

Form EIA-1605

Voluntary Reporting of Greenhouse Gases

**Revised Pursuant to 10 CFR Part 300
Guidelines for Voluntary Greenhouse Gas Reporting**

**Energy Information Administration
U.S. Department of Energy**

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NOTE: 18 U.S.C. §1001 makes it a criminal offense for any person knowingly and willfully to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.

REPORTING YEAR _____

(Reporting Year is the calendar year for which you are reporting emissions. If this is a Start Year report, enter the Start Year, which is the last calendar year of the initial Base Period.)

SCHEDULE I. ENTITY INFORMATION

SECTION 1. ENTITY STATEMENT

1. Enter Entity Identification:

Entity Name: _____
Address 1: _____
Address 2: _____
City: _____ State: _____ Zip: _____ - _____
Entity URL : _____
Entity Tax Payer Identification Number (optional): _____

2. Enter Contact Information:

Contact Name: _____
Title: _____
 Contact address is the same as Entity Address
Address 1: _____
Address 2: _____
City: _____ State: _____ Zip: _____ - _____
Tel: (_____) _____ - _____ ext.: _____
Fax: (_____) _____ - _____
E-Mail: _____

3. Enter Report Characteristics

a. Report Type (please check one):

- Start Year Report
- Reporting Year Report

b. Entity Type (please check one):

- Large emitter (more than 10,000 metric tons carbon dioxide equivalent annually) intending to register emission reductions
- Small emitter (less than or equal to 10,000 metric tons carbon dioxide equivalent annually) intending to register emission reductions

If this is a Start Year Report, enter the total entity-wide Base Period annual emissions for the entity:

_____ metric tons CO₂ equivalent

If this is a Reporting Year report, enter the total entity-wide Reporting Year emissions for the entity, if required, and check the box indicating the reason emissions were estimated:

_____ metric tons CO₂ equivalent

- Five years have elapsed since last estimate of entity-wide emissions were reported
- Emissions have changed significantly since previous report
- Emitter intending to report but not register emission reductions

c. Scope of Inventory:

- Entity-wide

- Partial. Indicate the selected elements of the entity, selected gases, or selected sources included and/or excluded below:

- d. Subentities (*please check one*):
This report includes subentity reports: Yes No
- e. Independent Verification
This report been verified by an independent third party: Yes No

4. Indicate Any Significant Changes to Previous Entity Statement (*not applicable for Start Year reports*)

- The entity has not undergone significant changes since the last Voluntary Reporting of Greenhouse Gases report
- The entity has undergone significant changes since the last Voluntary Reporting of Greenhouse Gases report was filed. Please check the appropriate box below:
- Data are being resubmitted for the base period:
- For the entire entity
 - For one or more subentities
- New base period has been selected:
- For the entire entity (*please describe*): _____
 - For one or more subentities (*describe in relevant subentity statement (Schedule II)*)
- Changes have been made in the entity's scope or organizational boundaries, of the following nature:
- Acquisition or divestiture of discrete business units, subsidiaries, facilities or plants
Describe: _____
 - Closure or opening of significant facilities
Describe: _____
 - Transfer of economic activity to or from specific operations covered by a previous report
Describe: _____
 - Significant changes in land holdings
Describe: _____
 - Higher level of aggregation than in the previous year.
List subsidiary entities now included, including a listing of any non-U.S. operations added and the specific countries in which the foreign operations are located: _____
- Changes in activity or operations please specify:
- Change in output
 - Change in contractual arrangements
 - Change in equipment and processes
 - Change in outsourcing or insourcing of significant activities
- Describe the change and explain its influence on reported emissions or sequestration: _____
- Emission reduction calculation method changed
- Other change, not listed above, please describe: _____
-

5. Identify the Entity's Primary Economic Activities (NAICS Code)
 Identify the primary (*and secondary, if applicable*) 3-digit North American Industrial Classification System (NAICS) code for the entity (*a list of NAICS codes is offered in Appendix A*):
 Primary NAICS: ___ ___ ___
 Secondary NAICS: ___ ___ ___

6. Enter the Entity Category
 Select the category below that describes the entity:

- Corporation
Corporation Type (check one)
 - Corporation (i.e., C Corporation; most corporations)
 - S Corporation
 - Limited Liability Corporation (LLC)
 - Limited Liability Partnership (LLP)
 - Partnership
 - Sole Proprietorship
 - Other, *specify:* _____
Public or Private Status (check one)
 - Publicly Traded (*Stock ticker symbol:* _____)
 - Privately Held
Ownership Status (check one)
 - Wholly Owned Subsidiary
 - Joint Venture (*partners:* _____)
 - Other Subsidiary
- Utility (Non-Investor Owned) (*check one*)
 - Cooperative
 - Municipal Utility
 - Municipal Cooperative
 - Other, *specify:* _____
- Government (*check one*)
 - Federal
 - State
 - Regional (*e.g., multi-state*)
 - Local (*e.g., city, county, or other sub-state level government*)
 - Native American Tribal Government
 - Other, *specify:* _____
- Government Corporation or Authority (*check one*)
 - Federal
 - State
 - Regional (*e.g., multi-state*)
 - Local (*e.g., city, county, or other sub-state level government*)
 - Other, *specify:* _____
- Non-Profit Organization
 - Cooperative (e.g., non-profit electric cooperative)
 - Trade Association (*specify type:*
 - Reporting on behalf of its members, specified in attached list
 - Reporting on its own achievements
- All other Non-Profit Organizations (*charities, fraternal orders, etc.*
Specify: _____)
- Individual or Household
- Other, *specify:* _____

7. Describe the Entity Organization

Is your entity a holding company: Yes No

Identify your entity's Parent or Holding Company, if applicable: _____

8. Describe the Entity's Organizational Boundaries

a. Method for Determining Organizational Boundaries

Financial control

Operational control. Explain how the use of this other approach results in organizational boundaries that differ from results of the financial control approach:

Equity share. Explain how the use of this other approach results in organizational boundaries that differ from results of the financial control approach:

Other. Describe method and explain how the use of this other approach results in organizational boundaries that differ from results of the financial control approach:

b. List All Large Wholly Owned Subsidiaries Included in this Report:

Subsidiary Name	Primary NAICS

c. List Any Large Partially Owned Subsidiary, Joint Venture, and Leased or Operated Emissions Source Included in This Report:

1	2	3	4	5	6
Name or Description of Emissions Source	Relationship to Reporting Entity	Partners	% Interest Held By Reporting Entity	Method for Determining Inclusion in Report	% of Emissions Included in This Report

d. Additional Description of Organizational Boundaries (please describe, including criteria used for excluding any emissions sources, if applicable):

9. Describe the Geographic Scope of Activities (please check one)

This report covers U.S. activities only

- Nationwide (if operating in all 10 U.S. Census Regions)
- Multiple States (if not nationwide, enter states using 2-letter abbreviations from Appendix B: _____)
- Single State (enter 2-letter abbreviation for state from Appendix B: _____)

This report covers U.S. and Non-U.S. activities

U.S. Activities:

- Nationwide (if operating in all 10 U.S. Census Regions)
- Multiple States (if not nationwide, enter states using 2-letter abbreviations from Appendix B: _____)
- Single State (enter 2-letter abbreviation for state from Appendix B: _____)

Foreign Activities: List all foreign countries in which reported activities occurred using the 3-digit codes found in Appendix C, and the NAICS code that best corresponds to the primary activity in that country from Appendix A:

Country	Primary NAICS code
_____	_____
_____	_____
_____	_____
_____	_____

10. Describe the Scope of the Emissions Inventory

Check the types of emission sources or sinks that are covered in the emissions inventory:

- | | |
|---|--|
| <input type="checkbox"/> Stationary source combustion | <input type="checkbox"/> Fugitive emissions from geologic reservoirs |
| <input type="checkbox"/> Mobile source combustion | <input type="checkbox"/> Indirect emissions from purchased energy |
| <input type="checkbox"/> Industrial processes | <input type="checkbox"/> Other indirect emissions |
| <input type="checkbox"/> Agricultural sources | <input type="checkbox"/> Terrestrial carbon fluxes and stocks |

11. Describe the Entity Base Period

Indicate number of years in the Base Period: 1 2 3 4

Enter last year in Base Period: _____

Check here if you are reporting subsidiaries that use a different base period from the entity

12. Describe Any Entity Program Affiliation(s)

Domestic Voluntary Initiatives

List the voluntary GHG-reduction initiative(s) with which the entity has an affiliation (see list of codes in Appendix D):

_____ Other, specify: _____

Domestic Registries and Exchanges

List the U.S. GHG registry(ies) and/or exchange(s) with which the entity has an affiliation (see list of codes in Appendix D):

_____ Other, specify: _____

International Registries and Exchanges

List the non-U.S. GHG registry(ies) and/or exchange(s) with which the entity has an affiliation (see list of codes in Appendix D):

_____ Other, specify: _____

13. Request Confidentiality of Entity Information

Check box if applicable:

- Requesting confidential treatment for the information reported on this form.

(NOTE that if you request confidentiality, you must, in the space below, explain, on an element-by-element basis, the reasons why your reported information should be kept confidential. To assist in this determination, respondents should demonstrate that their information contains trade secrets or commercial or financial information whose release would be likely to cause substantial harm to their company's competitive position.)

14. Enter Supplementary Information for Entity

Use this space (and attach additional sheets if necessary) to supply any supporting information you feel helps explain your entity or report that is not accommodated directly in this reporting form.

SECTION 2. ENTITY EMISSIONS INVENTORY

Check box if all methods used to estimate emissions and sequestration have a B rating or higher. If checked, do not complete "Weighted Rating" column of Parts A, B, C, and D, and skip Part E completely.

Part A. Aggregated Emissions by Gas (for independently verified reports only)

1. Enter Aggregated Domestic Emissions by Gas (for independently verified reports only)

1	2	3	4	5				7	8	9	10	11
				Base Period Emissions or Carbon Flux								
Item	Source	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions or Carbon Flux	Weighted Rating		
A	Direct Emissions											
A1	Carbon Dioxide	CO ₂										
A2	Methane	CH ₄										
A3	Nitrous Oxide	N ₂ O										
A4	Sulfur Hexafluoride	SF ₆										
A5	HFC (Specify)											
A6	PFC (Specify)											
A7	CFC (Specify)											
B	Indirect Emissions from Purchased Energy (Inventory)											
B1	Carbon Dioxide	CO ₂										
B2	Methane	CH ₄										
B3	Nitrous Oxide	N ₂ O										
C	Indirect Emissions from Purchased Energy (Reductions)											
C1	Carbon Dioxide	CO ₂										
C2	Methane	CH ₄										
C3	Nitrous Oxide	N ₂ O										
D	Carbon Flux	CO ₂										
E	Other Indirect Emissions											
F1	Carbon Dioxide	CO ₂										
F2	Methane	CH ₄										
F3	Nitrous Oxide	N ₂ O										
F4	Sulfur Hexafluoride	SF ₆										
F5	HFC (Specify)											
F6	PFC (Specify)											
F7	CFC (Specify)											

1	2	3	4	5	6	7	8	9	10	11
Item	Source	Gas	Units	Base Period Emissions or Carbon Flux					Reporting Year Emissions or Carbon Flux	Weighted Rating
				Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average		
G	Captured CO ₂ Sequestered in an onsite Geologic Reservoir	CO ₂								
H	Captured CO ₂ Transferred to Another Entity for Sequestration in a Geologic Reservoir	CO ₂								

2. Enter Aggregated Foreign Emissions by Gas (for independently verified reports only)

1	2	3	4	5	6	7	8	9	10	11
Item	Source	Gas	Units	Base Period Emissions or Carbon Flux					Reporting Year Emissions or Carbon Flux	Weighted Rating
				Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average		
A	Direct Emissions									
A1	Carbon Dioxide	CO ₂								
A2	Methane	CH ₄								
A3	Nitrous Oxide	N ₂ O								
A4	Sulfur Hexafluoride	SF ₆								
A5	HFC (Specify)									
A6	PFC (Specify)									
A7	CFC (Specify)									
B	Indirect Emissions from Purchased Energy (Inventory)									
B1	Carbon Dioxide	CO ₂								
B2	Methane	CH ₄								
B3	Nitrous Oxide	N ₂ O								
C	Indirect Emissions from Purchased Energy (Reductions)									
C1	Carbon Dioxide	CO ₂								
C2	Methane	CH ₄								
C3	Nitrous Oxide	N ₂ O								
D	Carbon Flux	CO ₂								
E	Other Indirect Emissions									
F1	Carbon Dioxide	CO ₂								
F2	Methane	CH ₄								
F3	Nitrous Oxide	N ₂ O								
F4	Sulfur Hexafluoride	SF ₆								

1	2	3	4	5	6	7	8	9	10	11
Item	Source	Gas	Units	Base Period Emissions or Carbon Flux			Yr 4	Base Period Average	Reporting Year Emissions or Carbon Flux	Weighted Rating
				Yr 1	Yr 2	Yr 3				
F5	HFC (Specify)									
F6	PFC (Specify)									
F7	CFC (Specify)									
G	Captured CO ₂ Sequestered in an Onsite Geologic Reservoir	CO ₂								
H	Captured CO ₂ Transferred to Another Entity for Sequestration in a Geologic Reservoir	CO ₂								

Part B. Inventory of Domestic Emissions and Carbon Flux (optional for independently verified reports)

1. Enter Direct Emissions

a. Stationary Combustion *(incorporate all emissions, including CO₂ captured from stationary combustion for geologic sequestration)*

1 Source	2 Gas	3 Units	4 Base Period Emissions				8 Reporting Year Emissions	10 Estimation Method	11 Rating
			5 Yr 1	6 Yr 2	7 Yr 3	8 Yr 4			
Fossil Fuel Combustion	CO ₂								
	CH ₄								
	N ₂ O								
Non-Standard Fuel Combustion	CO ₂								
	CH ₄								
	N ₂ O								
Waste Fuels Combustion	CO ₂								
	CH ₄								
	N ₂ O								
Biomass Combustion	CH ₄								
	N ₂ O								
	CO ₂								
Nonfuel Use of Fossil Fuels									
Subtotal	CO ₂ e								

b. Mobile Sources (incorporate all emissions, including CO₂ captured from mobile sources for geologic sequestration)

1 Source	2 Gas	3 Units	4 Base Period Emissions				8 Base Period Average	9 Reporting Year Emissions	10 Estimation Method	11 Rating
			5 Yr 1	6 Yr 2	7 Yr 3	7 Yr 4				
Highway Vehicles	CO ₂									
	CH ₄									
	N ₂ O									
Off-Road Vehicles	CO ₂									
	CH ₄									
	N ₂ O									
Marine Vessels	CO ₂									
	CH ₄									
	N ₂ O									
Aircraft	CO ₂									
	CH ₄									
	N ₂ O									
Mobile Refrigeration and Air Conditioning	HFC-134a									
Subtotal	CO ₂ e									

c. Sector-Specific Industrial Process Emissions (incorporate all emissions, including CO₂ captured from industrial process emissions for geologic sequestration)

1 Process/Fugitive Emissions	2 Gas	3 Units	4 Base Period Emissions				8 Base Period Average	9 Reporting Year Emissions	10 Estimation Method	11 Rating
			5 Yr 1	6 Yr 2	7 Yr 3	7 Yr 4				
Industrial Processes										
Adipic Acid production	N ₂ O									
Aluminum Production (CO ₂ only)	CO ₂									
Ammonia Production	CO ₂									
Cement Production	CO ₂									
Hydrogen Production	CO ₂									
Iron and Steel Production	CO ₂									
	CH ₄									
Lime Production	CO ₂									
Limestone and Dolomite Use	CO ₂									
Methanol Production	CO ₂									
Methane Emissions from Production of Other Petrochemicals	CH ₄									
Nitric Acid Production	N ₂ O									
Soda Ash Production and Use	CO ₂									

c. Sector-Specific Industrial Process Emissions (continued)

1 Process/Fugitive Emissions	2 Gas	3 Units	4 Base Period Emissions				8 Base Period Average	9 Reporting Year Emissions	10 Estimation Method	11 Rating
			5 Yr 1	6 Yr 2	7 Yr 3	7 Yr 4				
Energy										
Coal Mines	CH ₄									
Oil and Natural Gas Industries	CH ₄									
	CO ₂									
	N ₂ O									
Waste Handling										
Domestic and Industrial Wastewater Handling	CH ₄									
Landfills	N ₂ O									
	CH ₄									
High GWP Gases										
Aluminum Production (for PFC, specify gas)	PFC									
	SF ₆									
HCFC-22 Production	HCFC-23									
SF ₆ Emissions from Electrical Equipment	SF ₆									
Industrial Use and Production of HFCs, PFCs, and SF ₆ (for HFCs and PFCs, specify gas)	HFCs									
	PFCs									
Magnesium Production	SF ₆									
	SF ₆									
Semiconductor Manufacture (for HFCs and PFCs, specify gas)	HFCs									
	PFCs									
	SF ₆									
Other Industrial Process Sources										
Other (for HFCs and PFCs, specify gas)	CO ₂									
	CH ₄									
	N ₂ O									
	SF ₆									
	PFCs									
	HFCs									
Subtotal	CO _{2e}									

d. Agricultural Sources (incorporate all emissions, including CO₂ captured from agricultural sources for geologic sequestration)

1 Source	2 Gas	3 Units	4 Base Period Emissions				8 Base Period Average	9 Reporting Year Emissions	10 Estimation Method	11 Rating
			5 Yr 1	6 Yr 2	7 Yr 3	7 Yr 4				
Enteric Fermentation	CH ₄									
Livestock Waste	CH ₄									
	N ₂ O									
Residue Burning	N ₂ O									
	CH ₄									
Rice Cultivation – 1 st Harvest	CH ₄									
Rice Cultivation – 2 nd ("ratoon") harvest	CH ₄									
Agricultural Soils – Nitrogen Application	N ₂ O									
Agricultural Soils – Organic Soils	N ₂ O									
Lime Application	CO ₂									
Cultivation of Organic Soils	CO ₂									
Other agricultural sources (specify source and gas):										
Subtotal	CO _{2e}									

e. Fugitive Emissions Associated With Geologic Reservoirs

1	2	3	4	5	6				9	10	11
					Base Period Emissions						
Source	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year	Estimation Method	Rating	
											Fugitive Emissions From the Extraction of Naturally Occurring CO ₂
Fugitive Emissions From the Extraction of CO ₂ From Anthropogenic Sources	CO ₂ e										
Fugitive Emissions During Transport and Processing	CO ₂ e										
Fugitive Emissions During Injection and Extraction for Enhanced Resource Recovery	CO ₂ e										
Post-Injection Seepage From Permanent Geologic Storage Reservoir	CO ₂ e										

f. Captured CO₂ Emissions from Anthropogenic Sources (captured CO₂ emissions should also be included as emissions in Questions 1a through 1d above).

1	2	3	4	5	6	7	8		9
							Reporting Year Quantity		
Source	Gas	Unit of Measure	Base Period Average Quantity		Reporting Year Quantity		Total	Total	
			Onsite	Offsite	Onsite	Offsite			
1. Stationary Combustion	CO ₂ e	metric tons							
2. Sector-Specific Industrial Process Emissions	CO ₂ e	metric tons							
3. Other (Mobile & Agricultural Sources)	CO ₂ e	metric tons							
Subtotals	CO ₂ e	metric tons							

2. Enter Indirect Emissions From Purchased Energy

1 Source	2 Units	3 Base Period Consumption				7 Base Period Average	8 Reporting Year Consumption	9 System Type/Fuel Used for Generation
		4 Yr 1	5 Yr 2	6 Yr 3	7 Yr 4			
Electricity								
Steam								
Hot Water								
Chilled Water								

b. Emissions from Purchased Energy for Emissions Inventory

1 Source	2 Gas	3 Units	4 Base Period Emissions				8 Base Period Average	9 Reporting Year Emissions	10 Estimation Method	11 Rating
			5 Yr 1	6 Yr 2	7 Yr 3	8 Yr 4				
Electricity (for emissions inventory)	CO ₂									
	CH ₄									
	N ₂ O									
Steam	CO ₂									
	CH ₄									
	N ₂ O									
Hot Water	CO ₂									
	CH ₄									
	N ₂ O									
Chilled Water	CO ₂									
	CH ₄									
	N ₂ O									
Total	CO _{2e}									

c. Emissions from Purchased Energy for Emission Reductions (Not included in emissions inventory. Complete only if calculating reductions at the entity-level using Addendum B1 or B2.)

1	2	3	4				5				8	9	10	11
			Yr 1	Yr 2	Yr 3	Yr 4	Yr 1	Yr 2	Yr 3	Yr 4				
Source	Gas	Units	Base Period Emissions				Base Period Average	Reporting Year Emissions	Estimation Method	Rating				
			Electricity (for emissions reductions)	CO ₂										
	CH ₄													
	N ₂ O													
Steam, Hot Water, and Chilled Water*	CO ₂													
	CH ₄													
	N ₂ O													
Total	CO ₂ e													

*Sum emissions reported for these sources in Question 2b above.

3. Other Indirect Emissions*

1	2	3	4				5				8	9	10	11
			Yr 1	Yr 2	Yr 3	Yr 4	Yr 1	Yr 2	Yr 3	Yr 4				
Source	Gas	Units	Base Period Emissions				Base Period Average	Reporting Year Emissions	Estimation Method	Rating				
			Employee Commuting											
Manufacture & Sale of Energy Efficient Products														
Consumption of Energy-intensive Products														
Other:														
Subtotal	CO ₂ e													

*Do not include in emission inventory.

4. Enter Terrestrial Carbon Fluxes and Stocks

1 a. Forestry Activities	2	3	4		5		6	7	8	9
			Base Period Average	Carbon Stocks in Year Prior to Reporting Year	Reporting Year Carbon Stocks	Reporting Year Stock Change or Carbon Flux ^{1,2}				
Categories	Gas	Units	Carbon Stocks		Reporting Year Carbon Stocks	Reporting Year Stock Change or Carbon Flux ^{1,2}	Estimation Method ³	Rating		
Afforestation, Mine Land Reclamation, and Forest Restoration	CO ₂									
Agroforestry	CO ₂									
Forest Management ⁴	CO ₂									
Short-rotation Biomass Energy Plantations	CO ₂									
Urban Forestry	CO ₂									
Timber Harvesting ⁵	CO ₂									
Other ⁶	CO ₂									
Total	CO ₂									

¹ Carbon flux can be positive or negative; positive values indicate a net increase in terrestrial carbon stocks; negative values indicate a net loss of carbon to the atmosphere, i.e., emissions. Carbon flux may be calculated directly using flux based approaches or as the change in carbon stocks between the reporting year and the previous year.
² Reporters using methods that estimate carbon flux only should enter a carbon flux value in the column "Reporting Year Stock Change or Carbon Flux" and leave columns blank for Carbon Stock data.
³ Methods include lookup tables, models, measurement, or a combination of these methods. If using a model, please indicate the name.
⁴ Forest management includes management decisions taken at any stage of forest rotation. Forest preservation is a special case and is reported separately in Question 4c below.
⁵ Activities such as thinning should be included under Forest Management.
⁶ "Other" includes activities not covered in the previous categories practiced by landowners that may result in changes in carbon fluxes or stocks.

b. Wood Products:

i. Method 1: Track and report emissions in year they occur.

1	2	3	4	5	6	7	8
Category	Gas	Units	Estimated Carbon Stocks in Harvested Wood Products in Year Prior to Reporting Year	Estimated Carbon Stocks in Harvested Wood Products in Reporting Year	Reporting Year Stock Change	Estimation Method	Rating
Wood Products	CO ₂						

ii. Method 2: Estimate and report residual carbon after 100 years in reporting year.

1	2	3	4	5	6	7
Category	Gas	Units	Stock of Carbon in Harvested Wood	100 year Residual Carbon Stock	Estimation Method	Rating
Wood products	CO ₂					

c. Land Restoration and Forest Preservation

Entity certifies that it has restored native habitat on land and placed administrative restrictions on the land to ensure that human-caused releases of carbon from the lands do not occur in the future.

1	2	3	4	5	6	7	8
Name/Description of Tract of Land	Type of Restriction (e.g., Easement, Deed Restrictions, etc.)	Year Protected	Area (Acres)	Units	50% of Carbon Stock Accumulated in 50 Years from Inception of Preservation Activity	Estimation Method	Rating
1.							
2.							
3.							
4.							
Total							

d. Forest Land That Experiences Carbon Losses From Natural Disturbances
 This table documents carbon stock changes on each tract of disturbed lands and should be used until carbon stocks reach pre-disturbance levels.

1	2	3	4	5	Carbon Stocks			9	10	11
					6	7	8			
Name/Description Tract of Land	Area (Acres)	Type of Disturbance	Year	Units	Base Period Average	Carbon Stocks in Year Before Disturbance	Reporting Year Carbon Stocks	Loss	Estimation Method	Rating
1.										
2.										
3.										
4.										
Total										

e. Sustainably Managed Forests

1	2	3	4
Name/Description of Tract of Land	Area (Acres)	Has Sustainability Been Verified by Third Party Certifier (Y/N)	Identify System Used to Determine Sustainability
1.			
2.			
3.			
4.			
Total			

f. Incidental Lands Excluded From Terrestrial Carbon Fluxes and Stocks in Question 4a

1	2	3
Name/Description of Tract of Land	Type of Land	Area (Acres)
1.		
2.		
3.		
4.		
Total		

1	2	3	4	5		6	7	8	9
				Carbon Stocks					
Categories	Gas	Units	Base Period Average	Estimated Carbon Stocks in Year Prior to Reporting Year	Estimated Carbon Stock in Reporting Year	Reporting Year Stock Change or Carbon Flux ^{1,2}	Estimation Method ³	Rating	
Crops on Mineral Soils	CO ₂								
Pasture/Grazing	CO ₂								
Land Use Change	CO ₂								
Other:	CO ₂								
Total	CO ₂								

Carbon flux can be positive or negative; positive values indicate a net increase in terrestrial carbon stocks; negative values indicate a net loss of carbon to the atmosphere, i.e., emissions. Carbon flux may be calculated directly using flux based approaches or as the change in carbon stocks between the reporting year and the previous year.
² Reporters using methods that estimate carbon flux only should enter a carbon flux value in the column "Reporting Year Stock Change or Carbon Flux" and leave columns blank for Carbon Stock data.
³ Methods include lookup tables, models, measurement, or a combination of these methods. If using a model, please indicate the name.

1	2	3	4	5
Categories	Gas	Units	Reporting Year Stock Change or Carbon Flux	Rating
Forestry Activities	CO ₂			
Wood Products Method 1	CO ₂			
Wood Products Method 2	CO ₂			
Land Restoration and Forest Preservation	CO ₂			
Sustainably Managed Forests	CO ₂			
Incidental Lands	CO ₂			
Other Terrestrial Carbon Fluxes	CO ₂			
Total Reporting Year Terrestrial Carbon Flux	CO ₂			

Part C. Inventory of Foreign Emissions and Carbon Flux (optional for independently verified reports)

Complete and attach one copy of Addendum A, Inventory of Foreign or Subentity Emissions.

Part D. Total Emissions and Carbon Flux

1. Enter Total Domestic Emissions and Carbon Flux

Item	Source	1			2				3				4				5				6				7				8			
		Gas/ Units				Yr 1				Yr 2				Yr 3				Yr 4				Base Period Average				Reporting Year Emissions or Carbon Flux						
A	Direct Emissions	mtCO ₂ e																														
B	Indirect Emissions from Purchased Energy for Emissions Inventory	mtCO ₂ e																														
C	Indirect Emissions from Purchased Energy for Calculation of Emission Reductions	mtCO ₂ e																														
D	Total Emissions (A + B)*	mtCO ₂ e																														
E	Carbon Flux	mtCO ₂ e																														
F	Captured CO ₂ Sequestered in an Onsite Geologic Reservoir**	mtCO ₂ e																														
G	Total Inventory Emissions (D – E – F)	mtCO ₂ e																														
H	Other Indirect Emissions	mtCO ₂ e																														
I	Captured CO ₂ Transferred to Another Entity for Sequestration in a Geologic Reservoir**	mtCO ₂ e																														

mtCO₂e = metric tons carbon dioxide equivalent

*Do not include Indirect Emissions from Purchased Energy for Calculation of Emission Reductions (Item C) in Total Emissions.

**Do not include CO₂ extracted and captured from natural sources or CO₂ recycled during enhanced resource recovery operations.

2. Enter Total Foreign Emissions and Carbon Flux

Item	1 Source	2 Gas/ Units	3 Base Period Emissions				7 Base Period Average	8 Reporting Year Emissions or Carbon Flux
			4 Yr 1	5 Yr 2	6 Yr 3	6 Yr 4		
A	Direct Emissions	mtCO ₂ e						
B	Indirect Emissions from Purchased Energy for Emissions Inventory	mtCO ₂ e						
C	Indirect Emissions from Purchased Energy for Calculation of Emission Reductions	mtCO ₂ e						
D	Total Emissions (A + B)*	mtCO ₂ e						
E	Carbon Flux	mtCO ₂ e						
F	Captured CO ₂ Sequestered in an Onsite Geologic Reservoir**	mtCO ₂ e						
G	Total Inventory Emissions (D – E – F)	mtCO ₂ e						
H	Other Indirect Emissions	mtCO ₂ e						
I	Captured CO ₂ Transferred to Another Entity for Sequestration in a Geologic Reservoir**	mtCO ₂ e						

mtCO₂e = metric tons carbon dioxide equivalent

*Do not include Indirect Emissions from Purchased Energy for Calculation of Emission Reductions (Item C) in Total Emissions.

**Do not include CO₂ extracted and captured from natural sources or CO₂ recycled during enhanced resource recovery operations.

Part E. Emissions Inventory Rating Summary

Do not complete Part E if all the methods used to estimate reductions were rated B or higher.

If this is a Start Year Report, complete Question 1 only. If this is a Reporting Year Report, complete Question 2 for reporting year data; complete Question 1 only if you have submitted revised base period emissions data.

1. Enter Base Period Data (enter domestic and foreign sources separately)

1	2	3	4	5	6	7
Rating Category	Weighting Factor	Direct Emissions	Indirect Emissions from Purchased Energy	Carbon Flux	Total Emissions ¹	Weighted Total Emissions ²
Domestic Sources						
A	4					
B	3					
C	2					
D	1					
Totals³						
Weighted Average Rating⁴						
Foreign Sources						
A	4					
B	3					
C	2					
D	1					
Totals³						
Weighted Average Rating⁴						

¹Sum Columns 3, 4 and 5 and enter result in Column 6 to get Total Emissions by Rating Category. Note: Enter carbon flux as a positive value, regardless of whether it was positive or negative carbon flux

²Calculate Weighted Emissions by Rating Category by multiplying Column 2 by Column 6.

³Sum values for Total Emissions (Column 6) and Weighted Total Emissions (Column 7) and enter in the Totals row.

⁴Calculate Inventory Weighted Average Rating by dividing Weighted Total Emissions (Column 7) in the Totals row by Total Emissions (Column 6) in the Totals row.

2. Enter Reporting Year Data (enter domestic and foreign sources separately)

1	2	3	4	5	6	7
Rating Category	Weighting Factor	Direct Emissions	Indirect Emissions from Purchased Energy	Carbon Flux	Total Emissions and Carbon Flux ¹	Weighted Total Emissions and Carbon Flux ²
Domestic Sources						
A	4					
B	3					
C	2					
D	1					
Totals³						
Weighted Average Rating⁴						
Foreign Sources						
A	4					
B	3					
C	2					
D	1					
Totals³						
Weighted Average Rating⁴						

¹ Sum Columns 3, 4 and 5 and enter result in Column 6 to get Total Emissions by Rating Category. Note: Enter carbon flux as a positive value, regardless of whether it was positive or negative carbon flux.

² Calculate Weighted Emissions and Carbon Flux by Rating Category by multiplying Column 2 by Column 6.

³ Sum values for Total Emissions (Column 6) and Weighted Total Emissions and Carbon Flux (Column 7) and enter in the Totals row.

⁴ Calculate Inventory Weighted Average Rating by dividing Weighted Total Emissions (Column 7) in the Totals row by Total Emissions (Column 6) in the Totals row.

Part B. Offset Obtained by Agreement With a Non-Reporter. Complete and attach one copy of Addendum A for each offset obtained by agreement with a non-reporter included in this report. Also attach Schedules I, II (if applicable), and III completed by, or on behalf of, the non-reporter.

1. Enter Information in the Table Below for Offsets Obtained From Non-reporters

1	2	3	4	5	6	7
Name of Non-reporter	Name of Non-reporter's Subentity (If Applicable)	Domestic or Foreign	Gas	Unit of Measure	Quantity	Non-Reporter Has Met Requirements for Registration?*(Y/N)

*If you are registering reductions, the non-reporters providing offsets must meet all the requirements for registering reductions.

SECTION 4. ENTITY-LEVEL EMISSION REDUCTIONS

If this is a Reporting Year report and you are estimating reductions for the entire entity or for just one portion of your entity, complete and attach one copy of the appropriate addendum (Addendum B1-B16) for the method used to estimate the reduction. If you are estimating reductions for two or more subentities, proceed to Schedule II.

SCHEDULE II. SUBENTITY INFORMATION

SECTION 1. SUBENTITY STATEMENT

1. Enter the Subentity Identification:

Subentity Name: _____

Description: _____

Relationship to Entity (describe): _____

2. Enter the Reason for Delineation of Subentity (*please check all that apply and explain below*):

Distinct Estimation Method; indicate method employed (check only one)

Changes in Emissions Intensity

Changes in Absolute Emissions

Changes in Carbon Storage

Changes in Avoided Emissions

Action-Specific Emission Reductions

Emission Reductions from Energy Generation and Distribution

Distinct Output Metric (for intensity calculation), indicate Metric used: _____

Foreign Country Operations, specify country(ies): _____

Distinct Base Period from Other Subentities (for new or acquired operations)

Emission Reduction Calculation Method Changed

Small Emitter Registering Emission Reductions Associated with More Than One Specific Activity

Reporting But Not Registering Emission Reductions Associated with More Than One Specific Activity

Not Practicable to Assess Change in Net Emissions for the Following Reasons:

3. Enter Any Significant Changes to Previous Subentity Statement (*if applicable*):

The subentity has not undergone significant change since the last Voluntary Reporting of Greenhouse Gases report.

The subentity was not included in the previous report

The subentity's primary activity is new

The subentity's primary activity existed prior to this report

The subentity was not included in any other entity's previous reports

The subentity was included in another entity's previous reports, please explain:

The subentity was included in the previous report, but has undergone significant changes, as follows:

Data are being resubmitted for previous baseline years

New baseline year(s) have been selected.

Briefly describe the significant changes since the most recent Voluntary Reporting of Greenhouse Gases Program report filed:

4. Describe the Subentity's Primary Economic Activities (NAICS Code):

Enter the primary (*and secondary, if applicable*) 3-digit North American Industrial Classification System (NAICS) code for the subentity (*A list of NAICS codes is provided in Appendix A*):

Primary NAICS: ___ ___ ___

Secondary NAICS: ___ ___ ___

5. Describe the Organizational Boundaries of Subentity:

6. Describe the Scope of the Emissions Inventory

Check the types of emission sources or sinks that are covered in the emissions inventory:

- | | |
|---|--|
| <input type="checkbox"/> Stationary Source Combustion | <input type="checkbox"/> Fugitive Emissions from Geologic Reservoirs |
| <input type="checkbox"/> Mobile Source Combustion | <input type="checkbox"/> Indirect Emissions from Purchased Energy |
| <input type="checkbox"/> Industrial Processes | <input type="checkbox"/> Other Indirect Emissions |
| <input type="checkbox"/> Agricultural Sources | <input type="checkbox"/> Terrestrial Carbon Fluxes and Stocks |

7. Describe the Geographic Scope of Activities (*check the applicable box*)

- This report covers U.S. activities only
- Nationwide (if operating in all 10 U.S. Census Regions)
 - Multiple States (*if not nationwide, select state codes from Appendix B:*
_____)
 - Single State (*select state code from Appendix B:* _____)
- This subentity covers only non-U.S. activities
(*Required, if applicable*) List the foreign country in which reported activities occurred, using the 3-digit codes found in Appendix C: _____

8. Indicate the Inclusion of Emission Reductions

Are emission reductions included in this year's subentity report?

- Yes
- No, please explain: _____
-

9. Define the Subentity Base Period

Indicate number of years in the Base Period: 1 2 3 4

Enter last year in Base Period: _____

10. Enter Any Supplementary Information for the Subentity

Use this space (and attach additional sheets if necessary) to supply any supporting information you feel helps explain your entity or report that isn't accommodated directly in this reporting form.

SECTION 2. SUBENTITY EMISSIONS INVENTORY

Complete and attach Addendum A, Inventory of Foreign or Subentity Emissions.

SECTION 3. SUMMARY OF EMISSION REDUCTIONS FROM SUBENTITIES

Complete and attach the appropriate form from Addendum B1-B16 for each subentity.

SCHEDULE III. EMISSION REDUCTIONS

SECTION 1. REGISTERED EMISSION REDUCTIONS

Part A. Enter Domestic Net Entity-Level Registered Reductions and Carbon Storage (metric tons CO_{2e})

Item	1	2	3	4
	Method/Source	Emission Reductions		
		Gross Registered Reductions	Registered Reductions Distributed to Other Reporters	Net Registered Reductions (Subtract column 3 from column 2)
A	Changes in Emissions Intensity			
A1	Direct			
A2	Indirect from Purchased Energy			
B	Changes in Absolute Emissions			
B1	Direct			
B2	Indirect from Purchased Energy			
C	Changes in Carbon Storage			
D	Changes in Avoided Emissions			
E	Energy Generation and Distribution			
F	Coal Mine Methane Gas Recovery			
G	Landfill Methane Recovery			
H	Geologic Sequestration			
I	Transmission and Distribution Improvements			
J	Capture of Methane from Anaerobic Digestion at Wastewater Treatment Facilities			
K	Supply of Methane from Anaerobic Digestion of Animal Waste to a Natural Gas Distribution Network			
L	Recycling of Fly Ash			
M	Demand-Side Management or Other Emission Reduction Programs			
N	Combined Heat and Power			
O	Other Action-specific Methods			
O1	Direct			
O2	Indirect from Purchased Energy			
P	Subtotal (Sum rows A1 through O)			
Q	Offsets			
Q1	Offsets Obtained from Other Reporters			
Q2	Offsets Obtained from Non-reporters			
R	Subtotal (Sum rows P through Q2)			
S	Reduction Deficits Carried Over from Last Year's Report (From Schedule III, Section 1, Part A, Item T in Last Year's Report. If negative, enter value. If zero or positive, enter zero.)			
T	TOTAL (Add row R to row S)			

Part B. Enter Foreign Net Entity-level Registered Reductions and Carbon Storage (metric tons CO₂e)

Item	1 Method/Source	2	3	4
		Emission Reductions		
		Gross Registered Reductions	Registered Reductions Distributed to Other Reporters	Net Registered Reductions (Subtract column 3 from column 2)
A	Changes in Emissions Intensity			
A1	Direct			
A2	Indirect from Purchased Energy			
B	Changes in Absolute Emissions			
B1	Direct			
B2	Indirect from Purchased Energy			
C	Changes in Carbon Storage			
D	Changes in Avoided Emissions			
E	Energy Generation and Distribution			
F	Coal Mine Methane Gas Recovery			
G	Landfill Methane Recovery			
H	Geologic Sequestration			
I	Transmission and Distribution Improvements			
J	Capture of Methane from Anaerobic Digestion at Wastewater Treatment Facilities			
K	Supply of Methane from Anaerobic Digestion of Animal Waste to a Natural Gas Distribution Network			
L	Recycling of Fly Ash			
M	Demand-Side Management or Other Emission Reduction Programs			
N	Combined Heat and Power			
O	Other Action-specific Methods			
O1	Direct			
O2	Indirect from Purchased Energy			
P	Subtotal (Sum rows A1 through O)			
Q	Offsets			
Q1	Offsets Obtained from Other Reporters			
Q2	Offsets Obtained from Non-reporters			
R	Subtotal (Sum rows P through Q2)			
S	Reduction Deficits Carried Over from Last Year's Report (From Schedule III, Section 1, Part B, Item T in Last Year's Report. If negative, enter value. If zero or positive, enter zero.)			
T	TOTAL (Add row R to row S)			

SECTION 2. REPORTED BUT NOT REGISTERED EMISSION REDUCTIONS

Part A. Enter Domestic Net Entity-level Reported but not Registered Reductions and Carbon Storage

Item	1	2	3	4
	Method/Source	Emission Reductions		
		Gross Reported Reductions	Reported Reductions Distributed to Other Reporters	Net Reported Reductions (Subtract column 3 from column 2)
Carbon Dioxide, Methane, Nitrous Oxide, Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride (metric tons CO₂e)				
A	Changes in Emissions Intensity			
A1	Direct			
A2	Indirect from Purchased Energy			
A3	Other Indirect			
B	Changes in Absolute Emissions			
B1	Direct			
B2	Indirect from Purchased Energy			
B3	Other Indirect			
C	Changes in Carbon Storage			
D	Changes in Avoided Emissions			
E	Energy Generation and Distribution			
F	Coal Mine Methane Gas Recovery			
G	Landfill Methane Recovery			
H	Geologic Sequestration			
I	Transmission and Distribution Improvements			
J	Capture of Methane from Anaerobic Digestion at Wastewater Treatment Facilities			
K	Supply of Methane from Anaerobic Digestion of Animal Waste to a Natural Gas Distribution Network			
L	Recycling of Fly Ash			
M	Demand-Side Management or Other Emission Reduction Programs			
N	Combined Heat and Power			
O	Other Action-specific Methods			
O1	Direct			
O2	Indirect from Purchased Energy			
O3	Other Indirect			
P	Subtotal (Sum rows A1 through O)			

Item	1	2	3	4
	Method/Source	Emission Reductions		
		Gross Reported Reductions	Reported Reductions Distributed to Other Reporters	Net Reported Reductions (Subtract column 3 from column 2)
Carbon Dioxide, Methane, Nitrous Oxide, Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride (metric tons CO ₂ e)				
Q	Offsets			
Q1	Offsets Obtained from Other Reporters			
Q2	Offsets Obtained from Non-reporters			
R	Subtotal (Sum rows P through Q2)			
S	Reduction Deficits Carried Over from Last Year's Report (From Schedule III, Section 2, Part A, Item T in Last Year's Report. If negative, enter value. If zero or positive, enter zero.)			
T	TOTAL (Add row R to row S)			
U	Emission Reductions Also Registered as Emission Intensity Reductions			
Chlorofluorocarbons (CFCs) (Kilograms of native gas) <i>Attach additional copies of Part A if reporting reductions in domestic emissions of more than one CFC.</i>				
V	Destruction of CFCs. Specify CFC: _____			
W	Reduction Deficit for this CFC Carried Over from Last Year's Report (From Schedule III, Section 2, Part A, Item X in Last Year's Report. If negative, enter value. If zero or positive, enter zero.)			
X	TOTAL (Add row V to row W)			

Part B. Enter Foreign Net Entity-level Reported but not Registered Reductions and Carbon Storage

Item	Method/Source	1	2	3	4
		Emission Reductions			
		Gross Reported Reductions	Reported Reductions Distributed to Other Reporters	Net Reported Reductions (Subtract column 3 from column 2)	
Carbon Dioxide, Methane, Nitrous Oxide, Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride (metric tons CO₂e)					
A	Changes in Emissions Intensity				
A1	Direct				
A2	Indirect from Purchased Energy				
A3	Other Indirect				
B	Changes in Absolute Emissions				
B1	Direct				
B2	Indirect from Purchased Energy				
B3	Other Indirect				
C	Changes in Carbon Storage				
D	Changes in Avoided Emissions				
E	Energy Generation and Distribution				
F	Coal Mine Methane Gas Recovery				
G	Landfill Methane Recovery				
H	Geologic Sequestration				
I	Transmission and Distribution Improvements				
J	Capture of Methane from Anaerobic Digestion at Wastewater Treatment Facilities				
K	Supplu of Methane from Anaerobic Digestion of Animal Waste to a Natural Gas Distribution Network				
L	Recycling of Fly Ash				
M	Demand-Side Management or Other Emission Reduction Programs				
N	Combined Heat and Power				
O	Other Action-specific Methods				
O1	Direct				
O2	Indirect from Purchased Energy				
O3	Other Indirect				
P	Subtotal (Sum rows A1 through O)				
Q	Offsets				

Item	1	2	3	4
	Method/Source	Emission Reductions		
		Gross Reported Reductions	Reported Reductions Distributed to Other Reporters	Net Reported Reductions (Subtract column 3 from column 2)
Carbon Dioxide, Methane, Nitrous Oxide, Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride (metric tons CO ₂ e)				
Q1	Offsets Obtained from Other Reporters			
Q2	Offsets Obtained from Non-reporters			
R	Subtotal (Sum rows P through Q2)			
S	Reduction Deficits Carried Over from Last Year's Report (From Schedule III, Section 2, Part B, Item T in Last Year's Report. If negative, enter value. If zero or positive, enter zero.)			
T	TOTAL (Add row R to row S)			
U	Emission Reductions Also Registered as Emission Intensity Reductions			
Chlorofluorocarbons (CFCs) (Kilograms of native gas) <i>Attach additional copies of Part B if reporting reductions in foreign emissions of more than one CFC.</i>				
V	Destruction of CFCs. Specify CFC: _____			
W	Reduction Deficit for this CFC Carried Over from Last Year's Report (From Schedule III, Section 2, Part B, Item X in Last Year's Report. If negative, enter value. If zero or positive, enter zero.)			
X	TOTAL (Add row V to row W)			

SCHEDULE IV. VERIFICATION AND CERTIFICATION

SECTION 1. INDEPENDENT VERIFICATION *(To be completed by Independent Verifier)*

If your report has been independently verified by a qualified verifier in accord with Section 300.11 of 10 CFR Part 300, Guidelines for Voluntary Greenhouse Gas Reporting, that verifier must complete Schedule IV, Section 1. Otherwise, please skip to Section 2 of Schedule IV, Reporter Self Certification.

1. Enter the Name of Entity Report Independently Verified

Name of Entity: _____

2. Describe the Identity of the Independent Verifier

Name of Verifying Company or Individual: _____

Street: _____ P.O. Box: _____

City: _____ State: _____ Zip: _____

Contact Name: _____

Contact Title: _____

Telephone: (____) ____ - _____ Fax: (____) ____ - _____

E-Mail Address: _____

3. Define the Independent Verifier's Qualifications

- a. Corporate Accreditation(s) *(check all that apply)*:

- California Climate Action Registry
- American National Standards Institute and Registrar Accreditation Board (ANSI_RAB)
- CDM Executive Board
- United Kingdom Accreditation Scheme
- International Standards Organization (ISO)
- Other, *please specify*: _____

- b. Independent Verifier Personnel Accreditation(s):

Name	Title	Relevant Degree	Accreditation	Meets Requirements of §300.11(b) of 10 CFR Part 300
	Lead Verifier			<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No

- c. Independent Verification Approach *(check all that apply)*

The independent verification of data on this form included the following activities:

- Strategic Review and Assessment
 - Assurance that all sources have been included
 - Review of greenhouse gas data management systems
 - Review of greenhouse gas inventory training procedures
 - Review of data collection quality assurance/quality control procedures
 - Confirmation of required records maintenance
- Desk Audit
 - Review for accuracy, completeness, and consistency with DOE guidelines of entity statements
 - Assessment of any significant changes in entity boundaries
 - Review for arithmetic accuracy, internal consistency and plausibility
 - Independent review of activity data for a sample of sources
 - Independent review of activity data for all sources

- Field Audit
 - Independent measurements at a sample of sources
 - Independent measurement for all sources

4. Include the Certification of Independent Verification

We are an independent *verifier* of _____ *[entity]* _____'s emissions report. We do not hold any financial interest in the outcome of this audit. We are not owned in whole or in part by _____ *[entity]* _____ nor do we provide any ongoing operational, support, or consulting services to _____ *[entity]* _____ except services consistent with independent financial accounting or independent certification of compliance with government or private standards.

This is to certify that _____ *[entity]* _____ has had its greenhouse gas emissions report covering the period _____ to _____ verified according to the Voluntary Reporting of Greenhouse Gases Guidelines found in 10 CFR Part 300.11(d). We have found that the report meets the requirements of 10 CFR 300.11(e), including the following:

- The information reported on this form is accurate and complete;
- The information reported on this form has been compiled in accordance with the Voluntary Reporting of Greenhouse Gases Guidelines found in 10 CFR Part 300;
- The information reported on this form is consistent with information submitted in prior years, if any, or any inconsistencies with prior year's information are documented and explained in Schedule I, Entity Statement;
- The reporting entity has taken due diligence to ensure that emissions, emission reductions, or sequestration reported in this EIA-1605(b) report are not double counted in this report, or reported by any other entity;
- For any emissions, emission reductions, or sequestration included in this report that were achieved by a third-party entity, there exists a written agreement with each third party indicating that it has agreed that the reporting entity should be recognized as the entity entitled to report these emissions, emission reductions, or sequestration;
- None of the emissions, emission reductions, or sequestration reported was produced by shifting emissions to other entities or to non-reporting parts of the entity;
- None of any reported changes in avoided emissions associated with the sale of electricity, steam, hot or chilled water generated from non-emitting or low-emitting sources are attributable to the acquisition of a generating facility that has been previously operated, unless the base year generation values are derived from records of the facility's operation prior to its acquisition; and
- The reporting entity will maintain sufficient records to document the analysis and calculations underpinning this verification for a period of no less than three years.

Lead Certifier of Verifying Firm <i>(Print Name)</i>	Lead Certifier of Verifying Firm <i>(Signature)</i>	Date
Corporate Officer of Verifying Firm <i>(Print Name)</i>	Corporate Officer of Verifying Firm <i>(Signature)</i>	Date

NOTE: 18 U.S.C. §1001 makes it a criminal offense for any person knowingly and willfully to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.

SECTION 2. REPORTER SELF-CERTIFICATION

1. Certification

I certify to the best of my knowledge and belief that:

- This form meets the following three requirements for reporting reductions.
 - The information reported on this form is accurate and complete;
 - The information reported on this form has been compiled in accordance with the Voluntary Reporting of Greenhouse Gases Guidelines found in 10 CFR Part 300; and
 - The information reported on this form is consistent with information submitted in prior years, if any, or any inconsistencies with prior year's information are documented and explained in Schedule I, Entity Statement.

- This form meets the above three requirements for reporting reductions and the five additional requirements for registering reductions listed below.
 - Reasonable steps have been taken to ensure that direct emissions, emission reductions, and/or sequestration reported are neither double counted nor reported by any other entity;
 - Any emission reductions reported or registered by the entity that were achieved by another entity (other than a very small emitter that participated in a demand-side management program) are included in this report only if: the other entity does not intend to report or register these reductions directly; there exists a written agreement with each other entity providing that the reporting entity is the entity entitled to report or register these emission reductions; and the information reported on the other entity would meet the requirements of this part if the entity were reporting directly to DOE/EIA.
 - None of the emissions, emission reductions, or sequestration were produced by shifting emissions to other entities or to non-reporting parts of the entity;
 - None of any reported changes in avoided emissions associated with the sale of electricity, steam, hot or chilled water generated from non-emitting or low-emitting sources are attributable to the acquisition of a generating facility that has been previously operated, unless the entity's base period includes generation values from the acquiring facility's operation prior to its acquisition; and
 - The entity maintains records documenting the analysis and calculations underpinning the data reported on this form and records documenting the analysis and calculations underpinning the base values used in calculating annual reductions are maintained in accordance with 10 CFR 300.9(d).

Certifying Official's Name: _____

Title: _____

Mailing Address:

Street or P.O. Box _____

City: _____ State: _____ Zip Code: _____

Telephone: (____) ____ - _____

E-Mail: _____

Signature: _____

Date: _____

NOTE: 18 U.S.C. §1001 makes it a criminal offense for any person knowingly and willfully to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.

Addendum A. Inventory of Foreign or Subentity Emissions

This emissions inventory is for:

- Entity-wide foreign operations
- A domestic or foreign subentity. Enter Name of Subentity: _____

Complete part A if an independent third party has verified this report and you wish to report aggregated emissions by gas rather than source category. Otherwise, complete part B.

Part A. Aggregated Emissions by Gas (for independently verified reports only)

1. Enter Aggregated Emissions by Gas (for independently verified reports only)

1	2	3	4	5				7	8	9	10	11
				Base Period Emissions or Carbon Flux								
Item	Source	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions or Carbon Flux	Weighted Rating*		
A	Direct Emissions											
A1	Carbon Dioxide	CO ₂										
A2	Methane	CH ₄										
A3	Nitrous Oxide	N ₂ O										
A4	Sulfur Hexafluoride	SF ₆										
A5	HFC (Specify)											
A6	PFC (Specify)											
A7	CFC (Specify)											
B	Indirect Emissions from Purchased Energy (Inventory)											
B1	Carbon Dioxide	CO ₂										
B2	Methane	CH ₄										
B3	Nitrous Oxide	N ₂ O										
C	Indirect Emissions from Purchased Energy (Reductions)											
C1	Carbon Dioxide	CO ₂										
C2	Methane	CH ₄										
C3	Nitrous Oxide	N ₂ O										
D	Carbon Flux	CO ₂										
E	Other Indirect Emissions											

1 Item	2 Source	3 Gas	4 Units	5 Base Period Emissions or Carbon Flux				8 Yr 4	9 Base Period Average	10 Reporting Year Emissions or Carbon Flux	11 Weighted Rating*
				6 Yr 1	7 Yr 2	7 Yr 3	8 Yr 4				
F1	Carbon Dioxide	CO ₂									
F2	Methane	CH ₄									
F3	Nitrous Oxide	N ₂ O									
F4	Sulfur Hexafluoride	SF ₆									
F5	HFC (Specify)										
F6	PFC (Specify)										
F7	CFC (Specify)										
G	Captured CO ₂ Sequestered in an onsite Geologic Reservoir	CO ₂									
H	Captured CO ₂ Transferred to Another Entity for Sequestration in a Geologic Reservoir	CO ₂									

*Complete column 11, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 11 if this copy of Addendum A is being done for a subentity, domestic or foreign.

Part B. Inventory of Domestic Emissions and Carbon Flux (optional for independently verified reports)

1. Enter Direct Emissions

a. Stationary Combustion *(incorporate all emissions, including CO₂ captured from stationary combustion for geologic sequestration)*

1 Source	2 Gas	3 Units	4 Base Period Emissions				8 Reporting Year Emissions	10 Estimation Method	11 Rating*
			5 Yr 1	6 Yr 2	7 Yr 3	8 Yr 4			
Fossil Fuel Combustion	CO ₂								
	CH ₄								
	N ₂ O								
Non-Standard Fuel Combustion	CO ₂								
	CH ₄								
	N ₂ O								
Waste Fuels Combustion	CO ₂								
	CH ₄								
	N ₂ O								
Biomass Combustion	CH ₄								
	N ₂ O								
	CO ₂								
Nonfuel Use of Fossil Fuels	CO ₂ e								
Subtotal									

* Complete column 11, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 11 if this copy of Addendum A is being done for a subentity, domestic or foreign.

b. Mobile Sources (incorporate all emissions, including CO₂ captured from mobile sources for geologic sequestration)

1 Source	2 Gas	3 Units	4 Base Period Emissions				8 Base Period Average	9 Reporting Year Emissions	10 Estimation Method	11 Rating*
			5 Yr 1	6 Yr 2	7 Yr 3	7 Yr 4				
Highway Vehicles	CO ₂									
	CH ₄									
	N ₂ O									
Off-Road Vehicles	CO ₂									
	CH ₄									
	N ₂ O									
Marine Vessels	CO ₂									
	CH ₄									
	N ₂ O									
Aircraft	CO ₂									
	CH ₄									
	N ₂ O									
Mobile Refrigeration and Air Conditioning	HFC-134a									
Subtotal	CO ₂ e									

* Complete column 11, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 11 if this copy of Addendum A is being done for a subentity, domestic or foreign

c. Sector-Specific Industrial Process Emissions (incorporate all emissions, including CO₂ captured from industrial processes emissions for geologic sequestration)

1 Process/Fugitive Emissions	2 Gas	3 Units	4 Base Period Emissions				8 Base Period Average	9 Reporting Year Emissions	10 Estimation Method	11 Rating*
			5 Yr 1	6 Yr 2	7 Yr 3	7 Yr 4				
Industrial Processes										
Adipic Acid production	N ₂ O									
Aluminum Production (CO ₂ only)	CO ₂									
Ammonia Production	CO ₂									
Cement Production	CO ₂									
Hydrogen Production	CO ₂									
Iron and Steel Production	CO ₂									
	CH ₄									
Lime Production	CO ₂									
Limestone and Dolomite Use	CO ₂									
Methanol Production	CO ₂									
Methane Emissions from the Production of Other Petrochemicals	CH ₄									
Nitric Acid Production	N ₂ O									
Soda Ash Production and Use	CO ₂									

* Complete column 11, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 11 if this copy of Addendum A is being done for a subentity, domestic or foreign.

c. Sector-Specific Industrial Process Emissions (continued)

1 Process/Fugitive Emissions	2 Gas	3 Units	4 Base Period Emissions				8 Base Period Average	9 Reporting Year Emissions	10 Estimation Method	11 Rating*
			5 Yr 1	6 Yr 2	7 Yr 3	7 Yr 4				
Energy										
Coal Mines	CH ₄									
Oil and Natural Gas Industries	CH ₄									
	CO ₂									
	N ₂ O									
Waste Handling										
Domestic and Industrial Wastewater Handling	CH ₄									
Landfills	N ₂ O									
	CH ₄									
High GWP Gases										
Aluminum Production (specify gas)	PFCs									
	SF ₆									
HCFC-22 Production	HFC-23									
SF ₆ Emissions from Electrical Equipment	SF ₆									
Industrial Use and Production of HFCs, PFCs, and SF ₆ (for HFCs and PFCs, specify gas)	HFCs									
	PFCs									
Magnesium Production	SF ₆									
	SF ₆									
Semiconductor Manufacture (for HFCs and PFCs, specify gas)	PFCs									
	HFCs									
	SF ₆									
Other Industrial Process Sources										
Other (for HFCs and PFCs, specify gas)	CO ₂									
	CH ₄									
	N ₂ O									
	SF ₆									
	PFCs									
	HFCs									
	CO _{2e}									
Subtotal										

* Complete column 11, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 11 if this copy of Addendum A is being done for a subentity, domestic or foreign.

d. Agricultural Sources (incorporate all emissions, including CO₂ captured from agricultural sources for geologic sequestration)

1 Source	2 Gas	3 Units	4 Base Period Emissions				8 Base Period Average	9 Reporting Year Emissions	10 Estimation Method	11 Rating*
			5 Yr 1	6 Yr 2	7 Yr 3	7 Yr 4				
Enteric Fermentation	CH ₄									
Livestock Waste	CH ₄									
	N ₂ O									
Residue Burning	N ₂ O									
	CH ₄									
Rice Cultivation – 1 st Harvest	CH ₄									
Rice Cultivation – 2 nd ("ratoon") harvest	CH ₄									
Agricultural Soils – Nitrogen Application	N ₂ O									
Agricultural Soils – Organic Soils	N ₂ O									
Lime Application	CO ₂									
Cultivation of Organic Soils	CO ₂									
Other agricultural sources (specify source and gas):										
Subtotal	CO_{2e}									

* Complete column 11, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 11 if this copy of Addendum A is being done for a subentity, domestic or foreign.

e. Fugitive Emissions Associated With Geologic Reservoirs

1	2	3	4	5	6				9	10	11
					Base Period Emissions						
Source	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year	Estimation Method	Rating*	
			Fugitive Emissions From the Extraction of Naturally Occurring CO ₂	CO ₂ e							
Fugitive Emissions From the Extraction of CO ₂ From Anthropogenic Sources	CO ₂ e										
Fugitive Emissions During Transport and Processing	CO ₂ e										
Fugitive Emissions During Injection and Extraction for Enhanced Resource Recovery	CO ₂ e										
Post-Injection Seepage From Permanent Geologic Storage Reservoir	CO ₂ e										

* Complete column 11, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 11 if this copy of Addendum A is being done for a subentity, domestic or foreign.

f. Captured CO₂ Emissions from Anthropogenic Sources (captured CO₂ emissions should also be included as emissions in Questions 1a through 1d above).

1	2	3	4		5		6		7		8		9
			Base Period Average Quantity		Base Period Average Quantity		Reporting Year Quantity						
Source	Gas	Unit of Measure	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Onsite	Offsite	Total	Total	
			1. Stationary Combustion	CO ₂ e	metric tons								
2. Sector-Specific Industrial Process Emissions	CO ₂ e	metric tons											
3. Other (Mobile and Agricultural Sources)	CO ₂ e	metric tons											
Subtotals	CO ₂ e	metric tons											

2. Enter Indirect Emissions From Purchased Energy*

1	2	3	4 Base Period Consumption				7	8	9
			Yr 1	Yr 2	Yr 3	Yr 4			
Source	Units						Reporting Year Consumption	System Type/Fuel Used for Generation	
Electricity									
Steam									
Hot Water									
Chilled Water									

1	2	3	4 Base Period Emissions				8	9	10	11
			Yr 1	Yr 2	Yr 3	Yr 4				
Source	Gas	Units					Reporting Year Emissions	Estimation Method	Rating*	
Electricity (for emissions inventory)	CO ₂									
	CH ₄									
	N ₂ O									
	CO ₂									
Steam	CH ₄									
	N ₂ O									
	CO ₂									
Hot Water	CH ₄									
	N ₂ O									
	CO ₂									
Chilled Water	CH ₄									
	N ₂ O									
	CO ₂									
Total	CO ₂ e									

* Complete column 11, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 11 if this copy of Addendum A is being done for a subentity, domestic or foreign.

c. Emissions from Purchased Energy for Calculating Emissions Reductions in Addendum B (Not included in emissions inventory. Complete only if calculating reductions for this subentity using Addendum B1 or B2.)

1 Source	2 Gas	3 Units	4 Base Period Emissions				8 Base Period Average	9 Reporting Year Emissions	10 Estimation Method	11 Rating*
			5 Yr 1	6 Yr 2	7 Yr 3	7 Yr 4				
Electricity (for emissions reductions)	CO ₂									
	CH ₄									
	N ₂ O									
Steam, Hot Water, and Chilled Water**	CO ₂									
	CH ₄									
	N ₂ O									
Total	CO ₂ e									

* Complete column 11, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 11 if this copy of Addendum A is being done for a subentity, domestic or foreign.
 ** Sum emissions reported for these sources in Question 2b above.

3. Other Indirect Emissions*

1 Source	2 Gas	3 Units	4 Base Period Emissions				8 Base Period Average	9 Reporting Year Emissions	10 Estimation Method	11 Rating**
			5 Yr 1	6 Yr 2	7 Yr 3	7 Yr 4				
Employee Commuting										
Manufacture & Sale of Energy Efficient Products										
Consumption of Energy-intensive Products										
Other:										
Subtotal	CO ₂ e									

* Do not include in emission inventory.
 ** Complete column 11, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 11 if this copy of Addendum A is being done for a subentity, domestic or foreign.

4. Enter Terrestrial Carbon Fluxes and Stocks

1 a. Forestry Activities	2	3	4	5 Carbon Stocks		6	7	8	9
				Base Period Average	Estimated Carbon Stocks in Year Prior to Reporting Year				
Categories	Gas	Units							
Afforestation, Mine Land Reclamation, and Forest Restoration	CO ₂								
Agroforestry	CO ₂								
Forest Management ⁴	CO ₂								
Short-rotation Biomass Energy Plantations	CO ₂								
Urban Forestry	CO ₂								
Timber Harvesting ⁵	CO ₂								
Other ⁶	CO ₂								
Total	CO₂								

¹Carbon flux can be positive or negative; positive values indicate a net increase in terrestrial carbon stocks; negative values indicate a net loss of carbon to the atmosphere, i.e., emissions. Carbon flux may be calculated directly using flux based approaches or as the change in carbon stocks between the reporting year and the previous year.

²Reporters using methods that estimate carbon flux only should enter a carbon flux value in the column "Reporting Year Stock Change or Carbon Flux" and leave columns blank for Carbon Stock data.

³Methods include lookup tables, models, measurement, or a combination of these methods. If using a model, please indicate the name.

⁴Forest management includes management decisions taken at any stage of forest rotation. Forest preservation is a special case and is reported separately in Question 4c below.

⁵Activities such as thinning should be included under Forest Management.

⁶"Other" includes activities not covered in the previous categories practiced by landowners that may result in changes in carbon fluxes or stocks.

* Complete column 9, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 9 if this copy of Addendum A is being done for a subentity, domestic or foreign.

b. Wood Products:

i. Method 1: Track and report emissions in year they occur.

1	2	3	4	5	6	7	8
Category	Gas	Units	Estimated Carbon Stocks in Harvested Wood Products in Year Prior to Reporting Year	Estimated Carbon Stocks in Harvested Wood Products in Reporting Year	Reporting Year Stock Change	Estimation Method	Rating*
Wood Products	CO ₂						

* Complete column 8, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 8 if this copy of Addendum A is being done for a subentity, domestic or foreign.

ii. Method 2: Estimate and report residual carbon after 100 years in reporting year.

1	2	3	4	5	6	7
Category	Gas	Units	Stock of Carbon in Harvested Wood	100 year Residual Carbon Stock	Estimation Method	Rating*
Wood products	CO ₂					

* Complete column 7, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 7 if this copy of Addendum A is being done for a subentity, domestic or foreign.

c. Land Restoration and Forest Preservation

Entity certifies that it has restored native habitat on land and placed administrative restrictions on the land to ensure that human-caused releases of carbon from the lands do not occur in the future.

1	2	3	4	5	6	7	8
Name/Description of Tract of Land	Type of Restriction (e.g., Easement, Deed Restrictions, etc.)	Year Protected	Area (Acres)	Units	50% of Carbon Stock Accumulated in 50 Years from Inception of Preservation Activity	Estimation Method	Rating*
1.							
2.							
3.							
4.							
Total							

* Complete column 8, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 8 if this copy of Addendum A is being done for a subentity, domestic or foreign.

- d. Forest Land That Experiences Carbon Losses From Natural Disturbances
 This table documents carbon stock changes on each tract of disturbed lands and should be used until carbon stocks reach pre-disturbance levels.

1	2	3	4	5	Carbon Stocks			9	10	11
					6	7	8			
Name/Description of Tract of Land	Area (Acres)	Type of Disturbance	Year	Units	Base Period Average	Carbon Stocks in Year Before Disturbance	Reporting Year Carbon Stocks	Loss	Estimation Method	Rating*
1.										
2.										
3.										
4.										
Total										

* Complete column 11, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 11 if this copy of Addendum A is being done for a subentity, domestic or foreign.

- e. Sustainably Managed Forests

1	2	3	4
Name/Description of Tract of Land	Area (Acres)	Has Sustainability Been Verified by Third Party Certifier (Y/N)	Identify System Used to Determine Sustainability
1.			
2.			
3.			
4.			
Total			

- f. Incidental Lands Excluded From Terrestrial Carbon Fluxes and Stocks in Question 4a

1	2	3
Name/Description of Tract of Land	Type of Land	Area (Acres)
1.		
2.		
3.		
4.		
Total		

g. Other Terrestrial Carbon Fluxes

1	2	3	4	5		7	8	9
				Carbon Stocks				
Categories	Gas	Units	Base Period Average	Estimated Carbon Stocks in Year	Estimated Carbon Stock in Reporting Year	Reporting Year Stock Change or Carbon Flux ^{1,2}	Estimation Method ³	Rating*
Crops on Mineral Soils	CO ₂							
Pasture/Grazing	CO ₂							
Land Use Change	CO ₂							
Other:	CO ₂							
Total	CO ₂							

Carbon flux can be positive or negative; positive values indicate a net increase in terrestrial carbon stocks; negative values indicate a net loss of carbon to the atmosphere, i.e., emissions. Carbon flux may be calculated directly using flux based approaches or as the change in carbon stocks between the reporting year and the previous year.

² Reporters using methods that estimate carbon flux only should enter a carbon flux value in the column "Reporting Year Stock Change or Carbon Flux" and leave columns blank for Carbon Stock data.

³ Methods include lookup tables, models, measurement, or a combination of these methods. If using a model, please indicate the name.

* Complete column 9, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 9 if this copy of Addendum A is being done for a subentity, domestic or foreign.

h. Terrestrial Carbon Flux Summary

1	2	3	4	5
Categories	Gas	Units	Reporting Year Stock Change or Carbon Flux	Rating*
Forestry Activities	CO ₂			
Wood Products Method 1	CO ₂			
Wood Products Method 2	CO ₂			
Land Restoration and Forest Preservation	CO ₂			
Sustainably Managed Forests	CO ₂			
Incidental Lands	CO ₂			
Other Terrestrial Carbon Fluxes	CO ₂			
Total Reporting Year Terrestrial Carbon Flux				

* Complete column 5, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 5 if this copy of Addendum A is being done for a subentity, domestic or foreign.

Part C. Total Foreign or Subentity Emissions and Carbon Flux

1. Enter Total Emissions and Carbon Flux

Item	Source	Gas/ Units	Base Period Emissions				Reporting Year Emissions or Carbon Flux
			Yr 1	Yr 2	Yr 3	Yr 4	
A	Direct Emissions	mtCO ₂ e					
B	Indirect Emissions from Purchased Energy for Emissions Inventory	mtCO ₂ e					
C	Indirect Emissions from Purchased Energy for Calculation of Emission Reductions	mtCO ₂ e					
D	Total Emissions (A + B)*	mtCO ₂ e					
E	Carbon Flux	mtCO ₂ e					
F	Captured CO ₂ Sequestered in an Onsite Geologic Reservoir**	mtCO ₂ e					
G	Total Inventory Emissions (D – E – F)	mtCO ₂ e					
H	Other Indirect Emissions	mtCO ₂ e					
I	Captured CO ₂ Transferred to Another Entity for Sequestration in a Geologic Reservoir**	mtCO ₂ e					

mtCO₂e = metric tons carbon dioxide equivalent

*Do not include Indirect Emissions from Purchased Energy for Calculation of Emission Reductions (Item C) in Total Emissions.

**Do not include CO₂ extracted and captured from natural sources or CO₂ recycled during enhanced resource recovery operations.

Addendum B1. Changes in Emissions Intensity

If Reporting Subentities, Enter Name of Subentity: _____

Part A. Output

1. Enter Physical, Economic, or Indexed Output Measures for the Base Period and Reporting Year

Item	1	2	3	4	5	6	7	8
	Output Measure	Unit of Measure	Base Period					Reporting Year
			Yr 1	Yr 2	Yr 3	Yr 4	Avg.	
Physical Measure								
A								
Economic Measure								
B		Current \$						
C		Constant Year (\$2000)						
Indexed Measure								
D		[Physical or Economic]						

2. If Providing an Output Measure Not Described in the Technical Guidelines (see Table 2.2), Indicate Reason Why Alternative Measure Was Selected (check all that apply):

- Industry/trade group standard Reported to state/federal government agencies
 Used in annual reports Other

3. Define and Describe the Output Measure Used and Provide a Rationale for Why the Measure Was Selected:

Part B. Emissions, Emissions Intensity, and Emission Reductions

1. Enter Base Period and Reporting Year Emissions (metric tons CO₂e)

	1	2	3	4
Item	Description	Direct Emissions*	Indirect Emissions from Purchased Energy*	Other Indirect Emissions
E	Base Period Emissions			
F	Reporting Year Emissions			

*Include CO₂ captured and sequestered in geologic reservoirs.

**Calculate indirect emissions from purchased electricity using electricity end use factors for emission reductions from Appendix F.

2. Calculate and Enter Base Period and Reporting Year Intensity (metric tons CO₂e per unit of output)

	1	2	3	4
Item	Description	Direct Emissions	Indirect Emissions from Purchased Energy	Other Indirect Emissions
G	Base Period Intensity (E / (A7, C7, or D7))			
H	Reporting Year Intensity (F / (A8, C8, or D8))			

3. Calculate and Enter Emission Reductions (metric tons CO₂e)

	1	2	3	4
Item	Description	Source of Reductions		
		Direct Emissions	Indirect Emissions from Purchased Energy	Other Indirect Emissions*
I	Emission Reductions ((G – H) * A8, C8, or D8)			

*Reductions of Other Indirect Emissions may not be registered.

4. Identify Types of Actions That Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

--	--	--	--	--	--	--	--	--	--

5. Describe Actions That Were the Likely Causes of the Reductions Achieved:

6. Identify Cause(s) of the Emission Reduction(s) (*check all that apply*):

- Voluntary action
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

7. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (optional):

Part C. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO₂e)

1	2	3	4	5
Name of Recipient	Emissions Type*	Gas	Units	Amount
		CO ₂ e	metric tons	
		CO ₂ e	metric tons	
		CO ₂ e	metric tons	
		CO ₂ e	metric tons	
Total Direct Emission Reductions		CO ₂ e	metric tons	
Total Indirect Emission Reductions from Purchased Energy		CO ₂ e	metric tons	
Total Other Indirect Emission Reductions		CO ₂ e	metric tons	

*Direct, Indirect from Purchased Energy, Other Indirect.

Addendum B2. Changes in Absolute Emissions

If Reporting Subentities, Enter Name of Subentity: _____

Requirement for Using Method to Register Reductions: Reporting Year output must be equal to or greater than the Base Period output.

Part A. Output

1. Enter Physical, Economic, or Indexed Output Measures for Base Period and Reporting Year

Item	1	2	3	4	5	6	7	8
	Output Measure	Unit of Measure	Base Period					Reporting Year
			Yr 1	Yr 2	Yr 3	Yr 4	Avg.	
Physical Measure								
A								
Economic Measure								
B		Current \$						
C		Constant Year (\$2000)						
Indexed Measure								
D		[Physical or Economic]						

2. Is the Reporting Year Output Equal To or Greater Than the Base Period Average Output?
 - Yes
 - No (If No, you may only report reductions on this addendum. Go to Question 4.)
3. Do You Intend to Register Absolute Emission Reductions for the Entity or Subentity?
 - Yes (Skip Question 4 and go to question 5)
 - No (Go to Question 4)
4. In Addition to Reporting Reductions on Addendum B2, Do You Also Intend To Register Reductions on Addendum B1 for this Entity or Subentity (Changes in Emissions Intensity)?
 - Yes
 - No
5. If Providing an Output Measure Not Described in the Technical Guidelines (see Table 2.2), Indicate the Reason Why Alternative Measure Was Selected (check all that apply):
 - Industry/trade group standard
 - Reported to state/federal government agencies
 - Used in annual reports
 - Other
6. Define and Describe the Output Measure Used and Provide a Rationale for Why the Measure Was Selected:

Part B. Emissions and Emission Reductions

1. Enter Emissions and Calculate Emission Reductions (metric tons CO₂e)

Item	Description	Source of Emissions		
		2	3	4
		Direct Emissions*	Indirect Emissions from Purchased Energy**	Other Indirect Emissions
E	Base Period			
F	Reporting Year			
G	Registered Emission Reductions (E – F)			
H	Reported Emission Reductions (E – F)			

*Include CO₂ captured and sequestered in geologic reservoirs (onsite and offsite).

**Calculate indirect emissions from purchased electricity using electricity end use factors for emission reductions from Appendix F.

2. Identify Types of Actions That Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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3. Describe Actions That Were the Likely Causes of the Reductions Achieved:

4. Identify the Cause(s) of the Emission Reduction(s) (check all that apply):

- Voluntary action
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

5. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (Optional):

Part C. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO₂e)

1	2	3	4	5
Name of Recipient	Emissions Type*	Gas	Units	Amount
		CO ₂ e	metric tons	
		CO ₂ e	metric tons	
		CO ₂ e	metric tons	
		CO ₂ e	metric tons	
Total Direct Emission Reductions		CO ₂ e	metric tons	
Total Indirect Emission Reductions from Purchased Energy		CO ₂ e	metric tons	
Total Other Indirect Emission Reductions		CO ₂ e	metric tons	

*Direct, Indirect from Purchased Energy, Other Indirect.

Addendum B3. Changes in Carbon Storage

If Reporting Subentities, Enter Name of Subentity: _____

Part A. Terrestrial Carbon Flux

1. Enter Reporting Year Inventory of Terrestrial Carbon Flux

	1	2	3
Item	Categories	Units of Measure	Reporting Year Stock Change or Carbon Flux*
A	Forestry Activities	metric tons CO ₂ e	
B	Wood Products – Method 1	metric tons CO ₂ e	
C	Wood Products – Method 2	metric tons CO ₂ e	
D	Land Restoration and Forest Preservation	metric tons CO ₂ e	
E	Sustainably Managed Forests	metric tons CO ₂ e	
F	Incidental Lands	metric tons CO ₂ e	
G	Other Terrestrial Carbon Fluxes	metric tons CO ₂ e	
H	Total Reporting Year Terrestrial Carbon Flux	metric tons CO ₂ e	

*From Schedule I, Section 2, Part B, Question 4, if reporting for entity only. From Addendum A, Part B, Question 4, if reporting for a subentity.

2. Identify Types of Actions That Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

--	--	--	--	--	--	--	--	--	--

3. Describe the Actions That Were the Likely Causes of the Reductions Achieved:

4. Identify the Cause(s) of the Emission Reduction(s) (check all that apply):

- Voluntary action
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

5. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (optional):

Part B. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO₂e)

1	2	3	4
Name of Recipient	Gas	Units	Amount
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
TOTAL	CO ₂ e	metric tons	

Addendum B4. Changes in Avoided Emissions

If Reporting Subentities, Enter Name of Subentity: _____

Complete one copy of Addendum B4 for each energy product sold.

Part A. Generated Energy Source and Characteristics

1. Did the Entity or Subentity Emit Greenhouse Gases in the Base Period (including any capacity acquired since the Base Period)?
 - Yes (If Yes, you must estimate reductions using Addendum B5, Emission Reductions from Energy Generation and Distribution)
 - No

2. Has the Entity or Subentity Acquired or Divested Generation Capacity Since the Base Period?
 - Yes (Go to Question 3)
 - No (Go to Question 4)

3. Was the Acquired or Divested Capacity Operational During the Base Period for the Entity or Subentity?
 - Yes (If Yes, you must adjust Base Period generation to reflect any capacity that was acquired or divested)
 - No

4. Identify Energy Product Type Sold (*check one*)
 - Electricity
 - Steam
 - Hot water
 - Chilled water

Part B. Energy Generation, Emissions, and Emission Reductions

1. Enter Activity Data, Emission Coefficients, Conversion Factors, and Emission Reductions

Item	1	2	3
	Description	Units of Measure	Quantity
A	Base Period Energy Sold		
B	Reporting Year Total Emissions		
C	Reporting Year Energy Generated		
D	Reporting Year Emissions Intensity (B/C)		
E	Reporting Year Energy Sold		
F	Reporting Year Incremental Energy Sold (E-A)		
G	Avoided Emissions Intensity Benchmark		
H	Emission Reduction ((G - D) * F)	metric tons CO ₂ e	

2. Identify Types of Actions That Were the Likely Cause of the Reductions Achieved [*Enter codes from Appendix M*]

--	--	--	--	--	--	--	--	--	--

3. Describe Actions That Were the Likely Causes of the Reductions Achieved:

4. Identify the Cause(s) of the Emission Reduction(s) (check all that apply):

- Voluntary
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

5. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (optional):

Part C. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO₂e)

1	2	3	4
Name of Recipient	Gas	Units	Amount
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
TOTAL	CO ₂ e	metric tons	

Addendum B5. Emission Reductions from Energy Generation and Distribution

If Reporting Subentities, Enter Name of Subentity: _____

Complete one copy of Addendum B5 for each energy product sold.

Part A. Energy Generation and Emissions

1. Energy Product Type Exported (*check one*)

- Electricity
- Steam
- Hot water
- Chilled water

2. Emissions, Energy Generation, and Emissions Intensity

Item	1	2	3
	Description	Units of Measure	Quantity
A	Base Period Emissions	metric tons CO ₂ e	
B	Base Period Exported Energy	MWh or MMBtu	
C	Base Period Emissions Intensity (A/B)		
D	Reporting Year Emissions	Metric tons CO ₂ e	
E	Reporting Year Exported Energy	MWh or MMBtu	
F	Reporting Year Emissions Intensity (D/E)		
G	Reporting Year Incremental Exported Energy (E - B)	MWh or MMBtu	
H	Avoided Emissions Benchmark		

Part B. Emission Reductions

1. Calculate and Enter Emission Reductions

Item	1	2	3
	Description	Units of Measure	Quantity
I	Emission Reductions from Improvements in Historical Emissions Intensity [(C - F) * B]	metric tons CO ₂ e	
J	Emission Reductions from Incremental Exported Energy [(H - F) * G]	metric tons CO ₂ e	
K	Total Emission Reductions from Energy Generation and Exports (I + J)	metric tons CO ₂ e	

2. Identify Types of Actions That Were the Likely Cause(s) of the Reductions Achieved [*Enter codes from Appendix M*]

--	--	--	--	--	--	--	--	--	--

3. Describe the Actions That Were the Likely Causes of the Reductions Achieved:

4. Identify the Cause(s) of the Emission Reduction(s) (*check all that apply*):

- Voluntary
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

5. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (optional):

Part C. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO₂e)

1	2	3	4
Name of Recipient	Gas	Units	Amount
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
TOTAL	CO ₂ e	metric tons	

Addendum B6. Reductions from Coal Mine Methane Recovery

If Reporting Subentities, Enter Name of Subentity: _____

Part A. Action Identification

1. Enter Location of Coal Mine(s):

1	2	3	4
Name	Location		
	City	State (if domestic subentity)	Country (if foreign subentity)

2. Enter Date Methane Recovery Began: Month _____ Year _____

3. Describe Action: _____

4. Was the Action Reported Last Year?
 Yes No

Part B. Action Quantification

1. Enter Action Characteristics

1	2	3	4
Coal Mine Name	Seam Affected	Month Cut Through	Year Cut Through

2. Enter Volume of Gas Captured by Source and Disposition (Mscf)

1	2	3	4	5	6	7
Source and Disposition	Base Period					Reporting Year
	Year 1	Year 2	Year 3	Year 4	Base Period Average	
DEGASIFICATION DURING MINING						
Ventilation Systems						
Flared						
Electricity used onsite						
Electricity sold to grid						
Injected into pipeline						
Direct use onsite						
Total Ventilation Systems						
Other Degasification Methods						
Flared						
Electricity used onsite						
Electricity sold to grid						
Injected into pipeline						
Direct use onsite						
Total Other Degasification						
PRE-MINING DEGASIFICATION						
Flared						
Electricity used onsite						
Electricity sold to grid						
Injected into pipeline						
Direct use onsite						
Total Pre-Mining Degasification						
Total All Methods						

3. Enter Average Heat Content of Gas Captured (Btu/scf)

1	2	3	4	5	6	7
Source and Disposition	Base Period					Reporting Year
	Year 1	Year 2	Year 3	Year 4	Base Period Average	
DEGASIFICATION DURING MINING						
Ventilation Systems						
Flared						
Electricity used onsite						
Electricity sold to grid						
Injected into pipeline						
Direct use onsite						
Other Degasification Methods						
Flared						
Electricity used onsite						
Electricity sold to grid						
Injected into pipeline						
Direct use onsite						
PRE-MINING DEGASIFICATION						
Flared						
Electricity used onsite						
Electricity sold to grid						
Injected into pipeline						
Direct use onsite						

4. Enter Total Energy Content of Gas Captured and Combusted (MMBtu)

1	2	3	4	5	6	7
Source and Disposition	Base Period					Reporting Year
	Year 1	Year 2	Year 3	Year 4	Base Period Average	
DEGASIFICATION DURING MINING						
Ventilation Systems						
Flared						
Electricity used onsite						
Electricity sold to grid						
Injected into pipeline						
Direct use onsite						
Other Degasification Methods						
Flared						
Electricity used onsite						
Electricity sold to grid						
Injected into pipeline						
Direct use onsite						
PRE-MINING DEGASIFICATION						
Flared						
Electricity used onsite						
Electricity sold to grid						
Injected into pipeline						
Direct use onsite						
Total						

5. Enter Mass of Methane Captured (metric tons CO₂e)

1	2	3	4	5	6	7
Source and Disposition	Base Period					Reporting Year
	Year 1	Year 2	Year 3	Year 4	Base Period Average	
Total Methane Captured						

Part C. Emission Reductions

1. Calculate Changes in Methane Capture

Item	1	2	3
	Description	Units of Measure	Quantity
A	Average Annual Quantity of Methane Captured in Base Period	metric tons CO ₂ e	
B	Methane Captured in Reporting Year	metric tons CO ₂ e	
C	Change in Methane Captured (B – A)	metric tons CO ₂ e	

2. Calculate Changes in Disposition of Electricity Generation from Captured Methane (MWh)

Item	1	2	3	4	5	6	7
	Disposition	Base Period					Reporting Year
Year 1		Year 2	Year 3	Year 4	Base Period Average		
D	Electricity Used Onsite						
E	Electricity Sales						
F	Total Generation						

3. Calculate Carbon Dioxide Displaced from Electricity Used Onsite (avoided emissions)

Item	1	2	3
	Description	Units of Measure	Quantity
G	Base Period Average Electricity Used Onsite	MWh	
H	Reporting Year Electricity Used Onsite	MWh	
I	Reporting Year Incremental Electricity Used Onsite (H – G)	MWh	
J	Reporting Year Total Emissions from Electricity Used Onsite*	metric tons CO ₂ e	
K	Reporting Year Emissions Intensity of Electricity Used Onsite (J/H)	metric tons CO ₂ e /MWh	
L	Avoided Emissions Benchmark	metric tons CO ₂ e /MWh	
M	Emission Reductions ((L - K) * I)	metric tons CO ₂ e	

*Include emissions from supplemental fossil fuel use only.

4. Calculate Carbon Dioxide Displaced from Electricity Sales (avoided emissions)

Item	1	2	3
	Description	Units of Measure	Quantity
N	Base Period Average Electricity Sold	MWh	
O	Reporting Year Electricity Sold	MWh	
P	Reporting Year Incremental Electricity Sold (O – N)	MWh	
Q	Reporting Year Total Emissions from Electricity Sold	metric tons CO ₂ e	
R	Reporting Year Emissions Intensity of Electricity Sold (Q/O)	metric tons CO ₂ e /MWh	
S	Avoided Emissions Benchmark	metric tons CO ₂ e /MWh	
T	Emission Reductions ((S – R) * P)	metric tons CO ₂ e	

5. Calculate Carbon Dioxide Emissions from Flaring

Item	1	2	3
	Description	Units of Measure	Quantity
U	Base Period Average Methane Flared	MMBTU	
V	Reporting Year Methane Flared	MMBTU	
W	Incremental Methane Flared (V – U)	MMBTU	
X	Change in Carbon Dioxide Emissions from Flaring	metric tons CO ₂ e	

6. Summarize Emission Reductions

Item	Description	Units of Measure	Emission Reductions		
			3	4	5
			Direct	Avoided	TOTAL
Y	Change in Methane Captured and Combusted	metric tons CO ₂ e			
Z	Carbon Dioxide Displaced from Electricity Used Onsite	metric tons CO ₂ e			
AA	Carbon Dioxide Displaced from Electricity Sales	metric tons CO ₂ e			
BB	Carbon Dioxide Emissions from Flaring	metric tons CO ₂ e			
CC	Net Change in Greenhouse Gas Emissions (Y + Z + AA – BB)	metric tons CO ₂ e			

7. Identify Types of Actions That Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

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8. Describe Actions That Were the Likely Causes of the Reductions Achieved:

9. Identify Cause(s) of the Emission Reduction(s) (check all that apply):

- Voluntary action
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

10. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (optional):

Part D. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO₂e)

1	2	3	4
Name of Recipient	Gas	Units	Amount
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
TOTAL	CO ₂ e	metric tons	

Addendum B7. Landfill Methane Recovery

If Reporting Subentities, Enter Name of Subentity: _____

Part A. Action Identification

1. Enter Location of Landfill(s):

1	2	3	4
Name	Location		
	City	State (if domestic subentity)	Country (if foreign subentity)

2. Enter Date Methane Recovery Began: Month _____ Year _____

3. Describe Action: _____

4. Was the Action Reported Last Year?
 Yes No

Part B. Action Quantification

1. Enter Action Characteristics

1	2	3	4	5
Name of Landfill Affected	Year Opened	Year Closed	Year Gas Recovery Installed	Waste in Place (MMT)

2. Enter Volume of Landfill Gas Captured by Disposition (Mscf)

1	2	3	4	5	6	7
Source and Disposition	Base Period					Reporting Year
	Year 1	Year 2	Year 3	Year 4	Base Period Average	
Flared						
Electricity used onsite						
Electricity sold offsite						
Injected into pipeline						
Direct use onsite						
Direct use offsite						
Total						

3. Enter Average Heat Content of Gas Captured (Btu/scf)

1	2	3	4	5	6	7
Source and Disposition	Base Period					Reporting Year
	Year 1	Year 2	Year 3	Year 4	Base Period Average	
Flared						
Electricity used onsite						
Electricity sold offsite						
Injected into pipeline						
Direct use onsite						
Direct use offsite						

4. Enter Total Energy Content of Gas Captured and Combusted (MMBtu)

1	2	3	4	5	6	7
Source and Disposition	Base Period					Reporting Year
	Year 1	Year 2	Year 3	Year 4	Base Period Average	
Flared						
Electricity used onsite						
Electricity sold offsite						
Injected into pipeline						
Direct use onsite						
Direct use offsite						
Total						

5. Enter Mass of Methane Captured (metric tons CO₂e)

1	2	3	4	5	6	7
Source and Disposition	Base Period					Reporting Year
	Year 1	Year 2	Year 3	Year 4	Base Period Average	
Flared						
Electricity used onsite						
Electricity sold offsite						
Injected into pipeline						
Direct use onsite						
Direct use offsite						
Total						

Part C. Emission Reductions

1. Calculate Changes in Methane Capture

Item	1	2	3
	Description	Units of Measure	Quantity
A	Average Annual Quantity of Methane Captured in Base Period	metric tons CO ₂ e	
B	Methane Captured in Reporting Year	metric tons CO ₂ e	
C	Change in Methane Captured (B – A)	metric tons CO ₂ e	

2. Calculate Changes in Disposition of Electricity Generation from Captured Methane (MWh)

Item	Source and Disposition	2	3	4	5	6	Reporting Year
		Base Period					
		Year 1	Year 2	Year 3	Year 4	Base Period Average	
D	Electricity Used Onsite						
E	Electricity Sales						
F	Total Generation						

3. Calculate Carbon Dioxide Displaced from Electricity Used Onsite (avoided emissions)

Item	1	2	3
	Description	Units of Measure	Quantity
G	Base Period Average Electricity Used Onsite	MWh	
H	Reporting Year Electricity Used Onsite	MWh	
I	Reporting Year Incremental Electricity Used Onsite (H – G)	MWh	
J	Reporting Year Total Emissions from Electricity Used Onsite *	metric tons CO ₂ e	
K	Reporting Year Emissions Intensity of Electricity Used Onsite (J/H)	metric tons CO ₂ e /MWh	
L	Avoided Emissions Benchmark	metric tons CO ₂ e /MWh	
M	Emission Reductions ((L - K) * I)	metric tons CO ₂ e	

*Include emissions from supplemental fossil fuel use only.

4. Calculate Carbon Dioxide Displaced from Electricity Sales (avoided emissions)

Item	1	2	3
	Description	Units of Measure	Quantity
N	Base Period Average Electricity Sold	MWh	
O	Reporting Year Electricity Sold	MWh	
P	Reporting Year Incremental Electricity Sold (O – N)	MWh	
Q	Reporting Year Total Emissions from Electricity Sold*	metric tons CO ₂ e	
R	Reporting Year Emissions Intensity of Electricity Sold (Q/O)	metric tons CO ₂ e /MWh	
S	Avoided Emissions Benchmark	metric tons CO ₂ e /MWh	
T	Emission Reductions ((S - R) * P)	metric tons CO ₂ e	

*Include emissions from supplemental fossil fuel use only.

5. Calculate Carbon Dioxide Displaced by Methane Supplied to a Natural Gas Distribution Network

Item	1	2	3
	Description	Units of Measure	Quantity
U	Base Period Average Methane Supplied to a Natural Gas Distribution Network	MMBTU	
V	Reporting Year Methane Supplied to a Natural Gas Distribution Network	MMBTU	
W	Incremental Methane Supplied to a Natural Gas Distribution Network (V-U)	MMBTU	
X	Methane Emissions Factor	metric tons CO ₂ e/MMBtu	
Y	Change in Carbon Dioxide Emissions from Methane Supplied to a Natural Gas Distribution Network (W * X)	metric tons CO ₂ e	

6. Summarize Emission Reductions

Item	1	2	3	4	5	6
	Description	Units of Measure	Emission Reductions			
			Direct	Indirect	Avoided	TOTAL
Z	Change in Methane Captured and Combusted	metric tons CO ₂ e				
AA	Carbon Dioxide Displaced from Electricity Used Onsite	metric tons CO ₂ e				
BB	Carbon Dioxide Displaced from Electricity Sales	metric tons CO ₂ e				
CC	Carbon Dioxide Displaced by Methane Supplied to a Natural Gas Distribution Network	metric tons CO ₂ e				
DD	Net Change in Greenhouse Gas Emissions (Z + AA + BB + CC)	metric tons CO ₂ e				

7. Identify Types of Actions that Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

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8. Describe the Actions that Were the Likely Causes of the Reductions Achieved:

9. Identify the Cause(s) of the Emission Reduction(s) (check all that apply):

- Voluntary action
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

10. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (optional):

Part D. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO₂e)

1	2	3	4
Name of Recipient	Gas	Units	Amount
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
TOTAL	CO ₂ e	metric tons	

Part B. Action Quantification

1. Enter Source of Carbon Dioxide Sequestered in Current Reporting Year (metric tons CO₂e)

Item	1	2	3	4	5	6	
	Name of Source	Location of Source	CO ₂ Extracted/ Captured	CO ₂ Acquired Via Transfer or Purchase	Total CO ₂ Captured or Acquired	Name of Storage Site	
A							
B							
C							
D							
E							
F	Totals (sum of items A-E)						

2. Enter Amount Sequestered in Current Reporting Year (metric tons CO₂e)

Item	1	2	3	4	5		6	7
	Name of Storage Site	Location of Storage Site	Enhanced Resource Recovery?	CO ₂ Injected in Current Reporting Year	Post-Injection Leakage/Seepage During Current Reporting Year		Total CO ₂ Sequestered in Current Reporting Year	
<i>CO₂ Sequestered by Reporting Entity</i>								
G			Yes/No					
H			Yes/No					
I			Yes/No					
<i>CO₂ Sequestered by Third Party</i>								
J			Yes/No					
K			Yes/No					
L			Yes/No					
M	Totals (sum of items G-L)							

3. Enter Amount Sequestered in Base Year (metric tons CO₂e)

Item	1	2	3	4	5		6	7
	Name of Storage Site	Location of Storage Site	Enhanced Resource Recovery?	Amount Injected in Base Year	Post-Injection Leakage/Seepage During Base Year		Total CO ₂ Sequestered in Base Year	
<i>CO₂ Sequestered by Reporting Entity</i>								
N			Yes/No					
O			Yes/No					
P			Yes/No					
<i>CO₂ Sequestered by Third Party</i>								
Q			Yes/No					
R			Yes/No					
S			Yes/No					
T	Totals (sum of items N-S)							

Part C. Emission Reductions

1. Calculate Emission Reductions

Item	1	2	3
	Description	Unit of Measure	Quantity
U	Emission Reductions (M7-T7)	metric tons CO ₂ e	

2. Identify Types of Actions That Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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3. Describe Actions That Were the Likely Causes of the Reductions Achieved:

4. Identify the Cause(s) of the Emission Reduction(s) (*check all that apply*):

- Voluntary action
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

5. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (optional):

Part D. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO_{2e})

1	2	3	4
Name of Recipient	Gas	Units	Amount
	CO _{2e}	metric tons	
	CO _{2e}	metric tons	
	CO _{2e}	metric tons	
	CO _{2e}	metric tons	
TOTAL	CO _{2e}	metric tons	

Addendum B9. Electricity Transmission and Distribution Improvements

If Reporting Subentities, Enter Name of Subentity: _____

Part A. Action Identification

1. Date Action Was Initiated: Month _____ Year _____
2. Did You Report Transmission and Distribution Improvements Last Year?
 Yes No
3. Are You Reporting as a Control Area or as a Member of a Control Area?
 Yes No

Part B. Activity Data

1. Enter Activity Data

Item	1	2	3
	Description	Units of Measure (kWh or kVAh)	Quantity
Base Period			
A	Electricity Entering T&D System From Own Generation		
B	Electricity Delivered Through T&D System to End Users (NOTE: Should Equal Total Wholesale and Retail Sales)		
C	Electricity Imported into T&D System		
D	Electricity Exported from T&D System		
E	Net Imports of Electricity (C – D)		
F	Actual Net Interchange (ANI) If Reporting on Control Area Basis		
G	Loss Ratio $(A + E - B)/(A + E)$ or $(A - (B + F))/(A - F)$ †		
Reporting Year			
H	Electricity Entering T&D System from Own Generation		
I	Electricity Delivered Through T&D System to End Users (NOTE: Should Equal Total Wholesale and Retail Sales)		
J	Electricity Imported into T&D System		
K	Electricity Exported from T&D System		
L	Net Imports of Electricity (J-K)		
M	Actual Net Interchange (ANI) If Reporting on Control Area Basis		
N	Loss Ratio $(H + L - I)/(H + L)$ or $(H - (I + M))/(H - M)$ †		
O	Change In Loss Intensity $(G - N) * (H + L)$ or $(G - N) * (H - M)$ †	kWh or kVAh	

†Use second equation if reporting on a control area basis

Part C. Emission Reductions

1. Calculate Emission Reductions

	1	2	3
Item	Description	Units of Measure	Quantity
P	U.S. Avoided Emissions Benchmark for Electricity	metric tons CO ₂ e/MWh	
Q	System Power Factor (If Loss Intensity Calculated In kVAh)		
R	Total Emission Reductions $[(O * P) / 1000]$ or $[(O * (P * Q))/1000]$ †	metric tons CO ₂ e	
S	Direct Emission Reductions $[R * (I/(I + L))]$	metric tons CO ₂ e	
T	Avoided Emissions (from Avoided Electricity Imports) $[R * (L/(I + L))]$	metric tons CO ₂ e	

†Use second equation if calculating losses in kVAh

2. Identify Types of Actions That Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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3. Describe the Actions That Were the Likely Causes of the Reductions Achieved:

4. Identify the Cause(s) of the Emission Reduction(s) (check all that apply):

- Voluntary action
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

5. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (optional):

Part D. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO₂e)

1	2	3	4
Name of Recipient	Gas	Units	Amount
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
TOTAL	CO ₂ e	metric tons	

Addendum B10. Capture of Methane from Anaerobic Digestion at Wastewater Treatment Facilities

If Reporting Subentities, Enter Name of Subentity: _____

Part A. Action Identification

1. Enter Locations of Wastewater Treatment Facilities:

1	2	3	4
Name	Location		
	City	State (if domestic subentity)	Country (if foreign subentity)

2. Enter Date Anaerobic Digester Use Began: Month _____ Year _____

3. Describe Action: _____

4. Was the Action Reported Last Year?
 Yes No

Part B. Action Quantification

1. Enter Volume of Gas Captured and Disposition (Mscf)

1	2	3	4	5	6	7
Source and Disposition	Base Period					Reporting Year
	Year 1	Year 2	Year 3	Year 4	Base Period Average	
Flared						
Electricity generation						
Injected into pipeline/sale to supply network						
Direct use onsite						
Direct use offsite						
Total						

2. Enter Average Heat Content of Gas Captured and Utilized (Btu/scf)

1	2	3	4	5	6	7
Source and Disposition	Base Period					Reporting Year
	Year 1	Year 2	Year 3	Year 4	Base Period Average	
Flared						
Electricity generation						
Injected into pipeline/sale to supply network						
Direct use onsite						
Direct use offsite						

3. Enter Total Energy Content of Gas Captured and Utilized (MMBtu)

1	2	3	4	5	6	7
Source and Disposition	Base Period					Reporting Year
	Year 1	Year 2	Year 3	Year 4	Base Period Average	
Flared						
Electricity generation						
Injected into pipeline/sale to supply network						
Direct use onsite						
Direct use offsite						
Total						

4. Enter Mass of Methane Captured and Utilized (metric tons CO₂e)

1	2	3	4	5	6	7
Source and Disposition	Base Period					Reporting Year
	Year 1	Year 2	Year 3	Year 4	Base Period Average	
Total Methane Captured						

5. Enter Nitrous Oxide Emissions From Aerobic Conditions During the Base Period and Reporting Year (metric tons CO₂e)

1	2	3	4	5	6	7
Unit of Measure	Base Period					Reporting Year
	Year 1	Year 2	Year 3	Year 4	Base Period Average	

Part C. Emission Reductions

1. Calculate Changes in Methane Captured and Utilized

Item	1 Description	2 Units of Measure	3 Quantity
A	Base Period Average Annual Quantity of Methane Captured	metric tons CO ₂ e	
B	Reporting Year Methane Captured	metric tons CO ₂ e	
C	Change in Methane Captured (B – A)	metric tons CO ₂ e	

2. Calculate Changes in Disposition of Electricity Generation from Captured Methane (MWh)

Item	1 Source and Disposition	2 Base Period					3 Reporting Year
		Year 1	Year 2	Year 3	Year 4	Base Period Average	
D	Electricity Used Onsite						
E	Electricity Sold						
F	Total Generation						

3. Calculate Carbon Dioxide Displaced from Electricity Used Onsite (avoided emissions)

Item	1 Description	2 Units of Measure	3 Quantity
G	Base Period Average Electricity Used Onsite	MWh	
H	Reporting Year Electricity Used Onsite	MWh	
I	Reporting Year Incremental Electricity Used Onsite (H – G)	MWh	
J	Reporting Year Total Emissions from Electricity Used Onsite*	metric tons CO ₂ e	
K	Reporting Year Emissions Intensity of Electricity Used Onsite (J/H)	metric tons CO ₂ e /MWh	
L	Avoided Emissions Benchmark	metric tons CO ₂ e /MWh	
M	Emission Reductions ((L – K) * I)	metric tons CO ₂ e	

*Include emissions from supplemental fossil fuel use only. If biogas was co-combusted with fossil fuels in Base Period, use Addendum B5 (Emission Reductions from Energy Generation and Distribution) to report/register reduction associated with exported electricity.

4. Calculate Carbon Dioxide Displaced from Electricity Sales (avoided emissions)

Item	1	2	3
	Description	Units of Measure	Quantity
N	Base Period Average Electricity Sold	MWh	
O	Reporting Year Electricity Sold	MWh	
P	Reporting Year Incremental Electricity Sold (O – N)	MWh	
Q	Reporting Year Total Emissions from Electricity Sold*	metric tons CO ₂ e	
R	Reporting Year Emissions Intensity of Electricity Sold (Q/O)	metric tons CO ₂ e /MWh	
S	Avoided Emissions Benchmark	metric tons CO ₂ e /MWh	
T	Emission Reductions ((S – R) * P)	metric tons CO ₂ e	

*Include emissions from supplemental fossil fuel use only. If biogas was co-combusted with fossil fuels in Base Period, use Addendum B5 (Emission Reductions from Energy Generation and Distribution) to report/register reduction associated with exported electricity.

5. Calculate Carbon Dioxide Displaced by Methane Supplied to a Natural Gas Distribution Network

Item	1	2	3
	Description	Units of Measure	Quantity
U	Base Period Average Methane Supplied to a Natural Gas Distribution Network	MMBTU	
V	Reporting Year Methane Supplied to a Natural Gas Distribution Network	MMBTU	
W	Incremental Methane Supplied to a Natural Gas Distribution Network (V-U)	MMBTU	
X	Methane Emissions Factor	metric tons CO ₂ e/MMBtu	
Y	Change in Carbon Dioxide Emissions from Methane Supplied to a Natural Gas Distribution Network (W * X)	metric tons CO ₂ e	

6. Calculate Changes in Nitrous Oxide Emissions from Use of Anaerobic Digester

Item	1	2	3
	Description	Units of Measure	Quantity
Z	Base Period Average Annual Nitrous Oxide Emissions	metric tons CO ₂ e	
AA	Reporting Year Quantity of Nitrous Oxide Emissions	metric tons CO ₂ e	
BB	Change in Nitrous Oxide Emissions (A – Z)	metric tons CO ₂ e	

7. Summarize Emission Reductions

Item	Description	Units of Measure	Emission Reductions			
			Direct	Indirect	Avoided	TOTAL
			1	2	3	4
CC	Increase in Methane Captured and Utilized	metric tons CO ₂ e				
DD	Carbon Dioxide Displaced from Electricity Used Onsite	metric tons CO ₂ e				
EE	Carbon Dioxide Displaced from Electricity Sales	metric tons CO ₂ e				
FF	Carbon Dioxide Displaced by Methane Supplied to a Natural Gas Distribution Network	metric tons CO ₂ e				
GG	Change in Nitrous Oxide Emissions	metric tons CO ₂ e				
HH	Net Change in Emissions (CC + DD + EE + FF – GG)	metric tons CO ₂ e				

8. Identify Types of Actions That Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

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9. Describe the Actions That Were the Likely Causes of the Reductions Achieved:

10. Identify the Cause(s) of the Emission Reduction(s) (check all that apply):

- Voluntary action
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

11. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (optional):

Part D. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO₂e)

1 Name of Recipient	2 Gas	3 Units	4 Amount
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
TOTAL	CO ₂ e	metric tons	

Part C. Emission Reductions

1. Calculate Carbon Dioxide Displaced by Methane Supplied to a Natural Gas Distribution Network

Item	1	2	3
	Description	Units of Measure	Quantity
A	Base Period Average Methane Supplied to a Natural Gas Distribution Network	MMBTU	
B	Reporting Year Methane Supplied to a Natural Gas Distribution Network	MMBTU	
C	Incremental Methane Supplied to a Natural Gas Distribution Network (B – A)	MMBTU	
D	Methane Emissions Factor	metric tons CO ₂ e/MMBtu	
E	Change in Carbon Dioxide Emissions from Methane Supplied to a Natural Gas Distribution Network (C * D)	metric tons CO ₂ e	

2. Identify Types of Actions That Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

--	--	--	--	--	--	--	--	--	--

3. Describe the Actions That Were the Likely Causes of the Reductions Achieved:

4. Identify the Cause(s) of the Emission Reduction(s) (check all that apply):

- Voluntary action
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

5. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (optional):

Part D. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO₂e)

1	2	3	4
Name of Recipient	Gas	Units	Amount
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
TOTAL	CO ₂ e	metric tons	

Addendum B12. Recycling of Fly Ash

If Reporting Subentities, Enter Name of Subentity: _____

Part A. Action Identification

1. Enter Name and Location of Concrete Manufacturing Facilities Where Fly Ash Was Recycled:

1	2	3	4
Name	Location		
	City	State (if domestic subentity)	Country (if foreign subentity)

2. Enter Date Fly Ash Recycling Began: Month _____ Year _____

3. Describe Action: _____

4. Was the Action Reported Last Year?
 Yes No

Part B. Action Quantification

1. Enter Total Quantity of Fly Ash Used and Portland Cement Displaced in Base Period and Reporting Year

Item	Description	Unit of Measure	Base Period Quantity					Reporting Year Quantity
			Yr 1	Yr 2	Yr 3	Yr 4	Avg.	
			A	Fly Ash Used in Place of Portland Cement	metric tons			

Item	1	2	3	4	5	6	7	8
	Description	Unit of Measure	Base Period Quantity					Reporting Year Quantity
			Yr 1	Yr 2	Yr 3	Yr 4	Avg.	
B	Portland Cement Displaced	metric tons						

2. Calculate Substitution Ratio of Fly Ash for Portland Cement for Base Period and Reporting Year

Item	1	2	3
	Description	Unit of Measure	Quantity
C	Substitution Ratio for Base Period (B7/A7)	--	
D	Substitution Ratio for Reporting Year (B8/A8)	--	

Part C. Emission Reductions

1. Calculate Reduction in Indirect Emissions

Item	1	2	3
	Description	Unit of Measure	Quantity
E	Net Emissions Factor for Virgin Cement	metric tons C equivalent/ton	0.2396
F	Net Emissions Factor for Fly Ash	metric tons C equivalent/ton	0.0021
G	Conversion Factor for Carbon Equivalent to CO ₂ e	--	3.667
H	Emissions Displaced in Base Period (A7 * ((E/C) – F) * G))	metric tons CO ₂ e	
I	Emissions Displaced in Reporting Year (A8 * ((E/C) – F) * G))	metric tons CO ₂ e	
J	Indirect Emission Reductions (I – H)	metric tons CO ₂ e	

2. Identify Types of Actions That Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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3. Describe the Actions That Were the Likely Causes of the Reductions Achieved:

4. Identify the Cause(s) of the Emission Reduction(s) (check all that apply):

- Voluntary action
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

5. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emission (optional):

Part D. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO₂e)

1	2	3	4
Name of Recipient	Gas	Units	Amount
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
TOTAL	CO ₂ e	metric tons	

Addendum B13. Demand-Side Management and Other Reduction Programs

If Reporting Subentities, Enter Name of Subentity: _____

Part A. Action Identification

If you are reporting more than one program, copy Part A and complete for each program.

1. Enter Name of Program: _____
2. Enter Location of Demand-Side Management Program City: _____ State (if domestic subentity): _____ Country (if foreign subentity): _____
3. Enter Date Program Began: Month _____ Year _____
4. Provide Summary Description of Program: _____ _____ _____ _____
5. Check the Applicable Box(es) to Indicate What the Program Provides to Very Small Emitters (entities that typically emit below 500 tons of CO ₂ e per year): <input type="checkbox"/> Information or other technical assistance <input type="checkbox"/> Financial incentives <input type="checkbox"/> Direct installation or investment <input type="checkbox"/> Other non-commercial services
6. Identify Sector(s) of Very Small Emitters Targeted (please check all that apply) <input type="checkbox"/> Residential <input type="checkbox"/> Small industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Other, specify: _____
7. Describe Program Evaluation Method: _____
8. Enter Name and Describe Qualifications of 3 rd Party Verifier Name: _____ Qualifications: _____ _____
9. Enter Annual Energy Usage Reductions in Reporting Year (if not applicable, go to Question 10) Unit _____ Quantity _____
10. Enter Greenhouse Gas Emission Reductions in Reporting Year (metric tons CO ₂ e) _____
11. Do the Reductions Qualify for Registration? <input type="checkbox"/> Yes <input type="checkbox"/> No To register reductions, the DSM or other program must meet all of the following criteria: <ul style="list-style-type: none"> • The DSM or other program must be funded by the reporting entity. • The estimated effects reported must first occur after the entity's start year and must cause a reduction of the total emissions of residential or other very small emitters. • The qualifying program must provide information or other technical assistance, financial incentives, direct installation or investment, or other non-commercial services to very small emitters to assist them achieving emission reductions recognized by these guidelines. • Program evaluations must be performed and/or certified by an independent and qualified third party verifier. The third party must certify that the estimated annual energy usage or emission reductions were estimated in accordance with these guidelines.

Part B. Emission Reductions

1. Summarize Energy Savings and Greenhouse Gas Emission Reductions by Program:

1	2	3	4	5
Program Name	Total Energy Savings		Total Emission Reductions (CO ₂ e)	
	Unit	Amount	Unit	Amount
Total Emission Reductions				

2. Identify Types of Actions That Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

--	--	--	--	--	--	--	--	--	--

3. Describe the Actions That Were the Likely Causes of the Reductions Achieved:

4. Identify the Cause(s) of the Emission Reduction(s) (check all that apply):

- Voluntary action
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

5. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (optional):

Part C. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO₂e)

1	2	3	4
Name of Recipient	Gas	Units	Amount
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
TOTAL	CO ₂ e	metric tons	

Addendum B14. Combined Heat and Power

If Reporting Subentities, Enter Name of Subentity: _____

Part A. Action Quantification

1. Enter Plant Emissions Data

Item	1	2	3
	Description	Units of Measure	Quantity
Base Period Average			
A	Total CHP Plant Fuel Use	MMBtu	
B	Total CHP Plant Emissions*	metric tons CO ₂ e	
Reporting Year			
C	Total CHP Plant Fuel Use	MMBtu	
D	Total CHP Plant Emissions*	metric tons CO ₂ e	

* Derive from fuel use (values A and C) using the methods in Chapter 1, Part C of the Technical Guidelines (Stationary Combustion).

2. Enter Activity Data

Item	1	2	3
	Description	Units of Measure	Quantity
Base Period Average			
E	Total Thermal Generation	MMBtu	
F	Total Electrical Generation	MMBtu*	
G	Thermal Exports	MMBtu	
H	Electricity Exports	MMBtu*	
I	Thermal Generating Efficiency**	%	
J	Electrical Generating Efficiency***	%	
Reporting Year			
K	Total Thermal Generation	MMBtu	
L	Total Electrical Generation	MMBtu*	
M	Thermal Exports	MMBtu	
N	Electricity Exports	MMBtu*	
O	Thermal Generating Efficiency**	%	
P	Electrical Generating Efficiency***	%	
Q	Thermal Avoided Emissions Benchmark	metric tons CO ₂ e /MMBtu	
R	Electricity Avoided Emissions Benchmark	metric tons CO ₂ e /MWh	

* To convert electrical output to MMBtu, multiply electrical output in MWh by 3.412

** If the efficiency of the thermal energy generation (Efficiency_{Thermal}) is unknown, reporters may use a default value of 80 percent.

*** If the efficiency of the electrical energy generation (Efficiency_{Thermal}) is unknown, reporters may use a default value of 35 percent.

3. Calculate Emissions for Each Generating Stream

Item	1	2
	Description	Emissions (Metric Tons CO ₂ e)
Base Period		
S	Total Thermal Generation Emissions = $B * (E / I) / ((E / I) + (F / J))$	
T	Total Electricity Generation Emissions = $B - S$	
Reporting Year		
U	Total Thermal Generation Emissions = $D * (K / O) / ((K / O) + (L / P))$	
V	Total Electricity Generation Emissions = $D - U$	

*If the efficiency of the thermal energy generation (Efficiency_{Thermal}) is unknown, reporters may use a default value of 0.8.

4. Calculate Emissions Associated With Thermal and Electrical Energy Exported and Used Onsite

Item	1	2	3
	Description	Units of Measure	Emissions
Base Period			
W	Exported Thermal Generation Emissions $((G / E) * S)$	metric tons CO ₂ e	
X	Exported Electrical Generation Emissions $((H / F) * T)$	metric tons CO ₂ e	
Y	Onsite Thermal Generation Emissions $(S - W)$	metric tons CO ₂ e	
Z	Onsite Electrical Generation Emissions $(T - X)$	metric tons CO ₂ e	
Reporting Year			
AA	Exported Thermal Generation Emissions $((M / K) * U)$	metric tons CO ₂ e	
BB	Exported Electrical Generation Emissions $((N / L) * V)$	metric tons CO ₂ e	
CC	Onsite Thermal Generation Emissions $(U - AA)$	metric tons CO ₂ e	
DD	Onsite Electrical Generation Emissions $(V - BB)$	metric tons CO ₂ e	

Part B. Emission Reductions

1. Calculate Direct Emission Reductions From Onsite Energy Use (*Note: Reductions can be calculated using either the Changes in Emissions Intensity method or the Changes in Absolute Emissions method. Reporters should select one method, and use the appropriate formulas provided*)

a. Calculate Changes in Emissions Intensity From Energy Used Onsite

Item	1	2	3
	Description	Units of Measure	Direct Emissions
EE	Emission Reductions from Thermal Generation Used Onsite $((S / E) - (U / K)) * (K - M)$	metric tons CO ₂ e	
FF	Emission Reductions from Electrical Generation Used Onsite $((T / F) - (V / L)) * (L - N)$	metric tons CO ₂ e	

b. Calculate Absolute Changes in Emissions From Energy Used Onsite

Item	1	2	3
	Description	Units of Measure	Direct Emissions
GG	Emission Reductions from Thermal Generation Used Onsite $(Y - CC)$	metric tons CO ₂ e	
HH	Emission Reductions from Electrical Generation Used Onsite $(Z - DD)$	metric tons CO ₂ e	

2. Calculate Emission Reductions Associated With Energy Exports

a. Calculate Thermal Energy Emission Reductions Due to Improvements in Historical Emissions Intensity

Item	1	2	3
	Description	Units of Measure	Emission Reductions
II	Emission Reductions $((S / E) - (U / K)) * G)$	metric tons CO ₂ e	

b. Calculate Thermal Energy Emission Reductions Due to Incremental Changes in Thermal Exports

	1	2	3
Item	Description	Units of Measure	Emission Reductions
JJ	Emission Reductions ($Q - (U / K) * (M - G)$)	metric tons CO ₂ e	

c. Calculate Electricity Emission Reductions Due to Improvements in Historical Emissions Intensity

	1	2	3
Item	Description	Units of Measure	Emission Reductions
KK	Emission Reductions ($((T / F) - (V / L)) * H$)	metric tons CO ₂ e	

d. Calculate Electricity Emission Reductions Due to Incremental Changes in

	1	2	3
Item	Description	Units of Measure	Emission Reductions
LL	Emission Reductions ($R - (V / L)) * (N - H)$)	metric tons CO ₂ e	

3. Summarize Emission Reductions

	1	2	3
Item	Description	Units of Measure	Quantity
MM	Reductions Associated with Onsite Energy Use ($EE + FF$) or ($GG + HH$)	metric tons CO ₂ e	
NN	Total Emission Reductions from Energy Generation and Exports ($II + JJ + KK + LL$)	metric tons CO ₂ e	
OO	Total Emission Reductions ($MM + NN$)	metric tons CO ₂ e	

4. Identify Types of Actions That Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

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5. Describe Actions That Were the Likely Causes of the Reductions Achieved:

6. Identify the Cause(s) of the Emission Reduction(s) (check all that apply):

- Voluntary action
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

7. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (optional):

Part C. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO₂e)

1	2	3	4
Name of Recipient	Gas	Units	Amount
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
	CO ₂ e	metric tons	
TOTAL	CO ₂ e	metric tons	

Addendum B15. Other Action-specific Reductions

If Reporting Subentities, Enter Name of Subentity: _____

Part A. Action Identification

1. Explain Why It Is Not Possible to Use Any of The Methods in Addendum B1-B14

2. Enter Date Action Was Initiated: Month_____ Year_____

3. Was the Action Reported Last Year?

Yes No

4. Identify Activities Affected by the Action:

5. Identify Equipment Affected by the Action:

6. Identify the Emission Sources Affected by the Action:

Part B. Emission Reductions Computation

1. Enter Activity Data, Emission Coefficients, and Conversion Factors

Item	1	2	3
	Description	Units of Measure	Quantity
A			
B			
C			
D			
E			
F			
G			
H			
I			
J			

2. Enter Equation(s) Used to Calculate Emissions and Emission Reductions in Question 3:

3. Calculate Emission Reductions

Item	Description	Units of Measure	Source of Emissions Affected		
			3	4	5
			Direct Emissions	Indirect Emissions from Purchased Energy	Other Indirect Emissions
K	Base Period Emissions	metric tons CO ₂ e			
L	Reporting Year Emissions	metric tons CO ₂ e			
M	Registered Emission Reductions (K - L)	metric tons CO ₂ e			
N	Reported Emission Reductions (K - L)	metric tons CO ₂ e			

4. Identify Types of Actions That Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

5. Describe the Actions That Were the Likely Causes of the Reductions Achieved:

6. Identify the Cause(s) of the Emission Reduction(s) (check all that apply):

- Voluntary action
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

7. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (optional):

Part C. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (metric tons CO₂e)

1	2	3	4	5
Name of Recipient	Emissions Type*	Gas	Units	Amount
		CO ₂ e	metric tons	
		CO ₂ e	metric tons	
		CO ₂ e	metric tons	
		CO ₂ e	metric tons	
Total Direct Emission Reductions		CO ₂ e	metric tons	
Total Indirect Emission Reductions from Purchased Energy		CO ₂ e	metric tons	
Total Other Indirect Emission Reductions		CO ₂ e	metric tons	

*Direct, Indirect from Purchased Energy, Other Indirect.

2. Identify Types of Actions That Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

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3. Describe the Actions That Were the Likely Causes of the Reductions Achieved:

4. Identify the Cause(s) of the Emission Reduction(s) (check all that apply):

- Voluntary action
- Plant closing
- Government requirement
 - Federal requirement
 - State requirement
 - Local requirement

5. Summarize Benefits and Costs of the Actions Taken to Reduce Greenhouse Gas Emissions (optional):

Part C. Distribution of Emission Reductions to Other 1605(b) Reporters

1. Where Applicable, Enter Emission Reductions Distributed to Other 1605(b) Reporters (kilograms)

1	2	3	4
Name of Recipient	Gas	Units	Amount
		kilograms	
		kilograms	
		kilograms	
		kilograms	
		kilograms	

3. Document Reporter-defined Emission Factors.

A large, empty rectangular box with a thin black border, occupying the majority of the page. It is intended for the user to document reporter-defined emission factors.