

# **GSA Carbon Footprint Tool User Guide**

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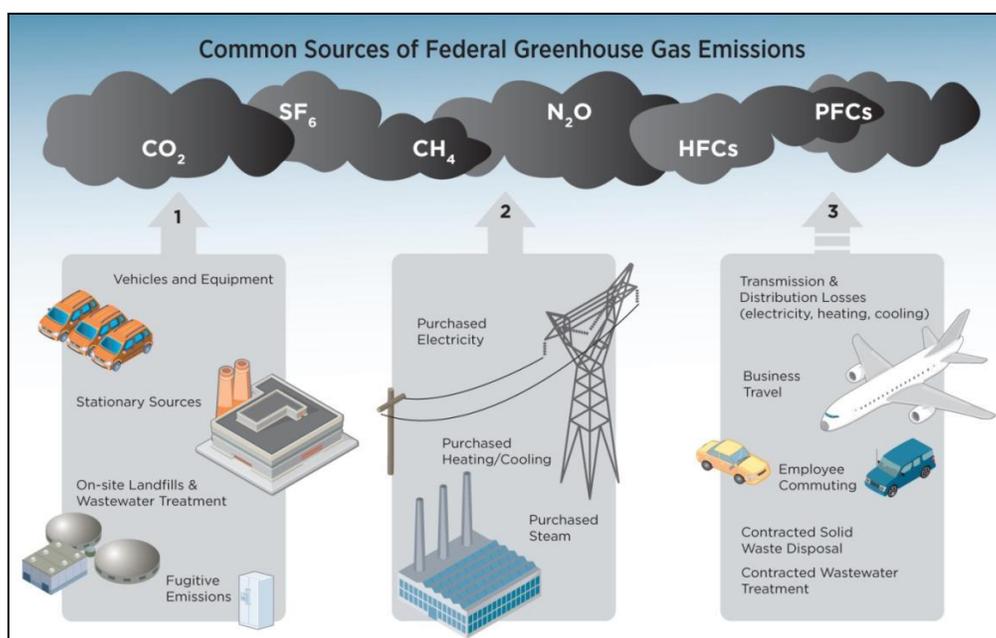
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## Introduction

Welcome to the GSA Carbon Footprint Tool (CFT). The General Services Administration (GSA) developed the GSA Carbon Footprint Tool (Tool) to help Federal Agencies calculate, report, and reduce their greenhouse gas (GHG) emissions as specified under Executive Order (EO) 13514.

**Calculate.** Calculating emissions is a multi-step process. The Tool facilitates a guided walk-through—customized specifically for the Federal Government’s unique GHG reporting needs—to determine an Agency’s emissions across all three categories of activities:

- Scope 1 – **Direct Emissions** from combustion of fuels in stationary sources, mobile combustion and industrial processes.
- Scope 2 – **Indirect Emissions** from purchased electricity, purchased heating/cooling and purchased steam
- Scope 3 – **Other Indirect Emissions** from sources not covered in Scope 2 such as employee commuting, business travel, and purchased electricity transmission and distribution losses.



Each section of the Tool provides the necessary prompts and supporting information to help you supply the most relevant input. After your data has been entered, the Tool uses the calculation methodologies outlined in the *Federal Greenhouse Gas Accounting and Reporting Guidance* and *Technical Support Document* to ensure the GHG emissions results are in alignment with EO 13514 requirements.

**Report.** Reports aggregate facility-level data so that an agency-wide perspective on the source of greenhouse gas emissions can be developed. The increased level of detail helps Agency managers identify which facilities should be prioritized for projects that will reduce emissions.

**Reduce.** The Tool allows you to explore multiple “what-if” operations scenarios to track progress in meeting reduction targets. Once cost-effective reduction strategies have been developed, implementation can begin towards the important, long-range goal of reducing organizational emissions.

## Chapter 1. Get Started

Before you can begin using the Tool, you will need to **Register as a New User**.

### Register as a New User

Go to the homepage:

<https://www.carbonfootprint.gsa.gov/>

Click the **Sign Up Now** button on the right-hand side of the page.



You will be redirected to the **Sign Up** page.

All users who sign up through this form will be placed into the “Demo Agency – Tool Preview” agency.

If you are supporting an agency as part of its GHG inventory activities, please send a request to [carbonfootprint@gsa.gov](mailto:carbonfootprint@gsa.gov) so our support team can help you register your account appropriately.

Fields marked with \* are required for submission.

Username \*   
Username must be 3-20 characters long, using letters, numbers, and underscore.

First Name \*

Last Name \*

Agency \*

Position \*

Phone Number \*   
For example: 555-123-4567

Email Address \*

Password \*   
Password must be between 9 to 40 characters long, using at least one upper and lower case letter, one digit, and one symbol.

Confirm Password \*

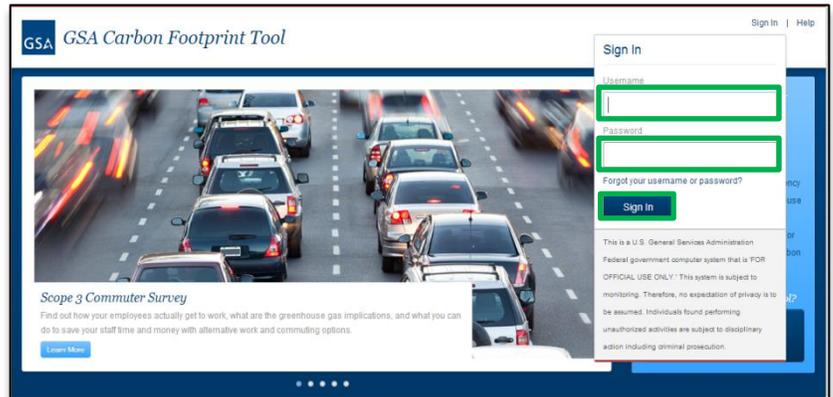
## Sign In

Go to the homepage:

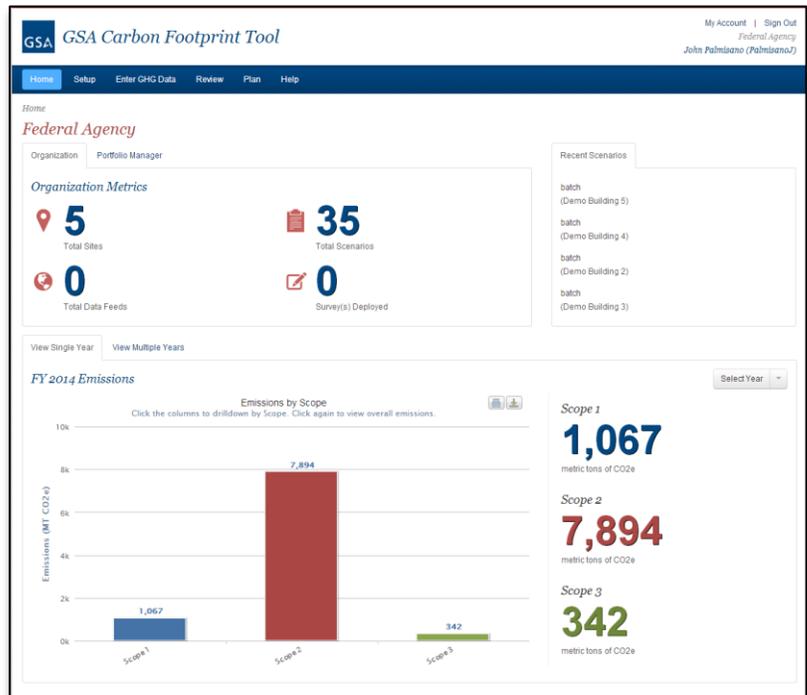
<https://www.carbonfootprint.gsa.gov/>

Enter your Username and Password and click the “Sign In” button.

If you forget your password, you can use the “Forgot Username or Password?” link to recover your credentials via email.



The **Home** page appears after you sign in. This page displays only information for your organization. For example, if you are a member of the GSA organization, you will only see GSA data and you will be unable to access data from any other agency.



## User Roles

The GSA Carbon Footprint Tool divides user access controls into three specific User Roles:

- **Organizational Administrators:** May read and edit any data in the Organization; may also perform activities described in “Organizational Administrator Unique Capabilities”.
- **Site Administrators:** May read and edit specific sites (i.e. facilities) in the Organization, as specified by the Organizational Administrator.
- **Read Only Users:** May only read data but may not edit it.

## Organizational Administrator Unique Capabilities

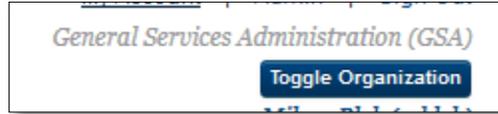
Organizational Administrators are also the only users within an Organization who can perform the following unique activities on specified pages:

<b>GSA Carbon Footprint Tool Page</b>	<b>Org Admins can...</b>
Setup > Update Agency Profile	... change data.
Setup > Manage User Roles	... change User Roles for existing accounts and invite new users.
Setup > Manage Sites	... edit or delete ANY Site.
Setup > Manage Site Groups	... create, edit, or delete Site Groups.
Setup > Define Reporting Boundary	... select what data to include or exclude from the Organization’s reporting boundary in the Tool.
Setup > Manage Portfolio Manager	... access this page and manage data connections to Energy Star Portfolio Manager.
Enter GHG Data > Commuter Survey	... access commuter survey results.
Review > QA Review	... review, approve, and reject data submitted for QA.
Review > Survey Dashboard Reports	... access commuter survey dashboards.
Review > Data Entry Report Card	... access a report card showing the status of data entry across the Organization.
Export > Batch Download Data	... batch download all data that has been entered into the Tool.
Export > DOE FEMP Export	... export all data from the Tool into DOE FEMP Workbooks.

## User Organization Toggle

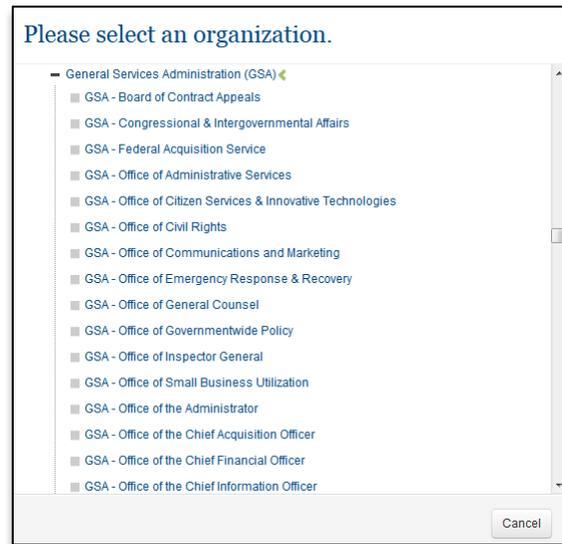
Some users have the ability to toggle their user account between organizations in their organizational hierarchy. This is helpful when one person is in charge of entering or reviewing data for multiple organizations and would like to be able to transition between these organizations quickly.

Some organizations choose to disable this feature due to data privacy concerns. If you see the “Toggle Organization” button below your username in the top-right corner of the screen as shown in the screenshot to the right, your organization has enabled this feature. To enable this feature please contact the site administrators.



When the Toggle Organizations button is selected, a user will be presented with the organizational hierarchy. A green arrow will indicate the user's current organization.

Once an organization is selected, the page will refresh and the user will be placed in the selected organization.



## Chapter 2. Setup

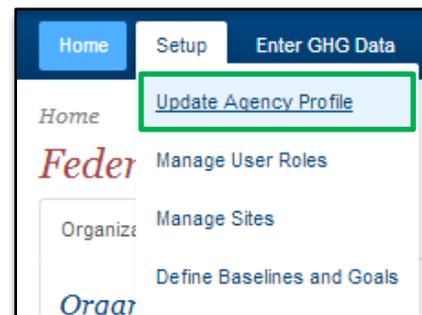
The **Setup** group includes a wide range of options for defining agency-wide details such as the agency description, user profile management, sustainability baselines and goals, and defining the organization's reporting boundary.

### Update Agency Profile

The CFT provides a page to describe organization-wide attributes which can be valuable to explain or justify GHG boundaries or assumptions for reporting purposes. Information includes the key point of contact for the agency and details about how the agency defined its operational and organizational boundaries as described in the *Federal Greenhouse Gas Accounting and Reporting Guidance*.

To access the agency profile information, click the **Update Agency Profile** hyperlink in the **Setup** section of the navigation bar.

The agency profile information from this page will be displayed at the top of agency-wide reports generated from the CFT for your convenience.



### **\*For Organizational Administrators Only\***

To update information about your agency, click the Edit Information hyperlink on the Update Agency Profile page.



### Manage User Roles

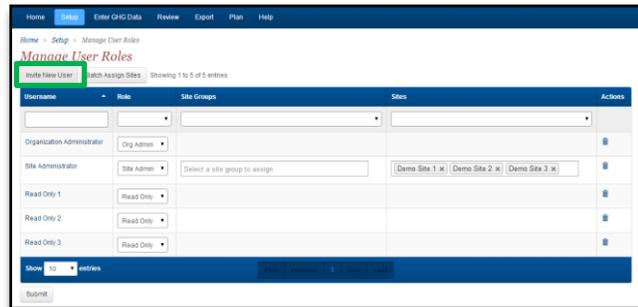
The Manage User Roles page gives agencies the autonomy to invite users to their agency and to assign different levels of permission to those users. To access the Manage User Roles page, click the **Manage User Roles** hyperlink in the **Setup** section of the navigation bar.



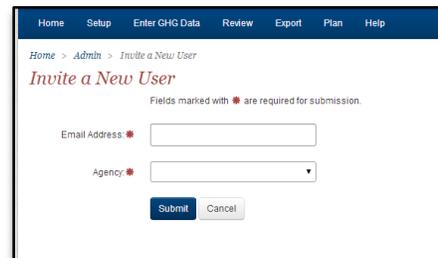
## Inviting New Users

**\*For Organizational Administrators Only\***

On the Manage User Roles page, use the Invite New User button to access the Invite a New User page.



Enter the email address of the user you would like to invite and select your agency from the dropdown menu. Click the **Submit** button to invite the new user.



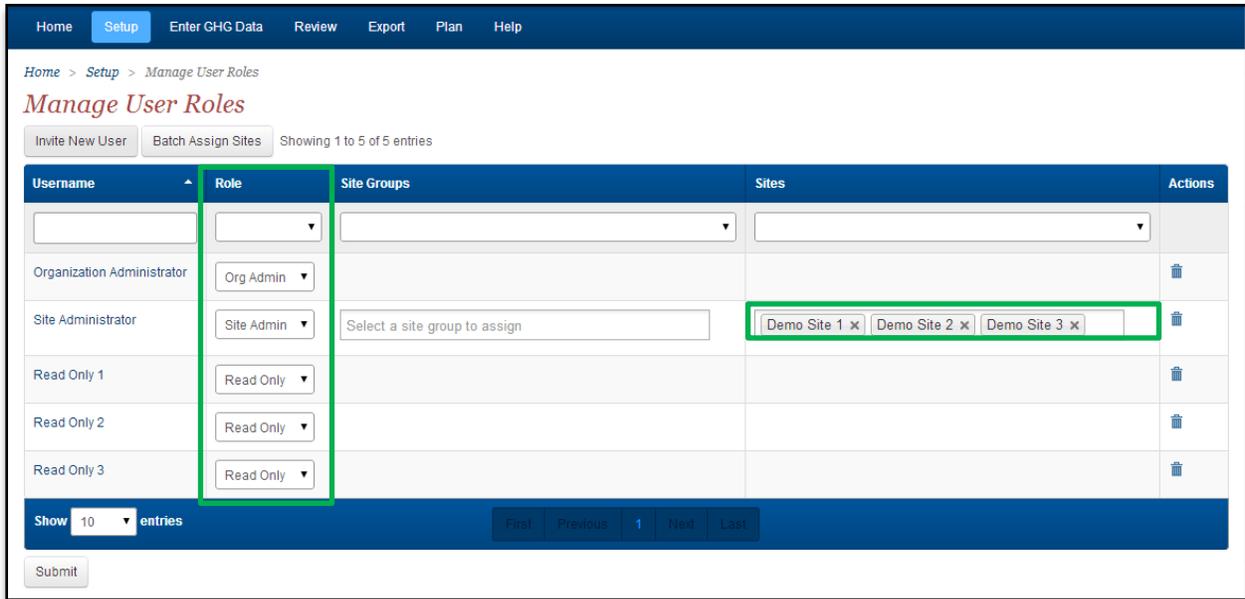
## Changing User Roles

**\*For Organizational Administrators Only\***

On the **Manage User Roles** page, Organizational Administrators can change user role permissions for users within their organization.

Search for the user whose permissions you would like to adjust. Within the “Username” search box, you may search by username, first name, or last name. When you have found the desired user, you may adjust their permissions to “Read Only”, “Site Admin”, or “Org Admin”. (See the **User Roles** section for more information.)

If you give a user the role of “Site Admin” you will need to assign the Sites and/or Site Groups they have permission to edit.



## Define Baselines and Goals

### GHG Emissions (Scope 1+2)

The baseline for reporting GHG emissions is FY 2008. Enter the metric tons of Scope 1 and 2 GHG emissions for FY 2008 in the first field. In the row below, for each FY, enter the corresponding percentage reduction goal from FY 2008. If percentages are entered in the top row, the corresponding goals in terms of metric tons will automatically populate the bottom row. If your agency does not have a goal for certain years (such as FY 2009), leave blank.

### GHG Emissions (Scope 3)

Enter Scope 3 emissions following the same procedure as for Scope 1 and 2 above.

### Building Gross Square Footage

In the top row, for each FY, enter the total gross square footage (GSF) of all agency facilities that are subject to the energy intensity requirements of the Energy Security and Independence Act of 2007 (EISA). In the bottom row, do likewise for facilities excluded from EISA reporting. Enter data from FY 2003 onwards, since EISA §431 requires federal agencies to reduce the energy intensity of their facilities by 3% per year from the FY 2003 baseline. Certain buildings are excluded from these requirements, as described in the 2006 FEMP guidance, *Guidelines Establishing Criteria for Excluding Buildings*. Leave the excluded row blank if not applicable.

### Building Energy Intensity Reduction Goal

Enter the FY 2003 baseline value for energy intensity in units of British thermal units (Btu) per GSF. In the next row, enter the agency's percentage reduction goals from the FY 2003 baseline for FY 2004

through FY 2020. The fields are pre-populated with the reduction requirements of EISA §431, relative to FY 2003 levels, so no changes are needed unless the agency has chosen more aggressive targets. (Leave blank any years for which goals have not been set.) In the third row, enter the FY 2003 energy intensity (Btu/GSF) for agency facilities excluded from EISA, if applicable.

### **Fleet Petroleum Fuel**

Enter the agency's FY 2005 baseline consumption of petroleum-based vehicle fuel, in units of gasoline gallon equivalents (GGE), then enter the percentage reduction goals from the baseline for FY 2006 through FY 2020. The fields are pre-populated with the requirement of EO 13515 §2(a)(iii) for a 2% annual reduction from FY 2005, so no changes are needed unless the agency has chosen more aggressive targets.

### **Fleet Alternative Fuel**

Enter the agency's FY 2005 baseline consumption of alternative vehicle fuel, in units of GGE. For FY 2006 through FY 2020, enter the agency's percentage goals for increasing consumption above the baseline. The fields are pre-populated with the requirements of the White House Council on Environmental Quality (CEQ) for increased consumption above FY 2005 levels, so no changes are needed unless the agency has chosen more aggressive targets. Leave blank any years for which goals have not been set.

### **Potable Water**

In the top row, enter the total GSF of all agency facilities in the FY 2007 base year. (Exclusions from EISA energy reporting do not apply to water, so this value should be the sum of the two FY 2007 values entered for EISA Subject and EISA Excluded.) Next enter the agency's total potable water consumption for FY 2007 in kgal (thousands of gallons), and indicate whether the FY 2007 water intensity baseline calculated from these two values is preliminary or final. In the last section, enter for each FY the agency's goals for percent reduction in potable water intensity from the FY 2007 baseline. The fields are pre-populated with the requirement of EO 13423 §2(c) for a 2% annual reduction from FY 2007, so no changes are needed unless the agency has chosen more aggressive targets.

### **ILA Water**

Enter the FY 2010 consumption of industrial, landscaping and agricultural (ILA) water in gallons.<sup>1</sup> Also enter the agency's percentage reduction goals for each FY, from the FY 2010 baseline. The fields are pre-populated with the requirement of EO 13515 §2(d)(ii) for a 2% annual reduction from FY 2010, so no changes are needed unless the agency has chosen more aggressive targets.

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<sup>1</sup> ILA water is potable water used for ILA purposes which was not counted towards the facility potable water intensity goal, plus any non-potable water used for space cooling. Details on ILA water can be found in the July 2013 guidance document titled *Implementing Instructions: Federal Agency Implementation of Water Efficiency and Management Provisions of EO 13514*.

## Manage Sites

### Create a New Site

The Carbon Footprint Tool represents a federal agency as an organizational unit called an *Enterprise*. An *Enterprise* is made up of **sites** which store information about the physical attributes of buildings along with the energy use activities associated with those buildings. A site can represent either an individual building or a campus of buildings that share utility meters.

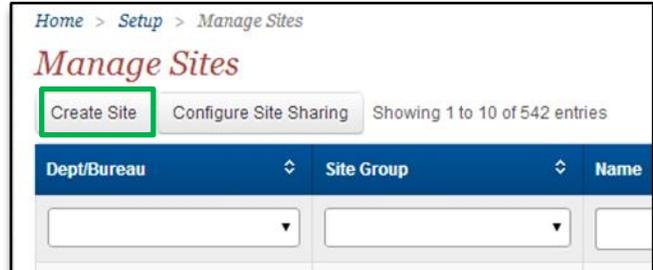
Sites are a critical component of the agency profile and must be created before GHG emissions can be calculated. Sites are created and managed from the **Enterprise Profile** page which appears as soon as you **Sign In**.

### Create Site

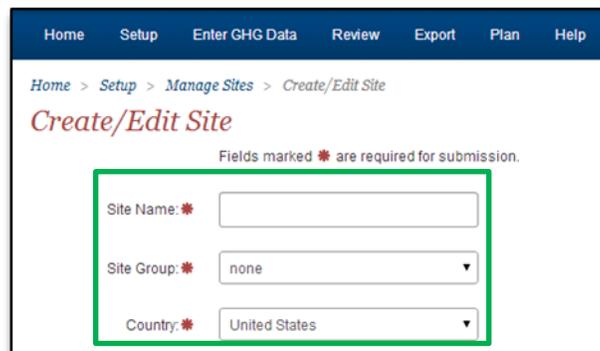
Click the “[Manage Sites](#)” hyperlink in the **Setup** section of the navigation bar to add a new site. You will be redirected to the **Manage Sites** page.



On the **Manage Sites** page, use the “[Create Site](#)” button to add a new site via the **Create/Edit Site** page.

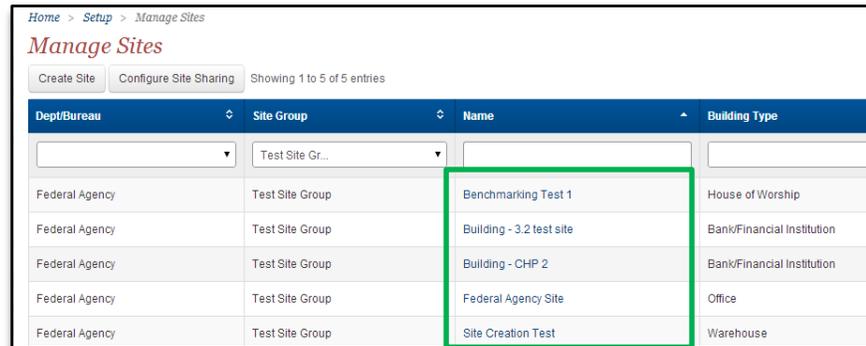


The **Create/Edit Site** page will prompt you to enter building location, size and operating information.



## Edit Site

Click on the site name of interest on the **Manage Sites** page to see more information regarding a specific site.



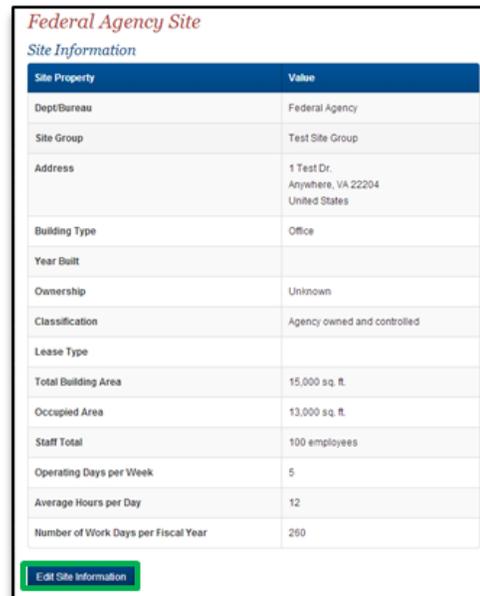
Home > Setup > Manage Sites

### Manage Sites

Create Site Configure Site Sharing Showing 1 to 5 of 5 entries

Dept/Bureau	Site Group	Name	Building Type
Federal Agency	Test Site Group	Benchmarking Test 1	House of Worship
Federal Agency	Test Site Group	Building - 3.2 test site	Bank/Financial Institution
Federal Agency	Test Site Group	Building - CHP 2	Bank/Financial Institution
Federal Agency	Test Site Group	Federal Agency Site	Office
Federal Agency	Test Site Group	Site Creation Test	Warehouse

Click the **“Edit Site Information”** button to make changes to the site information.



### Federal Agency Site

#### Site Information

Site Property	Value
Dept/Bureau	Federal Agency
Site Group	Test Site Group
Address	1 Test Dr. Anywhere, VA 22204 United States
Building Type	Office
Year Built	
Ownership	Unknown
Classification	Agency owned and controlled
Lease Type	
Total Building Area	15,000 sq. ft.
Occupied Area	13,000 sq. ft.
Staff Total	100 employees
Operating Days per Week	5
Average Hours per Day	12
Number of Work Days per Fiscal Year	260

Edit Site Information

The **Create/Edit Site** page will prompt you to edit building attributes.



Home Setup Enter GHG Data Review Export Plan Help

Home > Setup > Manage Sites > Create/Edit Site

### Create/Edit Site

Fields marked \* are required for submission.

Site Name: *	<input type="text" value="Federal Agency Site"/>
Site Group: *	<input type="text" value="Test Site Group"/>
Country: *	<input type="text" value="United States"/>

## Delete Site

Use the checkboxes on the **Manage Sites** page to select the sites you would like to remove. To delete the sites, click the arrow next to the **“Batch Operation”** button and select **“Delete.”**

You are only able to delete existing sites if you are the Site Administrator for the site or if you have Organizational Administrator rights.

The screenshot shows the 'Manage Sites' interface. At the top, there is a navigation bar with 'Home', 'Setup', 'Enter GHG Data', 'Review', 'Export', 'Plan', and 'Help'. Below this, the breadcrumb trail is 'Home > Setup > Manage Sites'. The main heading is 'Manage Sites'. There are buttons for 'Create Site', 'Configure Site Sharing', and 'Batch Operation'. A status indicator says 'Showing 1 to 5 of 5 entries'. A dropdown menu is open, showing 'Sync with Portfolio Manager' and 'Delete'. The table below has columns: Dept/Bureau, Site Group, Name, Building, and a checkbox. The table contains five rows of site data. The 'Delete' button and the checkbox for the 'Federal Agency Site' row are highlighted with green boxes.

Dept/Bureau	Site Group	Name	Building	
	Test Site Gr...			<input type="checkbox"/>
Federal Agency	Test Site Group	Benchmarking Test 1	House of Worship	<input type="checkbox"/>
Federal Agency	Test Site Group	Building - 3.2 test site	Bank/Financial Institution	<input type="checkbox"/>
Federal Agency	Test Site Group	Building - CHP 2	Bank/Financial Institution	<input type="checkbox"/>
Federal Agency	Test Site Group	Federal Agency Site	Office	<input checked="" type="checkbox"/>
Federal Agency	Test Site Group	Site Creation Test	Warehouse	<input type="checkbox"/>

## Entering Meters

Once sites are created, meters associated with all types of consumption (such as energy, water and steam) can be entered. This allows users to enter consumption data for specific meters, corresponding to the way facilities typically receive their data.

Meters are entered into the tool under Manage Sites by clicking on the name of a Site. In the page that opens, the area for entering meters follows the Site Information. The "PM Meter Id" field is for the unique identifier associated with meters imported from Portfolio Manager, if applicable. Once meters are entered, when a user goes to enter data for any given FY, the meters are available in a drop down menu. If identical meters are accidentally created, and data entered for both of them, use the Merge Meters function to combine the data.

## Manage Site Groups

**\*For Organizational Administrators Only\***

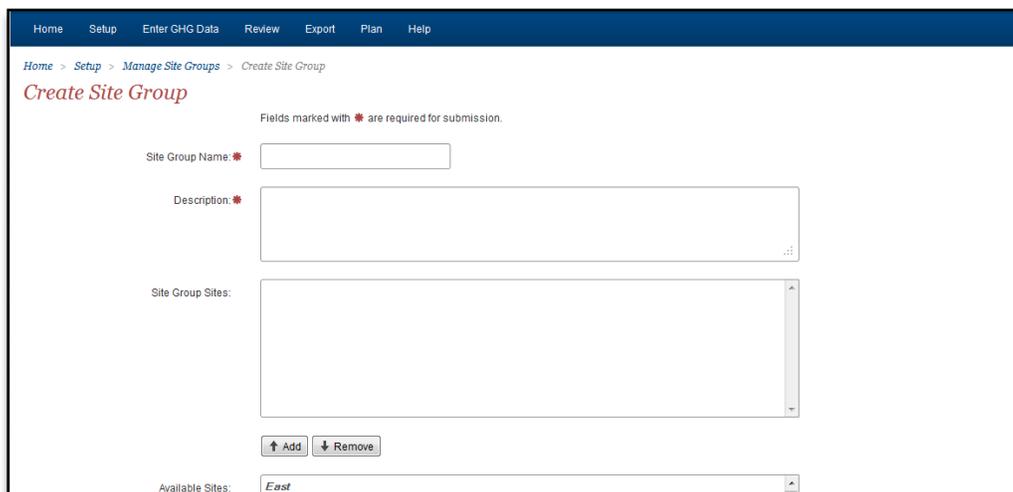
Site Groups allow Organizational Administrators to group sites with similar characteristics for analysis and reporting. For example, a Site Group could represent all of the buildings within an administrative region or all of the buildings on a campus.

Click the “[Manage Site Groups](#)” hyperlink on the navigation bar to update your site. You will be redirected to the **Manage Site Groups** page.



## Creating a Site Group

On the **Manage Site Groups** page, click the “[Create Site Group](#)” button to create a new Site Group. You will be redirected to the **Create Site Group** page. On this page, you may create a name for your Site Group, add a description, and Add (or Remove) individual Sites from the Site Group. After a Site Group has been created, you may edit it using the edit (✎) or delete (🗑) buttons on the **Manage Site Groups** page to make changes.



## Manage Portfolio Manager

If your agency has imported data from the EPA ENERGY STAR Portfolio Manager, please refer to the Portfolio Manager Walkthrough guide at <https://www.carbonfootprint.gsa.gov/?Page=help.userGuides>.

## Chapter 3. Enter GHG Data

The **Enter GHG Data** group primarily includes the Manage Data page, the centralized location for collecting and editing GHG inventory data from many users across a large distributed enterprise.

### Manage Data

All data entry into the Carbon Footprint Tool occurs within the “Manage Data” interface. The interface is organized primarily by job function, allowing users to better identify all emission sources.

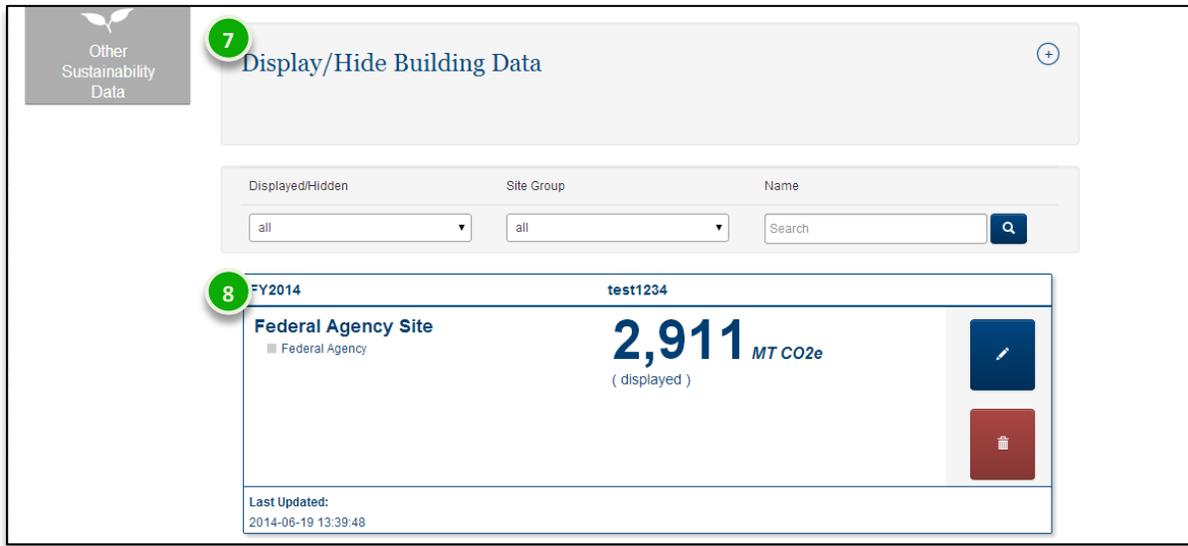
The screenshot shows the 'Manage Data' interface with the following components:

- 1** Navigation menu on the left with categories: Building, Fleet, Business Air, Business Ground, Commuter, Renewable Energy, and Additional Emissions.
- 2** Fiscal Year Selection dropdown in the top right corner, showing years from 2014 to 2008.
- 3** 'Import from Portfolio Manager' section with a 'Get Started' button.
- 4** 'Batch Upload' section with a '+' button.
- 5** 'Manual Entry' section with a '+' button.
- 6** 'FY 2014 : Total emissions for all displayed buildings.' section featuring a bar chart and a large value of 62,905 MT CO<sub>2</sub>e, with a 'View/Select Source' button.

- 1** **GHG Sources** – Toggle between data management categories such as building operations, fleet, business air, business ground, commuter, renewable energy, additional emissions, and other sustainability data (see the following sections for additional information).
- 2** **Fiscal Year Selection** – Toggle between fiscal years to enter and view data back to FY 2008.
- 3** **Import Data from External Data Feeds** (if applicable) –The simplest way to enter data into the Tool is through connections with existing databases. Existing connectivity exists with Energy Star Portfolio Manager, Federal Automotive Statistical Tool (FAST), GSA Travel MIS, and the Scope 3 Commuter Survey. This section

walks you through the process of importing this data.

- 4 **Batch Upload** – Upload data in bulk by using the batch upload templates and process instructions.
- 5 **Manual Entry** – Upload data manually on a site by site basis.
- 6 **Emissions Bar Chart** – A graphical representation of the emissions over time for the selected GHG Source (#1 above).



- 7 **Display/Hide Building Data** – Expand to select/deselect data sources (i.e., automated, batch, or manual) to include in your inventory.
- 8 **Data Elements** – A quick snapshot of the data entered into the Tool, by site. Use the edit and delete icons to make changes to existing data elements.

The remaining sections of this chapter show instructions for each individual GHG emissions source.

## Enter Building Consumption Data

Building consumption data can be entered via an Import from ENERGY STAR Portfolio Manager (PM), Batch Upload or Manual Entry.

### *Import from Portfolio Manager*

Import properties already created in EPA’s Energy Star Portfolio Manager directly into the Carbon Footprint Tool. The steps to accomplish this are outlined in the PM Import User Guide (separate).

## Batch Upload (Building Operations)

The Batch Upload functionality allows you to complete one-time uploads of large quantities of site attribute and energy consumption data into the Carbon Footprint Analyzer. Instead of entering energy consumption data into scenarios individually for each site, you can load this data for multiple sites with just a few clicks.

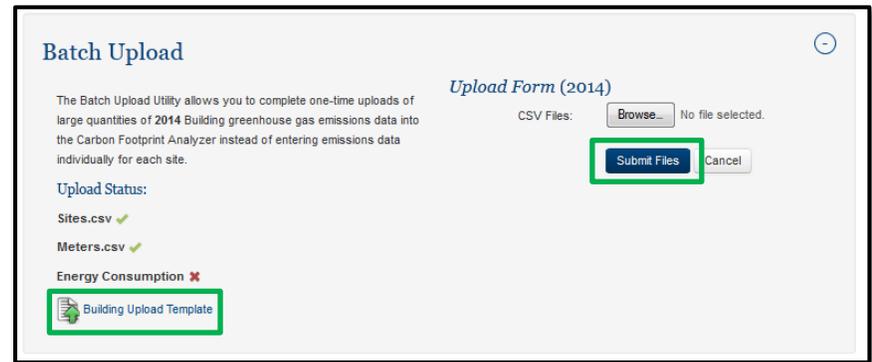
Expand the “[Batch Upload](#)” entry in the **Manage Data** section by clicking on the blue plus sign.

Click the “[Building Upload Templates](#)” link in the lower right-hand corner of the **Batch Upload** data entry box.



Save the **BatchuploadTemplates.zip** file that appears to your hard drive.

Unzip the two files, populate the worksheets that are of interest and be sure to save each sheet as a .csv file.



**Note:** Each file has an “Introduction” tab with specific instructions for adding the necessary data.

Upload the desired templates.

## Manual Entry (Building Operations Data)

The Manual Entry functionality allows you to add site level data greenhouse gas data as appropriate.

Expand the “[Manual Entry](#)” entry in the **Manage Data** section by clicking on the blue plus sign.

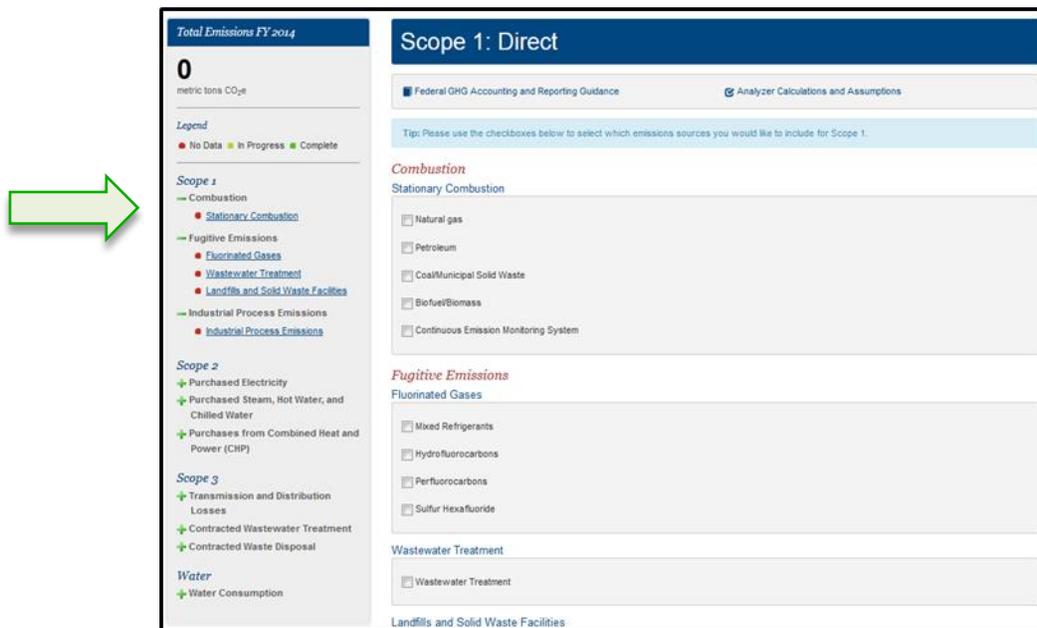


Select a site to enter building consumption data for. If the site does not currently exist in the Tool, use the “Create a Site” button to generate one.



Select the fiscal year you want to add building consumption data for. Click “Start” to enter the manual data entry page.

The “Manual Entry” page is broken down by GHG emission source scope specific to building operations, that is Scope 1, Scope 2 and Scope 3 emissions. Use the left hand navigation to see what data elements have yet to be entered as well as their individual MTCO<sub>2</sub>e contribution to the site’s overall GHG roll-up.



## ***Building Operations – Scope 1***

Scope 1 GHG emissions (also referred to as **direct GHG emissions**) are emissions from sources that are owned or controlled by an agency, facility, activity, park, or site unit.

The following reporting categories mirror the specifications of the *Federal Greenhouse Gas Accounting and Reporting Guidance* and are available as GHG Inventory sections in the Carbon Footprint Tool:

1. **Stationary Combustion: Generation of electricity, heat, cooling, or steam:** Emissions that result from combustion of fuels in stationary sources (e.g., boilers, furnaces, turbines, wood stoves, and emergency generators), including methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) emissions from biomass combusted for production of electricity, heat, cooling, or steam.
2. **Fugitive Emissions:** The Guidance defines fugitive emissions as those that result from intentional or unintentional releases of GHGs from within the agency's organizational boundary (e.g., equipment leaks from joints, seals, packing, and gaskets; landfills and wastewater treatment plants; HFC emissions from the use of refrigeration and air conditioning equipment; methane leaks from gas transport; and SF<sub>6</sub> emissions from leaking electrical equipment; and CH<sub>4</sub> emissions from coal mines and venting).
3. **Process Emissions:** Emissions that result from the manufacturing or processing of chemicals and materials and from laboratory activities.
4. **Additional Emissions Sources:** Emissions of methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and any other emission that doesn't fit within the four previous categories. *(Note: user defined emissions will be shown as carbon dioxide (CO<sub>2</sub>) in the DOE FEMP Workbook download)*

### **Stationary Combustion**

The stationary combustion data section allows accounting for emissions from Natural Gas, Petroleum Products (propane, fuel oil), Coal/Municipal Solid Waste and Biofuels/Biomass. Once information for each stationary combustion section has been entered and the **Save & Continue** button at the bottom of the page is clicked, the Tool calculates the GHG emissions associated with the entries on each page.

# Natural Gas

Federal GHG Accounting and Reporting Guidance

Analyzer Calculations and Assumptions

**Tip:** Scope 1 Stationary Combustion emissions result from generation of electricity, heat or steam from sources owned and controlled by the agency. This includes emissions from use of boilers, furnaces, turbines and emergency generators.

Select Emission Source 



Select unit for input 



Enter the energy used and cost for each month. The cost per unit for each month, total energy used, total cost, and total cost per unit will be calculated for you.

	Consumption <i>therms</i> 	Cost <i>dollars</i>	Cost per unit <i>dollars</i>
October	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
November	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>

-  Select an existing emission source from prior year data entry, or create a new meter. This meter will be unique to the site and input type (e.g., Natural Gas).
-  The unit of input will be prepopulated depending on the meter selected for data entry.
-  Enter monthly consumption data in the unit identified under the drop down above along with the associated monthly consumption costs.

Add additional consumption sources (up to 3 per site for stationary consumption) by selecting “Add Source.” Remove sources as needed by selecting “Remove Source.” Clicking Save & Continue at the bottom of the page initiates the GHG emission calculation associated with the page.



## Fugitive Emissions

The fugitive emissions data section allows accounting for fugitive greenhouse gas emissions from fluorinated gasses, wastewater treatment, landfills and solid waste facilities. Once information for each fugitive emissions section has been entered and the **Save & Continue** button at the bottom of the page is clicked, the Tool calculates the GHG emissions associated with the entries on each page.

NOTE: Wastewater treatment and landfill emissions are only considered Scope 1 emissions if your agency owns or operates the water treatment facility or landfill. For more information, see Appendix A in the Technical Support Document.

## **Industrial Processes**

The Tool's industrial process emissions data section allows accounting for processes ranging from adipic acid and cement production to semiconductor manufacturing (uncommon for typical agencies). Once information for each industrial process emissions section has been entered and the **Save & Continue** button at the bottom of the page is clicked, the Tool calculates the GHG emissions associated with the entries on each page.

## ***Building Operations – Scope 2***

Scope 2 GHG emissions are the indirect GHG emissions generated from consumption of purchased electricity, heat or steam sources.

The following reporting categories mirror the specifications of the *Federal Greenhouse Gas Accounting and Reporting Guidance* and are available as GHG Inventory sections in the Carbon Footprint Tool:

1. purchased electricity,
2. purchased steam or hot water,
3. purchased chilled water,
4. purchased electricity, steam, or hot water from a combined heat and power facility, and
5. purchased steam from a waste-to-energy (WTE) facility.

## **Purchased Electricity**

The purchased electricity data section allows accounting for greenhouse gas emissions from electricity purchased throughout the year. Emissions can be estimated using either monthly utility bills, an annual energy estimate for the entire building or the occupancy area.

NOTE: While the Tool allows agencies to estimate consumption based on total building energy consumption and occupancy area, this data may not be suitable for conducting an official annual comprehensive GHG inventory, and the Guidance recommends data that is ideally based on metered electricity consumption for reporting purposes.

In the example that follows, data is entered for two meters, Meter 1 and Meter 2. After selecting "Yes" in response to the question, "Do you have access to monthly electric bills or electricity meter readings?", 1,000 kilowatt hours is entered as the monthly usage for Meter 1. By clicking the green "+ Add Source" button, the page will expand to allow monthly data for Meter 2 to be entered as well. After entering 5,000 kilowatt hours as the monthly usage for Meter 2, the carbon footprint calculated for both meters is 62 metric tons CO<sub>2</sub> equivalents. Note that the building electricity emissions total is different from the overall emissions total, which also includes the transmission and distribution system losses that are automatically calculated in the Scope 3 section.

Purchased Electricity > Building Electricity

## Utility Data Available

Do you have access to monthly electricity data for your building?

No

Yes

[Skip](#) [Save & Continue](#)

Emission Source: [?](#)

Meter 1

Select unit for input

kWh (thousand watt hours)

Enter the energy used and cost for each month. The cost is in dollars.

Month	Consumption kWh (thousand)	Cost (\$)
October	1000	
November	1000	
December	1000	
January	1000	
February	1000	
March	1000	

Emission Source: [?](#)

Meter 2

Select unit for input

kWh (thousand watt hours)

Enter the energy used and cost for each month. The cost is in dollars.

Month	Consumption kWh (thousand)	Cost (\$)
October	5000	
November	5000	
December	5000	
January	5000	
February	5000	
March	5000	

[+ Add Source](#)

### Total Emissions FY 2012

**62**  
metric tons CO<sub>2</sub>e

*Legend*

● No Data ● In Progress ● Complete

*Quality Assurance*

[Submit Data for QA](#)

*Scope 1*

- + Combustion
- + Fugitive Emissions
- + Industrial Process Emissions
- + Additional Emissions Sources

*Scope 2*

- Purchased Electricity
  - [Building Electricity](#)

Emissions 58.42

[Utility Data Available](#)

Monthly Consumption

## Purchased Steam & Hot Water, and Chilled Water

This data section allows accounting for greenhouse gas emissions from steam, hot water, and chilled water. Once information for each section has been entered and the **Save & Continue** button at the bottom of the page is clicked, the Tool calculates the GHG emissions associated with the entries on each page.

In the example below, the desired fuel and unit types have been selected from the drop-down menus causing the estimate boiler efficiency, steam production efficiency, and distribution loss fields to be automatically populated. These values are recommended by the *Technical Support Document*. 1,000 MMBtu is entered as the monthly usage for Meter 1. After clicking the **Save & Continue** button, the carbon footprint calculated for steam delivered by Meter 1 is 2,317 metric tons CO<sub>2</sub> equivalents.

The screenshot displays the 'Purchased Steam' data entry form and a summary panel. The form includes the following fields and values:

- Emission Source:** Meter 1
- Select plant fuel type:** Coal - Anthracite
- Emission Source:** Meter 1
- Select plant fuel type:** Coal - Anthracite
- Select unit for input:** MMBtu (million Btu)
- Consumption MMBtu (million):**

Month	Consumption
October	1000
November	1000
December	1000
January	1000
- Boiler Efficiency:** 0.8
- Steam Production Efficiency:** 0.75
- Distribution Loss:** 0.1
- Emission Factors:**
  - Delivered Biogenic CO<sub>2</sub>: 0
  - Emission Factor: 103.54
  - Delivered Anthropogenic CO<sub>2</sub> Emission Factor: 0.011
  - Delivered CH<sub>4</sub> Emission Factor: 0.0016
  - Delivered N<sub>2</sub>O Emission Factor: 0.0016 (kg N<sub>2</sub>O / MMBtu)

The summary panel on the right shows the following information:

- Total Emissions FY 2012:** 2,317 metric tons CO<sub>2</sub>e
- Legend:** No Data (red dot), In Progress (yellow dot), Complete (green dot)
- Quality Assurance:** Submit Data for QA button
- Scope 1:** Combustion, Fugitive Emissions, Industrial Process Emissions, Additional Emissions Sources
- Scope 2:** Purchased Electricity, Purchased Steam, Hot Water, and Chilled Water (with a green dot next to 'Purchased Steam, Hot Water, and Chilled Water')
- Emissions:** 2,317.04
- Purchased Steam** (highlighted)

## **Purchases from Combined Heat and Power (CHP)**

This data section allows accounting for greenhouse gas emissions from purchased electricity, steam, or hot water that is produced by a facility that simultaneously produces electricity and heat. Because the simultaneous production of electricity and heat represents a special Scope 2 case, a different accounting approach is used in this section. For more details on the calculation methodology, please see the *Technical Support Document*.

## ***Building Operations – Scope 3***

Scope 3 GHG emissions are the **indirect GHG emissions** not covered in Scope 2. These emissions occur as a consequence of agency activities, but originate from sources not controlled by the agency.

The following reporting categories are specified in the *Guidance* and are available as GHG Inventory sections in the Carbon Footprint Tool (for building operations):

1. Contracted solid waste disposal (Municipal solid waste that is sent to a landfill not owned or operated by the agency)
2. Contracted wastewater treatment (Municipal wastewater that is sent to a wastewater treatment plant not owned or operated by the agency)
3. T&D losses associated with purchased electricity
4. Employee travel and commuting

## **Transmission and Distribution Losses**

No user input is required for this section! Transmission and Distribution losses are automatically calculated based on the purchased electricity totals provided under Scope 2.

## **Contracted Wastewater Treatment**

Population-based calculations are used to determine GHG emissions associated with contracted wastewater treatment.

In the screenshot below, 1,000 Agency employees are assumed to be served by contracted wastewater treatment. By selecting the “use estimate” values for all of the remaining questions, the Carbon Footprint Tool will automatically populate the fields with the values recommended by the *Technical Support Document*. After clicking the **Save & Continue** button, the carbon footprint calculated for this single entry is 5 metric tons CO<sub>2</sub> equivalents.

Contracted Wastewater Treatment > Contracted Wastewater Treatment

## Contracted Wastewater Treatment

Tip: For the Default Methodology, click on 'use estimate' for both of the percentage

Number of employees served  
 people

Percentage Contracted Centralized WWTP with Nitrification / Denitrification  
 percent

Percentage Contracted Wastewater Treatment Lagoons  
 percent

*Total Emissions FY 2012*

**5**  
metric tons CO<sub>2</sub>e

*Legend*

● No Data ● In Progress ● Complete

### Contracted Waste Disposal

GHG emissions from contracted disposal of agency waste are calculated based on the monthly totals in short tons of municipal solid waste that an independent entity disposes off-site.

### Water Consumption

The Carbon Footprint Tool further allows users to input water monthly consumption data at the site level, including water used for facility operations, kitchen and bath, cooling, and irrigation. (See ILA Water or Potable Water for more information.)

Water Consumption > ILA Water

### ILA Water Usage

Federal GHG Accounting and Reporting Guidance | Analyzer Calculations and Assumptions

Select Water Source

A simplified definition of ILA water is POTABLE water used for industrial, agricultural or irrigation purposes, and NON-potable water used for space cooling (such as water towers), that is not counted as part of potable water used for the water intensity calculation. For further details, click here to see the White House Implementing Instructions.

	Consumption kgal	Cost dollars	Cost per unit dollars
October	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
November	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
December	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
January	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
February	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
March	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
April	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
May	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
June	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
July	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
August	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
September	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
Total	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>

Water Consumption > Potable Water Consumption

### Potable Water Consumption

Federal GHG Accounting and Reporting Guidance | Analyzer Calculations and Assumptions

Select Water Source

Enter the Potable Water used and cost for each month. The cost per unit for total potable water used, total cost, and total cost per unit will be calculated for you.

	Consumption kgal	Cost dollars	Cost per unit dollars
October	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
November	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
December	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
January	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
February	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
March	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
April	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
May	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
June	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
July	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
August	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
September	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
Total	<input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>

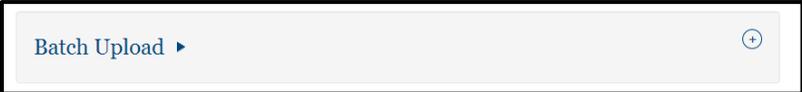
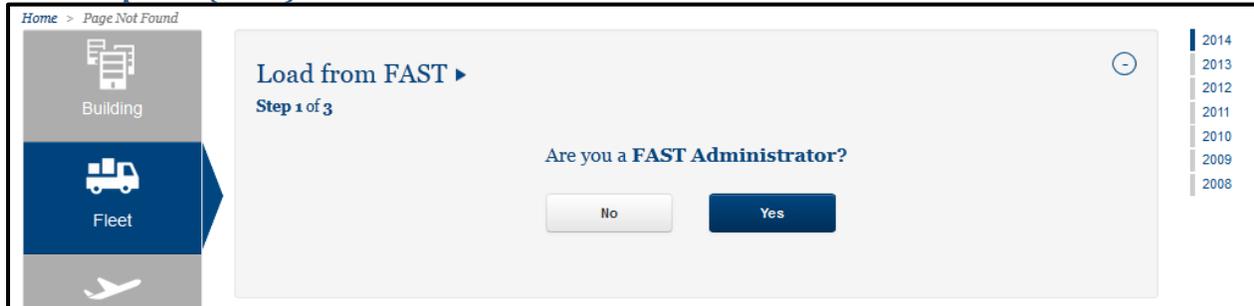
### Enter Fleet Consumption Data

Fleet consumption data can be entered via an import from the Federal Automotive Statistical Tool (FAST), Batch Upload or Manual Entry. To enter fleet data, click on the truck icon on the left navigation within the "Manage GHG Data" interface.

### Import from FAST

Direct connectivity with FAST allows vehicle fleet data to be directly uploaded into the Carbon Footprint Tool as appropriate. The simple to follow instructions will show you how to initiate the data transfer from the FAST system, or queue you up with the language needed to solicit these steps from the proper FAST Administrator.

### Batch Upload (Fleet)

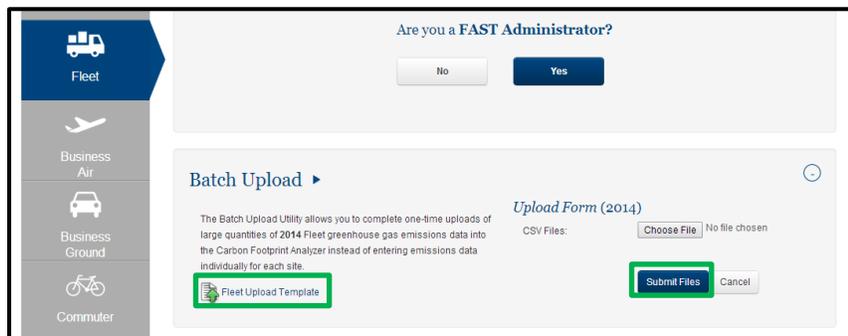


The Batch Upload functionality allows you to complete one-time uploads of large quantities of Site attribute and energy consumption data into the Carbon Footprint Analyzer. Instead of entering fleet data individually for each Site, you can load this data for multiple Sites with just a few clicks.

Expand the “[Batch Upload](#)” entry in the **Manage Data** section by clicking on the blue plus sign.

Click the “[Fleet Upload Templates](#)” link in the lower right-hand corner of the **Batch Upload** data entry box.

Save the **BatchuploadTemplates.zip** file that appears to your hard drive.



Unzip the one file, populate the worksheets that are of interest and be sure to save each sheet as a .csv file.

**Note:** Each file has an “Introduction” tab with specific instructions for adding the necessary data.

Upload the desired templates.

### Manual Entry (Fleet)

The mobile combustion data section allows accounting for vehicles powered by both fossil fuels and alternative fuels. Once information for each mobile combustion section has been entered and the **Save & Continue** button at the bottom of the page is clicked, the Tool calculates the GHG emissions associated with the entries on each page.

Select a fleet you want to generate, or create a new one. The screenshot below shows the first

page of the mobile combustion section. If you only know the number of gallons of each fuel type that were consumed, select “No”. If you know the number of gallons of each fuel type that were consumed, the emissions control technology used, and the number of miles driven, select “Yes.”

In the example that follows, after “No” is selected, 448,481 gallons<sup>2</sup> of annual gasoline usage and zero gallons of aviation gas, diesel, jet fuel, gasoline, liquefied petroleum gas and navy special are entered on the next page. After clicking the **Save & Continue** button, the carbon footprint uses the **default methodology** for mobile combustion emissions and calculates 3,950 metric tons CO2 equivalents.

Combustion > Mobile Combustion

## Mobile Sources Methodology

Would you like to use the Advanced Methodology? ⓘ

No

Yes

Skip Save & Continue

---

<sup>2</sup> The Federal Automotive Statistical Tool (FAST) reported 448,481 GGE of petroleum usage reported for the General Services Administration. All petroleum usage was assumed to be gasoline. For more information, visit <http://www.afdc.energy.gov/afdc/data/fleets.ht#consumption> and view the table Petroleum Consumption by Agency.

Combustion > Mobile Combustion

## Mobile Sources Methodology

Would you like to use the Advanced Methodology? ⓘ

No  
 Yes

Combustion > Mobile Combustion

## Fossil Fuels

	Consumption <i>gallons</i>	Annual cost <i>dollars</i>	Cost per gallon <i>dollars</i>
Gasoline	448441	\$ 2.05	\$ 0.000004571392
Diesel	0	\$ 0	\$
Aviation Gas	0	\$ 0	\$
Jet Fuel	0	\$ 0	\$
Liquefied Petroleum Gas	0	\$ 0	\$
Navy Special	0	\$ 0	\$

The screenshots that follow illustrate how the same information is processed in the Tool after “Yes” is selected instead and 448,481 gallons of annual gasoline usage is again assumed and entered. Emissions are assumed to have been generated by light-duty trucks with uncontrolled emissions sources. The carbon footprint associated with the **detailed calculation methodology**, which is used after “Yes” is selected, is 3,937 metric tons CO<sub>2</sub> equivalents, 0.3% percent less than the carbon footprint estimated using the default methodology. This difference is expected since the default and detailed methodology use the same approach to calculate carbon dioxide (CO<sub>2</sub>) emissions from fuel use, but differ in the way they estimate methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) emissions which also contribute to the carbon footprint.

For more information about the difference in these approaches, see Appendix A in the Technical Support Document.

Combustion > Mobile Combustion

## Mobile Sources Methodology

Would you like to use the Advanced Methodology? ⓘ

No  
 Yes

Combustion > Mobile Combustion

## Gasoline Vehicles

Emission Source: ⓘ

Gasoline Vehicles

Select the type of vehicle:

Light-Duty Truck ▾

Select the emission control technology:

Uncontrolled ▾

Enter the number of gallons consumed: ⓘ

448481 gallons

Enter the number of miles driven: ⓘ

## Enter Business Air Travel Consumption Data

Business air consumption data can be entered via an import from the GSA Travel Management Information System (MIS) database, or Manual Entry.

### *Import from GSA Travel MIS*

If your agency uses the GSA Travel MIS system to track business travel information, you can import your Scope 3 Business Travel data from GSA Travel MIS into the GSA Carbon Footprint Tool. To initiate this request, use the Tool import request process detailed within Business Air. An email request can be generated to authorize the data export to the Tool.

### Send GSA MIS Import Request: ▶

If your agency uses the GSA Travel MIS system to track business travel information, you can import your Scope 3 Business Travel data from GSA Travel MIS into the GSA Carbon Footprint Tool. To initiate this request, please click the "Send Email Request" link below. We have already provided sample text to get you started.

## Manual Entry (Business Air)

In the Manual Entry Business Air section, a Flight Group is business air travel data. The most streamlined way to manage manual entry of air travel data is to create just one agency-wide Flight Group. Alternatively, a Flight Group can be created for each FY and/or for different parts of the agency.

To manually enter business air travel data, create a Flight Group corresponding to the data, if one has not already been created. Choose the year for which data is being entered and press Start. The Tool will then ask you a series of questions to determine the level of reporting you can achieve given the data on hand. Follow the steps to manually enter business air travel data.

The screenshot shows the 'Manual Entry' interface. At the top left, there is a 'Manual Entry' header with a right-pointing arrow. Below it, a 'Select a Flight Group:' dropdown menu is followed by an 'or' separator and a 'Create a Flight Group' button. Underneath, the 'Fiscal Year:' is set to '2014' with a dropdown arrow. A blue 'Start' button is positioned below the year selection. To the right, a summary card titled 'Total Emissions FY 2014' displays a large '0' for 'metric tons CO<sub>2</sub>e'. A legend indicates 'No Data' (red dot), 'In Progress' (yellow dot), and 'Complete' (green dot). Below the legend, a 'Scope 3' section lists 'Business Travel' with a green arrow, and 'Air Travel' with a blue arrow. Under 'Air Travel', 'Emissions' is listed as '0.00'. A 'Travel Emissions Availability' link is highlighted in blue. To the right of the summary card is a 'Travel Data Availability' form titled 'Business Travel > Air Travel'. It asks, 'Do you have access to air travel mileage by flight segment for each passenger?' with radio buttons for 'No' and 'Yes'. At the bottom of this form are 'Previous', 'Skip', and 'Save & Continue' buttons.

## Enter Business Ground Consumption Data

Business air consumption data can be entered via an import from the GSA Travel MIS database, or Manual Entry.

### Import from GSA Travel MIS

If your agency uses the GSA Travel MIS system to track business travel information, you can import your Scope 3 Business Travel data from GSA Travel MIS into the GSA Carbon Footprint Tool. To initiate this request, use the Tool import request process detailed within Business Air. An email request can be generated to authorize the data export to the Tool.

The screenshot shows a screen titled 'Send GSA MIS Import Request:'. Below the title, a paragraph explains that users can import Scope 3 Business Travel data from GSA Travel MIS into the GSA Carbon Footprint Tool and provides instructions to click the 'Send Email Request' link. At the bottom, there are two buttons: 'Previous' and 'Send Email Request'.

## Manual Entry (Business Ground)

Manually enter business ground travel data through the manual entry section. Select a previous ground travel group, or create a new one. The Tool will ask you a series of questions to determine which methodology is most appropriate given the data obtained. Follow the steps to manually enter business ground travel data.

The screenshot displays the 'Manual Entry' interface for business ground travel. It features a header with the title 'Manual Entry' and a navigation icon. Below the header, there are two options for selecting a ground travel group: a dropdown menu and a 'Create a Ground Travel Group' button. A 'Fiscal Year' dropdown is set to '2014', and a 'Start' button is visible. The main content area is divided into two columns. The left column shows the 'Total Emissions FY 2014' as '0 metric tons CO<sub>2</sub>e'. A legend indicates 'No Data' (red), 'In Progress' (yellow), and 'Complete' (green). Under the 'Scope 3' section, 'Ground Business Travel' is selected. The right column is titled 'Ground Business Travel Methodology' and includes a tip about data entry and three methodology options: 'Default Methodology', 'Advanced Methodology #1', and 'Advanced Methodology #2'. A 'Save & Continue' button is located at the bottom.

## Enter Commuter Data

The preferred approach for calculating employee commuting emissions is through the deployment of a Scope 3 Commuter Survey. The Carbon Footprint Tool includes a turn-key solution that can be used by any agency and was developed in collaboration with the Department of Transportation (DOT), Department of Energy Federal Energy Management Program (DOE FEMP) and CEQ. For more information or to request a demo of the Scope 3 Commuter Survey, contact GSA at [carbonfootprint@gsa.gov](mailto:carbonfootprint@gsa.gov).

The Employee Commuting section of the Carbon Footprint Tool also allows manual input of data related to employee travel to and from work by automobile, rail, bus and any other options that might apply.

*The screenshot below displays the commuting details a user can enter if they have decided to forgo the Scope 3 Commuter Survey.*

*Employee Commuting > Car Commuting*

## Commute Details

Enter the number of employees that commute alone in a passenger car: ⓘ

 *employees*

Enter the number of commuting days per year by single occupant passenger car:

 *days* 

Enter the average round trip distance traveled by single occupant passenger cars:

 *miles*

Enter the percentage of employees that travel during rush-hour: ⓘ

 *percent*

Enter the number of employees that commute alone in a gasoline-fueled light-duty truck, van, or SUV: ⓘ

 *employees*

### Enter Renewable Energy Data

Renewable energy is derived from resources that are renewed indefinitely. Energy derived from renewable sources offsets emissions from energy consumption based on fossil fuels.

To develop the Renewable Energy portion of your inventory, first select a Renewable Energy Group or “Create a Renewable Energy Group” for the desired fiscal year.

**Manual Entry** ▶ ⊖

Select a Renewable Energy Group:

 ▼ or 

Fiscal Year:

 ▼

## Grid Status

**Total Emissions FY 2014**  
**0**  
metric tons CO<sub>2</sub>e

**Legend**  
● No Data ● In Progress ● Complete

**Renewable Energy**  
→ Renewable Energy  
[Electric On Grid](#)  
[Electric Off Grid](#)  
[Non-Electric](#)  
[Both, On-Grid](#)  
[Both, Off-Grid](#)

**Renewable Energy**

**Electric On Grid**  
 Electric On Grid

**Electric Off Grid**  
 Electric Off Grid

**Non-Electric**  
 Non-Electric

**Both, On-Grid**  
 Both, On-Grid

**Both, Off-Grid**  
 Both, Off-Grid

Next, select the grid status of the renewable energy:

Electric On Grid – for projects connected to an electric grid

Electric Off Grid – for projects not connected to an electric grid

Non-Electric – a renewable form of energy that generates energy in a form other than electricity (usually thermal )

Both, On-Grid – the project produces both electric and non-electric forms of renewable energy, and is connected to the national power grid.

Both, Off-Grid – the project produces both electric and non-electric forms of renewable energy, and is not connected to the national power grid.

After selected the grid status, the following entries are required.

### ***Electric Generating Capacity***

Enter the generating capacity of the project in megawatts (MW), if applicable. Leave this field blank if the renewable energy was purchased.

### ***Facility ID***

Enter the facility identification used in the Compliance Tracking System (CTS), if available, or other ID assigned by the agency.

### ***Project ID***

Enter either the project identification used in CTS (if available), other ID assigned by the agency, or N/A.

### ***Goal Subject***

Enter whether the facility with the renewable energy is Subject to energy performance requirements or Excluded. If the renewable energy system does not directly serve a facility, such as a remote sensor, list it as Excluded.

### ***GHG Target***

If the facility served by the renewable energy is excluded from the agency's GHG targets, select Non-Target. All others are GHG Target.

### ***Siting Status***

Choose among the following to describe the siting for the renewable energy project:

- On Federal or Indian Land, On User Site
- On Federal or Indian Land, Transmitted to User Site
- NOT on Federal or Indian Land, Adjacent to User Site
- NOT on Federal or Indian Land, Transmitted to User Site

If you do not know which of these apply because the energy was purchased, choose "NOT on Federal or Indian Land, Adjacent to User Site".

### ***Placed in Service***

Indicate whether the project was placed in service before or after 1/1/1999.

### ***REC Ownership/Purchase Status***

The choices for characterizing the renewable energy certificated (or credits) (RECs) are as follows:

- REC-only purchase
- Green-energy purchase
- Agency Owns Energy and RECs from Project
- Hosted Project (Green Energy)
- Hosted Project (RECs)
- RECs Transferred but Energy Used by Agency

#### **REC-only purchase**

Pure purchase of RECs from an off-site third party supplier.

#### **Green-energy purchase**

Bundled energy and RECs purchased from an off-site third party supplier.

#### **Agency Owns Energy and RECs from Project**

This is typically the case for an on-site renewable energy system purchased directly with appropriations.

#### **Hosted Project (Green Energy)**

For on-site renewable energy bought through power purchase agreements (PPAs) or other mechanisms that don't involve agency ownership. The agency can be have used any amount of the energy, from 0% to 100%, with the rest of the bundled energy going to a third party.

#### **Hosted Project (RECs)**

If a site is *only* receiving RECs associated with an on-site project (from 1% to 100% of the RECs), but none of the energy.

For an on-site system where the facility receives some green energy and some REC-only compensation, FEMP suggests reporting the green energy and the REC only components on separate lines as if they were distinct projects.

#### **RECs Transferred but Energy Used by Agency**

For cases where the facility received energy from a renewable energy project but does not own all the RECs associated with that energy. This makes the energy not covered by RECs the same as conventional energy and therefore emissions must be reported as if the energy were coming from the electric grid or a fossil fuel.

#### ***Percentage of Output Covered by RECs***

Enter 100% for REC-only purchases and Green-energy purchases, or if all RECs from the project were retained by the agency. If a portion of the RECS associated with the project were transferred to third parties, enter the percent of RECS retained by the agency.

#### ***Does agency own T&D system that delivers purchased electricity?***

This answer to this will usually be no, the agency does not own the transmissions and distribution (T&D) system. If delivery of the renewable energy to the facility is not applicable, either because it is from RECs or is a non-electric form of energy, choose "No Electricity is Delivered (Non-Electric or REC Project)".

#### ***Scope 1 or 2 project?***

Enter Scope 1 if the agency owns and/or controls the energy generation, and Scope 2 if the energy was purchased.

#### ***Renewable Electricity Fuel***

Enter the type of fuel from which the renewable energy is made, from the choices in the drop down menu. Choose N/A if not known (for example for the purchase of uncharacterized bundled renewable energy). MSW is municipal solid waste.

#### ***Total Electricity Output***

Enter the total kilowatt-hours (kWh) from the project or purchase during the FY. If the energy was delivered from somewhere other than your own site or Federal or Indian land, enter the amount delivered. Also enter the amount delivered in the case of a purchase of RECs or green power from Federal or Indian land that is not one of the agency's sites, and is from a project that is selling RECs and energy to multiple purchasers. Use the amount *generated* by the project if it is on site or on Federal or Indian land, regardless of whether it was delivered to the facility or delivered without RECs.

#### ***Biomass Fuel Use for Electricity***

If the renewable fuel is biomass, enter the amount of biomass fuel used by the project during the FY, if known *in the units shown*. Otherwise leave blank. (For purchases of green power or RECs, enter the amount of biomass fuel used by the energy provider, if known.)

### ***Amount Spent on Electricity or REC Purchase for Fiscal Year***

Enter the amount of money spent to purchase RECs or green power, or spent on other non-capital energy expenses in this fiscal year.

### ***Electric Generating Equipment Capital Costs***

Enter the capital costs for the project, for the year it was installed only.

### ***Acquisition Method, Electric***

Choose from the drop down menu the method uses to acquire the renewable energy:

- Direct Centralized Capital Funding
- Direct ARRA
- Decentralized Operating Budgets
- Utility Energy Service Contract (UESC)
- Energy Savings Performance Contract (ESPC)
- Power Purchase Agreement (PPA)
- Enhanced Use Lease (EUL)
- Incentive Program
- Other Funding Source

### **Enter Additional Emissions Data**

These are the methane (CH<sub>4</sub>), Nitrous Oxide (N<sub>2</sub>O), and other emissions (user defined) that do not fit within the previously listed Scope 1 sections. The emissions would come from sources such as on Site gardens, farms, compost piles, etc.

The screenshot below shows the User Defined Emissions section. This page allows you to enter any emission, the amount emitted into the atmosphere for your Site, and the Global Warming Potential for that emission.

In this case, if you were to enter 1000 pounds of an emission that has a Global Warming Potential of 5.5 (with a 100 year time horizon), it would total 2.49 metric tons of CO<sub>2</sub> equivalents.

*(Note: user defined emissions will be shown as carbon dioxide (CO<sub>2</sub>) in the DOE FEMP Workbook download)*

Additional Emissions Sources > User Defined Emissions Sources

## User Defined Emissions

Tip: Use this section to enter emissions for any gases not captured at. Click on the plus button below to enter additional emissions.

Fugitive Emission Name: **i**

Total emissions:

 lbs

Global Warming Potential: **i**

 (100 year time horizon)

Describe the emissions source:

+ Add Source

Skip Save & Continue

## Enter Other Sustainability Data

### Sustainability Data

#### — Energy Efficiency Improvements

[Direct Energy Obligations](#)

[Energy Savings Performance Contracts \(ESPC\)](#)

[Utility Energy Services Contracts \(UESC\)](#)

[Metering of Electricity Use](#)

[Metering of Natural Gas Use](#)

[Metering of Steam Use](#)

[Federal Building Energy Efficiency Standards](#)

[Training](#)

#### — Source Energy Credit

[EPACT Goal Subject Buildings](#)

[EPACT Excluded Facilities](#)

#### — New Building Designs and Construction

[New Building Designs and Construction](#)

This section includes a number of miscellaneous sustainability-related data inputs which are required for Annual GHG Inventory Reporting via the DOE FEMP Workbooks. As shown in this image, the section includes topics related to Energy Efficiency Improvements, Source Energy Credit, and New Building Design and Construction data.

Due to the wide variation in the data collected in this section and the varying types of job roles that may contribute to its collection, this section may be accessed and edited by any user with any permissions level.

## Chapter 4. Review

The **Review** group includes a number of tools to facilitate data quality assurance and an initial assessment of trends to determine whether data is accurate enough to use for GHG inventory reporting.

### QA Review

The Carbon Footprint Tool has data review capabilities to ensure accurate reporting of GHG emissions for a scenario. Data review involves three steps: **submitting a scenario for QA**, **performing QA for a scenario** and **correcting flagged errors in a scenario**. In order for the QA function to be operational, "Quality Assurance On" must be checked in Setup > Update Agency Profile.

### Submitting a Scenario for QA Review

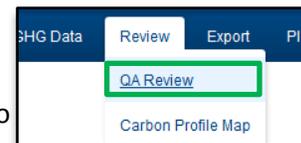
The screenshot shows two parts of the application. On the left is a sidebar with 'Total Emissions FY 2012' at 928 metric tons CO<sub>2</sub>e. Below this is a 'Quality Assurance' section with a 'Submit Data for QA' button highlighted in green. A green arrow points from this button to the right-hand screenshot. The right-hand screenshot shows the 'QA Review' page with a table of scenarios. The table has columns for Site, Scenario, Status, User, Owner, Locked, and Actions. The first row is 'Test Scenario #1' with status 'Approved'. The second row is 'Test' with status 'Ready for QA'. The third row is 'Test4' with status 'Ready for QA'. The fourth row is '2011 QA test' with status 'Approved'. The fifth row is '2012 QA Test' with status 'Rejected'. The sixth row is 'QA test scenario' with status 'Approved'. The seventh row is 'Test2' with status 'QA in Progress'. The 'Actions' column contains icons for search, refresh, and delete.

In the screenshot below, a scenario has been created and data has been entered. By clicking the **Submit Data for QA** button, you are prompted with a warning message that modifications to the scenario cannot be made while the scenario is under the QA process. Click **Ok** to proceed and submit the scenario for QA review.

### Performing QA Review for a Scenario

**\*For Organizational Administrators Only\***

The images below display the path a QA reviewer would take in order to navigate through, and review, a scenario. Click on the **QA Review** tab.



Then click on the **Take QA Ownership** (🏠) icon to take ownership of QA for a scenario and begin reviewing data entered. Begin reviewing the scenario by clicking on the Scenario Name.

**Note:** any section that changed by +/- 3% from the previous year will have a yellow warning flag (⚠).

The screenshot shows the 'QA Review' page with a table of scenarios. The first row is 'Test Scenario #1' with status 'Approved', user 'Ibanchard', and owner 'Ibanchard'. The 'Actions' column contains icons for search, refresh, and delete. The 'Test Scenario #1' text in the Scenario column is highlighted with a green box.

Click on the Green Flag (🚩) icon to flag that an entry is inaccurate.

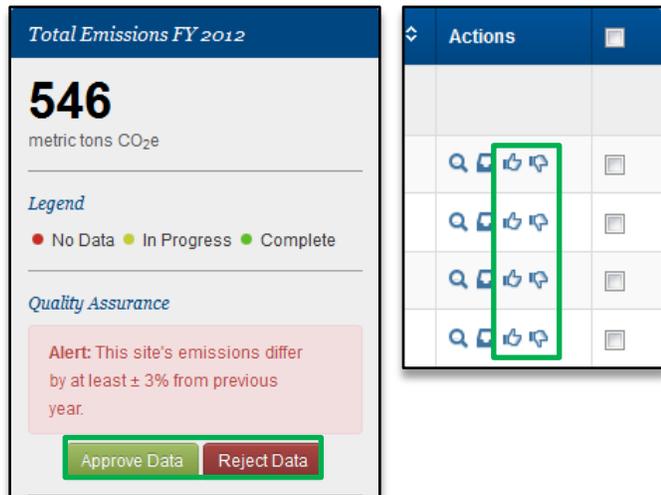
**Note:** You can also leave a comment for any changes that need to be made.



Click on the **Approve Data** or **Reject Data** button according to your findings.

**Note:** if you flag any area, you will not be able to Approve Data.

Clicking on the “thumbs up” or “thumbs down” buttons, on the QA scenario list page will also approve or reject a scenario.

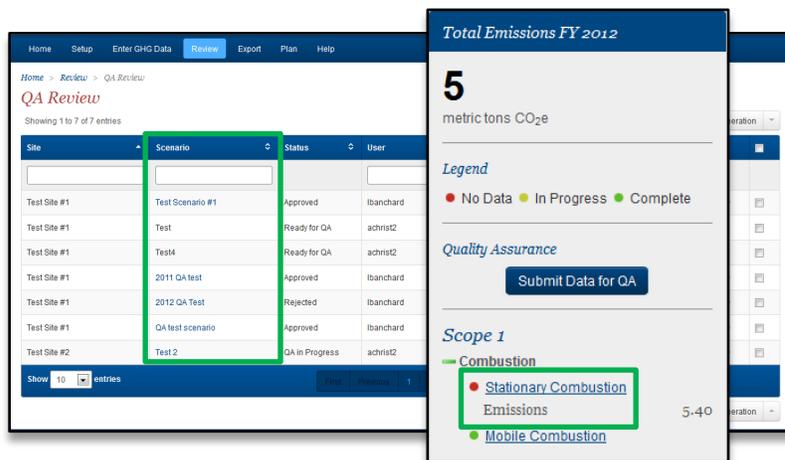


### Fixing Errors for a Scenario

After a scenario is rejected by the QA reviewer you will receive an email announcing that it is no longer locked for editing. You will then need to click on the scenario name to review the changes suggested by your QA reviewer.

Click on the **Scenario Name**.

Then navigate to the sections with red “incomplete” dots (●) designating them as areas needing correction.



When that section is opened a Red Flag (🚩) will designate which page needs to be corrected.

The reviewer's comment will be listed at the top of the page.

The question requiring correction will have a red flag (🚩).

After all the corrections have been made you can then submit the scenario for review and approval again.

Combustion > Stationary Combustion  
**Natural Gas**

Tip: Scope 1 Stationary Combustion emissions result from the use of boilers, furnaces, and other combustion equipment. This includes emissions from use of boilers, furnaces, and other combustion equipment.

**Reviewer Comments:**  
The number of terms for September is incorrect.

August

September  🚩

Total

+ Add Source

Skip Save & Continue

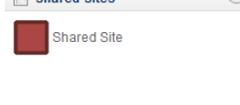
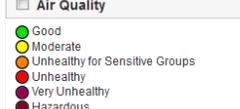
Stationary Combustion Emissions 5-40  
Natural Gas 🚩

## View Carbon Profile Map

The Carbon Profile Map displays net carbon emissions for Agency sites. Clicking the check boxes for each section of the map controls reveals multiple layers that can be added to the map. The layers available are as follows: Sites with GHG Data, Emissions, LEED Certification, Building Type, Sites without GHG Data, Power Plants, and Air Quality. A description of each layer is on the following page.

The screenshot shows the Carbon Profile Map web application interface. At the top, there is a navigation menu with links: Home, Setup, Enter GHG Data, Review (highlighted), Export, Plan, and Help. Below the menu, the breadcrumb trail reads: Home > Review > Carbon Profile Map. The main heading is "Carbon Profile Map" in a red serif font. A sub-heading states: "The carbon profile map displays your agency's selected scenario for each site. Please make sure you have selected a scenario for each site on the Site Page." Below this is a search bar with the text "Search the Map" and a search input field containing "address" and a "Search" button. The main area is a map of the Washington, D.C. region, showing various sites marked with colored dots. To the right of the map is a "Filters" panel. The "Year" filter is set to "FY 2012". Under "Sites With GHG Data", the "Emissions" radio button is selected. A legend below indicates that emissions are colored relative to a normal distribution: -3 to -2 (purple), -2 to -1 (dark blue), -1 to 0 (blue), 0 to 1 (light blue), 1 to 2 (green), and 2 to 3 (yellow-green). Other filter categories include "Sites Without GHG Data", "Shared Sites", "eGRID Subregion", "Power Plants", "Air Quality", and "Points of Interest", each with a dropdown arrow.

## Carbon Profile Map Layers

	<p><b>eGRID Subregions.</b> eGRID (Emissions &amp; Generation Resource Integrated Database) Subregions are used to determine the fuel mix that contributes to emissions associated with Scope 2 Purchased Electricity. Electricity purchased from different eGRID regions will have different (CO<sub>2</sub>e/kWh) values.<sup>3</sup></p>
	<p><b>Site Emissions.</b> The site emissions layer displays carbon emissions of the various agency sites relative to each other using a normal distribution.</p>
	<p><b>Shared Sites.</b> The site sharing layer indicates buildings of other nearby Federal Agencies that are also using the Carbon Footprint Tool.</p>
	<p><b>LEED Certification.</b> The LEED Certification Layer indicates which sites have LEED Certified buildings and at what level if applicable.</p>
	<p><b>Building Type.</b> The building type layer provides a quick scan of the types of buildings that were included in your agency's emissions analysis.</p>
	<p><b>Power Plants.</b> The power plants layer shows the number of plants in your inventory generating greater than one terawatt-hour (1 TWh) annually.</p>
	<p><b>Air Quality.</b> The air quality layer tracks EPA's Air Quality Index (AQI) and provides an indication of the air quality at your facility. This data is refreshed hourly.<sup>4</sup></p>

<sup>3</sup> For more information on e-grid subregions, see [http://www.epa.gov/cleanenergy/documents/egridzips/The\\_Value\\_of\\_eGRID\\_Dec\\_2009.pdf](http://www.epa.gov/cleanenergy/documents/egridzips/The_Value_of_eGRID_Dec_2009.pdf)

<sup>4</sup> Read the EPA's AQI guide for more information on how the index was developed - [http://www.epa.gov/airnow/aqi\\_brochure\\_08-09.pdf](http://www.epa.gov/airnow/aqi_brochure_08-09.pdf)

## Reports

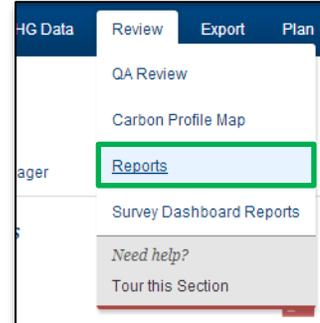
Reports provide a transparent explanation of the emissions data source, the emissions factors used, and the calculations that were performed to turn emissions data into CO<sub>2</sub>e. Use the GHG Reports tab to view aggregate summaries of GHG emissions by scenario, site group or enterprise.

### Enterprise Report

Go to the **Reports** link in the “Review” section of the navigation bar.

Select the Enterprise Report of interest by clicking the “View” hyperlink.

The **Enterprise Reports** display the yearly Summary Report for all GHG emissions or the FY Comparison Report for ALL years.



Home Setup Enter GHG Data **Review** Export Plan Help

Home > Review > Reports

### Reports

#### Enterprise Reports

Year	Summary Report	FY Comparison Report	Breakdown Report
FY 2008	<a href="#">View</a>	<a href="#">View</a>	<a href="#">View</a>
FY 2009	<a href="#">View</a>	<a href="#">View</a>	<a href="#">View</a>
FY 2010	<a href="#">View</a>	<a href="#">View</a>	<a href="#">View</a>
FY 2011	<a href="#">View</a>	<a href="#">View</a>	<a href="#">View</a>
FY 2012	<a href="#">View</a>	<a href="#">View</a>	<a href="#">View</a>
FY 2013	<a href="#">View</a>	<a href="#">View</a>	<a href="#">View</a>
FY 2014	<a href="#">View</a>	<a href="#">View</a>	<a href="#">View</a>

GSA GSA Carbon Footprint Tool

Agency: **Federal Agency** [Print Report](#)

Generated on: June 27, 2014, 9:26 am  
Prepared by:

Reporting Agency:	Federal Agency
Agency Description:	We are an independent federal agency that manages US foreign assistance to countries recovering from disaster, trying to escape poverty and engaging in democratic reforms
Agency Website:	http://www.noblis.org
Reporting Period:	The base year for this report is FY2014.
Organizational Boundaries:	
Operational Boundaries:	

GSA GSA Carbon Footprint Tool

Agency: **Federal Agency** [Print Report](#)

Generated on: June 27, 2014, 9:21 am  
CO<sub>2</sub>e Emissions Summary

Fiscal Year	Scope 1	Scope 2	Scope 3	Total
2008	55,994.59	56.69	846.41	56,897.69
2009	55,753.86	56.69	23,388.90	79,199.45
2010	85,932.58	56.69	21,226.20	107,215.47
2011	55,762.47	55.93	28,947.58	84,765.98
2012	81,342.23	52.17	109,079.22	190,473.61
2013	55,738.63	52.17	50,960.67	106,751.47
2014	4,104,312.10	526.04	21,076.60	4,125,914.75

GSA GSA Carbon Footprint Tool

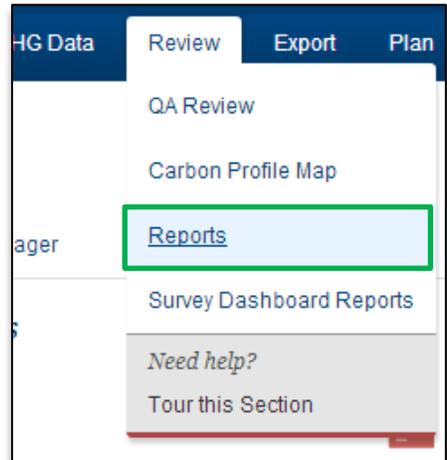
Agency: **Federal Agency** [Print Report](#)

Generated on: June 27, 2014, 9:29 am  
Prepared by: bofutt

Reporting Agency:	Federal Agency
Agency Description:	We are an independent federal agency that manages US foreign assistance to countries recovering from disaster, trying to escape poverty and engaging in democratic reforms
Agency Website:	http://www.noblis.org
Reporting Period:	The base year for this report is FY2014.

## Site Group Report

Click the **Reports** hyperlink in the “Review” section of the navigation bar. You will be directed to the “Reports” page.



Click one of the **Summary Reports** links.

*Site Group Reports*

Site Group	Year	Summary Report
SG Report Test	2006	<a href="#">View</a>
SG Report Test	2008	<a href="#">View</a>
SG Report Test	2009	<a href="#">View</a>
East	2010	<a href="#">View</a>
Name of SiteGroup	2010	<a href="#">View</a>
SG Report Test	2010	<a href="#">View</a>
SG Report Test	2012	<a href="#">View</a>

You will be directed to the **Report** page for the chosen year.

**GSA Carbon Footprint Tool**

*Annual Federal Agency SG Report Test Emissions for FY2012* [Print Report](#)

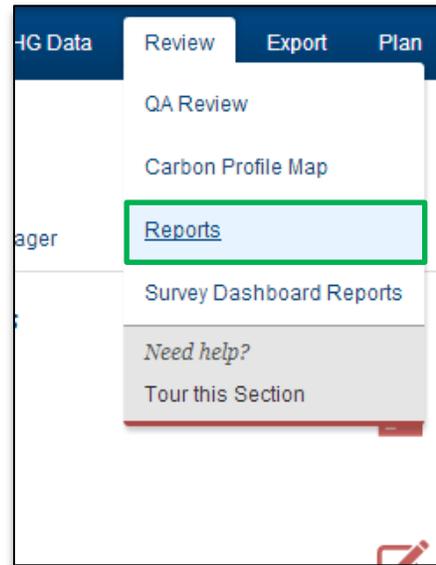
Sites: 1000 2ND AVENUE, Noblis Building  
 Generated on: 2012 July 2, 2:28 pm

**Agency Information**

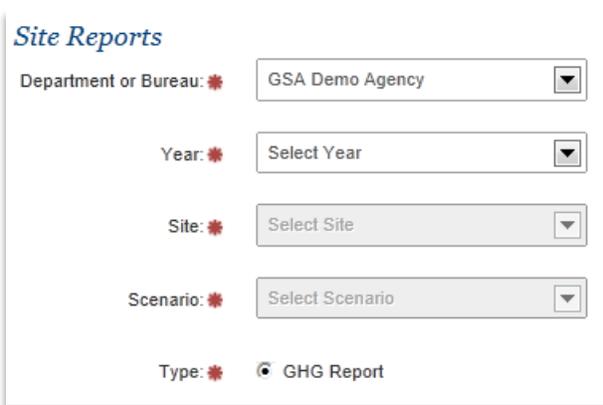
Reporting Agency:	Federal Agency
Agency Description:	We are an independent federal agency that manages US foreign assistance to countries recovering from disaster, trying to escape poverty and engaging in democratic reforms.
Agency Website:	<a href="http://www.agencywebsite123.com">http://www.agencywebsite123.com</a>
Report Preparer:	Iblanchard
Reporting Period:	The base year for this report is FY2012.
Organizational Boundaries:	--Facilities for which agency directly pays energy bills: Site 1, Site 2, Site, Site 4-- --Mobile Sources for which the agency purchases fuel: Fleet 1 at Site 1, 10 AFV's at Site 4-- --Other emissions from activities over which the agency has operational control--
Operational	GHG Emissions will be calculated for the following Agency operations: providing services from US

## Site Reports

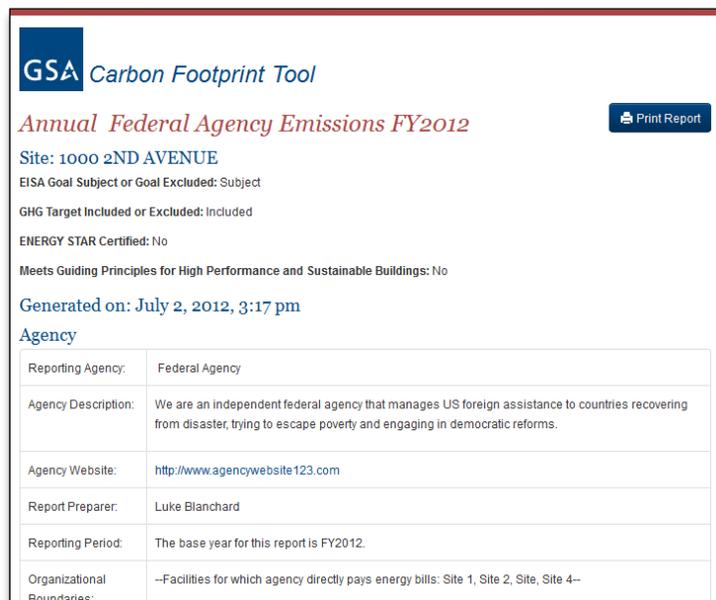
Click the **Reports** hyperlink in the “Review” section of the navigation bar. You will be directed to the “Reports” page.



Select the desired **Department or Bureau**, **Year**, **Site**, **Scenario**, and click the “Submit” button.

A screenshot of a form titled 'Site Reports'. It contains five dropdown menus, each with a red asterisk icon to its left. The first dropdown is labeled 'Department or Bureau:' and has 'GSA Demo Agency' selected. The second is 'Year:' with 'Select Year' selected. The third is 'Site:' with 'Select Site' selected. The fourth is 'Scenario:' with 'Select Scenario' selected. The fifth is 'Type:' with a radio button selected next to 'GHG Report'.

This will open a new window with the Site Report you selected.

A screenshot of a report page titled 'GSA Carbon Footprint Tool'. The main heading is 'Annual Federal Agency Emissions FY2012'. Below this, there is a 'Print Report' button. The report details include: Site: 1000 2ND AVENUE; EISA Goal Subject or Goal Excluded: Subject; GHG Target Included or Excluded: Included; ENERGY STAR Certified: No; Meets Guiding Principles for High Performance and Sustainable Buildings: No. The report was generated on July 2, 2012, at 3:17 pm. An 'Agency' section follows, containing a table with the following information:

Reporting Agency:	Federal Agency
Agency Description:	We are an independent federal agency that manages US foreign assistance to countries recovering from disaster, trying to escape poverty and engaging in democratic reforms.
Agency Website:	<a href="http://www.agencywebsite123.com">http://www.agencywebsite123.com</a>
Report Preparer:	Luke Blanchard
Reporting Period:	The base year for this report is FY2012.
Organizational Boundaries:	--Facilities for which agency directly pays energy bills: Site 1, Site 2, Site, Site 4--

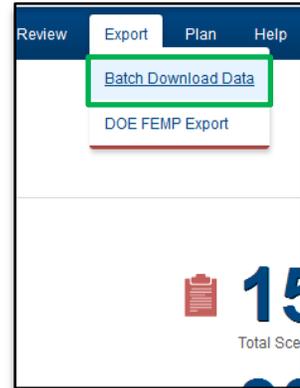
## Chapter 5. Export

The **Export** series of pages include options for quickly downloading all data from the GSA Carbon Footprint Tool into common formats such as comma-separated value (.csv) files, allowing for transportability of the data if you need to move it to another system.

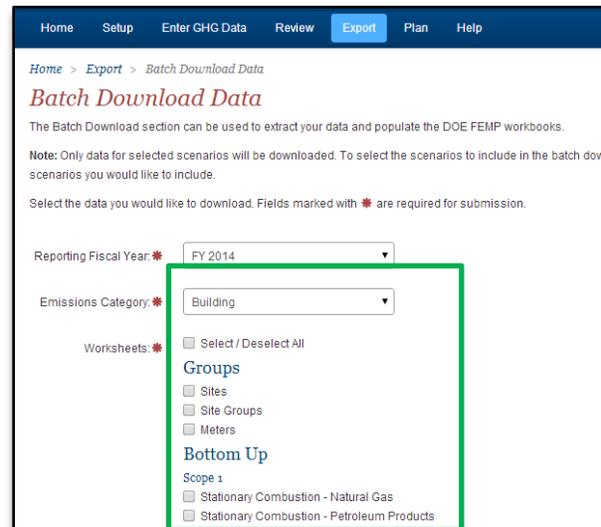
### Batch Download

From the top navigation, click on export and “Batch Download Data”. You will be directed to the **Batch Download** page.

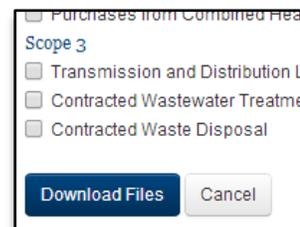
**Note:** You must be logged in as an administrator to see the Batch Download link.



On the **Batch Download** page, select the check boxes that match the scenario data you wish to download.



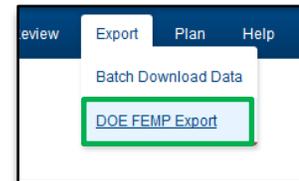
Click the **Download Files** button to download your selected files.



## DOE FEMP Download

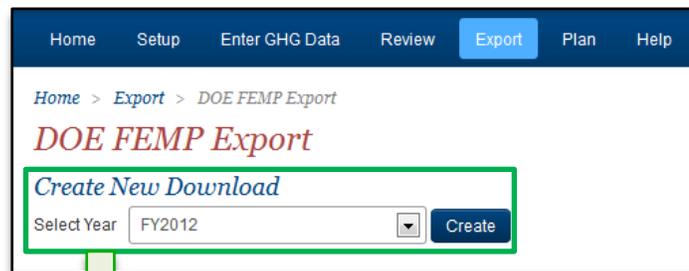
This page allows you to automatically generate a DOE FEMP workbook—the required format for reporting all GHG emissions annually to White House CEQ and OMB—from all data your agency has entered in the GSA Carbon Footprint Tool. (NOTE: Only data that is selected in the Display/Hide portion of your Enter GHG Data > Manage Data page will be included in this export. The GSA Carbon Footprint Tool assumes all hidden data should not be displayed nor downloaded to the DOE FEMP workbooks.)

Click on the **DOE FEMP Export** hyperlink in the Export section of the navigation bar. This will navigate you to the DOE FEMP Export page.



Select the desired year for your download and click the **Create** button.

**Note:** You will receive a confirmation message after creating your DOE FEMP Download.



Your request to create a DOE FEMP Annual Report has been recorded. We will email you when it's ready to be downloaded.

The page also includes a list of the most recent downloads.

*Most Recent Downloads*

Year	Date Requested	Status	Download
2011	May 03, 2012 14:24 pm	✔ Completed	Download
2012	Jul 03, 2012 08:37 am	⊙ Pending	Not Available

\* This table lists the last export completed for each year that an export was ran.

Users can view the full DOE FEMP Download history as well.

*Download History*

Showing 1 to 7 of 7 entries

Year	Date Requested	Status	Download
2012	Jun 27, 2012 10:24 am	✔ Completed	Download
2011	May 01, 2012 11:54 am	✔ Completed	Download
2011	May 01, 2012 10:16 am	✔ Completed	Download
2012	Mar 05, 2012 11:03 am	✘ Failed	Not Available
2011	Jan 20, 2012 10:49 am	✔ Completed	Download
2011	Jan 12, 2012 16:35 pm	✔ Completed	Download
2012	Jun 25, 2012 15:52 pm	✔ Completed	Download

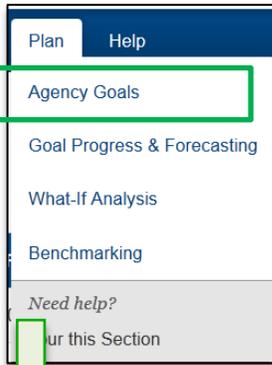
Show 10 entries First Previous 1 Next Last

## Chapter 6. Plan

The **Plan** group includes tools help you determine progress against stated sustainability goals and visualize your data to identify outliers for targeted improvement efforts to reduce GHG emissions.

### Agency Goals

The Agency Goals page allows you to compare your agency's actual GHG emissions reduction against your planned emissions reduction. After entering baselines and goals in your Strategic Sustainability Performance Plan (SSPP) this page can be used to track progress towards those goals.

A screenshot of a web application page titled 'Agency GHG Reduction Goals'. The page has a navigation bar with 'Home', 'Setup', 'Enter GHG Data', 'Review', 'Export', 'Plan', and 'Help'. Below the navigation bar, there is a breadcrumb trail: 'Home > Plan > Agency Goals'. The main heading is 'Agency GHG Reduction Goals' in a red serif font. Below the heading, there is a sub-heading: 'Total Scope 1&2 GHG Emissions Reduction (Reduced from FY 2008 base year)'. The main content is a table with 8 columns: 'Goal', '2008', '2010', '2011', '2012', '2013', '2014', and '2015'. The table contains data for 'Planned Percentage Reduction (%)', 'Actual Percentage Reduction (%)', 'Difference in Percentage Reduction (%)', 'Planned Emissions (MT CO2e)', 'Actual Emissions (MT CO2e)', and 'Difference in Emissions (MT CO2e)'. The 'Difference in Percentage Reduction (%)' row is highlighted in green, and the 'Difference in Emissions (MT CO2e)' row is highlighted in red.

Home > Plan > Agency Goals

### Agency GHG Reduction Goals

Compare your Agency's emissions to the goals stated in your Strategic Sustainability Performance Plan (SSPP). Keep working to reduce emissions.

#### Total Scope 1&2 GHG Emissions Reduction (Reduced from FY 2008 base year)

Goal	2008	2010	2011	2012	2013	2014	2015
Planned Percentage Reduction (%)	6.0	7.0	8.0	10.0	12.0		
Actual Percentage Reduction (%)	7.0	8.0	10.0	13.0	15.0		
Difference in Percentage Reduction (%)	+1	+1	+2	+3	+3		
Planned Emissions (MT CO <sub>2</sub> e)	108.0	104.0	102.0	97.0	95.0		
Actual Emissions (MT CO <sub>2</sub> e)	107.0	105.0	100.0	95.0	90.0		
Difference in Emissions (MT CO <sub>2</sub> e)	-1	-1	-2	-2	-5		

## What-If Analysis

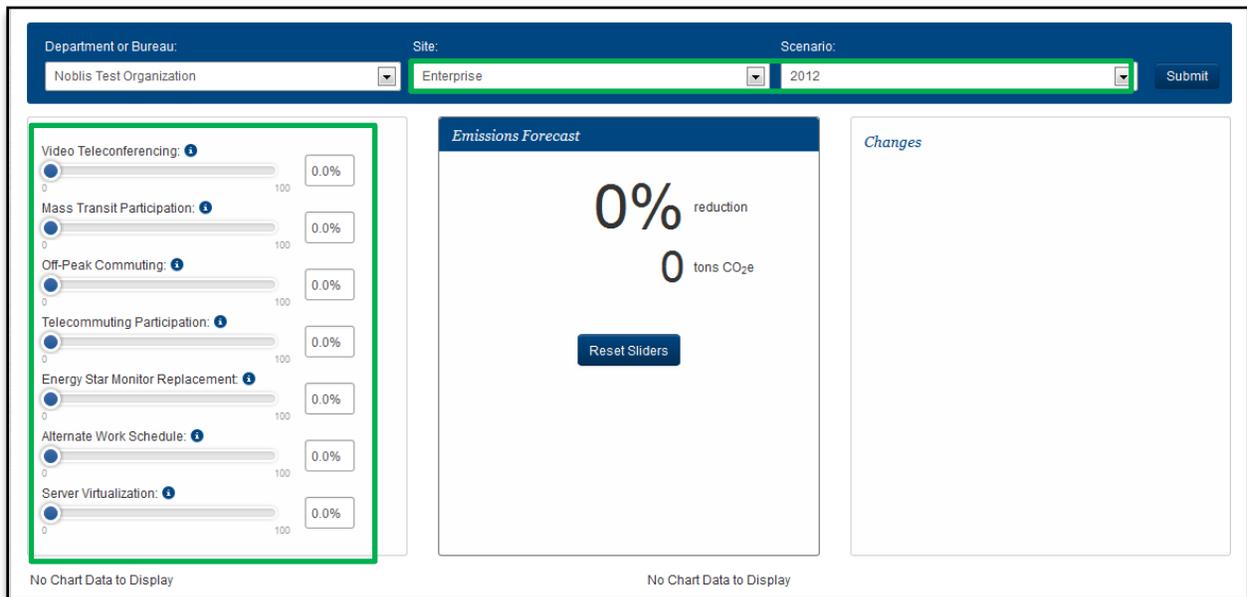
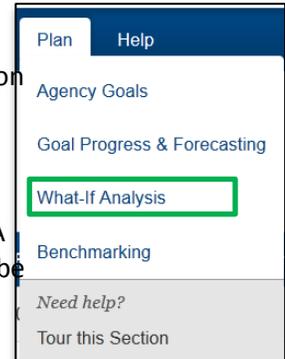
The forecasting sliders under the **What-If Analysis** tab allow you to quickly explore how implementing strategies such as video teleconferencing, server virtualization, and alternate work schedules might reduce GHG emissions. To view the assumptions that are used for each dashboard slider calculations, select the [“What-If Analysis Calculations and Assumptions”](#) link near the top-right section of the page.

Click the **What-If Analysis** hyperlink within the “Plan” section of the navigation bar.

Click the “Site” and “Scenario” drop-down menus to select the desired data. A summary of total emissions for all scenarios during the selected year will be displayed if you select “Enterprise” from the “site” drop-down.

Move the slider of interest to gauge the impact of different GHG reduction strategies.

**NOTE:** Some sliders may be disabled if required information has not been entered.



Adjust the sliders to the organizational goals of your Department.

The possible emissions reductions and changes for each corresponding slider category with the sliders will be shown after the sliders have been adjusted.

The bar charts at the bottom of the page will display a visual representation of the possible reductions after changes have been made to the sliders.

Department or Bureau: Nobilis Test Organization | Site: 2012 AKGD | Scenario: 2011: 2011 AKGD (Selected) | Submit

**Video Conferencing:** 0.0%

**Mass Transit Participation:** 80.8%

**Off-Peak Commuting:** 99.0%

**Telecommuting Participation:** 76.5%

**Energy Star Monitor Replacement:** 100%

**Alternate Work Schedule:** 93.9%

**Server Virtualization:** 77.8%

**Emissions Forecast**

17.74% reduction

253 tons CO<sub>2</sub>e

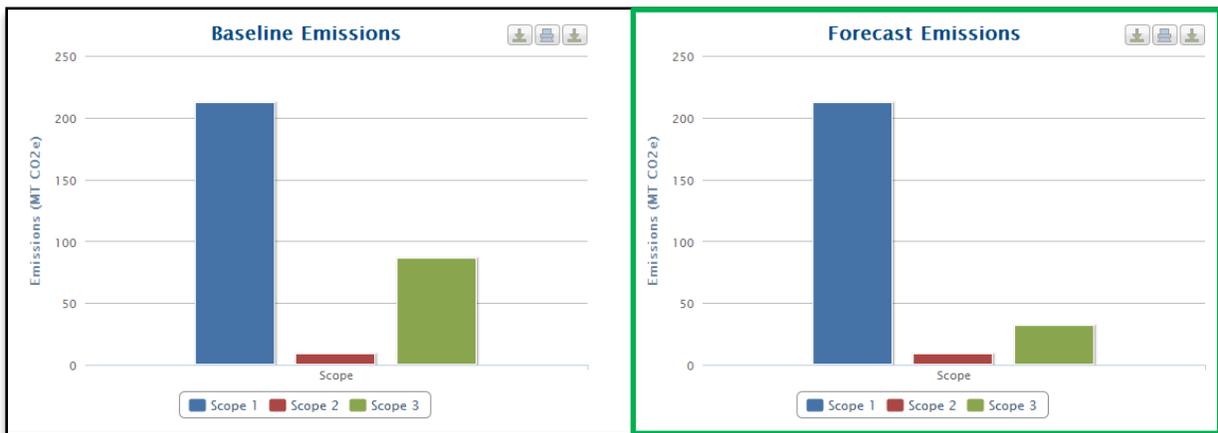
Fuel (Scope 1)	211.90
Electricity (Scope 2)	9.10
Travel (Scope 3)	9.60
Commuting (Scope 3)	22.40

Reset Sliders

**Changes**

- Increased Mass Transit Participation from 66.7% to 80.8%. Effect: 0 ton reduction in Commuting (Scope 3) CO<sub>2</sub>e emissions
- Increased Telecommuting Participation from 1.0% to 76.5%. Effect: 11.6 ton reduction in Commuting (Scope 3) CO<sub>2</sub>e emissions
- Increased Energy Star Monitor Replacement from 0.0% to 100%. Effect: 0.2 ton reduction in Electricity (Scope 2) CO<sub>2</sub>e emissions
- Increased Alternate Work Schedule from 1.0% to 93.9%. Effect: 42.9 ton reduction in Commuting (Scope 3) CO<sub>2</sub>e emissions
- Increased Server Virtualization from 0.0% to 77.8%. Effect: 0.1 ton increase in Electricity (Scope 2) CO<sub>2</sub>e emissions

Net Effect: 54.6 ton reduction in CO<sub>2</sub>e emissions.

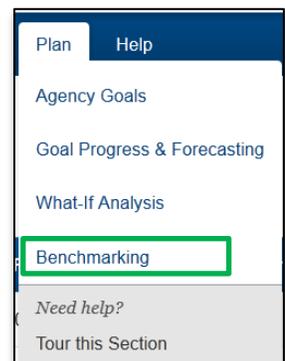


## Benchmarking

The Benchmarking feature allows every site within the organization to be visually compared to all the other sites within the agency’s greenhouse gas portfolio. The sites can be filtered by Fiscal Year, Building Type, LEED Certification, Site Group, State/Country, Year Built, Square Footage, GHG & EISA status, and Energy Star & Guiding Principles status.

See the steps below to customize your benchmarking charts:

Click the **Benchmarking** hyperlink in the “Plan” section of the navigation bar.



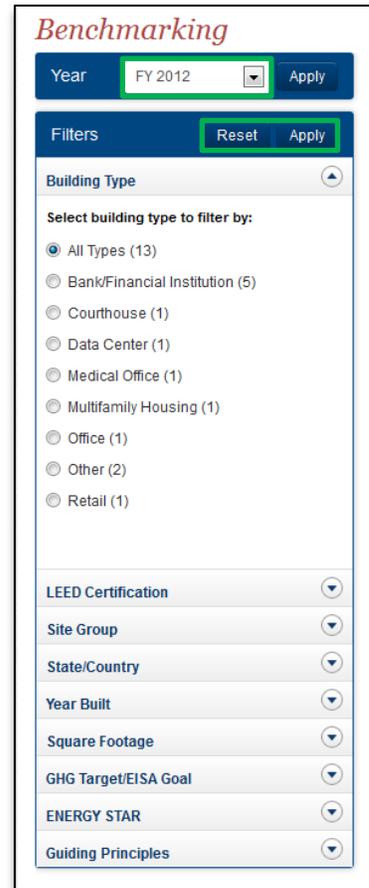
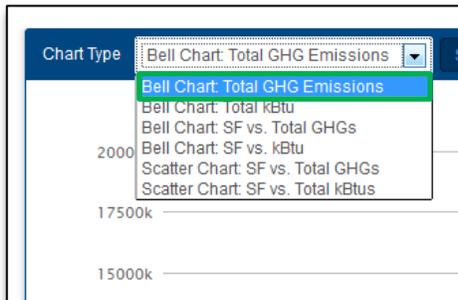
Select the desired year for site analysis.

**NOTE:** Some years may not be available for selection if the organization doesn't have sites with any scenarios for the desired year.

The "Apply" button will allow the specified filter to be viewed.

The "Reset" button will both remove all filters and refresh the chart view.

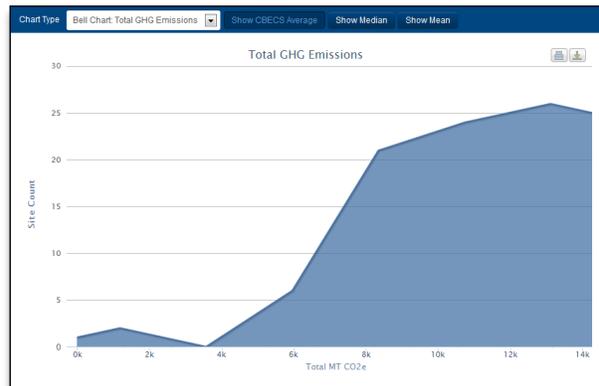
Select the chart type desired from the drop down menu at the top of the chart display section.



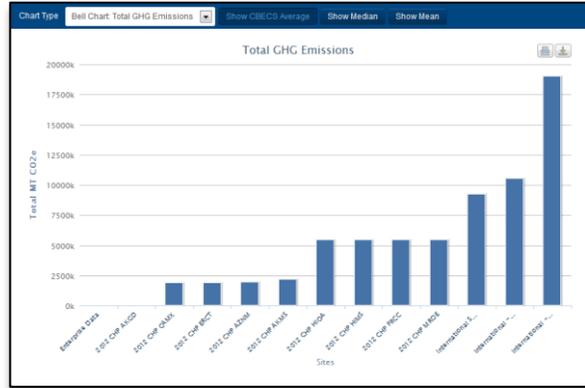
## Benchmarking Chart Types

The following charts are available in the Benchmarking Tab of the Carbon Footprint Tool.

**Bell Chart** (This is the default view)



**Bar Chart** (A bar chart will be displayed when 30 sites or fewer are selected)



**Scatter Chart**



## Benchmarking Features

### 1 Mean, Median, & CBECS Average Buttons

These buttons will display the Mean and Median values for your sites as well as the CBECS Average value.

**NOTE:** The CBECS average button will only be available on the Bell or Bar chart for SF vs kBtu when the following building types are selected: Data Center, K-12 School, Hospital, Hotel/Motel, Medical Office, Multifamily Housing, Office ,Other, Residence Hall/Dormitory, Retail

### 2 Site Plotting

This function allows for specific sites to be displayed on the chart being viewed.



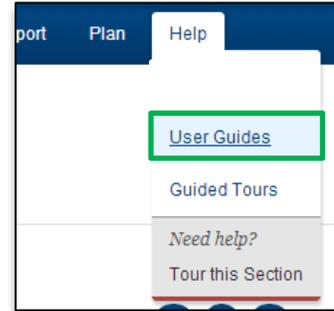
The figure shows a 'Plot Sites on Graph' interface. At the top, there is a 'Clear All' button. Below it, there is a text instruction: 'To plot a site on the chart, start typing a site name, address or zip code into the input below, select the site you want to plot from the list that will appear and click the "Add" button.' Below the instruction is a note: '\* Note: Only 5 sites can be plotted at any one time and only sites that match the current filters can be plotted.' There is a search input field with an 'Add' button to its right. Below the input field, there is a list of plotted sites: 'Test 4' with a red 'x' icon and 'Benchmarking test 10' with a green 'x' icon. A green box highlights the search input field and the list of sites. A green circle with the number '2' is placed to the left of the search input field.

## Chapter 7. Help

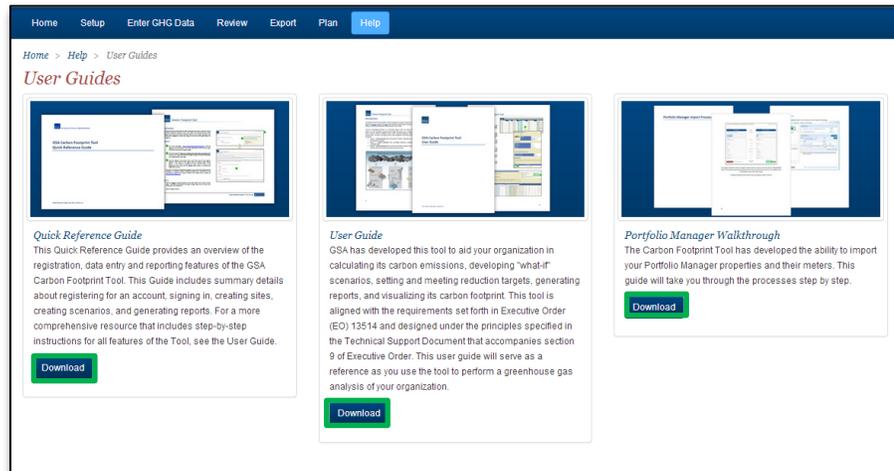
### User Guides

The Carbon Footprint Tool provides several sources beyond this User Guide that you can reference for guidance as you prepare your GHG Inventory. From self-guided video tours to easily accessible reference documents, the support and assistance you need are only a few clicks away.

Click the blue “[User Guides](#)” hyperlink in the Help section of the navigation bar. You will be directed to the **User Guides** page.



On the **User Guides** page, click the blue “[Download](#)” button for the reference of interest.



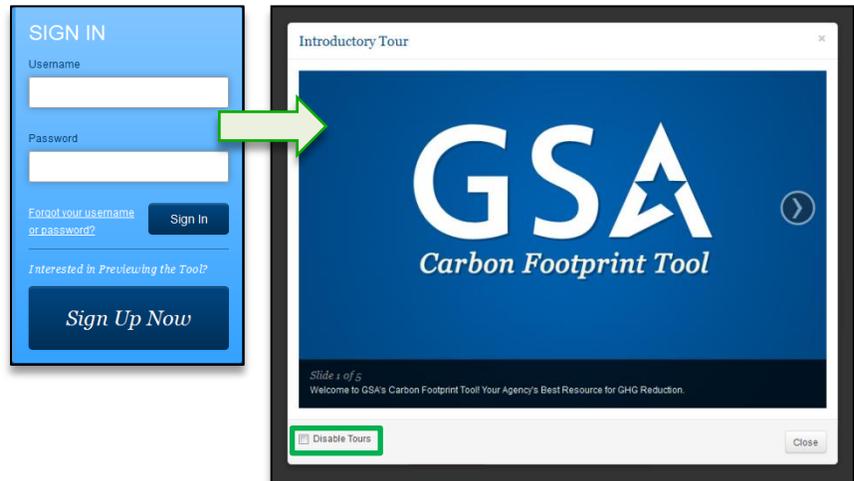
## Guided Tours

The Carbon Footprint Tool includes Guided Tours for every section of the Tool. These tours allow new and returning users to view a high-level guide of all the features within each section.

Go to the homepage - <https://www.carbonfootprint.gsa.gov/> where you will be directed to the **Sign In** page.

Once logged in, users will be greeted with an introductory Overview tour of the Carbon Footprint Tool.

**NOTE:** After viewing the tour users will have the option of simply closing the tour, or they can check the “Disable Tours” box, which will keep the tour from popping up each time the user visits the Home page.



Users can find overview tours for each section at the bottom of the Section Menu as well as on the “Guided Tours” page.