

# Climate Wise

## Data collection

Reporting :: tracking :: benchmarking

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# Data reporting

- Data reporting is foundation of Climate Wise program
- New “**measures**” (projects) and recycling data are reported annually
- Data for preceding calendar year due March 1<sup>st</sup>
- Data reporting resources:
  - Data reporting form
  - Resource Guide
  - Climate Wise staff



# Data reporting form

- MS Excel spreadsheet (printable version available)
- Visit website for current form:  
[fcgov.com/climatewise/resources.php](http://fcgov.com/climatewise/resources.php)
- Complete and submit via email to:  
John Armstrong →  
[jarmstrong@fcgov.com](mailto:jarmstrong@fcgov.com)



# Paths to quantifying your 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

v 2.0.2007



## Data Collection Tool

This tool was developed for ClimateWise partners to aid in reporting of annual project data. See 2007 Climate Wise Resource Guide or contact program staff for more information about using the Data Collection Tool.

In order to report on your project activities, you will need to collect data on the performance of your projects. This might include:

- kWh saved by a lighting retrofit
- MMBtu saved by an equipment upgrade
- quantity of materials recycled
- avoided vehicle miles traveled (VMT)
- VMT in an alternative or higher performing vehicle

For those projects that do not have these quantities calculated, the 2007 Resource Guide and Climate Wise staff can help you calculate your project's performance.

Please enter your company name

Primary contact for data reporting

Year



# Energy

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

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

Reduction in use of treated water that would eventually go to wastewater treatment plant



# 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

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



# Recycling and solid waste

- Report volume diverted in calendar year, by material; data sources:
  - Vendor summary
  - Internal tracking
  - Estimates
- New for calendar year 2007
  - Optional reporting of landfill tons
  - Drop-down option for “Single-Stream”



# 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 →
  - $2 * (30 * 0.75) * 52 = 2,340$  gal / OP / year



# Other Projects

- Educational campaigns
- Planting trees



# 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



# Other tools

- GHG Baseline Tool
- Climate Wise website  
[fcgov.com/climatewise](http://fcgov.com/climatewise)
- Climate Wise Partner Forum / Listserv  
[groups.google.com/group/climatewise](http://groups.google.com/group/climatewise)



# GHG baseline tool

Partner is required to complete before setting reduction goal (see Gold partner level)



v 10.13.2007

## Green House Gas Baseline Tool

This tool was developed for ClimateWise partners to aid in the process of developing a greenhouse gas (GHG) baseline.

In order to develop a GHG baseline for your company, you will need the following information:

- utility bills (preferably for at least one year) including electricity, water, and natural gas
- vehicle miles traveled and vehicle type
- airline miles traveled (or at least an idea of what trips have been made)
- quantity of fuels used for other purposes (i.e. diesel, propane)
- quantity of solid waste landfilled
- quantity of materials recycled

Please enter your company name

Primary contact for GHG baseline

Baseline Year

[Start Here...](#)

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[GHG Baseline](#)



# Questions / discussion

Keep an eye out for information on data reporting workshops, early 2008!

Thank you.

