

Climate Wise

Data collection

Reporting :: tracking :: benchmarking

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Data reporting: why?

- Data reporting is foundation of Climate Wise program
- Climate Wise essential part of community climate protection plan
- New “**measures**” (projects) and recycling data are reported annually (see Bronze and Silver Partner Level requirements)

Data reporting: how?

- Data for preceding calendar year due March 1st
- Data reporting resources:
 - Climate Wise website: fcgov.com/climatewise/data.php
 - Resource Guide: fcgov.com/climatewise/resources.php
 - Climate Wise staff
- Traditional MS Excel spreadsheet to be phased out
→ online data reporting and summarization functions
- General data collection and reporting concepts are unchanged

Paths to quantifying projects

Projects typically fall into one of three categories:

1. Professionally executed; estimated savings already documented
2. Self executed, data are available; simple calculation can be carried out
3. Self executed, more complex nature of project requires assistance from Climate Wise staff

How to report: energy

Energy

- Project Description?
- Can data be shared publicly?
- Annual project savings?
- Installed cost?
- Reduced electrical consumption (kWh)? OR reduced natural gas consumption (therms)?

How to report: water

Water

- Project description?
- Can data be shared publicly?
- Annual project savings?
- Installed cost?
- Reduced consumptive or non-consumptive use or irrigation?

How to report: waste reduction

Waste reduction

- Project description?
- Can data be shared publicly?
- Annual project savings?
- Installed cost?
- Disposal method?
- Material (quantity, unit, hauler)?

How to report: transportation

Transportation

- Project description?
- Can data be shared publicly?
- Annual project savings?
- Installed cost?
- Reduced vehicle miles traveled (VMT) by miles, fuel type and vehicle type OR by gallons, fuel type

Energy: project examples

Two common scenarios:

1. Conservation of electricity
 2. Conservation of natural gas
- Energy use of old equipment
 - Energy use of new equipment

Energy – electricity

- Change two 60W incandescent light-bulbs to 18W compact fluorescent light-bulbs. Operation time is 2,000 hours per year.

$$\begin{aligned} \text{Energy saved} &= 2 * (60 - 18) * 2,000 \\ &= 168,000 \text{ Wh} / 1,000 \\ &= 168 \text{ kWh} \end{aligned}$$

Energy – natural gas

- A wide variety of projects have been completed to conserve natural gas
 - Energy use of old equipment
 - Energy use of new equipment
 - Size of equipment, efficiency, operating hours

Water: project examples

Two common scenarios:

1. Conservation in consumptive water use (or water that would eventually go to wastewater treatment plant)
2. Conservation in non-consumptive water use (or water not treated at plant; e.g., irrigation)

Water – consumptive conservation

- Replace 5 toilets of a 1980's vintage (3.5GPF) with modern low-flow (1.6GPF) variety
- 100 building occupants = 20 per toilet, helps us to estimate use
- Assume 1.667 flush per person per day
- Assume 200 days per year of use

$$\begin{aligned} \text{Water saved} &= 5 * (3.5 - 1.6) * 1.667 * 20 * 200 \\ &= 63,346 \text{ gallons / year / 1,000} \\ &= 63 \text{ kgal} \end{aligned}$$

Water — non-consumptive conservation

Reduction in use of treated water that would not go to wastewater treatment (e.g. irrigation)

- Installation of xeriscape
- Change in irrigation scheduling
- Sprinkler head replacement

Transportation: project examples

Four common scenarios:

1. Reduction in vehicle miles traveled
2. Reduction in fuel use
3. Replacement of vehicle use with alternate vehicle
4. Replacement of vehicle use with alternate mode

Transportation: VMT reduction

A change in operations to reduce fleet vehicle miles

- Mileage
- Predominant fuel type
- Vehicle type

Transportation: fuel reduction

A change in operations to reduce fleet fuel consumption

- Gallons
- Fuel type

Transportation: alternate vehicle

For original and alternate vehicles

- Miles
- Fuel type
- Vehicle type

OR

- Gallons
- Fuel type

Transportation: alternate mode

For original mode

- Miles
- Fuel type
- Vehicle type

OR

- Gallons
- Fuel type

- Description of alternate mode

Waste reduction: project examples

Report volumes diverted during calendar year, by material; data sources:

- Vendor summary
- Internal tracking
- Estimates

Recycling data

<i>OCC</i>	<i>News</i>	<i>OP</i>	<i>Alum</i>	<i>Comm</i>	<i>Units</i>
0.5	0.4	4.3	0.05	0.9	tons
1085	720	8530	100	1755	lbs

Estimates are acceptable:

- Two 30-gal containers (75% full) of mixed office paper per week →

$$2 * (30 * 0.75) * 52 = 2,340 \text{ gal / OP / year}$$

Other Projects

- Educational campaigns
- Planting trees
- Source reduction (e.g., junk mail reduction or paperless printing initiatives)

Future of Data Reporting

- My Climate Wise web portal
 - News and resources
 - Manage contact information
 - Submit and review partner level documentation
 - Report data
- Targeted for testing January 2009

Tracking & benchmarking

- **Tracking** useful for monitoring progress toward internal goals; facilitates annual reporting
- **Benchmarking** useful for making relevant comparisons between similar businesses
- Information about tracking and benchmarking energy and water usage, and solid waste generation available on Climate Wise website:

fcgov.com/climatewise/data.php

Tracking: GHG baseline tool

- Partner is required to complete before setting reduction goal (see Gold partner level)
- Useful tracking tool, regardless of partner level
- Download (requires MS Excel):
fcgov.com/climatewise/resources.php



The screenshot shows the 'ClimateWise Green House Gas Baseline Tool' interface. It features a yellow background with a globe icon and a tree growing from it. The text reads: 'ClimateWise Green House Gas Baseline Tool'. Below this, it states: 'This tool was developed for ClimateWise partners to aid in the process of developing a greenhouse gas (GHG) baseline.' It then lists the information needed to develop a GHG baseline: utility bills, vehicle miles traveled, airline miles traveled, quantity of fuels used, quantity of solid waste landfilled, and quantity of materials recycled. At the bottom, there are input fields for 'Please enter your company name', 'Primary contact for GHG baseline', and 'Baseline Year', along with 'Start Here...' and 'Help' buttons.

Other tools

- Climate Wise website
fcgov.com/climatewise
- Climate Wise Partner Forum / Listserv
groups.google.com/group/climatewise

Questions / discussion

Thank you.