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# A River of Energy Solutions

## Scope 1 and 2 GHG emissions: energy and GHG management

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*August 10, 2011*

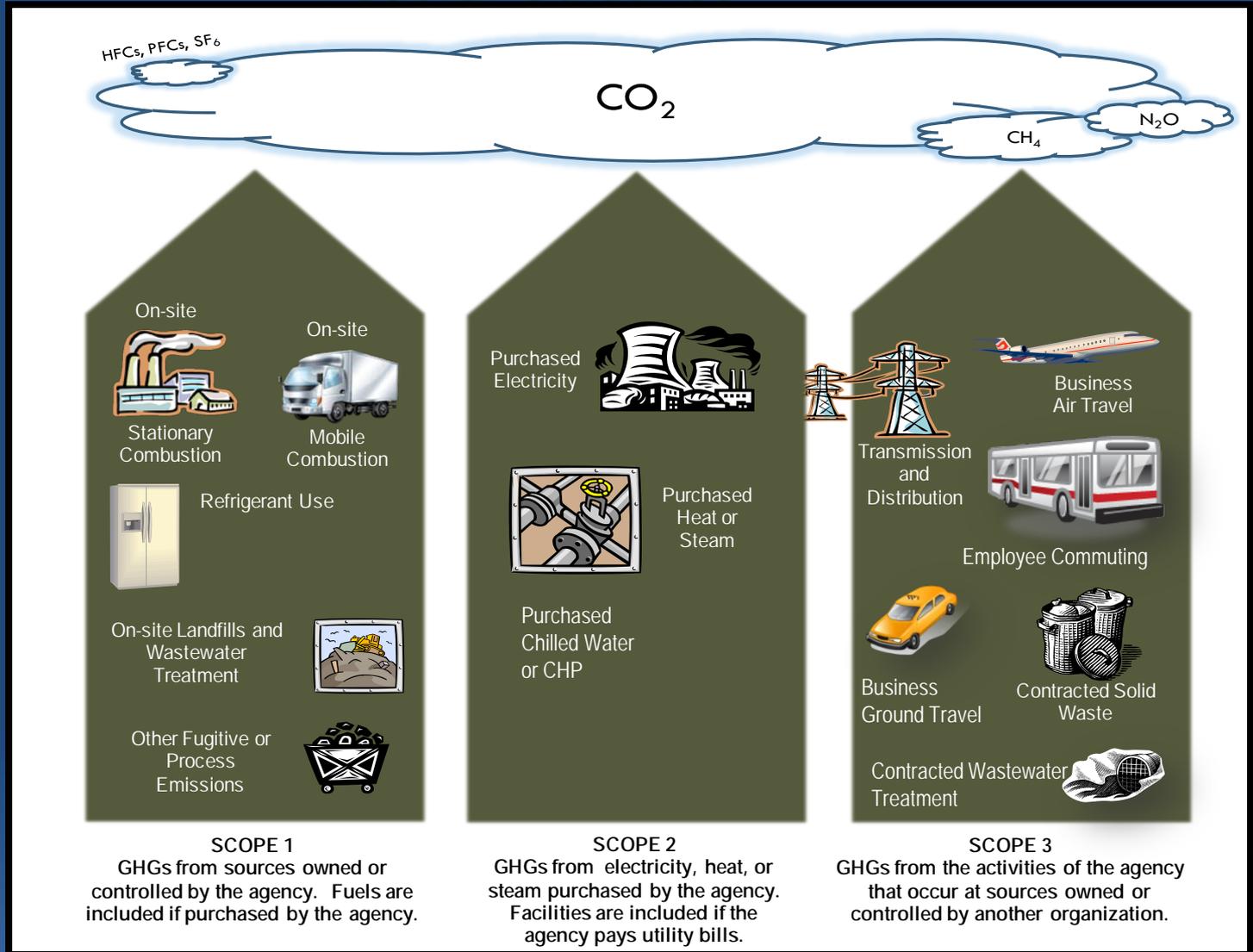
# Agenda

Scope 1 and Scope 2 emissions tend to be driven by energy consumption

Meeting a target: GHG inventory results can drive performance

Emissions under alternate GHG guidance programs may differ—know your reporting protocol

# GHG Emission Sources Required to be Reported under Federal Guidance



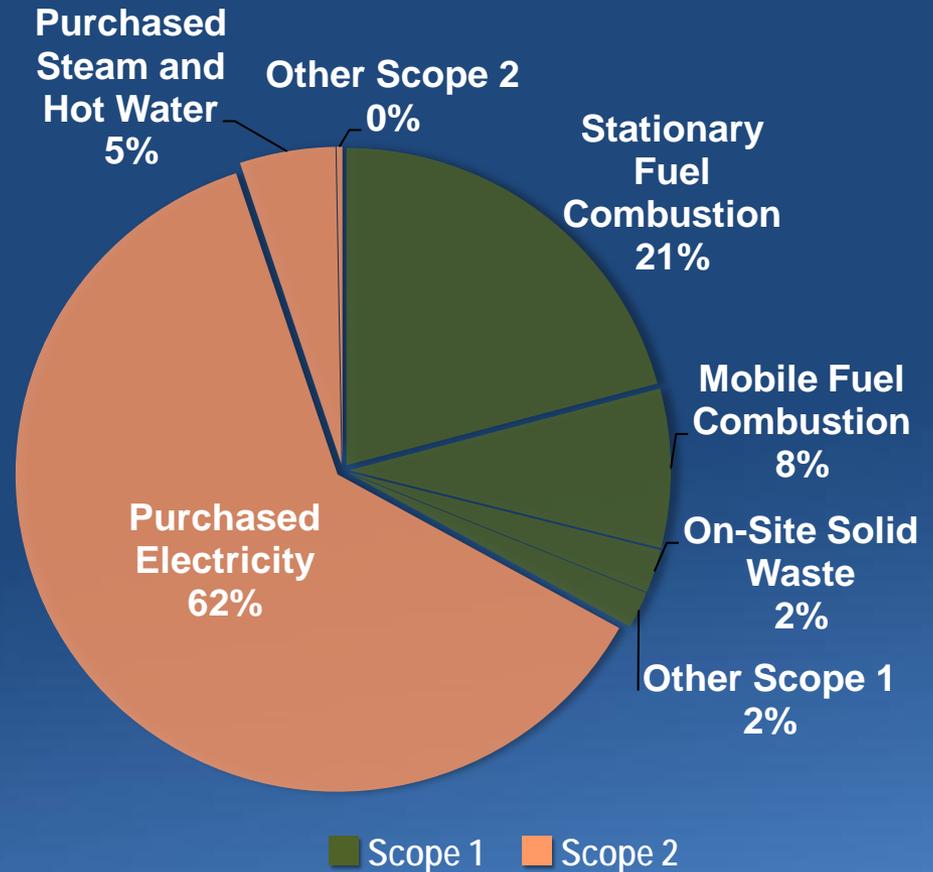
# Scope 2: Renewable Energy Credits

Excluded from FY 2008 baseline inventory to avoid penalizing early action

After FY 2008, used to reduce agency's net Scope 2 emissions

# Typical GHG Inventory—Scopes 1 & 2

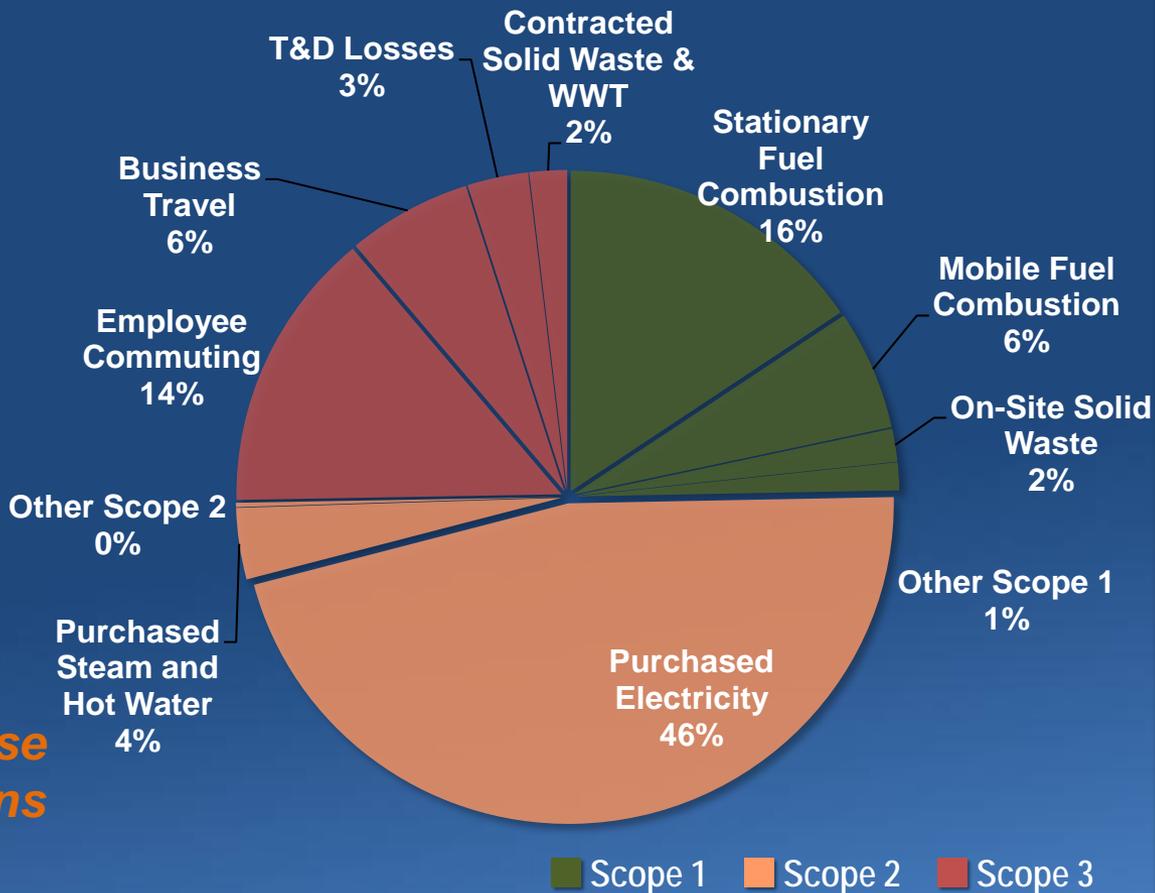
In a typical portfolio that is mostly buildings, electricity emissions are by far the most dominant source of GHG emissions



# Typical GHG Inventory - Scopes 1, 2, 3

In this same portfolio, scope 3 emissions shift the organization's footprint.

However, electricity use is still the largest contributor.



*...thus, managing energy use manages your GHG emissions*

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# Federal Mandates

Energy Intensity



Vehicle Fleet Petroleum Use



Absolute GHG Emissions (Scopes 1&2)



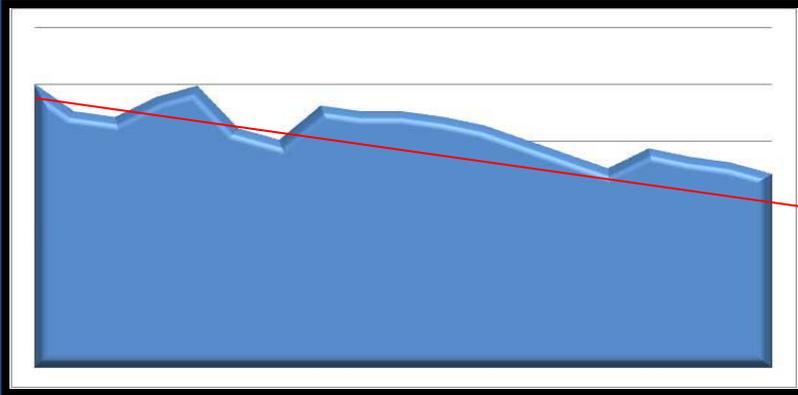
2005

2010

2015

2020

# Managing Scope 1 & 2 Emissions = Managing Energy

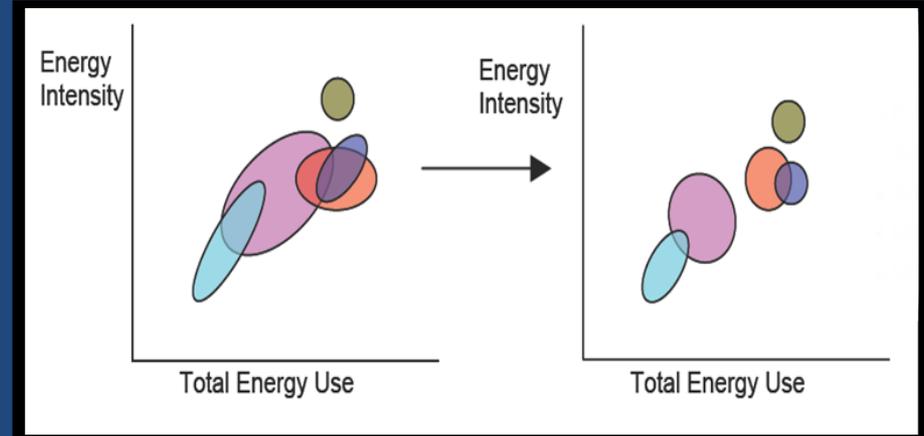


## Measure to manage

Consider why to prepare a GHG emission inventory, e.g., to drive energy, emissions, and costs down

## Track progress

Establish benchmark against which future progress can be compared for reducing GHG emissions, energy use, and costs



## Prioritize mitigation targets

Evaluate portfolio characteristics (energy or GHG intensity by building) to help prioritize no/low cost measures to collapse performance spread into cost savings

## Collect data at appropriate resolution

Knowing who will use the inventory results can dictate inventory resolution and structure

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# Emission Sources under Public and Private Sector Guidance

## Scope 1

### WRI/WBCSD Corporate Standard

### Federal GHG Guidance



Stationary  
Combustion

Required

Required for facilities where  
agency pays utility bills



Mobile  
Combustion

Required

Required if agency  
purchases fuel

## Scope 2

Fugitive F-GHGs

Required (if exceeds de minimis)

Required



Purchased  
Electricity

Required

Required for facilities if agency  
pays utility bills

# Impact: Magnitude of Carbon Footprint

**WRI/WBCSD  
Corporate Standard**



ICF's Carbon  
Footprint

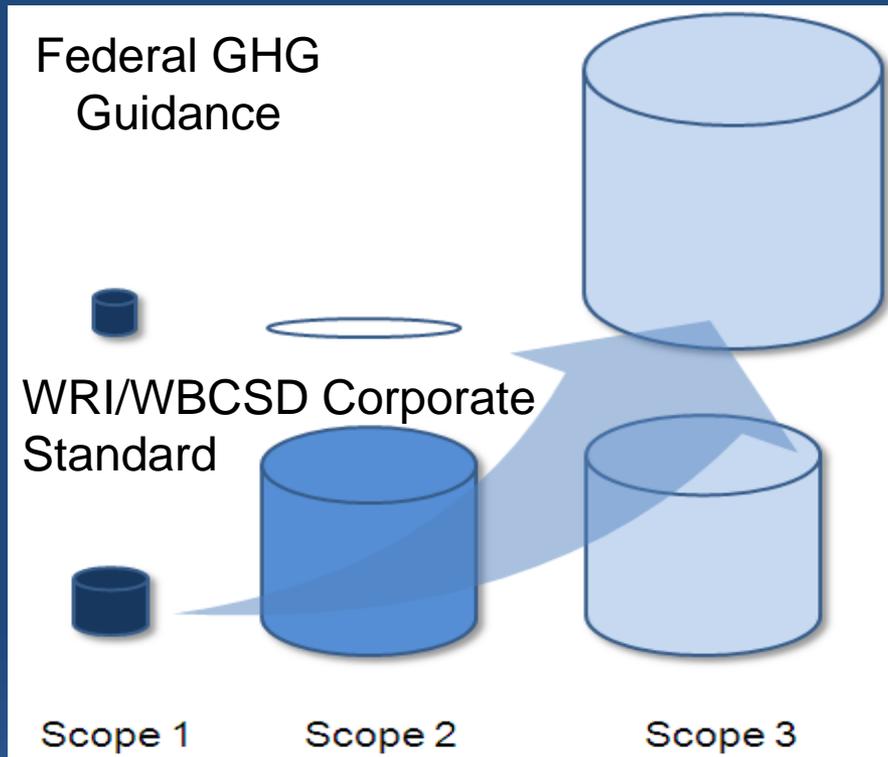
**Federal GHG  
Guidance**



*The Federal GHG Guidance attributes a large share of other Federal agencies' 'classic' carbon footprint to GSA through leased space.*

# Magnitude of Carbon Footprint

The carbon emissions didn't go away—they moved:



Emissions are shifted from agency's scope 1 and scope 2 (direct) emissions to scope 3 (indirect) emissions due to agency's inventory boundaries

***Thus, when comparing emissions (for benchmarking or other purposes) know that protocols differ!***

# Thank You!

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