures to document information intended for their use
 - Establish documentation sufficient for an inventory development team to accurately and efficiently continue preparing and improving all four fundamentals in the company's inventory
 - Ensure that documentation provides sufficient transparency to facilitate potential internal or external verification

Second Component: Tools for Inventory Management Plan Development

- EPA provides checklist of components for good IMP to use as guideline when preparing documentation
- EPA offers technical assistance to help companies complete IMP documentation
- EPA offers real examples of proper IMPs
- EPA provides a simplified IMP form for low-emitters

**CLIMATE
LEADERS**
U.S. Environmental Protection Agency

www.epa.gov/climateleaders

GHG Inventory Management Plan Checklist

The Inventory Management Plan (IMP) checklist describes the components of a process needed to create a high-quality corporate inventory. As part of the Climate Leaders reporting requirements, Partners describe for EPA, in a format of their choice, their company-specific approach for each IMP component listed below. Partners may either have a single formal IMP that addresses all of these components, or Partners may have a collection of Standard Operating Procedures (SOPs) and other relevant information that address all these components when taken in total. EPA recognizes that the development of the IMP is an ongoing process. The components listed as "can be completed over time" in the checklist do not have to be in place in the year that the Partner joins the program. However, they should be complete by the Partner's goal year.

IMP Component	Detail Required	Issues to Consider
Partner Information		
1. Company Name	Legal name of entity	
2. Corporate Address	Physical and mailing address	
3. Inventory Contact	Contact name and title	
4. Inventory Contact Information	Contact information (telephone/fax/email)	
Boundary Conditions		
Organizational		
5. Inclusion of Partially Owned or Controlled Assets	The basis for reporting emissions data from partially owned or controlled assets: <ul style="list-style-type: none"> Equity Approach Control Approach: <ul style="list-style-type: none"> Financial control criterion Operational control criterion 	Is the approach consistent with the Climate Leaders Design Principles? If applicable, how is operational control defined? How is equity defined (e.g., based on financial ownership or value derived from company)? Are leases adequately addressed?
6. Facilities List	A list of all facilities with location, % ownership, or % control. Define if inventory is U.S. only or includes optional non-U.S. operations.	Is the list complete and does it include all facilities (including leases if applicable)? Are fleet vehicles also included if not assigned to a facility? How does the list compare to other public sources listing company holdings? Is there a method for determining the accuracy of the list and a process for ongoing review?
Operational		
7. GHG List	A list of GHGs included in inventory.	Are all of the six major GHGs (CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, and SF ₆) included? Is there documentation for gases not on the list to ensure there is no oversight? Are small sources of a GHG overlooked? Has Partner at least made an estimate of the emissions from small sources and included those estimates in their inventory?
8. Emission Source Identification Procedure	A description of the procedure / method used to identify direct and indirect emission sources.	How does the GHG list compare to the list of emission sources specified in #6 and #10? Is the procedure likely to identify all sources? Has the procedure captured all stationary, mobile, indirect, process, and fugitive sources, including small sources? Does the emissions source identification procedure include networking with all the appropriate people, whose role and responsibilities are defined in #24?

Second Component: Internal Benefits of an Inventory Management Plan

An Inventory Management Plan provides assurance that Partners develop a high-quality inventory that is consistently maintained and updated over time

- Institutionalizes inventory process
- Leads to comprehensive & credible data management
- Increases efficiency/lowers costs by centralizing processes
- Increases accuracy and transparency
- Facilitates long-term emissions/goal tracking
- May facilitate documentation of capital savings
- Allows for continual improvement

Third Component: GHG Reduction Goals

Criteria:

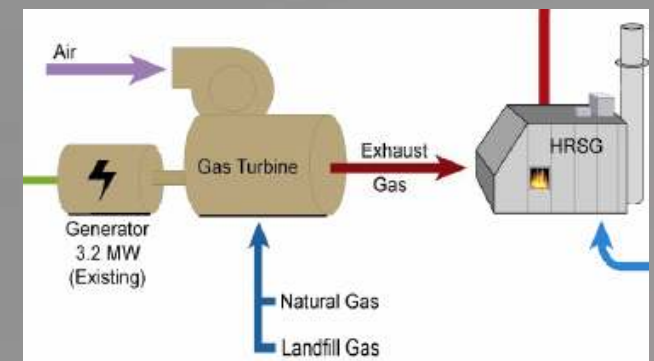
- Corporate-wide (including at least all U.S. operations)
- Based on the most recent base year for which data are available
- Achieved over 5 to 10 years
- Expressed as an absolute GHG reduction, decrease in GHG intensity or “Carbon Neutral”
- Aggressive compared to the projected GHG performance for the sector

Process:

- Partner proposes a reduction goal
 - Informal proposal encouraged
- EPA evaluates goal
- If goal does not meet Climate Leaders’ criteria, Partner reassesses opportunities and proposes a new goal

Examples of Climate Leader Partner Projects

- Staples
 - Energy and Climate
 - Alternative Fibers (Paper)
- Bank of America
 - LEED Projects
 - Server and Network Systems Review
(Automated Shut-offs, Unplug Unused Servers, Advanced Cooling)
- SC Johnson
 - Methane Cogeneration Plant



Thank you



Manuel J. Oliva, PE
Acting Program Director
EPA Climate Leaders Program
(202) 343-9094

oliva.manuel@epa.gov

www.epa.gov/climateleaders