How to Write a GHG Emission Reduction Action Plan

A greenhouse gas emission inventory is a tool for understanding the current status of an entity's impact on climate. However, understanding is only half of the process. Once an inventory is complete, it's important to determine a goal for reducing or maintaining the current level of emissions to develop and an action plan outlining the strategies for achieving that goal. Usually goals are expressed as a percentage of total emissions to be reduced over a certain time frame. However, they can be broken down by category, such as, vehicle miles traveled, kilowatt hours consumed, or gallons of gasoline used.

How to Develop a Goal

Unless you are a part of program, such as EPA's Climate Leaders program which has requirements for achieving reductions to remain a member or are responding to federal requirements, there is really no prescribed strategy for determining a goal. However, the following can be considered when evaluating a goal:

- *Is it reasonable?* Meaning, if your goal states in three years you will achieve an 80% reduction in greenhouse gas emissions, what is the likelihood that will happen? Only you know whether your goal is reasonable, but when in doubt start slowly. It is important to challenge yourself, but it's also important to achieve the goal. Evaluate not only the percentage reduction, but the deadline for achieving it.
- *How does it compare with others within your sector or industry?* Is it grossly below or above average goals set by others within your sector or industry that are similar sized?
- *How is it expressed?* If your business grows or changes production between emissions inventories, evaluate progress toward the goal based on greenhouse gas emissions per unit of production or per customer.
- *What is the timeframe for achieving the goal?* Give yourself enough time to realize the benefits of initiatives taken to reduce greenhouse gas emissions.
- *Will the goal be corporate-wide or by operations or office/building?* If there are multiple locations or branches, will each location or branch have the same goal or will each have a unique goal and action plan?

Action Plans

Action plans should include an outline of each source of your greenhouse gas emissions, the goal for reduction or maintenance, the project lead, specific actions to be taken, the deadline for completing the action, and possibly the projected cost and results. See Figures 1 and 2 for examples. Action plans should be updated as regularly as inventories are updated to document progress and identify additional goals.

Example Greenhouse Gas Emission Reduction Action Plan Format

1. Source (e.g., fleet, heating and cooling, refrigeration, drying, stationary combustion, etc.)

A. Deadline: *Immediately*

- Goal 1: *Implement a no-idling policy.*
  - Action 1: *Put up no-idling signs to remind employees about the policy.*
    - Project Lead: *Maintenance Worker in Headquarters Office*
    - Budget: *$100 or free if participant in Idaho Clean Air Zone Program*
  - Action 2: *Apply no-idling stickers in each vehicle.*
    - Project Lead:
    - Budget:
  - Action 3: *Send an email to all employees informing them about the new policy.*
    - Project Lead:
    - Budget:
  - Action 4: *Host a brown bag lunch about no-idling.*
    - Project Lead:
    - Budget:
  - Projected Results: *If 60% of employees participate, gasoline consumption will be reduced by 10% or 500 gallons, $1500 will be saved, and emissions will be reduced by 4.4 metric tons CO2e. See attachment 1 for methodology of calculations.*

Notes: _____

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- Goal 2:
  - Action 1:
    - Project Lead:
    - Budget:
  - Action 2:
    - Project Lead:
    - Budget:
  - Projected Results:

Notes: _____

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B. Deadline: *June 30, 20xx*

- Goal 1
  - Action 1:
    - Project Lead:
    - Budget:
  - Action 2:
    - Project Lead:
    - Budget:
  - Projected Results:

Notes: _____

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Figure 1. Example Greenhouse Gas Emissions Reduction Action Plan Format

Example Action Plan: Buildings – Heating and Electricity
(Idaho Department of Environmental Quality Greenhouse Gas Emissions Reduction Action Plan)

Buildings – Heating and Electricity

DEQ plans to improve heating energy efficiency through a number of initiatives and will complete the following actions in the timeframes indicated.

Immediately

- Calculate an energy use index (EUI) for each DEQ office. This calculation will be used to assess how our offices compare to buildings in the U.S. Energy Information Administration's Commercial Buildings Energy Consumption Survey and in Leadership in Environmental and Energy Design (LEED)-certified buildings.
- Implement DEQ's "Operating Guidelines for State Occupied Buildings" (Appendix F).

By June 30, 2008

- Complete a benchmark assessment of each DEQ office using the Energy Star Portfolio Manager tool. This tool will allow DEQ to assess our energy and water costs, identify where savings are possible, and track results. This information will help DEQ prioritize an energy audit schedule.
- Assess energy reduction potential in the information technology (IT) system. The assessment will include a power study of the network room and investigation of the following possibilities: technologies to turn off power to servers when they are not in use (in a safe and systematic manner that preserves functionality), consolidation of servers, and implementation of virtualization.

By June 30, 2009

- Complete energy audits for each DEQ office. Based on the results of the audits, DEQ will evaluate the expected efficiency improvements, projected costs for improvements, expected energy cost savings, the expected GHG emission reductions, and expected time required to make the improvements. This information will be used to prioritize projects and develop an implementation schedule.
- Seek improvements in computer equipment energy efficiency by positioning equipment to efficiently control airflow and prevent hot airflow from recirculating back to the IT equipment cooling intakes, sealing all leaks, replacing older equipment with newer models, upgrading the energy efficiency of the network room cooling system, and installing motion sensor lights to turn off lights when not needed.

DEQ will work with the Department of Administration to develop criteria that requires energy efficiency to be considered in making building space lease decisions.

Figure 2. Example Action Plan: Buildings – Heating and Electricity (Department of Environmental Quality Greenhouse Gas Emissions Reduction Action Plan)