



United States of America
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSION
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Washington, DC 20036-3457

Office of the Executive Director

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June 2, 2010

Honorable Peter R. Orszag
Director, Office of Management and Budget
Eisenhower Executive Office Building
Washington, DC 20503

Honorable Nancy Sutley
Chair, White House Council on Environmental Quality
722 Jackson Place, NW
Washington, DC 20503

Dear Director Orszag and Chair Sutley:

Attached you will find the Occupational Safety and Health Review Commission's ("Review Commission's") report and supporting documents regarding Scope 3 Greenhouse Gas (GHG) Reduction Targets.

As you know, the Review Commission is an independent, adjudicatory agency created by the Occupational Safety and Health Act of 1970. Its sole statutory mandate is to serve as an administrative court providing just and expeditious resolution of disputes involving the Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor, employers charged with violations of Federal safety and health standards, and employees and/or their representatives. The Review Commission was created by Congress as an agency completely independent of the Department of Labor to ensure that OSHA's enforcement actions are carried out in accordance with the law and that all parties are treated consistent with due process should a dispute arise.

The Review Commission is small agency with approximately 67 employees. Despite our size, we achieved several noteworthy accomplishments with respect to GHG reduction activities. During fiscal year 2008, the Review Commission established a policy on telecommuting. Approximately 19 percent of employees participated in the telecommuting program. In fiscal year 2009, this number increased to approximately 20 percent.

During fiscal year 2008, approximately 7 percent of employees worked compressed work schedules. Employees were given the option to work eight 9-hour days and one 8-hour day

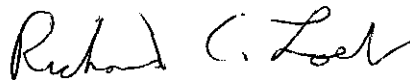
during each pay period and designate one non-work day during each pay period, or alternatively, work four 10-hour days during each pay period with two non-work days during the pay period. During fiscal year 2009, the number of employees participating in the compressed work schedule program increased to approximately 14 percent.

Employee computers were installed with automatic energy-saving and paper reduction settings. Employees were informed to turn off all non-essential electronics at the end of the workday and during the weekend. Offices also have energy saving motion activated light switches. The lights are automatically turned off once a room is vacant. The cooling systems were upgraded with high efficiency units. With respect to “going green”, the Chairman has initiated a very active Agency recycling program.

The Review Commission will continue to encourage employees to utilize public transportation, emphasize more frequent telecommuting options, and limit employee travel where possible. Additionally, we will continue to purchase green items, and emphasize our “Going Green” initiative. The recycling program is a top priority under this initiative. The Agency’s goal is to reduce GHG activities by at least 5 percent by fiscal year 2020.

Please feel free to call me at (202) 606-5376 if you should have questions or if you require additional information.

Sincerely,



Richard C. Loeb
Executive Director
(Senior Sustainability Officer)

Attachment(s)

U.S. Occupational Safety and Health Review Commission
Strategic Sustainability Performance Plan

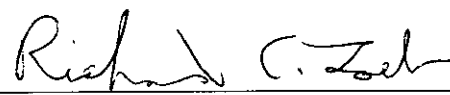
Section 1: Agency Policy and Strategy

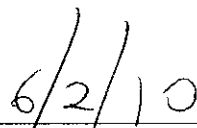
I. Agency Policy Statement

The U.S. Occupational Safety and Health Review Commission (hereinafter “Review Commission”) is an independent, adjudicatory agency created by the Occupational Safety and Health Act. Its sole statutory mandate is to serve as an administrative court providing just and expeditious resolution of disputes involving the U. S. Department of Labor’s Occupational Safety and Health Administration (OSHA), employers OSHA has charged with violations of federal safety and health standards, and employees and/or their representatives. The Review Commission was created by Congress as an agency completely independent of the Department of Labor to ensure that OSHA’s enforcement actions are carried out in accordance with the law, and that all parties are treated consistent with due process when disputes arise with OSHA.

The Act and the Review Commission’s Rules of Procedure, provide two levels of adjudication when an employer timely contests an OSHA citation. The first level affords an employer and/or affected employee who files a timely notice of contest with an opportunity for a hearing before a Review Commission administrative law judge (ALJ). The ALJ’s decision becomes a final order under the Act unless a member of the Review Commission exercises his/her discretion to direct the case for review. The second level involves the Review Commission’s review of an ALJ decision. The Review Commission has three members, appointed by the President and subject to Senate confirmation, who serve six-year terms. Both before its ALJs and the Review Commission members, the agency seeks to provide fair, impartial, and timely adjudication of cases concerning the safety and health of employees’ working conditions in the United States.

By statutes, Executive Orders, and agency policies, the Review Commission is committed to the goals of energy conservation, reducing energy use, eliminating or reducing greenhouse gas (GHG) emissions, and promoting the deployment of renewable energy technologies that are cleaner and more efficient. Where a proposal for action implicates these goals, information on GHG emissions (qualitative or quantitative) that is useful and relevant to the decision will be used when deciding among alternatives.


Richard C. Loeb
Executive Director


Date

II. Sustainability and the Agency Mission

The mission of the Review Commission is to provide an impartial forum for the just and prompt adjudication of workplace safety and health disputes involving the Department of Labor, employers, and employees, and/or their representatives under the Occupational Safety and Health Act of 1970 (Act), 29 U.S.C. §§ 651-678.

In addition to its mission-sustaining efforts mentioned above, the Review Commission strives to cut emissions at the employee level. Approximately 63 percent of employees use alternate transportation to get to work, and this number is expected to increase in the years to come. Participation in a telecommuting program is available and is strongly encouraged by management. Staff computers are installed with automatic energy-saving and paper-reduction settings. Employees are also required to turn off all non-essential electronics at the end of the workday and during the weekend. Offices have energy saving motion activated light switches. The cooling systems were upgraded with high efficiency units. The Review Commission is also dedicated to going green.

III. Greenhouse Gas Reduction Goals

The Review Commission is committed to reducing greenhouse gas emissions 5 percent by fiscal year 2020. In relation to scope 1 and 2 targets, the Review Commission does not track its facility energy intensity. Electricity bills are paid and usage rates are tracked by the General Services Administration. However, the Review Commission will implement a plan to assist with lowering utility usage (i.e., green purchasing, CFL light bulbs, installing computers with automatic energy-saving options, motion activated light switches, etc.). The agency has no fleet vehicles.

In relation to scope 3 targets, the Review Commission will continue to encourage employees to utilize public transportation, offer teleworking options, and limit employee travel where feasible. Given the Agency's mission, the ALJs are required to frequently travel to various locations in order to conduct hearings. There may be little discretion in reducing the amount of travel in these instances. However, the Review Commission will strive to coordinate its annual judicial conferences locally, which means that fewer employees would be required to travel to attend them.

IV. Plan Implementation

The Review Commission will take the following steps in efforts to meet the targets described above.

- 1) Establish a greenhouse gas reduction task force. This group should be tasked with creating one or two strategic plans for reducing greenhouse gas reductions and evaluating the costs of these different scenarios.

- 2) Share the plan with employees, and get them involved in GHG reduction activities. The plan will be reviewed regularly, and changes will be made as needed to ensure the actions allow the Review Commission to achieve its goals.
- 3) Continue to encourage employee participation in utilizing public transportation. Transit can reduce greenhouse gas emissions by facilitating compact development, which conserves land and decreases the distance people need to travel to work. By reducing congestion, transit reduces emissions from cars stuck in traffic.
- 4) Continue to encourage employees to participate in the telecommuting program.
- 5) Work with the leasing company to coordinate lighting projects (sensors, CFL and high efficiency lights). Existing light bulbs will be replaced with CFLs since they use less power and have a longer rated life.
- 6) Where necessary, reduce plug load (high efficiency equipment).

The Executive Director, in coordination with his/her staff, provides leadership, direction, coordination and management of the Agency’s policy regarding GHG strategies and goals. This involves enhancing communication, coordination and cooperation of the greenhouse gas reduction team. The Executive Director works with the team to build and support their confidence in GHG actions (e.g. target setting, reduction projects, etc.). The Executive Director also identifies methods for improving GHG management systems and data collection processes.

Table 1: Critical Planning Coordination

Originating Report/Plan	Scope 1 & 2 GHG Reduction	Scope 3 GHG Reduction	Develop and Maintain Agency Comprehensive GHG Inventory	High-Performance Sustainable Design/Green Buildings	Regional and Local Planning	Water Use Efficiency and Management	Pollution Prevention and Waste Elimination	Sustainable Acquisition	Electronic Stewardship and Data Centers	Agency Specific Innovation
“Sample Plan”	Yes	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yes	No
GPRR Strategic Plan	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agency Capital Plan	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
A-11 300s	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Annual Energy Data Report	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EISA Section 432 Facility Evaluations/Project Reporting	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Budget	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Asset Management Plan/3 Year Timeline	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Circular A-11 Exhibit 53s	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
OMB Scorecards	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
DOE's Annual Federal Fleet Report to Congress and the President	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Data Center Consolidation Plan	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Environmental Management System	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other (reports, policies, plans, etc.)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

V. Evaluating Return on Investment

Information to complete this section is not available.

VI. Transparency

The Review Commission will solicit employee involvement in GHG reduction activities. The plan will be reviewed on a regular basis and will be available to all employees. Additionally, the Agency will communicate its progress and results during routine staff meetings and on the Review Commission's website. The general public will also be able to view information via the website at www.oshrc.gov

Section 2: Performance Review & Annual Update

I. Summary of Accomplishments

During fiscal years 2008 and 2009, the Review Commission had several noteworthy accomplishments with respect to GHG reduction activities. Listed below is a summary of accomplishments:

- During fiscal year 2008, the Review Commission established a policy on telecommuting. With supervisory discretion and approval, employees could telecommute as infrequently as one day per month or as frequently as one day per pay period.
- During fiscal year 2008, approximately 19 percent of employees participated in the telecommuting program. In fiscal year 2009, this number increased to approximately 20 percent.

- During fiscal year 2008, approximately 7 percent of employees worked compressed work schedules. Employees were given the option to work eight 9-hour days and one 8-hour day during each pay period and designated one non-work day during the pay period, or four 10-hour days during each pay period with two non-work days during the pay period. During fiscal year 2009, this number increased to approximately 14 percent.
- Staff computers were installed with automatic energy-saving and paper reduction settings. The Review Commission strictly purchases energy star compliant hardware. To maximize power savings, computers are set to enter system standby or hibernate after 30 to 60 minutes of inactivity, and the monitors enter sleep mode after 5 to 20 minutes of inactivity. The servers use Thermal Logic technology, which offers a whole new architecture for power savings and delivers up to double the power efficiency of x86 servers sold a few years ago. The printers and copiers are energy star compliant as well and produce less heat and reduce cooling loads by about 15 percent, and up to 30 percent in warmer climates.
- Employees were informed to turn off all non-essential electronics at the end of the workday and during the weekend.
- Offices have energy saving motion activated light switches. The lights are automatically turned off once a room is vacant.
- The cooling systems were upgraded with high efficiency units.
- With respect to “going green” the chairman reminded employees of their responsibilities regarding the Agency’s recycling program.

II. Goal Performance Review

1. Goal: Scope 1 & 2 Greenhouse Gas Reduction

- a) The Review Commission does not track its facility energy intensity. Electricity bills are paid and usage rates are tracked by the General Services Administration.
- b) The Review Commission does not have any fleet vehicles.
- c) There are no other areas identified by the agency.

2. Goal: Scope 3 Greenhouse Gas Reduction

- a) Federal employee travel (see responses below)
- b) Contracted waste disposal (not applicable)
- c) Transmission and distribution losses from purchased energy (does not apply)
- d) Other, as defined by Agency
- e) Discuss any planned agency activity or policy implementation to improve data accuracy and overall data collection and analysis methods related to Scope 3 GHG emissions

- A. Goal description: The Review Commission will continue to encourage employees to utilize public transportation, it will offer more frequent telecommuting options, and will limit employee travel where possible. The Agency's goal is to reduce GHG activities 5 percent by fiscal year 2020.
- B. Agency lead for goal: The Executive Director and his/her staff are responsible for target development, implementation, and oversight for the Review Commission.
- C. Implementation methods: Implementation methods are discussed in detail in Section I, number IV.
- D. Positions: The Review Commission is adequately staffed to support the development and implementation of this plan. The staff is dedicated to meeting the Agency's goals, but the actual work is considered a collateral duty.
- E. Planning table: See Scope 3 table below.

SCOPE 3 GHG TARGET	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY15-FY19	FY 20
Overall Agency Scope 3 Reduction Target (reduced from FY08 base year)		.46	.46	.46	.46	.46	.46 each yr	.46
Sub-Target for Federal Employee Travel		.46	.46	.46	.46	.46	.46 each yr	.46
Sub-Target for Contracted Waste Disposal	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sub-Target for Transmission and Distribution Losses from Purchased Energy	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other, as defined by agency	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Leveraged Investment (funded through annually recurring existing budget items, such as capital improvement, O&M, etc. or ARRA)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Incremental Investment (funded through new program budget requests specific to this EO)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Alternative Investment (funded through ESPC, UESC, EUL, PPA, rebates, or other funding assistance)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

- F. Agency status: In comparison to fiscal years 2008 and 2009, there was an increase in the number of employees that telecommute. To further improve in this area, the Review Commission has since modified its policy on telecommuting to allow employees to telecommute more frequently. With supervisory approval, employees can now work at home two days per period. The previous policy allowed employees to work at home one day per pay period.

The number of employees working a compressed work schedule doubled in participation rate from 2008 (7 percent) to 2009 (14 percent). The Review Commission continues to allow employees to work compressed schedules. The participation rate continues to grow in fiscal year 2010.

The Review Commission will establish a greenhouse gas reduction task force that will be tasked with creating strategic plans for reducing greenhouse gas reductions. Employees will get involved and the plan will be shared with them.

The Review Commission will identify and communicate ideas for GHG reduction activities. This may involve working with the leasing company to determine ways to reduce electricity usage (i.e., lighting projects, reducing plug load, cooling systems, etc.). Additionally, the Review Commission will purchase green items, and continue to highly emphasize its “going green” initiative. The recycling program is one of the Agency’s top priorities regarding this initiative.

The following sections do not apply:

3. Goal: Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory
4. Goal: High Performance Sustainable Design/Green Building
5. Goal: Regional and Local Planning
6. Goal: Water Use Efficiency and Management
7. Goal: Pollution Prevention and Waste Elimination
8. Goal: Sustainable Acquisition
9. Goal: Electronic Stewardship and Data Center
10. Goal: Agency Innovation

Section 3: Agency Self Evaluation

Section 3: Agency Self Evaluation

- I. Please answer ‘yes’ or ‘no’ to the following questions. If the answer is ‘no’, provide an explanation below.

Does your plan provide/consider overarching strategies and approaches for achieving long-term sustainability goals?	Yes
Does your plan identify milestones and resources needed for implementation?	Yes
Does your plan align with your agency’s 2011 budget submission?	Yes
Is your plan consistent with your agency’s FY 2011 budget and appropriately aligned to reflect your agency’s planned FY 2012 budget submission?	Yes
Does your plan integrate existing EO and statutory requirements into a single framework and align with other existing mission and management related goals to make the best use of available resources?	Yes
Does your plan provide methods for obtaining data needed to measure progress, evaluate results, and improve performance?	Yes

- II. What is your agency’s planned actions for the following year (in 6 month increments, July-Dec 2010 & Jan-June 2011) to achieve the sustainability and energy standards for success on the OMB Scorecard? Please use short, descriptive, and action-oriented bullets for key milestones and associated target dates. Agencies may highlight text within its Sustainability Plan to emphasize these key actions and milestones.

The Review Commission will take the following actions with respect to GHG reduction activities.

July - December 2010

Establish a greenhouse gas reduction task force. This group should be tasked with creating one or two strategic plans for reducing greenhouse gas reductions and evaluating the costs of these different scenarios.

July – December 2010

Share the plan with employees, and get them involved in GHG reduction activities. The plan will be reviewed regularly, and changes will be made as needed to ensure the actions allow the Review Commission to achieve its goals.

July – December 2010

Explore time and attendance systems that will reduce paperwork, and support the Agency's "going green" initiative.

Ongoing (July 2010 through June 2011)

Continue to encourage employee participation in utilizing public transportation. Transit can reduce greenhouse gas emissions by facilitating compact development, which conserves land and decreases the distance people need to travel to work. By reducing congestion, transit reduces emissions from cars stuck in traffic.

Ongoing (July 2010 through June 2011)

Continue to encourage employees to participate in the telecommuting program.

Ongoing (July 2010 through June 2011)

Work with the leasing company to coordinate lighting projects (sensors, CFL and high efficiency lights). Existing light bulbs will be replaced with CFLs since they use less power and have a longer rated life.

Ongoing (July 2010 through June 2011)

Where necessary, reduce plug load (high efficiency equipment).

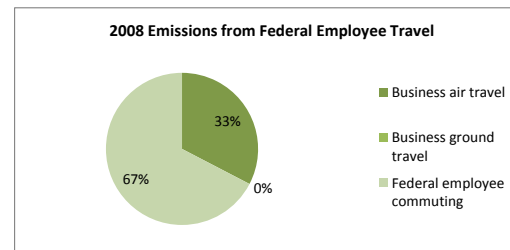
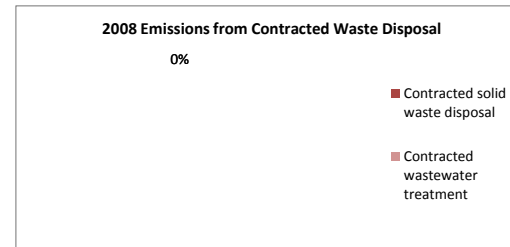
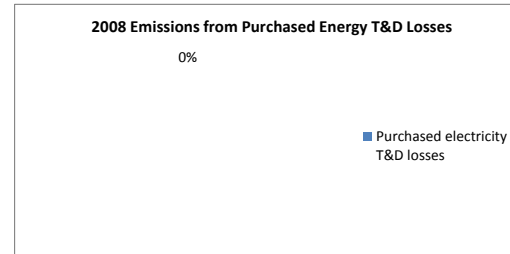
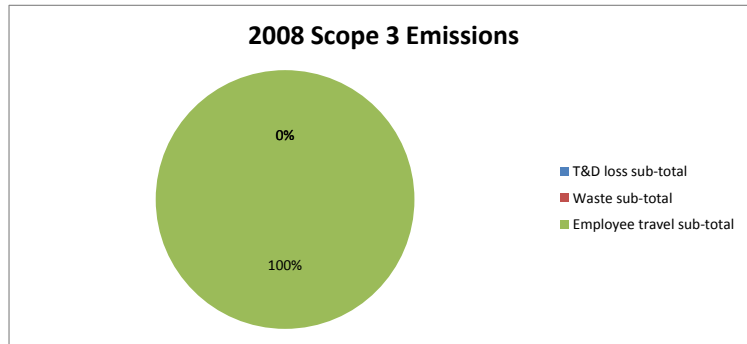
Revised April 8, 2010

U.S. Occupational Safety and Health Review Commission Summary: Scope 3 Emissions Reduction Target FY 2008

		Automatic calculations				(Optional manual entries)		
		Estimated 2008 emissions (mtCO2e)	Reduction target (%)	(Optional manual entry) Alternative reduction target chosen by agency (%)	Estimated 2020 emissions (mtCO2e)	Manual entry of emissions distribution (%)	Reduction target (%)	
Transmission and distribution (T&D) losses from purchased energy	Purchased electricity T&D losses	-	0.0%		-			
	T&D loss sub-total	0.000	#DIV/0!		#DIV/0!	0.0%	#DIV/0!	
Contracted waste disposal	Contracted solid waste disposal	-	0.0%		-			
	Contracted wastewater treatment	-	0.0%		-			
	Waste sub-total	0.000	#DIV/0!		#DIV/0!	0.0%	#DIV/0!	
Federal employee travel	Business air travel	44.000	0.0%		44.000			
	Business ground travel	0.026	0.0%		0.026			
	Federal employee commuting	90.859	0.0%		90.859			
	Employee travel sub-total	134.886	0.0%		134.886	0.0%	#DIV/0!	
Agency total		134.886	#DIV/0!		#DIV/0!			
						Manual entry of emissions distribution among the three categories (%)		
						T&D losses	0.0%	#DIV/0!
						Waste	0.0%	
						Employee travel	98075.9%	
						Total	98075.9%	

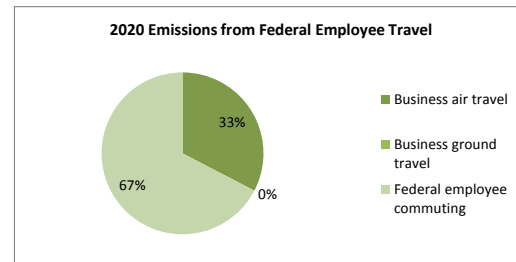
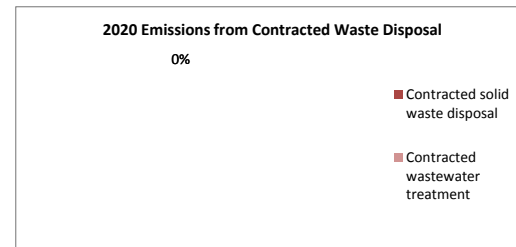
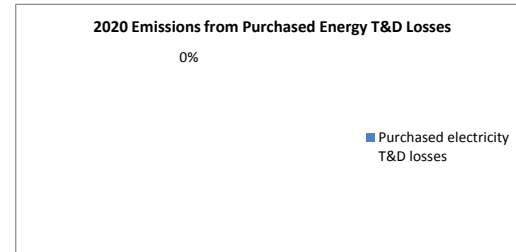
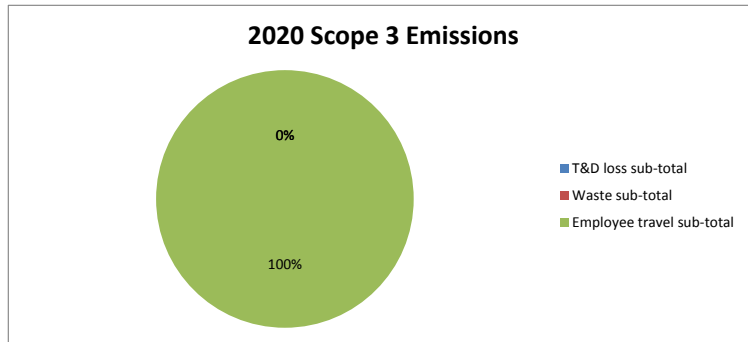
Revised April 8, 2010

U.S. Occupational Safety and Health Review Commission 2008 Estimated Distribution of Scope 3 Emissions



Revised April 8, 2010

U.S. Occupational Safety and Health Review Commission 2020 Estimated Distribution of Scope 3 Emissions



Purchased electricity transmission and distribution (T&D) losses

Agency annual purchased electricity consumption from off-site sources (MWh)	National average electricity transmission and distribution (T&D) loss (%)	Electricity lost through T&D (MWh)	Emission factors for individual greenhouse gases		T&D emissions from individual greenhouse gases (metric tons of each gas)	Agency total CO ₂ -equivalent emissions from electricity T&D losses (mtCO ₂ e)
-	6.5%	-	Carbon dioxide (CO ₂) (lb/MWh)	1,329.35	-	-
			Methane (CH ₄) (lb/GWh)	27.27	-	
			Nitrous oxide (N ₂ O) (lb/GWh)	20.60	-	

Business air travel by Federal employees

Agency annual emissions from air travel (emissions data generated directly by GSA Travel Management Information System) (mtCO ₂ e)
44.000

Federal employee commuting

Mode of transportation	Commute distance traveled (miles)	Number of commute days per year	Emission factors			Annual emissions for each mode of transportation (mtCO2e)	Total annual emissions from employee commuting (mtCO2e)
			CO2 emissions factor (kg CO2 / mile)	CH4 emissions factor (kg CH4 / mile)	N2O emissions factor (kg N2O / mile)		
Car	335	250	0.364	0.000031	0.000032	31	91
Light-duty truck	-	250	0.519	0.000036	0.000047	-	
Motorcycle	-	250	0.167	0.000070	0.000007	-	
Bus	396	250	0.107	0.000006	0.000005	11	
Transit rail (e.g., subways and trams)	681	250	0.163	0.000004	0.000002	28	
Commuter rail	488	250	0.172	0.000002	0.000001	21	
Intercity rail (e.g., Amtrak)	-	-	0.185	0.000002	0.000001	-	
Walk / bike	-	-	0	0	0	-	

Contracted solid waste disposal

Mass of municipal solid waste disposed at off-site landfills (lbs)	Mass of waste converted to gigagrams (Gg)	Methane correction factor	Degradable organic carbon (Gg C / Gg waste)	Fraction of degradable organic carbon simulated	Fraction of methane by volume in generated landfill gas	Molecular weight ratio of CH4 to C	Percentage of methane recovered and combusted (%)	Percentage of methane oxidized (%)	Methane emissions (Gg)	Methane global warming potential (GWP)	Carbon dioxide equivalent emissions (mtCO2e)
-	-	1	0.203	0.5	0.5	1.333	45.6%	10%	-	21	-

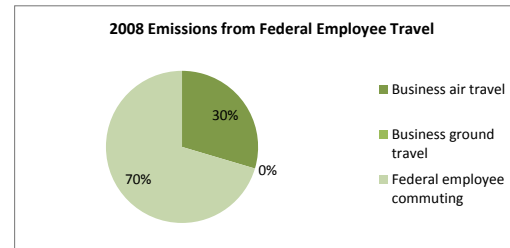
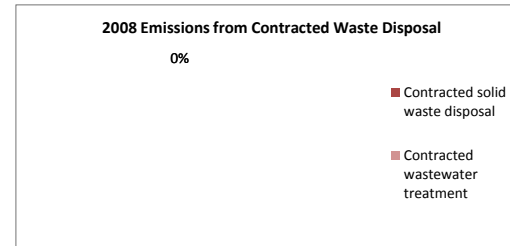
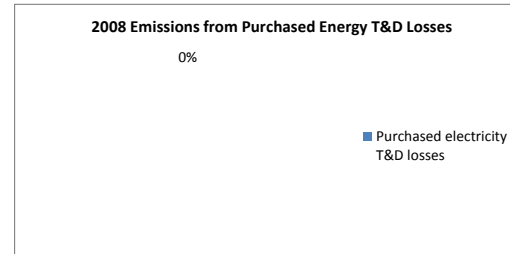
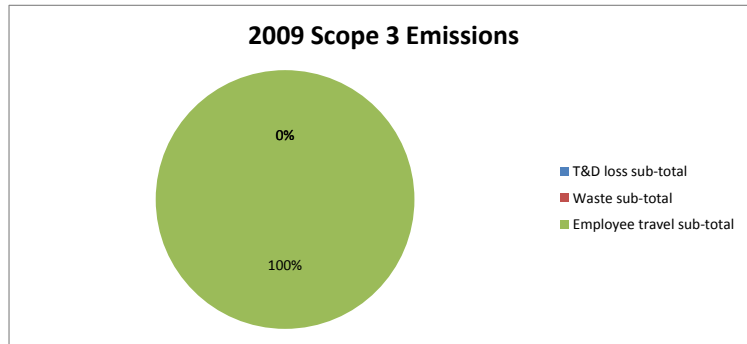
Contracted wastewater treatment

Methane emissions from wastewater treatment															
Number of Federal employees	Number of excluded employees	Number of wastewater-subject employees			kg BOD / employee / day	workdays / year	Fraction of BOD allocated to workplace	Total BOD produced and allocated to workplace (kg)	Percentage of systems with primary treatment (%)	Percentage of BOD removed in primary treatment (%)	Methane correction factor	Methane-producing capacity of wastewater (kg CH ₄ / kg BOD)	Methane global warming potential (GWP)	Agency methane emissions from wastewater treatment (mtCO ₂ e)	
54	54	-			0.09	230	0.5	-	82.2%	32.5%	0.036	0.6	21	-	
Nitrous oxide emissions from effluent discharge															
			kg N / employee / day	Nitrogen uptake (kg N / kg BOD)	kg BOD / employee / day	workdays / year	Fraction of N allocated to workplace	Total N produced and allocated to workplace (kg)	Percentage of systems with nitrification/denitrification (%)	Fraction of nitrogen removed for systems with nitrification/denitrification	Molecular weight ratio of N ₂ O to N ₂	Effluent emission factor (kg N ₂ O-N / kg sewage-N produced)	Nitrous oxide global warming potential (GWP)	Agency nitrous oxide emissions from effluent discharge (mtCO ₂ e)	
			0.026	0.05	0.09	230	0.5	-	36.5%	0.7	1.571	0.005	310	-	
Nitrous oxide emissions from systems with nitrification/denitrification															
									Percentage of systems with nitrification/denitrification (%)				Emission factor (g N ₂ O / employee / year)	Nitrous oxide global warming potential (GWP)	Agency nitrous oxide emissions from systems with nitrification/denitrification (mtCO ₂ e)
									36.5%				7.0	310	-
Nitrous oxide emissions from systems without nitrification/denitrification															
									Percentage of systems with nitrification/denitrification (%)				Emission factor (g N ₂ O / employee / year)	Nitrous oxide global warming potential (GWP)	Agency nitrous oxide emissions from systems without nitrification/denitrification (mtCO ₂ e)
									63.5%				3.2	310	-
Total emissions															
Total agency emissions from wastewater treatment (mtCO ₂ e)															
-															

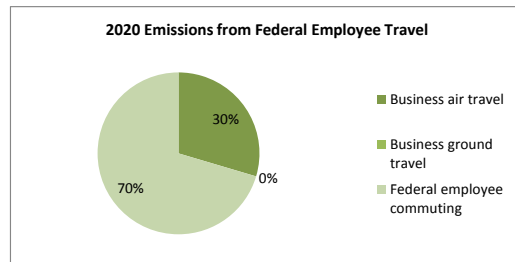
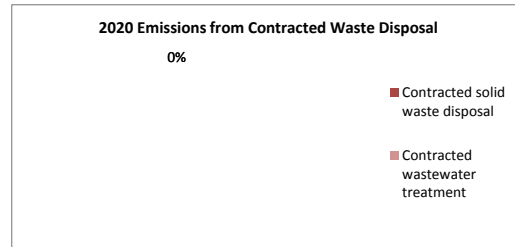
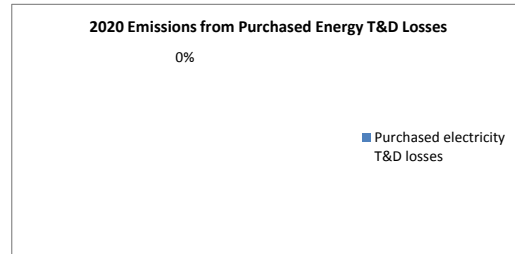
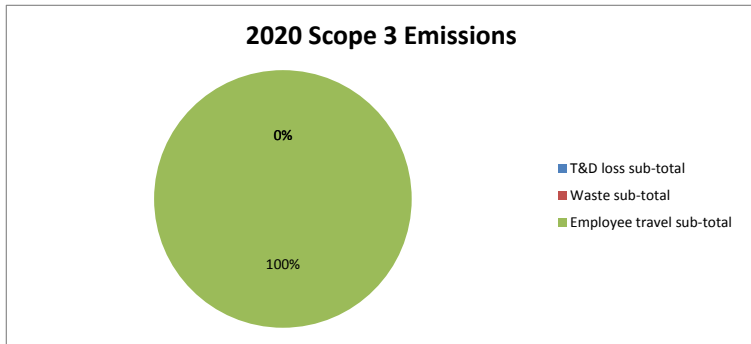
**U.S. Occupational Safety and Health Review Commission
Summary: Scope 3 Emissions Reduction Target FY 2009**

		Automatic calculations				(Optional manual entries)													
		Estimated 2009 emissions (mtCO2e)	Reduction target (%)	(Optional manual entry) Alternative reduction target chosen by agency (%)	Estimated 2020 emissions (mtCO2e)	Manual entry of emissions distribution (%)	Reduction target (%)												
Transmission and distribution (T&D) losses from purchased energy	Purchased electricity T&D losses	-	0.0%		-														
	T&D loss sub-total	0.000	#DIV/0!		#DIV/0!	0.0%	#DIV/0!												
Contracted waste disposal	Contracted solid waste disposal	-	0.0%		-														
	Contracted wastewater treatment	-	0.0%		-														
	Waste sub-total	0.000	#DIV/0!		#DIV/0!	0.0%	#DIV/0!												
Federal employee travel	Business air travel	39.000			39.000														
	Business ground travel	0.018			0.018														
	Federal employee commuting	92.817			92.817														
	Employee travel sub-total	131.834	0.0%		131.834	0.0%	#DIV/0!												
Agency total		131.834	#DIV/0!		#DIV/0!	<table border="1"> <tr> <th colspan="2">Manual entry of emissions distribution among the three categories (%)</th> <th rowspan="4">#DIV/0!</th> </tr> <tr> <td>T&D losses</td> <td align="center">0.0%</td> </tr> <tr> <td>Waste</td> <td align="center">0.0%</td> </tr> <tr> <td>Employee travel</td> <td></td> </tr> <tr> <td>Total</td> <td align="center">0.0%</td> <td></td> </tr> </table>		Manual entry of emissions distribution among the three categories (%)		#DIV/0!	T&D losses	0.0%	Waste	0.0%	Employee travel		Total	0.0%	
Manual entry of emissions distribution among the three categories (%)		#DIV/0!																	
T&D losses	0.0%																		
Waste	0.0%																		
Employee travel																			
Total	0.0%																		

U.S. Occupational Safety and Health Review Commission 2009 Estimated Distribution of Scope 3 Emissions



U.S. Occupational Safety and Health Review Commission 2020 Estimated Distribution of Scope 3 Emissions



Purchased electricity transmission and distribution (T&D) losses

Agency annual purchased electricity consumption from off-site sources (MWh)	National average electricity transmission and distribution (T&D) loss (%)	Electricity lost through T&D (MWh)	Emission factors for individual greenhouse gases		T&D emissions from individual greenhouse gases (metric tons of each gas)	Agency total CO2-equivalent emissions from electricity T&D losses (mtCO2e)
-	6.5%	-	Carbon dioxide (CO2) (lb/MWh)	1,329.35	-	-
			Methane (CH4) (lb/GWh)	27.27	-	
			Nitrous oxide (N2O) (lb/GWh)	20.60	-	

Business air travel by Federal employees

Agency annual emissions from air travel (emissions data generated directly by GSA Travel Management Information System) (mtCO ₂ e)
39.000

Business ground travel by Federal employees

Rental vehicle travel					Non-rental vehicle travel						Total ground travel emissions (mtCO2e)	
Type of fuel for rental vehicles	Fuel for rental vehicles (gallons)	Emission factor (kg CO2 / gal)	Annual emissions for each fuel type (mtCO2e)	Annual emissions for rental vehicle business ground travel (mtCO2e)	Mode of transportation	Distance traveled (miles)	Emission factors			Annual emissions for each non-rental mode of transportation (mtCO2e)	Annual emissions for non-rental vehicle business ground travel (mtCO2e)	0.018
							CO2 emissions factor (kg CO2 / mile)	CH4 emissions factor (kg CH4 / mile)	N2O emissions factor (kg N2O / mile)			
Gasoline	2	8.81	0.018	0.018	Personal vehicle used for business travel	-	0.364	0.000031	0.000032	-	-	
Diesel	-	10.15	-	-	Bus	-	0.107	0.000006	0.000005	-	-	
					Transit rail (e.g., subways and trams)	-	0.163	0.000004	0.000002	-	-	
					Commuter rail	-	0.172	0.000002	0.000001	-	-	
					Intercity rail (e.g., Amtrak)	-	0.185	0.000002	0.000001	-	-	

Federal employee commuting

Mode of transportation	Commute distance traveled (miles)	Number of commute days per year	Emission factors			Annual emissions for each mode of transportation (mtCO2e)	Total annual emissions from employee commuting (mtCO2e)
			CO2 emissions factor (kg CO2 / mile)	CH4 emissions factor (kg CH4 / mile)	N2O emissions factor (kg N2O / mile)		
Car	403	250	0.364	0.000031	0.000032	38	93
Light-duty truck	-	250	0.519	0.000036	0.000047	-	
Motorcycle	-	250	0.167	0.000070	0.000007	-	
Bus	328	250	0.107	0.000006	0.000005	9	
Transit rail (e.g., subways and trams)	606	250	0.163	0.000004	0.000002	25	
Commuter rail	498	250	0.172	0.000002	0.000001	21	
Intercity rail (e.g., Amtrak)	-	250	0.185	0.000002	0.000001	-	
Walk / bike	-	-	0	0	0	-	

Contracted solid waste disposal

Mass of municipal solid waste disposed at off-site landfills (lbs)	Mass of waste converted to gigagrams (Gg)	Methane correction factor	Degradable organic carbon (Gg C / Gg waste)	Fraction of degradable organic carbon simulated	Fraction of methane by volume in generated landfill gas	Molecular weight ratio of CH4 to C	Percentage of methane recovered and combusted (%)	Percentage of methane oxidized (%)	Methane emissions (Gg)	Methane global warming potential (GWP)	Carbon dioxide equivalent emissions (mtCO2e)
-	-	1	0.203	0.5	0.5	1.333	45.6%	10%	-	21	-

Contracted wastewater treatment

Methane emissions from wastewater treatment														
Number of Federal employees	Number of excluded employees	Number of wastewater-subject employees		kg BOD / employee / day	workdays / year	Fraction of BOD allocated to workplace	Total BOD produced and allocated to workplace (kg)	Percentage of systems with primary treatment (%)	Percentage of BOD removed in primary treatment (%)	Methane correction factor	Methane-producing capacity of wastewater (kg CH ₄ / kg BOD)	Methane global warming potential (GWP)	Agency methane emissions from wastewater treatment (mtCO ₂ e)	
56	56	-		0.09	230	0.5	-	82.2%	32.5%	0.036	0.6	21	-	
Nitrous oxide emissions from effluent discharge														
			kg N / employee / day	Nitrogen uptake (kg N / kg BOD)	kg BOD / employee / day	workdays / year	Fraction of N allocated to workplace	Total N produced and allocated to workplace (kg)	Percentage of systems with nitrification/denitrification (%)	Fraction of nitrogen removed for systems with nitrification/denitrification	Molecular weight ratio of N ₂ O to N ₂	Effluent emission factor (kg N ₂ O-N / kg sewage-N produced)	Nitrous oxide global warming potential (GWP)	Agency nitrous oxide emissions from effluent discharge (mtCO ₂ e)
			0.026	0.05	0.09	230	0.5	-	36.5%	0.7	1.571	0.005	310	-
Nitrous oxide emissions from systems with nitrification/denitrification														
									Percentage of systems with nitrification/denitrification (%)			Emission factor (g N ₂ O / employee / year)	Nitrous oxide global warming potential (GWP)	Agency nitrous oxide emissions from systems with nitrification/denitrification (mtCO ₂ e)
									36.5%			7.0	310	-
Nitrous oxide emissions from systems without nitrification/denitrification														
									Percentage of systems with nitrification/denitrification (%)			Emission factor (g N ₂ O / employee / year)	Nitrous oxide global warming potential (GWP)	Agency nitrous oxide emissions from systems without nitrification/denitrification (mtCO ₂ e)
									63.5%			3.2	310	-
													Total emissions	
													Total agency emissions from wastewater treatment (mtCO ₂ e)	
													-	