Form EIA-1605

Voluntary Reporting of Greenhouse Gases

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

This report is voluntary under Public Law 102-486 (42 USC 13385).

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

July 29, 2010

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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. Public reporting burden for this collection of information is estimated to average 60 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data, and completing and reviewing the collection of information.

REPORTING YEAR

1.

(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

Enter Entity Identification: Entity Name:			
Address 1:			
Address 2:			
City:	State:	Zip:	
Entity URL :			
Entity Tax Payer Identificatio	n Number <i>(op</i>	tional):	

2. Enter Contact Information:

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

- 3. Enter Report Characteristics
 - a. Report Type (check one):
 - □ Start Year Report
 - □ Reporting Year Report
 - b. Entity Type (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 annual average entity-wide Base Period 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:

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 emissions and/or emission reductions

- Emitter intending to report but not register emission reductions
- Emitter intending to report emissions only
- 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:

This report includes subentity reports (check one) □ Yes □ No If yes, identify the subentities included below. Give each subentity a unique name to distinguish it clearly from the other subentities.

No.	Subentity Name
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

- e. Independent Verification:
 - This report has been verified by an independent third party: □ Yes □ No If yes, indicate the level of detail provided in the report's emissions inventory:
 - □ This report includes aggregated emissions data by gas; or
 - □ This report includes detailed emissions data by gas and source.
- 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. 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 (describe):
 - For one or more subentities (describe in relevant subentity statement in Schedule 11)
 - 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. Describe (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, 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, describe:
- 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)

- □ Holding/Parent Company
- □ 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*:_____
- Describe the Entity Organization
 Is your entity a holding company: □ Yes □ No

 If your entity is a subsidiary, identify your entity's Parent or Holding Company: ______
- 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 (describe, including criteria used for excluding any emissions sources, if applicable):
- 9. Describe the Geographic Scope of Activities (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
<u> </u>	

10. Describe the Scope of the Emissions Inventory

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

- Agricultural sources
- □ Stationary source combustion
 □ Mobile source combustion
 □ Industrial processes
 □ Fugitive emissions from geologic reservoirs
 □ Indirect emissions from purchased energy
 □ Other indirect emissions

 - □ Terrestrial carbon fluxes and stocks
- 11. Describe the Entity Base Period

U.S.	Department of Energy Energy Information Administration EIA-1605	Voluntary Reporting of	Greenhous	e Gases			Form Approved OMB No. 1905-0194 Expiration Date: TBD
	Indicate number of years Enter last year in Base Pe Check here if you are r	eriod:	_		□ 3 nt base µ	□ 4 Deriod fr	om the entity
12.	Describe Any Entity Program Domestic Voluntary Initiatives List the voluntary GHG-reduc (see list of codes in Appendix	tion initiative(s) with v		entity h			
	Domestic Registries and Excl List the U.S. GHG registry(ies (see list of codes in Appendix	s) and/or exchange(s)			-		iation
	International Registries and E List the non-U.S. GHG registr (see list of codes in Appendix	y(ies) and/or exchang					affiliation
	Request Confidentiality of Ent Check box if applicable: Requesting confidential tr (NOTE that if you request by-element basis, the rea assist in this determinatio secrets or commercial or harm to their company's c	eatment for the inforr t confidentiality, you r sons why your report n, respondents shoul financial information	nust, in ti ed inforn d demon	he space nation sh strate th	e below, nould be nat their i	explain kept co informat	nfidential. To tion contains trade
	Enter Supplementary Informa Use this space (and attach ac feel helps explain your entity o	ditional sheets if nec					

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		3	4	5	6	7	8	9	10	11
				Base Period Emissions or Carbon Flux					Reporting	
								Base	Year	
								Period	Emissions or	Weighted
Item	Source	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Average	Carbon Flux	Rating
A	Direct Emissions									
A1	Carbon Dioxide	CO ₂	mt							
A2	Methane	CH ₄								
A3	Nitrous Oxide	N_2O								
A4	Sulfur Hexafluoride	SF_6								
A5	HFC (Specify)									
A6	PFC (Specify)									
A7	CFC (Specify)									
В	Indirect Emissions From Purchased									
	Energy (Inventory)									
B1	Carbon Dioxide	CO ₂	mt							
B2	Methane	CH_4								
B3	Nitrous Oxide	N ₂ O								
С	Indirect Emissions From Purchased Energy (Reductions)	CO ₂ e	mt							
D	Carbon Flux	CO ₂	mt							
E	Other Indirect Emissions									
E1	Carbon Dioxide	CO ₂	mt							
E2	Methane	CH_4								
E3	Nitrous Oxide	N ₂ O								
E4	Sulfur Hexafluoride	SF ₆								
E5	HFC (Specify)									
E6	PFC (Specify)									
E7	CFC (Specify)									
F	Captured CO ₂ Sequestered in an onsite Geologic Reservoir	CO ₂	mt							

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1	2	3	4	5	6	7	8	9	10	11
				Bas	se Period	Emissions	s or Carbo	n Flux	Reporting	
Item	Source	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Year Emissions or Carbon Flux	Weighted Rating
G	Captured CO_2 Transferred to Another Entity for Sequestration in a Geologic Reservoir	CO ₂	mt					,		

mt = metric ton

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

1		3	4	5	6	7	8	9	10	11
		-		Bas	se Period	Emissions	s or Carbo	n Flux	Reporting	
								Base Period	Year Emissions or	Weighted
Item	Source	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Average	Carbon Flux	Rating
A	Direct Emissions									
A1	Carbon Dioxide	CO ₂	mt							
A2	Methane	CH ₄								
A3	Nitrous Oxide	N ₂ O								
A4	Sulfur Hexafluoride	SF_6								
A5	HFC (Specify)									
A6	PFC (Specify)									
A7	CFC (Specify)									
В	Indirect Emissions From Purchased Energy (Inventory)									
B1	Carbon Dioxide	CO ₂	mt							
B2	Methane	CH ₄								
B3	Nitrous Oxide	N ₂ O								
С	Indirect Emissions From Purchased Energy (Reductions)	CO ₂ e	mt							
D	Carbon Flux	CO ₂	mt							
Е	Other Indirect Emissions									
E1	Carbon Dioxide	CO ₂	mt							
E2	Methane	CH_4								
E3	Nitrous Oxide	N ₂ O								
E4	Sulfur Hexafluoride	SF_6								
E5	HFC (Specify)									
E6	PFC (Specify)									
E7	CFC (Specify)									
F	Captured CO ₂ Sequestered in an Onsite Geologic Reservoir	CO ₂	mt							

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1	2	3	4	5	6	7	8	9	10	11
				Bas	se Period	Emissions	s or Carbo	n Flux	Reporting	
								Base	Year	
		_						Period	Emissions or	Weighted
Item	Source	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Average	Carbon Flux	Rating
G	Captured CO_2 Transferred to Another Entity for Sequestration in a Geologic Reservoir	CO ₂	mt							

mt = metric ton

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	1A	2	3	4	5	6	7	8	9	10	11	12
		Specific				Base	Period Em	issions				
		Facility/Source Name	-						Base Period	Reporting Year	Estimation	
Source Category	Fuel Type	(optional)	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Average	Emissions	Method	Rating
Fossil Fuel				mt								
Combustion				kg								
			N ₂ O CO ₂	kg								
			CO ₂ CH₄	mt kg								
			N ₂ O	kg								
			CO_2	mt								
			CH ₄	kg								
			N ₂ O	kg								
			CO ₂	mt								
			CH ₄	kg								
			N ₂ O	kg								
Nonstandard Fuel			CO ₂	mt								
Combustion			CH ₄	kg								
			N_2O	kg								
			CO ₂	mt								
			CH ₄	kg								
			N_2O	kg								
Waste Fuels			CO ₂	mt								
Combustion			CH ₄	kg								
			N ₂ O	kg								
				mt								
			CH ₄	kg								
Diaman			N ₂ O CH ₄	kg								
Biomass Combustion			CH ₄	kg								
Composition			N_2O	kg								
Nonfuel Use of Fossil Fuels			CO ₂	mt								
Subtotal			CO ₂ e	mt								

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

1 1	, 1A	2	3	4	5	6	7	8	9	10	11	12
		Specific				Bas	se Period	Emissio	ns			
Source Category	Fuel Type	Vehicle Class/Fleet Name (optional)	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Esti- mation Method	Rating
Highway Vehicles			CO ₂	mt								
			CH ₄	kg								
			N ₂ O	kg								
			CO ₂	mt								
			CH ₄	kg								
			N ₂ O	kg								
Off-Road Vehicles			CO ₂	mt								
			CH ₄	kg								
			N ₂ O	kg								
			CO ₂	mt								
			CH ₄	kg								
			N ₂ O	kg								
Water Borne				mt								-
Vessels			CH ₄ N ₂ O	kg								
				kg mt								
				kg								
			N ₂ O	kg								
Aircraft			CO ₂	mt								
/ in order			CH ₄	kg								
			N ₂ O	kg								
			CO ₂	mt								
			CH ₄	kg								
			N ₂ O	kg								
Mobile Refrigeration and Air-Conditioning			HFC- 134a	kg								
and an conducting			1010							1		
										1		
								1				
				1								
Subtotal			CO ₂ e	mt								

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

1	2	3	4	5	6	7	8	9	<u>10</u>	11	12
	Specific Exciliated				Bas	e Period	Emissior	is			
Process/Fugitive Emissions	Facility/ Source Name (optional)	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Estimation Method	Rating
				l	ndustria	Proces	ses				
Adipic Acid Production		N ₂ O									
Aluminum Production (CO ₂ only)		CO ₂	mt								
Ammonia Production		CO ₂	mt								
Cement Production – Clinker Production		CO ₂	mt								
Cement Production – Cement Kiln Dust		CO ₂	mt								
Hydrogen Production		CO ₂	mt								
Iron and Steel Production – All Processes*		CO ₂	mt								
Iron and Steel Production – Reducing Agents		CO ₂	mt								
Iron and Steel Production – Furnace Additives		CO ₂	mt								
Iron and Steel Production – Crude Iron Production		CO ₂	mt								
Iron and Steel Production – Conversion of Iron to Steel		CO ₂	mt								

c. Sector-Specific Industrial Process Emissions (continued)

1	2	3	4	5	6	7	8	9	10	11	12
	Specific				Bas	e Period	Emission	S			
Process/Fugitive Emissions	Facility/ Source Name (optional)	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Estimation Method	Rating
Iron and Steel			industi	rial Proc	esses –	Iron and	Steel Pro	oduction			
Production – Electrode Consumption in Electric Arc Furnaces		CO ₂	mt								
Iron and Steel Production – Secondary Steel Production in Electric Arc Furnaces		CO ₂	mt								
Iron and Steel		CO ₂	mt								
Production – Other		CH ₄									
Lime Production		CO ₂	mt								
Limestone and Dolomite Use		CO ₂	mt								
Methanol		CO ₂	mt								
Production		CH ₄									
Methane Emissions From Production of Other Petrochemicals		CH₄									
Nitric Acid Production		N ₂ O									
Soda Ash Production		CO ₂	mt								
Soda Ash Use		CO ₂	mt								

mt = metric ton; kg = kilogram

¹ Use this line only if specific data on reducing agent, additive, iron ore and/or crude iron consumption are not available.

c. Sector-Specific Industrial Process Emissions (continued)

1	2	3	4	5	6	7	8	9	10	11	12
	Specific				Base	Period E	missions				
Process/Fugitive Emissions	Facility/ Source Name (optional)	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Esti- mation Method	Rating
					Energy						
Coal Mines		CH ₄									
Oil and Natural Gas		CH ₄									
Industries		CO ₂	mt								
Industries		N ₂ O									
				Wa	aste Han	dling					
Domestic and		CH ₄									
Industrial Wastewater Handling		N ₂ O									
Landfills		CH ₄									
				Hig	h GWP G	Bases					
Aluminum Production		PFC:									
(for PFC, specify gas)		SF ₆									
HCFC-22 Production		HFC-23									
SF ₆ Emissions From Electrical Equipment		SF_6									
Industrial Use and Production of HFCs,		HFC:									
PFCs, and SF ₆ (for HFCs and PFCs,		PFC:									
specify gas)		SF ₆									
Magnesium Production		SF ₆									
Semiconductor		HFC:									
Manufacture (for		PFC:									
HFCs and PFCs, specify gas)		SF ₆									
		CO ₂	mt								
Other (for HFCs,		CH ₄									
PFCs, and CFCs		N ₂ O									
specify gas)		SF ₆									
op 3001 gao/		PFC:			ļ	ļ					<u> </u>
		HFC:			ļ	ļ				<u> </u>	<u> </u>
0.1.0.01		CFC:	<u> </u>							<u> </u>	
Subtotal		CO ₂ e	mt								

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

1	2	3	4	5	6	7	8	9	10	11	12
	Specific				Base	Period En	nissions				
Source Category	Source Name (optional)	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Estimation Method	Rating
Enteric Fermentation		CH ₄									
Livestock Waste		CH ₄									
LIVESIOCK WASIE		N ₂ O									
Residue Burning		N ₂ O									
Residue Burning		CH ₄									
Rice Cultivation – 1 st Harvest		CH ₄									
Rice Cultivation – 2 nd ("Ratoon") Harvest		CH ₄									
Nitrous Oxide From Agricultural Soils – Nitrogen Application		N ₂ O									
Nitrous Oxide From Agricultural Soils – Organic Soils		N ₂ O									
Lime Application		CO ₂	mt								
Cultivation of Organic Soils		CO ₂	mt								
Other Agricultural Sources (specify source and gas):											
Subtotal		CO ₂ e	mt								

e. Fugitive Emissions Associated With Geologic Reservoirs

1	2	3	4	5	6	7	8	9	10	11	12
	Specific				Base	e Period Emi	ssions				
Source Category	Source/ Reservoir Name (optional)	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	mt								
Fugitive Emissions During Extraction of CO ₂ From Anthropogenic Sources		CO ₂	mt								
Fugitive Emissions During Transport and Processing		CO ₂	mt								
Fugitive Emissions of CO ₂ During Injection and Extraction for Enhanced Resource Recovery		CO ₂	mt								
Post-Injection Seepage of Carbon Dioxide to the Atmosphere		CO ₂	mt								

mt = metric ton

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 Per	iod Average Q	uantity	Report	ing Year Qu	antity
Source	Gas	Unit of Measure	Onsite	Offsite	Total	Onsite	Offsite	Total
Stationary Combustion	CO ₂	metric tons						
Sector-Specific Industrial Process Emissions	CO ₂	metric tons						
Other (Mobile & Agricultural Sources)	CO ₂	metric tons						
Subtotals	CO ₂	metric tons						

2. Enter Indirect Emissions From Purchased Energy

a. Physical Quantities of Energy Purchased

1	2	3	4	5	6	7	8	9
			Base I	Period Consu	Imption			
Energy Type	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Consumption	System Type/Fuel Used for Generation
Electricity	MWh							
Steam	MMBtu							
Hot Water	MMBtu							
Chilled Water	Ton-Hours Cooling							

b. Emissions From Purchased Energy for Emissions Inventory

1	2	3	4	5	6	7	8	9	10	11	12
	Specific				Base	e Period E	missions				
Source	Facility/ Region Name (optional)	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Estimation Method	Rating
Electricity		CO ₂	mt					Ŭ			Ŭ
		CH ₄	kg								
		N ₂ O	kg								
Steam		CO ₂	mt								
		CH ₄	kg								
		N ₂ O	kg								
Hot Water		CO ₂	mt								
		CH_4	kg								
		N ₂ O	kg								
Chilled Water		CO ₂	mt								
		CH_4	kg								
		N ₂ O	kg								
Total		CO ₂ e	mt								

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	6	7	8	9	10	11
				Base Period Emissions						
Source	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Estimation Method	Rating
Electricity	CO ₂ e	mt								
Steam, Hot Water, and Chilled Water*	CO ₂ e	mt								
Total	CO ₂ e	mt								

mt = metric ton

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

3. Enter Other Indirect Emissions*

1	2	3	4	5	6	7	8	9	10	11
				Base	Period Emis	sions				
Source	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Estimation Method	Rating
Employee Commuting										
Manufacture & Sale of Energy Efficient Products										
Consumption of Energy- intensive Products										
Nitrous Oxide Emissions from Fertilizer Application	N ₂ O									
Other:										
Subtotal	CO ₂ e	mt								

mt = metric ton

*Do not include in emission inventory.

4. Enter Terrestrial Carbon Fluxes and Stocks

a. Forestry Activities

1	2	3	4	5	6	7	8	9	10
					Carbon Stocks				
Categories	Specific Source/ Area Name (optional)	Gas	Units	Base Period	Estimated Carbon Stocks in Year Prior to Reporting Year	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	mt						
Agroforestry		CO ₂	mt						
Forest Management ⁴		CO_2	mt						
Short-Rotation Biomass Energy Plantations		CO ₂	mt						
Urban Forestry		CO_2	mt						
Timber Harvesting ⁵		CO_2	mt						
Other ⁶		CO_2	mt						
Total		CO ₂	mt						

mt = metric ton

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.

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, 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:

	-		
 Method 1	Track and report	emissions in v	year they occur
	Thuck and report		your they boour.

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	mt					

mt = metric ton

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	mt				

mt = metric ton

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 completed for each year after the disturbance until carbon stocks reach pre-disturbance levels.

1	2	3	4	5	6	7	8	9	10	11
						Carbon Stocks				
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
		Has Sustainability Been	
	Area	Verified by Third Party	Identify System Used to
Name/Description of Tract of Land	(Acres)	Certifier (Y/N)	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	6	7	8	9	10
					Carbon Stock	s			
Categories	Specific Source/ Area Name (optional)	Gas	Units	Base Period	Estimated Carbon Stocks in Year Prior to Reporting Year	Estimated Carbon Stocks in Reporting Year	Reporting Year Stock Change or Carbon Flux ^{1,2}	Estimation Method ³	Rating
Crops on Mineral Soils		CO ₂	mt						
Pasture/Grazing		CO ₂	mt						
Land-Use Change		CO ₂	mt						
Other:		CO ₂	mt						
Total		CO ₂	mt						

mt = metric ton

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, indicate the name.

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	mt		
Wood Products Method 1	CO ₂	mt		
Wood Products Method 2	CO ₂	mt		
Land Restoration and Forest Preservation	CO ₂	mt		
Sustainably Managed Forests	CO ₂			
Incidental Lands	CO ₂			
Other Terrestrial Carbon Fluxes	CO ₂	mt		
Total Reporting Year Terrestrial Carbon Flux	CO ₂	mt		

mt = metric ton

5. Identify and Estimate De Minimis Emissions Sources

1	2	3	4	5	6	7
De Minimis Emissions Type	De Minimis Emissions Source	Gas	Unit of Measure	Base Period Average De Minimis Emissions	Reporting Year De Minimis Emissions*	Year Last Estimated*
Total		CO ₂ e	metric tons			

*De minimis emissions must be re-estimated after any significant increase in such emissions, or every five years, whichever occurs first.

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U.S. Energy Information Administration		OMB No. 1905-0194
Form EIA-1605	Voluntary Reporting of Greenhouse Gases	Expiration Date: TBD

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 *(if applicable)*. Also complete and attach one copy of Addendum C, Country-Specific Factors from Foreign Sources.

Part D. Total Emissions and Carbon Flux

1. Enter Total Domestic Emissions and Carbon Flux

	1	2	3	4	5	6	7	8
				Base	e Period Em	issions		Reporting Year
ltem	Source	Gas/ Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Emissions or Carbon Flux
А	Direct Emissions	mtCO ₂ e						
В	Indirect Emissions From Purchased Energy for Emissions Inventory	mtCO ₂ e						
С	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						
Н	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

	1	2	3	4	5	6	7	8
				Base	e Period Em	issions		Reporting Year
Item	Source	Gas/ Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Emissions or Carbon Flux
А	Direct Emissions	mtCO ₂ e						
В	Indirect Emissions From Purchased Energy for Emissions Inventory	mtCO ₂ e						
С	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						
н	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 emissions 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.

4	Enter Ress Deried Date	(anter demontia and foreign courses concretely)
Т.	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 Source	es		
A	4					
В	3					
С	2					
D	1					
Totals ³						
Weighted Average Rating ⁴						
			Foreign Source	S		
A	4					
В	3					
С	2					
D	1					
Totals ³						
Weighted Average Rating ⁴						

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.

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

³ Sum values for Total Emissions (Column 6) and Weighted Total Emissions (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.

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 Source	es		
А	4					
В	3					
С	2					
D	1					
Totals ³						
Weighted Average Rating ⁴						
			Foreign Source	S		
А	4					
В	3					
С	2					
D	1					
Totals ³						
Weighted Average Rating ⁴						

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.

SECTION 3. EMISSION OFFSETS

Complete Section 3 only if this is a Reporting Year report.

This Report Includes Offsets Obtained by Agreement With (check all that apply):

- □ Other reporters to the Voluntary Reporting of Greenhouse Gases Program (complete Part A)
- □ Non-reporters (complete Part B)

Part A. Offsets Obtained by Agreement With Other Reporters. (Offsets may only be registered, or reported but not registered, in this part if the reporter has an agreement with the other reporting entity to register or report the reduction.) Identify the entities from which you have obtained offsets and enter the quantity or quantities of emission reductions obtained in metric tons CO_2e .

1.	Enter Information in the Table Below for Offsets Obtained From Other Reporters	3
		<i>.</i>

1	2	3	4	5	6	7
	Name of Other					Registered
	Reporter's					by Other
Name of Other	Subentity	Domestic		Unit of		Reporter?*
Reporter	(If Applicable)	or Foreign	Gas	Measure	Quantity	(Y/N)
•		Ŭ			, in the second s	

*If you are registering reductions, the offsets obtained from another reporter must have been registered by that other reporter.

Part B. Offset Obtained by Agreement With a Non-reporter. Complete Part B if you have obtained emission offsets from a non-reporter to the 1605(b) Program. Also complete and attach one copy of Schedules I, II (if applicable), III, and the form for the appropriate emission reduction method (Addendum B1-B16) completed by, or on behalf of, the non-reporter.

1	2	3	4	5	6	7
						Non-reporter
						Has Met
	Name of					Requirements
	Non-reporter's	Domestic				for
Name of	Subentity	or		Unit of	Quantity	Registration?*
	(If Applicable)		0		Quantity	
Non-reporter	(If Applicable)	Foreign	Gas	Measure		(Y/N)
L						

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

*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 the requested copies 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.

- 1. Indicate the method used (or, in the case of a Start Year report, the method that will be used) to estimate entity-wide emission reductions for the entity. In the event that emission reductions are not being reported for this entity, check last box below:
 - □ Changes in Emissions Intensity (Addendum B1)
 - □ Changes in Absolute Emissions (Addendum B2)
 - □ Changes in Carbon Storage (Addendum B3)
 - □ Changes in Avoided Emissions (Addendum B4)
 - □ Energy Generation and Distribution (Addendum B5)
 - Coal Mine Methane Recovery (Addendum B6)
 - Landfill Methane Recovery (Addendum B7)
 - □ Geologic Sequestration (Addendum B8)
 - Electricity Transmission and Distribution Improvements (Addendum B9)
 - Capture of Methane from Anaerobic Digestion at Wastewater Treatment Facilities (Addendum B10)
 - Anaerobic Digestion of Animal Waste (Addendum B11)
 - □ Recycling of Fly Ash (Addendum B12)
 - Demand-Side Management and Other Emission Reduction Programs (Addendum B13)
 - Combined Heat and Power Generators (Addendum B14)
 - □ Other Action-Specific Methods (Addendum B15)
 - Destruction of Chlorofluorocarbons (Addendum B16)
 - Emission reductions are not being reported for this entity
- If registering reductions on Addendum B1 or B5 for this entity, are you also reporting but not registering reductions using the Changes in Absolute Emissions method (Addendum B2)?*
 Yes
- 3. Complete and attach one copy of the appropriate emission reduction addendum (Addendum B1-B16) for the method used to estimate entity-level reductions of domestic emissions
- 4. If you are reporting non-U.S. emissions within one entity-level report, attach one copy of the appropriate emission reduction addendum for your foreign emission reductions. *If you choose to use a different emission reduction estimation method or Base Period for foreign emissions, you must create a separate subentity. Likewise, if you choose to disaggregate foreign emissions by region or country, you must create a separate subentity for each region or country.*

^{*} You may choose to supplement your report of registered reductions using an intensity-based method with a report of reductions in absolute emissions even if the output of the entity is declining. The absolute emission reductions included in this supplemental report are not eligible for registration.

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 the Subentity (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
- Distinct organizational unit or other component of entity (e.g., discrete business line, facility, plant, vehicle fleet, or energy using system).
- □ Not practicable to assess change in net emissions for the following reasons:
- 3. Enter Any Significant Changes to Previous the 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, explain:
 - □ The subentity was included in the previous report, but has undergone significant changes, as follows:
 - Data are being resubmitted for the Base Period
 - A new Base Period (using a different year or years) has been established.
 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 the Subentity:

6.	Describe the Scope of the Emissions Inventory for the SubentityCheck the types of emission sources or sinks that are covered in the emissions inventory:Stationary source combustionHobile source combustionIndustrial processesAgricultural sources
7.	 Describe the Geographic Scope of Activities of the Subentity (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(ies) 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, explain:
9.	Define the Subentity Base Period Indicate number of years in the Base Period: 1 1 2 1 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. SUBENTITY EMISSION REDUCTIONS

If this is a Reporting Year report, complete and attach the appropriate form from Addendum B1-B16 for this subentity.

- 1. Indicate the method used (or, in the case of a Start Year report, the method that will be used) to estimate emission reductions for this subentity. In the event that emission reductions are not being reported for this subentity, check the last box below:
 - □ Changes in Emissions Intensity (Addendum B1)
 - □ Changes in Absolute Emissions (Addendum B2)
 - □ Changes in Carbon Storage (Addendum B3)
 - □ Changes in Avoided Emissions (Addendum B4)
 - □ Energy Generation and Distribution (Addendum B5)
 - Coal Mine Methane Recovery (Addendum B6)
 - □ Landfill Methane Recovery (Addendum B7)
 - □ Geologic Sequestration (Addendum B8)
 - □ Electricity Transmission and Distribution Improvements (Addendum B9)
 - Capture of Methane from Anaerobic Digestion at Wastewater Treatment Facilities (Addendum B10)
 - □ Anaerobic Digestion of Animal Waste (Addendum B11)
 - □ Recycling of Fly Ash (Addendum B12)
 - Demand-Side Management and Other Emission Reduction Programs (Addendum B13)
 - Combined Heat and Power Generators (Addendum B14)
 - Other Action-Specific Methods (Addendum B15)
 - Destruction of Chlorofluorocarbons (Addendum B16)
 - Emission reductions are not being reported for this subentity
- 2. If registering reductions on Addendum B1 or B5 for this entity, are you also reporting but not registering reductions using the Changes in Absolute Emissions method (Addendum B2)?*
 - □ Yes
 - □ No

^{*} You may choose to supplement your report of registered reductions using an intensity-based method with a report of reductions in absolute emissions even if the output of the subentity is declining. The absolute emission reductions included in this supplemental report are not eligible for registration.

SCHEDULE III. EMISSION REDUCTIONS

SECTION 1. REGISTERED EMISSION REDUCTIONS

Part A. Enter Domestic Net Entity-Level Registered Reductions and Carbon Storage (metric tons CO₂e)

	1	2	3	4	
		Emission Reductions			
ltem	Method/Source	Gross Registered Reductions	Registered Reductions Distributed to Other Reporters	Net Registered Reductions (Subtract Column 3 from Column 2)	
А	Changes in Emissions Intensity				
A1	Direct				
A2	Indirect From Purchased Energy				
В	Changes in Absolute Emissions				
B1	Direct				
B2	Indirect From Purchased Energy				
С	Changes in Carbon Storage				
D	Changes in Avoided Emissions				
E	Energy Generation and Distribution				
F	Coal Mine Methane Recovery				
G	Landfill Methane Recovery				
Н	Geologic Sequestration				
I	Electricity Transmission and Distribution Improvements				
J	Anaerobic Digestion at Wastewater Treatment Facilities				
К	Anaerobic Digestion of Animal Waste				
L	Recycling of Fly Ash				
М	Demand-Side Management or Other Emission Reduction Programs				
Ν	Combined Heat and Power				
0	Other Action-Specific Methods				
01	Direct				
O2	Indirect From Purchased Energy				
Р	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.)				
Т	TOTAL (Add row R to row S)				

CO ₂ e)				
	1	2	3	4
		Gross Registered	ission Reduction Registered Reductions Distributed to Other	Net Registered Reductions (Subtract Column 3 from
ltem	Method/Source	Reductions	Reporters	Column 2)
A	Changes in Emissions Intensity			
A1	Direct			
A2	Indirect From Purchased Energy			
В	Changes in Absolute Emissions			
B1	Direct			
B2	Indirect From Purchased Energy			
С	Changes in Carbon Storage			
D	Changes in Avoided Emissions			
E	Energy Generation and Distribution			
F	Coal Mine Methane Recovery			
G	Landfill Methane Recovery			
Н	Geologic Sequestration			
I	Electricity Transmission and Distribution Improvements			
J	Anaerobic Digestion at Wastewater Treatment Facilities			
К	Anaerobic Digestion of Animal Waste			
L	Recycling of Fly Ash			
м	Demand-Side Management or Other Emission Reduction Programs			
N	Combined Heat and Power			
0	Other Action-Specific Methods			
01	Direct			
02	Indirect From Purchased Energy			
Р	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.)			
Т	TOTAL (Add row R to row S)			

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

SECTION 2. REPORTED BUT NOT REGISTERED EMISSION REDUCTIONS

Part A. Enter Domestic Net Entity-Level Reported but not Registered Reductions and Ca	arbon
Storage	

Storage	1	2	3	4	
	Emission Reductions				
Item Carbor	Method/Source Dioxide, Methane, Nitrous Oxide, Hydrofluo	Gross Reported Reductions rocarbons, Perf	Reported Reductions Distributed to Other Reporters luorocarbons, a	Net Reported Reductions (Subtract Column 3 from Column 2) and Sulfur	
	uoride (metric tons CO ₂ e)	, -			
A	Changes in Emissions Intensity				
A1	Direct				
A2	Indirect From Purchased Energy				
A3	Other Indirect				
В	Changes in Absolute Emissions				
B1	Direct				
B2	Indirect From Purchased Energy				
B3	Other Indirect				
С	Changes in Carbon Storage				
D	Changes in Avoided Emissions				
E	Energy Generation and Distribution				
F	Coal Mine Methane Recovery				
G	Landfill Methane Recovery				
н	Geologic Sequestration				
I	Electricity Transmission and Distribution Improvements				
J	Anaerobic Digestion at Wastewater Treatment Facilities				
K	Anaerobic Digestion of Animal Waste				
L	Recycling of Fly Ash				
М	Demand-Side Management or Other Emission Reduction Programs				
Ν	Combined Heat and Power				
0	Other Action-Specific Methods				
01	Direct				
02	Indirect From Purchased Energy				
O3	Other Indirect				
Р	Subtotal (Sum rows A1 through O)				
Q	Offsets				

	1	2	3	4
		Em	ission Reduction	ons
ltem	Method/Source	Gross Reported Reductions	Reported Reductions Distributed to Other Reporters	Net Reported Reductions (Subtract Column 3 from Column 2)
	Dioxide, Methane, Nitrous Oxide, Hydrofluor Joride (metric tons CO ₂ e)	ocarbons, Perf	luorocarbons, a	and Sulfur
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.)			
Т	TOTAL (Add row R to row S)			
U	Emission Reductions Also Registered as Emission Intensity Reductions			
Chloro	fluorocarbons (CFCs) and Other Gases (Kilog	rams of native g	as) Attach additi	onal copies of
Part A i	f reporting reductions in domestic emissions of n	nore than one ga	S.	
V	Destruction of CFCs or Reductions of Other Gases. Specify Gas:			
W	Reduction Deficit for this CFC or Other Gas 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.)			
х	TOTAL (Add row V to row W)			

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

Storage	1	2	3	4
		Em	ission Reduction	
ltem	Method/Source	Gross Reported Reductions	Reported Reductions Distributed to Other Reporters	Net Reported Reductions (Subtract Column 3 from Column 2)
Carbon	Dioxide, Methane, Nitrous Oxide, Hydrofluo			
	Ioride (metric tons CO ₂ e)			
A	Changes in Emissions Intensity			
A1	Direct			
A2	Indirect From Purchased Energy			
A3	Other Indirect			
В	Changes in Absolute Emissions			
B1	Direct			
B2	Indirect From Purchased Energy			
B3	Other Indirect			
С	Changes in Carbon Storage			
D	Changes in Avoided Emissions			
E	Energy Generation and Distribution			
F	Coal Mine Methane Recovery			
G	Landfill Methane Recovery			
н	Geologic Sequestration			
I	Electricity Transmission and Distribution Improvements			
J	Anaerobic Digestion at Wastewater Treatment Facilities			
к	Anaerobic Digestion of Animal Waste			
L	Recycling of Fly Ash			
м	Demand-Side Management or Other Emission Reduction Programs			
N	Combined Heat and Power			
0	Other Action-Specific Methods			
01	Direct			
O2	Indirect From Purchased Energy			
O3	Other Indirect			
Р	Subtotal (Sum rows A1 through O)			
Q	Offsets			
Q1	Offsets Obtained From Other Reporters			

	1	2	3	4
		Em	ission Reduction	ons
Item	Method/Source	Gross Reported Reductions	Reported Reductions Distributed to Other Reporters	Net Reported Reductions (Subtract Column 3 from Column 2)
	Dioxide, Methane, Nitrous Oxide, Hydrofluor Joride (metric tons CO ₂ e)	ocarbons, Perf	luorocarbons, a	and Sulfur
Q2	Offsets Obtained From Non-reporters			
R	Subtotal (Sum rows P through Q2)			
S	Reduction Deficits Carried Over From Last Year's Report (<i>From Schedule III, Section 2, Part B, Item</i> <i>T in Last Year's Report. If negative, enter value. If</i> <i>zero or positive, enter zero.</i>)			
Т	TOTAL (Add row R to row S)			
U	Emission Reductions Also Registered as Emission Intensity Reductions			
	fluorocarbons (CFCs) or Other Gases (Kilogra			nal copies of
Part B i	f reporting reductions in foreign emissions of mo	re than one gas.		[
V	Destruction of CFCs or Reductions of Other Gases. Specify Gas:			
W	Reduction Deficit for this CFC or Other Gas 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.)			
Х	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, skip to Section 2 of Schedule IV, Reporter Self Certification.

- 1. Enter the Name of the Entity Whose Report Has Been 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:

 Contact Name:
 Zip:

 Contact Title:

 Telephone:

 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, 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			□ Yes □ No		
				□ Yes □ No		
				□ Yes □ 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. Certification of Independent Verification

We are an independent *verifier* of <u>[entity]</u> '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 <u>[entity]</u> nor do we provide any ongoing operational or support services to <u>[entity]</u> except services consistent with independent financial accounting or independent certification of compliance with government or private standards.

This is to certify that <u>[entity]</u> 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 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 (Print Name)	Lead Certifier of Verifying Firm (Signature)	Date
Corporate Officer of Verifying Firm (Print Name)	Corporate Officer of Verifying Firm (Signature)	Date
-	ninal offense for any person knowingly and the United States any false, fictitious, or fra 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 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:		
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, Subentity Emissions, or Offset Emissions

This emissions inventory is for:

- □ Entity-wide foreign operations
- A domestic or foreign subentity. Enter Name of Subentity:
- A domestic or foreign offset provider. Enter Name of Offset Provider:

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	6	7	8	9	10	11
				Ba	se Period	Emission	s or Carbo	on Flux	Reporting	
ltem	Source	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Year Emissions or Carbon Flux	Weighted Rating*
А	Direct Emissions									
A1	Carbon Dioxide	CO ₂	mt							
A2	Methane	CH ₄								
A3	Nitrous Oxide	N ₂ O								
A4	Sulfur Hexafluoride	SF ₆								
A5	HFC (Specify)									
A6	PFC (Specify)									
A7	CFC (Specify)									
В	Indirect Emissions From Purchased Energy (Inventory)									
B1	Carbon Dioxide	CO ₂	mt							
B2	Methane	CH ₄								
B3	Nitrous Oxide	N ₂ O								
С	Indirect Emissions From Purchased Energy (Reductions)	CO ₂ e	mt							
D	Carbon Flux	CO ₂	mt							
Е	Other Indirect Emissions									
E1	Carbon Dioxide	CO ₂	mt							

1	2	3	4	5	6	7	8	9	10	11
				Bas	se Period	Emissions	s or Carbo	n Flux	Reporting	
Item	Source	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Year Emissions or Carbon Flux	Weighted Rating*
E2	Methane	CH ₄	•		=					
E3	Nitrous Oxide	N ₂ O								
E4	Sulfur Hexafluoride	SF ₆								
E5	HFC (Specify)									
E6	PFC (Specify)									
E7	CFC (Specify)									
F	Captured CO ₂ Sequestered in an Onsite Geologic Reservoir	CO ₂	mt							
G	Captured CO ₂ Transferred to Another Entity for Sequestration in a Geologic Reservoir	CO ₂	mt							

mt = metric ton

*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 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	1A	2	3	4	5	6	7		9	<u>10</u>	11	12
		Specific				Bas	se Perio	d Emissio	ons			
Source Category	Fuel Type	Facility/Source Name (optional)	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Estimation Method	Rating*
Fossil Fuel			CO ₂	mt								
Combustion			CH ₄	kg								
			N_2O	kg								
			CO_2	mt								
			CH_4	kg								
			N_2O	kg								
			CO ₂	mt								
			CH₄	kg								
			N_2O	kg								
			CO_2	mt								
			CH_4	kg								
			N_2O	kg								
Nonstandard Fuel			CO_2	mt								
Combustion			CH_4	kg								
			N ₂ O	kg								
			CO ₂	mt								
			CH_4	kg								
			N ₂ O	kg								
Waste Fuels			CO ₂	mt								
Combustion			CH ₄	kg								
			N ₂ O	kg								
				mt								
			CH ₄	kg								
5.			N ₂ O	kg								
Biomass			CH₄	kg								
Combustion			N ₂ O	kg								
Nonfuel Use of Fossil Fuels			CO ₂	mt								
Subtotal			CO ₂ e	mt								

mt = metric ton; kg = kilogram

*Complete column 12, 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 domestic or foreign subentity.

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

1	1A	2	3	4	5	6	7	8	9	<u>10</u>	11	12
		Specific				Base	e Period E	missions				
Source Category	Fuel Type	Vehicle Class/Fleet Name (optional)	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Esti- mation Method	Rating*
Highway			CO ₂	mt								
Vehicles			CH_4	kg								
			N_2O	kg								
Off-Road			CO ₂	mt								
Vehicles			CH_4	kg								
			N_2O	kg								
Water Borne			CO ₂	mt								
Vessels			CH_4	kg								
			N_2O	kg								
Aircraft			CO ₂	mt								
			CH_4	kg								
			N_2O	kg								
Mobile Refrigeration			HFC- 134a	kg								
and Air- Conditioning												
5												<u> </u>
												+
						1	1	1				
Subtotal			CO ₂ e	mt								

mt = metric ton; kg = kilogram

*Complete column 12, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 12 if this copy of Addendum A is being completed for a domestic or foreign subentity.

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

1	2	3	4	5	6	7	8	9	<u>10</u>	11	12
	Specific				Base	e Period E	missions	_			
Process/Fugitive Emissions	Facility/ Source Name (optional)	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Estimation Method	Rating*
			•	Indu	ustrial Pro	ocesses					
Adipic Acid Production		N ₂ O									
Aluminum Production (CO ₂ only)		CO ₂	mt								
Ammonia Production		CO ₂	mt								
Cement Production – Clinker Production		CO ₂	mt								
Cement Production – Cement Kiln Dust		CO ₂	mt								
Hydrogen Production		CO ₂	mt								
Iron and Steel Production – All Processes*		CO ₂	mt								
Iron and Steel Production – Reducing Agents		CO ₂	mt								
Iron and Steel Production – Furnace Additives		CO ₂	mt								
Iron and Steel Production – Crude Iron Production		CO ₂	mt								
Iron and Steel Production – Conversion of Iron to Steel		CO ₂	mt								

mt = metric ton

*Complete column 12, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 12 if this copy of Addendum A is being completed for a domestic or foreign subentity.

c. Sector-Specific Industrial Process Emissions (continued)

1	2	3	4	5	6	7	8	9	<u>10</u>	11	12
	Specific				Base	e Period E	missions		-		
Process/Fugitive Emissions	Facility/ Source Name (optional)	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Estimation Method	Rating**
		1	Industria	I Process	ses – Iron	and Ste	el Produc	ction	1	1	1
Iron and Steel Production – Electrode Consumption in Electric Arc Furnaces		CO ₂	mt								
Iron and Steel Production – Secondary Steel Production in Electric Arc Furnaces		CO ₂	mt								
Iron and Steel		CO ₂	mt								
Production – Other		CH ₄									
Lime Production		CO ₂	mt								
Limestone and Dolomite Use		CO ₂	mt								
		CO ₂	mt								
Methanol Production		CH ₄									
Methane Emissions From the Production of Other Petrochemicals		CH₄									
Nitric Acid Production		N ₂ O									
Soda Ash Production		CO ₂	mt								
Soda Ash Use		CO ₂	mt								

mt = metric ton

* Use this line only if specific data on reducing agent, additive, iron ore and/or crude iron consumption are not available.

** Complete column 12, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 12 if this copy of Addendum A is being completed for a domestic or foreign subentity.

1	2	3	4	5	6	7	8	9	10	11	12
	Specific				Base	Period E	missions				
Process/Fugitive Emissions	Facility/ Source Name (optional)	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Estimation Method	Rating*
					Energ	у					
Coal Mines		CH ₄									
Oil and Natural Gas		CH ₄									
Industries		CO ₂	mt								
Industries		N ₂ O									
				١	Naste Han	dling					
Domestic and		CH ₄									
Industrial Wastewater		N ₂ O									
Landfills		CH ₄									
				Н	ligh GWP (Gases					
Aluminum Production		PFCs									
(specify gas)		SF_6									
HCFC-22 Production		HFC-23									
SF ₆ Emissions From		SF ₆									
Industrial Use and		HFCs									
Production of HFCs, PFCs, and SF_6 (for		PFCs									
HFCs and PFCs,		SF ₆									
Magnesium		SF ₆									
Semiconductor		PFCs									
Manufacture (for HFCs and PFCs,		HFCs									
specify gas)		SF ₆									
		CO ₂	mt								
		CH ₄									
Other (for HFCs		N ₂ O									
PFCs, and CFCs,		SF ₆									
specify gas)		PFC:									
		HFC:									
		CFC:									
Subtotal		CO ₂ e	mt								

mt = metric ton

*Complete column 12, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 12 if this copy of Addendum A is being completed for a domestic or foreign subentity.

1	2	3	4	5	6	7	8	9	<u>10</u>	11	12
	Specific				Base	Period Emis	ssions				
Source Category	Source Name (optional)	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Estimation Method	Rating*
Enteric Fermentation		CH ₄									
		CH4									
Livestock Waste		N ₂ O									
Desidue Durrie e		N ₂ O									
Residue Burning		CH ₄									
Rice Cultivation – 1 st Harvest		CH ₄									
Rice Cultivation – 2 nd ("ratoon") harvest		CH ₄									
Nitrous Oxide From Agricultural Soils – Nitrogen Application		N ₂ O									
Nitrous Oxide From Agricultural Soils – Organic Soils		N ₂ O									
Lime Application		CO ₂	mt								
Cultivation of Organic Soils		CO ₂	mt								
Other Agricultural Sources (specify source and gas):											
Subtotal		CO ₂ e	mt								

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

mt = metric ton

*Complete column 12, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 12 if this copy of Addendum A is being completed for a domestic or foreign subentity.

e. Fugitive Emissions Associated With Geologic Reservoirs

1	2	3	4	5	6	7	8	9	<u>10</u>	11	12
	Specific				Bas	e Period E	missions				
Source Category	Source/ Reservoir Name (optional)	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	mt								
Fugitive Emissions During Extraction of CO ₂ From Anthropogenic Sources		CO ₂	mt								
Fugitive Emissions During Transport and Processing		CO ₂	mt								
Fugitive Emissions of CO ₂ During Injection and Extraction for Enhanced Resource Recovery		CO ₂	mt								
Post-Injection Seepage of Carbon Dioxide to the Atmosphere		CO ₂	mt								

mt = metric ton

*Complete column 12, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 12 if this copy of Addendum A is being done for a domestic or foreign subentity.

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 Per	iod Average Q	uantity	Reporti	ng Year Qu	antity
Source	Gas	Unit of Measure	Onsite	Offsite	Total	Onsite	Offsite	Total
Stationary Combustion	CO ₂	metric tons						
Sector-Specific Industrial Process Emissions	CO ₂	metric tons						
Other (Mobile and Agricultural Sources)	CO ₂	metric tons						
Subtotals	CO ₂	metric tons						

2. Enter Indirect Emissions From Purchased Energy*

a. Physical Quantities of Energy Purchased

1	2	3	4	5	6	7	8	9
			Base F	Period Consu	Imption			
Source	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Consumption	System Type/Fuel Used for Generation
Electricity	MWh							
Steam	MMBtu							
Hot Water	MMBtu							
Chilled Water	Ton-Hours Cooling							

b. Emissions From Purchased Energy for Emissions Inventory

1	2	3	4	5	6	7	8	9	<u>10</u>	11	12
	Specific				Base	Period Emis	ssions	•			
Source	Facility/ Region Name (optional)	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Estimation Method	Rating
Electricity		CO ₂	mt								
		CH_4	kg								
		N ₂ O	kg								
Steam		CO ₂	mt								
		CH_4	kg								
		N ₂ O	kg								
Hot Water		CO ₂	mt								
		CH_4	kg								
		N ₂ O	kg								
Chilled Water		CO ₂	mt								
		CH ₄	kg								
		N ₂ O	kg								
Total		CO ₂ e	mt								

mt = metric ton; kg = kilogram

*Complete column 12, weighted rating, if this copy of Addendum A is being completed for entity-wide foreign operations. Do not complete column 12 if this copy of Addendum A is being done for a domestic or foreign subentity.

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.)

<u> </u>										
1	2	3	4	5	6	7	8	9	10	11
				Base	Period Emis	sions				
Source	Gas	Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Reporting Year Emissions	Estimation Method	Rating*
Electricity	CO ₂ e	mt								
Steam, Hot Water, and Chilled Water**	CO ₂ e	mt								
Total	CO ₂ e	mt								

mt = metric ton

*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 domestic or foreign subentity.

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

3. Enter Other Indirect Emissions*

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

mt = metric ton

*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 domestic or foreign subentity.

4. Enter Terrestrial Carbon Fluxes and Stocks

a. Forestry Activities

1	2	3	4	5	6	7	8	9	10
					Carbon Stocks	5			
Categories	Specific Source/ Area Name (optional)	Gas	Units	Base Period	Estimated Carbon Stocks in Year Prior to Reporting Year	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	mt						
Agroforestry		CO ₂	mt						
Forest Management ⁴		CO ₂	mt						
Short-Rotation Biomass Energy Plantations		CO ₂	mt						
Urban Forestry		CO ₂	mt						
Timber Harvesting ⁵		CO ₂	mt						
Other ⁶		CO ₂	mt						
Total		CO ₂	mt						

mt = metric ton

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 domestic or foreign subentity.

b. Wood Products:

i Method 1: Track and report emissions	in '	vear 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	mt					

mt = metric ton

*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 domestic or foreign subentity.

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	mt				

mt = metric ton

*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 domestic or foreign subentity.

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 domestic or foreign subentity.

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 completed for each year after the disturbance until carbon stocks reach pre-disturbance levels.

1	2	3	4	5	6	7	8	9	10	11
						Carbon Stocks				
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										

*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 domestic or foreign subentity.

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	6	7	8	9	10
					Carbon Stocks				
Categories	Specific Source/ Area Name (optional)	Gas	Units	Base Period Average	Estimated Carbon Stocks in Year Prior to Reporting Year	Estimated Carbon Stocks in Reporting Year	Reporting Year Stock Change or Carbon Flux ^{1,2}	Estimation Method ³	Rating*
Crops on Mineral Soils		CO ₂	mt						
Pasture/Grazing		CO ₂	mt						
Land-Use Change		CO ₂	mt						
Other:		CO ₂	mt						
Total		CO ₂	mt						

mt = metric ton

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.

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 domestic or foreign subentity.

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

h. Terrestrial Carbon Flux Summary

mt = metric ton

*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 domestic or foreign subentity.

5. Identify and Estimate De Minimis Emissions Sources

1	2	3	4	5	6	7
De Minimis Emissions Type	De Minimis Emissions Source	Gas	Unit of Measure	Base Period Average De Minimis Emissions	Reporting Year De Minimis Emissions*	Year Last Estimated*
TOTAL		CO ₂ e	metric tons			

*De minimis emissions must be re-estimated after any significant increase in such emissions, or every five years, whichever occurs first.

Part C. Total Foreign, Subentity, or Offset Emissions and Carbon Flux

1. Enter Total Emissions and Carbon Flux

	1	2	3	4	5	6	7	8
				Base	e Period Em	issions	•	Reporting Year
ltem	Source	Gas/ Units	Yr 1	Yr 2	Yr 3	Yr 4	Base Period Average	Emissions or Carbon Flux
А	Direct Emissions	mtCO ₂ e						
В	Indirect Emissions From Purchased Energy for Emissions Inventory	mtCO ₂ e						
С	Indirect Emissions From Purchased Energy for Calculation of Emission Reductions	mtCO ₂ e						
D	Total Emissions (A + B)*	mtCO ₂ e						
Е	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						
Н	Other Indirect Emissions	mtCO ₂ e						
Ι	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

	1	2	3	4	5	6	7	8
	Output	Unit of		E	Base Perio	d		Reporting
Item	Measure	Measure	Yr 1	Yr 2	Yr 3	Yr 4	Avg.	Year
Physical Measure								
А								
		•	Eco	nomic Me	asure		1	
В		Current \$						
С		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):

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

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

Part B. Emissions, Emissions Intensity, and Emission Reductions

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

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

*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
			Indirect Emissions From	Other
		Direct	Purchased	Indirect
Item	Description	Emissions	Energy	Emissions
G	Base Period Intensity [E / (A7, C7, or D7)]			
Н	Reporting Year Intensity [F / (A8, C8, or D8)]			

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

	1	2	3	4
		Sou	rce of Reduct	ions
ltem	Description	Direct Emissions	Indirect Emissions From Purchased Energy	Other Indirect Emissions*
nem	Description	LIIII33IUII3	Litergy	LIIII33IUII3
I	Emission Reductions [(G – H) * A8, C8, or D8]			

*Reductions of Other Indirect Emissions may not be registered.

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

Enter Action Type Code	Describe Action

- 5. Identify Cause(s) of the Emission Reduction(s) (check all that apply):
 - □ Voluntary action
 - □ Plant closing
 - Government requirement
 - Federal requirement
 - □ State requirement
 - Local requirement
- 6. 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	
		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

	1	2	3	4	5	6	7	8
	Output	Unit of		Base Period				
Item	Measure	Measure	Yr 1	Yr 2	Yr 3	Yr 4	Avg.	 Reporting Year
Physical Measure								
А								
			Econo	omic Meas	ure			
В		Current \$						
С		Constant Year (\$2000)						
			Inde	xed Meası	ire			
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.)
- 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
- 4. Define and Describe the Output Measure Used and Provide a Rationale for Why the Measure Was Selected:

Part B. Emissions and Emission Reductions

 Enter Emissions and Calculate Emission Reductions (metric tons CO

	1	2	3	4
		So	urce of Emissio	ns
ltem	Description	Direct Emissions*	Indirect Emissions From Purchased Energy**	Other Indirect Emissions
E	Base Period			
F	Reporting Year			
G	Registered Emission Reductions (E - F)			
Н	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 and Describe the Types of Actions That Were the Likely Cause of the Reductions Achieved *[Enter codes from Appendix M]*

Enter Action Type Code	Describe Action

- 3. 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
- 4. 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	
		0026	tons	
		CO ₂ e	metric	
		0026	tons	
		CO ₂ e	metric	
		CO26	tons	
		CO ₂ e	metric	
		0026	tons	
Total Direct Emission Reductions		CO ₂ e	metric	
		0026	tons	
Total Indirect Emission Reductions		CO ₂ e	metric	
From Purchased Energy		0026	tons	
Total Other Indirect Emission		CO ₂ e	metric	
Reductions		0026	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
ltem	Categories	Units of Measure	Reporting Year Stock Change or Carbon Flux*
А	Forestry Activities	metric tons CO ₂ e	
В	Wood Products – Method 1	metric tons CO ₂ e	
С	Wood Products – Method 2	metric tons CO ₂ e	
D	Land Restoration and Forest Preservation	metric tons CO ₂ e	
Е	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	
н	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 and Describe the Types of Actions That Were the Likely Cause of the Reductions Achieved *[Enter codes from Appendix M]*

Enter Action Type Code	Describe Action

- 3. 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

4. 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	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: _

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
- 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 all that apply)
 - □ Electricity
 - Steam
 - Hot water
 - □ Chilled water

Part B. Energy Generation, Emissions, and Emission Reductions

- 1. Activity Data, Emission Coefficients, Conversion Factors, and Emission Reductions
 - a. Select Geographic Scope of the Avoided Emissions Benchmark(s) (based on the regions in Appendix F):
 - □ Single Domestic Region
 - □ Multiple Domestic Regions
 - □ Foreign Region(s)
 - b. If Reporting Reductions for a Single Domestic Region, Enter the Number of the Region (1 through 15) from Appendix F: ______
 - c. If Reporting Reductions for Multiple or Foreign Regions, Enter the Weighted Avoided Emissions Benchmark and Briefly Explain How It Was Calculated:

Benchmark Type	Avoided Emissions Benchmark	Explanation
Electricity (metric		
tons CO ₂ e/MWh)		
Thermal*		
(kilograms		
CO ₂ e/ton-hour)		

*Complete this row only if you are reporting avoided emissions from foreign chilled water generation. If you are producing chilled water from both electric and natural gas chillers, enter a weighted factor and explain above.

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

	1	2	3	4	5	6
Item	Description	Electricity	Steam	Hot Water	Chilled Water	Total
А	Base Period Energy Sold	MWh	MMBtu	MMBtu	ton hours	
В	Reporting Year Total Emissions (metric tons CO ₂ e)					
С	Reporting Year Energy Generated	MWh	MMBtu	MMBtu	ton hours	
D	Reporting Year Emissions Intensity (B / C)	metric tons CO₂e/MWh	metric tons CO₂e/MMBtu	metric tons CO₂e/MMBtu	metric tons CO ₂ e/ton hour	
E	Reporting Year Energy Sold	MWh	MMBtu	MMBtu	ton hours	
F	Reporting Year Incremental Energy Sold (E - A)	MWh	MMBtu	MMBtu	ton hours	
G	Avoided Emissions Intensity Benchmark	metric tons CO₂e/MWh	metric tons CO₂e/MMBtu	metric tons CO₂e/MMBtu	metric tons CO ₂ e/ton hour	
н	Emission Reduction [(G - D) * F] (metric tons CO ₂ e)					

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

Enter Action Type Code	Describe Action
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

- 3. Identify the Cause(s) of the Emission Reduction(s) (check all that apply):
 - Voluntary
 - □ Plant closing
 - Government requirement
 - Federal requirement
 - □ State requirement
 - Local requirement

4. 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	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. Energy Generation and Distribution

If Reporting Subentities, Enter Name of Subentity: _

Part A. Energy Generation and Emissions

- 1. Energy Product Type Exported (check all that apply)
 - □ Electricity
 - □ Steam
 - □ Hot water
 - □ Chilled water
- 2. Select Geographic Scope of Avoided Emissions Benchmark(s) (based on the regions in Appendix F): □ Single Domestic Region
 - □ Multiple Domestic Regions
 - □ Foreign Region(s)
- 3. If Reporting Reductions for a Single Domestic Region, Enter Number of the Region (1 through 15) from Appendix F: ______
- 4. If Reporting Reductions for Multiple or Foreign Regions, Enter the Weighted Avoided Emissions Benchmark and Briefly Explain How It Was Calculated:

Benchmark Type	Avoided Emissions Benchmark	Explanation
Electricity (metric tons CO ₂ e/MWh)		
Thermal*		
(kilograms		
CO ₂ e/ton-hour)		

*Complete this row only if you are reporting avoided emissions from foreign chilled water generation. If you are producing chilled water from both electric and natural gas chillers, enter a weighted factor and explain above.

5.	Emissions, Energ	y Generation	, and Emissions Ir	ntensity
----	------------------	--------------	--------------------	----------

	1	2	3	4	5
Item	Description	Electricity	Steam	Hot Water	Chilled Water
А	Base Period Emissions (metric tons CO ₂ e)				
В	Base Period Exported Energy	MWh	MMBtu	MMBtu	ton hours
С	Base Period Emissions Intensity (A / B)	metric tons CO ₂ e/ MWh	metric tons CO ₂ e/ MMBtu	metric tons CO ₂ e/ MMBtu	metric tons CO ₂ e/ ton hours
D	Reporting Year Emissions (metric tons CO ₂ e)				
Е	Reporting Year Exported Energy	MWh	MMBtu	MMBtu	ton hours
F	Reporting Year Emissions Intensity (D / E)	metric tons CO ₂ e/ MWh	metric tons CO ₂ e/ MMBtu	metric tons CO ₂ e/ MMBtu	metric tons CO ₂ e/ ton hours
G	Reporting Year Incremental Exported Energy (E - B)	MWh	MMBtu	MMBtu	ton hours
Н	Avoided Emissions Benchmark	metric tons CO ₂ e/ MWh	metric tons CO ₂ e/ MMBtu	metric tons CO ₂ e/ MMBtu	metric tons CO ₂ e/ ton hours

Part B. Emission Reductions

1. Calculate and Enter Emission Reductions

	1	2	3	4	5	6
				Hot	Chilled	
Item	Description	Electricity	Steam	Water	Water	Total
	Emission Reductions From					
	Improvements in Historical					
1	Emissions Intensity [(C - F) * B]					
	(metric tons CO ₂ e)					
	Emission Reductions From					
J	Incremental Exported Energy [(H					
	- F) * G] (metric tons CO ₂ e)					
	Total Emission Reductions From					
K	Energy Generation and Exports					
	(I + J) (metric tons CO ₂ e)					

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

Enter Action Type Code	Describe Action

Enter Action Type Code	Describe Action

- 3. Identify the Cause(s) of the Emission Reduction(s) (check all that apply):
 - Voluntary
 - □ Plant closing
 - Government requirement
 - □ Federal requirement
 - □ State requirement
 - Local requirement
- 4. 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	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	

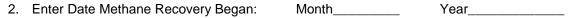
Addendum B6. Coal Mine Methane Recovery

If Reporting Subentities, Enter Name of Subentity:

Part A. Action Identification

1. Enter Location of Coal Mine(s):

1	2	3	4
		Location	
		State	Country (if foreign subentity)
		(if domestic	(if foreign
Name	City	(if domestic subentity)	subentity)
Name	Oity	Subenity	Subcritity/



- 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
			Base Peric	d		
Source and Disposition	Year 1	Year 2	Year 3	Year 4	Base Period Average	Reporting Year
	DEGASI	ICATION DU	JRING MININ	G		
	V	entilation Sy	ystems			
Flared						
Electricity Used Onsite						
Electricity Sold to Grid						
Injected Into Pipeline						
Direct Use Onsite						
Total Ventilation Systems						
	Other	Degasificati	on Methods			
Flared						
Electricity Used Onsite						
Electricity Sold to Grid						
Injected Into Pipeline						
Direct Use Onsite						
Total Other Degasification						
	PRE-M	INING DEGA	SIFICATION			
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
	Base Period					
					Base	
					Period	Reporting
Source and Disposition	Year 1	Year 2	Year 3	Year 4	Average	Year
-	DEGASIFICATION DURING MINING					
	v	entilation Sy	/stems			
Flared						
Electricity Used Onsite						
Electricity Sold to Grid						
Injected Into Pipeline						
Direct Use Onsite						
	Other	Degasificati	on Methods			
Flared						
Electricity Used Onsite						
Electricity Sold to Grid						
Injected Into Pipeline						
Direct Use Onsite						
	PRE-M	INING DEGA	SIFICATION			
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
			Base Period	1		
					Base	
					Period	Reporting
Source and Disposition	Year 1	Year 2	Year 3	Year 4	Average	Year
-	DEGASIF	ICATION DU	RING MINING	3		
	v	entilation Sy	rstems			
Flared						
Electricity Used Onsite						
Electricity Sold to Grid						
Injected Into Pipeline						
Direct Use Onsite						
	Other	Degasificatio	on Methods			
Flared						
Electricity Used Onsite						
Electricity Sold to Grid						
Injected Into Pipeline						
Direct Use Onsite						
	PRE-M	INING DEGA	SIFICATION		-	
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
		Base Period				
					Base	
					Period	Reporting
Source and Disposition	Year 1	Year 2	Year 3	Year 4	Average	Year
Total Methane Captured						

Part C. Emission Reductions

1. Calculate Changes in Methane Capture

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

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

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

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

- Select Geographic Scope of Avoided Emissions Benchmark (based on the regions in Appendix F):
 - □ Single Domestic Region
 - Multiple Domestic Regions
 - □ Foreign Region(s)
- c. If Reporting Reductions for Multiple or Foreign Regions, Enter the Weighted Avoided Emissions Benchmark and Briefly Explain How It Was Calculated:

Avoided Emissions Benchmark (metric tons CO₂e/MWh)	Explanation
· · · · · · · · · · · · · · · · · · ·	•

d. Calculate Carbon Dioxide Displaced From Electricity Used Onsite

	1	2	3
ltem	Description	Units of Measure	Quantity
G	Base Period Average Electricity Used Onsite	MWh	
Н	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	
к	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	
М	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)
 - a. Select Geographic Scope of Avoided Emissions Benchmark (based on the regions in Appendix F):
 - □ Single Domestic Region
 - Multiple Domestic Regions
 - □ Foreign Region(s)

 - c. If Reporting Reductions for Multiple or Foreign Regions, Enter the Weighted Avoided Emissions Benchmark and Briefly Explain How It Was Calculated:

Avoided Emissions Benchmark	
(metric tons CO ₂ e/MWh)	Explanation

d. Calculate Carbon Dioxide Displaced From Electricity Used Onsite (avoided emissions)

	1	2	3
Item	Description	Units of Measure	Quantity
Ν	Base Period Average Electricity Sold	MWh	
0	Reporting Year Electricity Sold	MWh	
Р	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	
Т	Emission Reductions [(S – R) * P]	metric tons CO ₂ e	

5. Calculate Carbon Dioxide Emissions From Flaring

	1	2	3
Item	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	
Х	Change in Carbon Dioxide Emissions From Flaring	metric tons CO ₂ e	

6. Summarize Emission Reductions

	1	2	3	4	5
		Units of	Emis	ssion Reduct	ions
Item	Description	Measure	Direct	Avoided	TOTAL
Y	Change in Methane Captured and	metric tons			
	Combusted	CO ₂ e			
Z	Carbon Dioxide Displaced From	metric tons			
	Electricity Used Onsite	CO ₂ e			
AA	Carbon Dioxide Displaced From	metric tons			
	Electricity Sales	CO ₂ e			
BB	Carbon Dioxide Emissions From	metric tons			
	Flaring	CO ₂ e			
CC	Net Change in Greenhouse Gas	metric tons			
	Emissions (Y + Z + AA – BB)	CO ₂ e			

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

Enter Action	
Type Code	Describe Action

- 8. Identify Cause(s) of the Emission Reduction(s) (check all that apply):
 - □ Voluntary action
 - □ Plant closing
 - Government requirement
 - □ Federal requirement
 - □ State requirement
 - Local requirement
- 9. 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	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				
	Location						
Name	City	State (if domestic subentity)	Country (if foreign subentity)				
	1	I					

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
			Year Gas	
Name of Landfill		Year	Recovery	
Affected	Year Opened	Closed	Installed	Waste in Place (MMT)

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

1	2	3	4	5	6	7
		I	Base Period			
Source and Disposition	Year 1	Year 2	Year 3	Year 4	Base Period Average	Reporting Year
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
		E	Base Period			
Source and Disposition	Year 1	Year 2	Year 3	Year 4	Base Period Average	Reporting Year
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
		E	Base Period			
Source and Disposition	Year 1	Year 2	Year 3	Year 4	Base Period Average	Reporting Year
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
		E	Base Period			
Source and Disposition	Year 1	Year 2	Year 3	Year 4	Base Period Average	Reporting Year
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

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

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

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

- 3. Calculate Carbon Dioxide Displaced From Electricity Used Onsite
 - a. Select Geographic Scope of Avoided Emissions Benchmark (based on the regions in Appendix F):
 - □ Single Domestic Region
 - □ Multiple Domestic Regions
 - □ Foreign Region(s)
 - b. If Reporting Reductions for a Single Domestic Region, Enter Number of the Region (1 through 15) from Appendix F: _______
 - c. If Reporting Reductions for Multiple or Foreign Regions, Enter the Weighted Avoided Emissions Benchmark and Briefly Explain How It Was Calculated:

Avoided Emissions Benchmark	
(metric tons CO ₂ e/MWh)	Explanation

d. Calculate Carbon Dioxide Displaced From Electricity Used Onsite (avoided emissions)

	1	2	3
Item	Description	Units of Measure	Quantity
G	Base Period Average Electricity Used Onsite	MWh	
Н	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	
К	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	
М	Emission Reductions [(L - K) * I]	metric tons CO ₂ e	
	and a share for an example as an tal for all for a such as a such a		

*Include emissions from supplemental fossil fuel use only.

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

- a. Select Geographic Scope of Avoided Emissions Benchmark (based on the regions in Appendix F):
 - □ Single Domestic Region
 - □ Multiple Domestic Regions
 - □ Foreign Region(s)
- b. If Reporting Reductions for a Single Domestic Region, Enter Number of the Region (1 through 15) from Appendix F: ______
- c. If Reporting Reductions for Multiple or Foreign Regions, Enter the Weighted Avoided Emissions Benchmark and Briefly Explain How It Was Calculated:

Avoided Emissions Benchmark (metric tons CO₂e/MWh)	Explanation
	•

d. Calculate Carbon Dioxide Displaced From Electricity Sales

	1	2	3
ltem	Description	Units of Measure	Quantity
Ν	Base Period Average Electricity Sold	MWh	
0	Reporting Year Electricity Sold	MWh	
Р	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	
Т	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

	1	2	3
Item	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	
х	Natural Gas Emissions Factor	metric tons CO ₂ /MMBtu	
Y	Change in Carbon Dioxide Emissions From Methane Supplied to a Natural Gas Distribution Network (W * X)	metric tons CO ₂	

6. Summarize Emission Reductions

	1	2	3	4	5	6
		Units of		Emission F	Reductions	
ltem	Description	Measure	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				
СС	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 and Describe the Types of Actions That Were the Likely Cause of the Reductions Achieved *[Enter codes from Appendix M]*

Enter Action Type Code	Describe Action

- 8. 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
- 9. 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	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 B8. Geologic Sequestration

If Reporting Subentities, Enter Name of Subentity: _____

Part A. Action Identification

1. Enter Name and Location of CO₂ Injection Project:

1	2	3	4	5	6
	Location				Wells
					Sealed or
Name	City	State or Country	Storage Onsite? (Y/N)	If Onsite, Agreement? (Y/N)	Plan to Seal Wells? (Y/N)

2. Enter the Date CO₂ Injection Began: Month_____ Year____

- 3. Describe the Action:
- 4. Was the Action Reported Last Year? □ Yes □ No
- 5. Is the Reporting Entity Responsible for the Injection of CO₂ Into a Permanent Storage Reservoir? □ Yes □ No

Part B. Action Quantification

	1	2	3	4	5	6
			CO2	CO ₂ Acquired	Total CO ₂	
			Extracted/	Via Transfer	Captured or	Name of
Item	Name of Source	Location of Source	Captured	or Purchase	Acquired	Storage Site
A1						
A2						
A3						
A4						
A5						
В	Totals (sum of	items A1-A5)				

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

	1	2	3	4	5	6	7
	Name				Post-Injection Leakage/Seepage During Current Reporting Year		Net CO ₂
Item	of Storage Site	Location of Storage Site	Enhanced Resource Recovery?	CO ₂ Injected in Current Reporting Year	Monitoring Method	Quantity	Sequestered in Current Reporting Year
			CO	2 Sequestered by Re	eporting Entity		
C1			Yes/No				
C2			Yes/No				
C3			Yes/No				
			(CO ₂ Sequestered by	Third Party		
D1			Yes/No				
D2			Yes/No				
D3			Yes/No				
E	Total	s (sum of item	s C1-D3)				

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

	1	2	3	4	5	6	7
	Name of	Location of	Location of Enhanced Annual CO ₂ Storage Resource Injected in Site Recovery? Base Period	Average Annual F Leakage/Seepage	Average Annual Net CO₂		
Item	Storage Site	Storage		Injected in	Monitoring Method	Quantity	Sequestered in Base Period
			CO	2 Sequestered by R	eporting Entity		
F1			Yes/No				
F2			Yes/No				
F3			Yes/No				
			(CO ₂ Sequestered by	Third Party		
G1			Yes/No				
G2			Yes/No				
G3			Yes/No				
H Totals (sum of items F1-G3)							

Part C. Emission Reductions

1. Calculate Emission Reductions

	1	2	3
Item	Description	Unit of Measure	Quantity
Ι	Emission Reductions (E7 - H7)	metric tons CO ₂ e	

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

Enter Action						
Type Code	Describe Action					

- 3. 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
- 4. 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	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 B9. Electricity Transmission and Distribution Improvements

If Reporting Subentities, Enter Name of Subentity: _____

Part A. Action Identification

- 1. Date Action Was Initiated: Month_____ Year_____
- Did You Report Transmission and Distribution Improvements Last Year?
 □ Yes □ No
- 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

	1	2	3						
		Units of Measure							
Item	Description	(kWh or kVAh)	Quantity						
	Base Period								
Α	Electricity Entering T&D System From Own Generation								
В	Electricity Delivered Through T&D System to End Users								
D	(NOTE: Should Equal Total Wholesale and Retail Sales)								
С	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								
1	Area Basis								
G	Loss Ratio (A + E - B) / (A + E) or [A - (B + F)] / (A - F)↑								
	Reporting Year								
Н	Electricity Entering T&D System From Own Generation								
1	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)								
м	Actual Net Interchange (ANI) If Reporting on Control								
111	Area Basis								
Ν	Loss Ratio (H + L - I) / (H + L) or [H - (I + M)] / (H - M)†								
0	Change In Loss Intensity (G - N) * (H + L) or (G - N) * (H	kWh or kVAh							
0	- M)†	KWI OF KVAN							

†Use second equation if reporting on a control area basis

Part C. Emission Reductions

- 1. Select Geographic Scope of Avoided Emissions Benchmark (based on the regions in Appendix F):
 - □ Single Domestic Region
 - □ Multiple Domestic Regions
 - □ Foreign Region(s)
- 2. If Reporting Reductions for a Single Domestic Region, Enter Number of the Region (1 through 15) from Appendix F: _____
- 3. If Reporting Reductions for Multiple or Foreign Regions, Enter the Weighted Avoided Emissions Benchmark and Briefly Explain How It Was Calculated:

Avoided Emissions Benchmark	
(metric tons CO₂e/MWh)	Explanation

4. Calculate Emission Reductions

	1	2	3
Item	Description	Units of Measure	Quantity
Р	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	
Т	Avoided Emissions (from Avoided Electricity Imports) {R * $[L / (I + L)]$ }	metric tons CO2e	

†Use second equation if calculating losses in kVAh

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

Enter Action Type Code	Describe Action

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

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. Anaerobic Digestion at Wastewater Treatment Facilities

If Reporting Subentities, Enter Name of Subentity:

Part A. Action Identification

1. Enter Locations of Wastewater Treatment Facilities:

2	3	4
	Location	
	State	Country (if foreign subentity)
	(if domestic	(if foreign
Citv	subentity)	subentity)
		, , , , , , , , , , , , , , , , , , ,
	2 City	Location State (if domestic

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 Base Period	5	6	7
Source and Disposition	Year 1	Year 2	Year 3	Year 4	Base Period Average	Reporting Year
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	Year 1	Year 2	Year 3	Year 4	Base Period Average	Reporting Year
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
			Base Period	k		
Source and Disposition	Year 1	Year 2	Year 3	Year 4	Base Period Average	Reporting Year
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	
		Base Period					
					Base		
					Period	Reporting	
Source and Disposition	Year 1	Year 2	Year 3	Year 4	Average	Year	
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
			Base Period			
Unit of Measure	Year 1	Year 2	Year 3	Year 4	Base Period Average	Reporting Year

Part C. Emission Reductions

1. Calculate Changes in Methane Captured and Utilized

	1	2	3
ltem	Description	Units of Measure	Quantity
A	Base Period Average Annual Quantity of Methane Captured	metric tons CO ₂ e	
В	Reporting Year Methane Captured	metric tons CO ₂ e	
С	Change in Methane Captured (B - A)	metric tons CO ₂ e	

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

	1	2	3	4	5	6	7
				Base Peri	od		
ltem	Source and Disposition	on Year 1	Year 2	Year 3	Year 4	Base Period Average	Reporting Year
D	Electricity Used Onsite						
E	Electricity Sold						
F	Total Generation						

- 3. Carbon Dioxide Displaced From Electricity Used Onsite (avoided emissions)
 - a. Select Geographic Scope of Avoided Emissions Benchmark (based on the regions in Appendix F):
 - □ Single Domestic Region
 - Multiple Domestic Regions
 - □ Foreign Region(s)

 - c. If Reporting Reductions for Multiple or Foreign Regions, Enter the Weighted Avoided Emissions Benchmark and Briefly Explain How It Was Calculated:

Avoided Emissions Benchmark	
(metric tons CO ₂ e/MWh)	Explanation

d. Calculate Carbon Dioxide Displaced From Electricity Used Onsite

	1	2	3
ltem	Description	Units of Measure	Quantity
G	Base Period Average Electricity Used Onsite	MWh	
Н	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	
к	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	
М	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. Carbon Dioxide Displaced From Electricity Sales (avoided emissions)
 - Select Geographic Scope of Avoided Emissions Benchmark (based on the regions in Appendix F):
 - □ Single Domestic Region
 - Multiple Domestic Regions
 - □ Foreign Region(s)
 - b. If Reporting Reductions for a Single Domestic Region, Enter Number of the Region (1 through 15) from Appendix F: _________
 - c. If Reporting Reductions for Multiple or Foreign Regions, Enter the Weighted Avoided Emissions Benchmark and Briefly Explain How It Was Calculated:

Avoided Emissions	Explanation
Benchmark	
(metric tons CO₂e/MWh)	

d. Calculate Carbon Dioxide Displaced From Electricity Sales

	1	2	3
ltem	Description	Units of Measure	Quantity
Ν	Base Period Average Electricity Sold	MWh	
0	Reporting Year Electricity Sold	MWh	
Р	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	
Т	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

	1	2	3
ltem	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	
х	Natural Gas Emissions Factor	metric tons CO ₂ /MMBtu	
Y	Change in Carbon Dioxide Emissions From Methane Supplied to a Natural Gas Distribution Network (W * X)	metric tons CO ₂	

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

	1	2	3
ltem	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 (AA - Z)	metric tons CO ₂ e	

7. Summarize Emission Reductions

	1	2	3	4	5	6
		Units of		Emission F	Reductions	
Item	Description	Measure	Direct	Indirect	Avoided	TOTAL
СС	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				
НН	Net Change in Emissions (CC + DD + EE + FF – GG)	metric tons CO ₂ e				

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

Enter Action Type Code	Describe Action

Enter Action Type Code	Describe Action

- 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	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 B11. Anaerobic Digestion of Animal Waste

If Reporting Subentities, Enter Name of Subentity:

Part A. Action Identification

1. Enter Location of Livestock Management Facilities:

1	2	3	4		
	Location				
		State	Country		
		(if domestic	(if foreign		
Name	City	(if domestic subentity)	Country (if foreign subentity)		
		_	cultorial j/		

2. 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 Action Characteristics

1	2	3
Name of Facility	Species of Animals Producing Waste Handled by the Digester	No. of Animals of the Species

Part C. Emission Reductions

	1	2	3
Item	Description	Units of Measure	Quantity
А	Base Period Average Methane Supplied to a Natural Gas Distribution Network	MMBtu	
В	Reporting Year Methane Supplied to a Natural Gas Distribution Network	MMBtu	
С	Incremental Methane Supplied to a Natural Gas Distribution Network (B - A)	MMBtu	
D	Natural Gas Emissions Factor	metric tons CO ₂ e/MMBtu	
Е	Change in Carbon Dioxide Emissions from Methane Supplied to a Natural Gas Distribution Network (C * D)	metric tons CO2e	

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

Enter Action	
Type Code	Describe Action

- 3. 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
- 4. 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	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	
	Location			
		State	Country	
		(if domestic	(if foreign	
Name	City	(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

	1	2	3	4	5	6	7	8
		Unit of		Base Period Quantity		Reporting		
Item Description		Unit of Measure	Yr 1	Yr 2	Yr 3	Yr 4	Avg.	Year Quantity
A	Fly Ash Used in Place of Portland Cement	metric tons						
В	Portland Cement Displaced	metric tons						

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

	1	2	3
Item	Description	Unit of Measure	Quantity
С	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

	1	2	3
Item	Description	Unit of Measure	Quantity
Е	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
н	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 and Describe the Types of Actions That Were the Likely Cause of the Reductions Achieved [Enter codes from Appendix M]

Enter Action Type Code	er Action pe Code Describe Action	

- 3. 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
- 4. 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. Describe the Program:_____

3. Enter All of the Following Information for the Program Listed Above:

	1	2
Item	Program Characteristics	Values
Α.	Enter City of Program	
В.	Enter State of Program (if domestic)	
C.	Enter Country of Program (if foreign)	
D.	Enter Month Program Began	
E.	Enter Year Program Began	
F.	Describe Program Evaluation Method	
G.	Enter Name of 3 rd Party Verifier	
Н.	Describe Qualifications of 3 rd Party Verifier	
١.	Enter Unit of Annual Energy Usage Reductions in RY (if applicable)	
J.	Enter Quantity of Annual Energy Usage Reductions in RY (if applicable)	
К.	Enter Greenhouse Gas Emission Reductions in RY (metric tons CO ₂ e)	
L.	Do the Reductions Qualify for Registration?*	

*To register reductions, the DSM or other program must meet the criteria detailed on Page 103 of the Instructions for Form EIA-1605 and 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.

4. Indicate What the Program Provides to Very Small Emitters (entities that typically emit below 500 tons of CO₂e per year):

1	2	3	4
Information/ Other Technical Assistance	Financial Incentives	Direct Installation/ Investment	Other Non-Commercial Services
🗆 Yes 🗆 No	🗆 Yes 🗆 No	🗆 Yes 🗆 No	🗆 Yes 🗆 No

5. Identify Sector(s) of Very Small Emitters Targeted:

1	2	3	4
Residential	Commercial	Small Industrial	If Other, Please Specify
□ Yes □ No	🗆 Yes 🗆 No	🗆 Yes 🗆 No	□ Yes,

Part B. Emission Reductions

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

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

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

Enter Action Type Code	Describe Action

- 3. 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
- 4. 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

	1	2	3
Item	Description	Units of Measure	Quantity
	Base Period Average		
Α	Total CHP Plant Fuel Use	MMBtu	
В	Total CHP Plant Emissions*	metric tons CO ₂ e	
	Reporting Year		
С	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. Activity Data

- a. Select Geographic Scope of the Avoided Emissions Benchmark(s) (based on the regions in Appendix F):
 - □ Single Domestic Region
 - □ Multiple Domestic Regions
 - □ Foreign Region(s)
- c. Enter the Weighted Electricity Avoided Emissions Benchmark (if applicable*) and/or the Thermal Avoided Emissions Benchmark and Briefly Explain How It Was Calculated:

Benchmark Type	Avoided Emissions Benchmark	Explanation
Electricity (metric		•
tons CO ₂ e/MWh)		
Thermal		
(kilograms		
CO ₂ e/ton-hour)		

* Only enter a weighted emissions benchmark if you are reporting multiple or foreign regions.

d. Enter Activity Data

	1	2	3			
Item	Description	Units of Measure	Quantity			
	Base Period Average					
E	Total Thermal Generation	MMBtu				
F	Total Electrical Generation	MMBtu*				
G	Thermal Exports	MMBtu				
Н	Electricity Exports	MMBtu*				
I	Thermal Generating Efficiency**	%				
J	Electrical Generating Efficiency***	%				
	Reporting Year					
K	Total Thermal Generation	MMBtu				
L	Total Electrical Generation	MMBtu*				
Μ	Thermal Exports	MMBtu				
N	Electricity Exports	MMBtu*				
0	Thermal Generating Efficiency**	%				
Р	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

	1	2
		Emissions (Metric
Item	Description	Tons CO ₂ e)
	Base Period	
S	Total Thermal Generation Emissions {B * (E / I) / [(E / I) + (F / J)]}	
Т	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

	1	2	3
Item	Description	Units of Measure	Emissions
	Base Period		
W	Exported Thermal Generation Emissions [(G / E) * S]	metric tons CO ₂ e	
Х	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*)

а.	Calculate Changes in Emissions Intensity From Energy Used	Onsite

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

b. Calculate Absolute Changes in Emissions From Energy Used Onsite

	1	2	3
ltem	Description	Units of Measure	Direct Emissions
GG	Emission Reductions From Thermal Generation Used Onsite (Y - CC)	metric tons CO ₂ e	
ΗΗ	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

	1	2	3
			Emission
Item	Description	Units of Measure	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
		Units of	Emission
Item	Description	Measure	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
		Units of	Emission
Item	Description	Measure	Reductions
КК	Emission Reductions {[(T / F) - (V / L)] * H}	metric tons CO ₂ e	

d. Calculate Electricity Emission Reductions Due to Incremental Changes in Electricity Exports

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

3. Summarize Emission Reductions

	1	2	3
		Units of	
Item	Description	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	
00	Total Emission Reductions (MM + NN)	metric tons CO ₂ e	

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

Enter Action Type Code	Deseribe Action
Type Code	Describe Action

- 5. 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
- 6. 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
		Data, Ennooion	0001110101110,	

	1	2	3
Item	Description	Units of Measure	Quantity
Α			
В			
С			
D			
E			
F			
G			
Н			
J			

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

3. Calculate Emission Reductions

	1	2	3	4	5	
			Source	Source of Emissions Affected		
ltem	Description	Units of Measure	Direct Emissions	Indirect Emissions From Purchased Energy	Other Indirect Emissions	
К	Base Period Emissions	metric tons CO ₂ e				
L	Reporting Year Emissions	metric tons CO ₂ e				
М	Registered Emission Reductions (K - L)	metric tons CO ₂ e				
Ν	Reported Emission Reductions (K - L)	metric tons CO ₂ e				

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

Enter Action Type Code	Describe Action

Enter Action Type Code	Describe Action

- 5. 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
- 6. 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		CO ₂ e	metric	
From Purchased Energy			tons	
Total Other Indirect Emission		CO ₂ e	metric	
Reductions			tons	

*Direct, Indirect from Purchased Energy, Other Indirect.

Addendum B16. Destruction of Chlorofluorocarbons

If Reporting Subentities, Enter Name of Subentity:

Part A. Action Identification

1	2	3	4
		Location	
		State	Country (if foreign subentity)
		(if domestic	(if foreign
Name	City	(if domestic subentity)	subentity)
Hamo	Ony	ousonary)	ousonary)
		1	<u>I</u>

2. Enter Date CFC Destruction Began: Month_____ Year_____

- 3. Describe Action: _____
- 4. Was the Action Reported Last Year? □ Yes

Part B. Emission Reductions

Enter Type and Quantity of CFCs Destroyed

1	2	3	4
			Did you Transfer the Reduction to Another
			Reporting Entity? (Y/N)
CFC Gas Type	Unit	Amount	(if yes, complete Part C)

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

Enter Action	
Type Code	Describe Action

- 3. 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
- 4. 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	

Addendum C. Country-Specific Factors Used to Estimate Emissions From Foreign Sources

1.	Enter Information on	Emission Fac	ctors Used to	Estimate Emission	s for Foreian	Subentities

1	2	3	4	5	6	7
Emissions	Emissions		Unit of	Factor		Factor
Туре	Source	Gas	Measure	Value	Countries/ Regions	Source
						-
						-
						_

2. Identify Publications and Other Sources for Factors Used to Estimate Foreign Emissions

Item	Source of Factors
А	
В	
С	
D	
E	
F	
G	
Н	
I	
J	
K	
L	
М	
Ν	
0	
Р	
Q	
R	
S	

3. Document Reporter-Defined Emission Factors.

Addendum D. Non-Reporter Offset Entity Information

(Only complete Addendum D if the offset provider is not a reporter to the program.)

SECTION 1. OFFSET ENTITY STATEMENT

1.	Enter Offset Entity Ident	ification:		
	Entity Name:			
	Address 1:			
	Address 2:			
	City:	State:	Zip:	-
	Entity URL :			
	Entity Tax Payer Identifie			

2. Enter Offset Contact Information:

Contact Name:		
Title:		
Contact address is the same set of the same	ame as entity	address above
Address 1:		
Address 2:		
City:	State:	Zip:
Tel: ()	ext.:	
Fax: ()		
E-Mail:		

- 3. Entity Type (check one):
 - □ Large emitter (more than 10,000 metric tons carbon dioxide equivalent annually)
 - □ Small emitter (less than or equal to 10,000 metric tons carbon dioxide equivalent annually)
- 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.

Check the type of change and detail below:

- Data are being resubmitted for the base period:
- □ New base period has been selected (describe):____
- □ 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.

Describe (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, 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, describe:
- Identify the Entity's Primary Economic Activities
 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
 - □ Utility (Non-Investor Owned)
 - □ Government
 - Government Corporation or Authority
 - □ Non-Profit Organization
 - □ All other Non-Profit Organizations (charities, fraternal orders, etc. Specify: _____
 - Individual or Household
 - Other, specify: _____
- Describe the Entity Organization
 Is the entity a holding company: □ Yes □ No

 If the entity is a subsidiary, identify the entity's Parent or Holding Company: ______
- 8. Describe the Entity's Organizational Boundaries
 - a. Method for Determining Organizational Boundaries
 - □ 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 (describe, including criteria used for excluding any emissions sources, if applicable):
- 9. Describe the Geographic Scope of Activities (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:
 - Stationary source combustion
 - □ Mobile source combustion
 - Industrial processes
 - Agricultural sources
- Fugitive emissions from geologic reservoirs
 Indirect emissions from purchased energy
 Other indirect emissions
 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:				

SECTION 2. OFFSET ENTITY EMISSIONS INVENTORY

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

If this report is independently verified, you may choose to aggregate offset emissions by gas by completing and attaching one copy of Part A from Addendum A.

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

If this report is not independently verified, you must detail offset emissions by gas and source by completing and attaching all applicable inventory grids from Part B from Addendum A.

SECTION 3. OFFSET ENTITY-LEVEL REDUCTION METHODS AND REDUCTIONS

- 1. Indicate the method used to estimate the offset emission reductions.
 - □ Changes in Emissions Intensity (Addendum B1)
 - □ Changes in Absolute Emissions (Addendum B2)
 - □ Changes in Carbon Storage (Addendum B3)
 - □ Changes in Avoided Emissions (Addendum B4)
 - Energy Generation and Distribution (Addendum B5)
 - □ Coal Mine Methane Recovery (Addendum B6)
 - □ Landfill Methane Recovery (Addendum B7)
 - □ Geologic Sequestration (Addendum B8)
 - Electricity Transmission and Distribution Improvements (Addendum B9)
 - Capture of Methane from Anaerobic Digestion at Wastewater Treatment Facilities (Addendum B10)
 - □ Anaerobic Digestion of Animal Waste (Addendum B11)
 - □ Recycling of Fly Ash (Addendum B12)
 - Demand-Side Management and Other Emission Reduction Programs (Addendum B13)
 - Combined Heat and Power Generators (Addendum B14)
 - □ Other Action-Specific Methods (Addendum B15)
 - Destruction of Chlorofluorocarbons (Addendum B16)
- If registering reductions on Addendum B1 or B5 for this entity, are you also reporting but not registering reductions using the Changes in Absolute Emissions method (Addendum B2)?*
 Yes
 - □ No
- 3. Complete and attach one copy of the appropriate emission reduction addendum (Addendum B1-B16) for the method used to estimate entity-level reductions of domestic emissions
- 4. If you are reporting non-U.S. emissions within one entity-level report, attach one copy of the appropriate emission reduction addendum for your foreign emission reductions.

^{*} You may choose to supplement your report of registered reductions using an intensity-based method with a report of reductions in absolute emissions even if the output of the entity is declining. The absolute emission reductions included in this supplemental report are not eligible for registration.