



New York State Metropolitan Transportation Authority Emissions Year 2016

New York State Metropolitan
Transportation Authority

Detail Report - Control (Private)

Complete Inventory 2016

Website: www.mta.info/sustainability

Description:

**Industry:** 48 - Transportation and Warehousing

Address: 2 Broadway

4th Floor

New York, New York US

Contact: Projjal Dutta

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**Reporting Information** 

Reporting Protocol: General Reporting Protocol 2.1 and associated updates and clarifications

GWP Standard: AR5

Base Year:

Consolidation Methodology: Operational Control Only

Status: TCR Accepted

#### **Verification Information**

Verification Body: First Environment, Inc.

Level of Assurance: Reasonable

#### Entity Emissions | Total in metric tons of CO2e

Scope 1 - Direct Emissions	Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄ (t of CO₂e)	N₂O (t of CO₂e)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t of CO₂e)	SF₅ (t of CO₂e)
Stationary Combustion	120,706.211857	120,204.934683	51.153447	450.123727	0	0	0	0
Mobile Combustion	715,666.9045	708,731.020286	5,833.21753	1,102.666684	0	0	0	0
Fugitive	27,481.577315	0	0	0	27,481.577315	0	0	0
Total	863,854.693672	828,935.95497	5,884.370976	1,552.790411	27,481.577315	0	0	0
NetTotal	863,854.693672	828,935.95497	5,884.370976	1,552.790411	27,481.577315	0	0	0
Scope 2 - Location Based - Indirect Emissions	Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄ (t of CO₂e)	N₂O (t of CO₂e)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO₂e)	NF₃ (t of CO₂e)	SF₅ (t of CO₂e)
Purchased Electricity - Location Based	1,065,025.755971	1,061,595.5502	1,520.191239	1,910.014531	0	0	0	0
Purchased Steam - Location Based	9,936.92523	9,924.65	5.49388	6.78135	0	0	0	0
Total	1,074,962.681201	1,071,520.2002	1,525.685119	1,916.795881	0	0	0	0
NetTotal	1,074,962.681201	1,071,520.2002	1,525.685119	1,916.795881	0	0	0	0
Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄ (t of CO₂e)	N₂O (t of CO₂e)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t of CO₂e)	SF₅ (t of CO₂e)
Purchased Electricity - Market Based	1,065,025.755971	1,061,595.5502	1,520.191239	1,910.014531	0	0	0	0
Purchased Steam - Market Based	9,936.92523	9,924.65	5.49388	6.78135	0	0	0	0
Total	1,074,962.681201	1,071,520.2002	1,525.685119	1,916.795881	0	0	0	0
NetTotal	1,074,962.681201	1,071,520.2002	1,525.685119	1,916.795881	0	0	0	0

Biogenic - Direct Emissions	Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄ (t of CO₂e)	N₂O (t of CO₂e)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t of CO₂e)	SF₅ (t of CO₂e)
Stationary Biomass Combustion	1,391.489017	1,391.489017	0	0	0	0	0	0
Mobile Biomass Combustion	156.725112	156.725112	0	0	0	0	0	0
Total	1,548.214128	1,548.214128	0	0	0	0	0	0
NetTotal	1,548.214128	1,548.214128	0	0	0	0	0	0

Optional - Optional Emissions	Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄ (t of CO₂e)	N₂O (t of CO₂e)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t of CO₂e)	SF₅ (t of CO₂e)
Scope 3	61,093.7	60,318.79	109.76	665.15	0	0	0	0
Total	61,093.7	60,318.79	109.76	665.15	0	0	0	0
NetTotal	61,093.7	60,318.79	109.76	665.15	0	0	0	0

# Entity Emissions | Total in metric tons of gas

Scope 1 - Direct Emissions	Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄ (t)	N <sub>2</sub> O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t)	SF <sub>6</sub> (t)
Stationary Combustion	120,706.211857	120,204.934683	1.826909	1.69858	0	0	0	0
Mobile Combustion	715,666.9045	708,731.020286	208.329197	4.161006	0	0	0	0
Fugitive	27,481.577315	0	0	0	27,481.577315	0	0	0
Total	863,854.693672	828,935.95497	210.156106	5.859586	27,481.577315	0	0	0

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH₄ (t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	1,065,025.755971	1,061,595.5502	54.292544	7.207602	0	0	0	0
Purchased Steam - Location Based	9,936.92523	9,924.65	0.19621	0.02559	0	0	0	0
Total	1,074,962.681201	1,071,520.2002	54.488754	7.233192	0	0	0	0
Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH₄ (t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	1,065,025.755971	1,061,595.5502	54.292544	7.207602	0	0	0	0
Purchased Steam - Market Based	9,936.92523	9,924.65	0.19621	0.02559	0	0	0	0
Total	1,074,962.681201	1,071,520.2002	54.488754	7.233192	0	0	0	0
Biogenic - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH₄ (t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Biomass Combustion	1,391.489017	1,391.489017	0	0	0	0	0	0
Mobile Biomass Combustion	156.725112	156.725112	0	0	0	0	0	0
Total	1,548.214128	1,548.214128	0	0	0	0	0	0
Optional - Optional Emissions	Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄ (t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t)	SF <sub>6</sub> (t)
Scope 3	61,093.7	60,318.79	3.92	2.51	0	0	0	0
Total	61,093.7	60,318.79	3.92	2.51	0	0	0	0

## Simplified Estimation Methods (SEMs)

	Total Estimated CO₂e (t)	Total Emissions (t of CO₂e)	Estimated CO₂e as a Percentage of Total*
Location Based	37,418.502545	1,940,365.589001	1.92842538321554%
Market Based	37,418.502545	1,940,365.589001	1.92842538321554%
			*Total based on scope 1, scope 2 & biomass emissions

#### Facility Emissions | MTA Fugitive Emissions

Equity share - 100% | Entity controls the facility emissions - Yes 2 Broadway, New York, New York, 10004, US

Scope 1 - Direct Emissions		Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF <sub>6</sub> (t)
Fugitive		27,481.577315	0	0	0	27,481.577315	0	0	0
	Total	27,481.577315	0	0	0	27,481.577315	0	0	0

### Source Emissions | Refrigerants

As of 10/23/2019

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Fugitive	HFC- 134a	N/A	All	Unspecified Technology	PreCalculate d	Yes		N/A	N/A	N/A	N/A	9.810739	12,753.960 401
Fugitive	R-407C	N/A	All	Unspecified Technology	PreCalculate d	Yes		N/A	N/A	N/A	N/A	8.637095	14,026.642 718
Fugitive	R-438A	N/A	All	Unspecified Technology	PreCalculate d	Yes		N/A	N/A	N/A	N/A	0.340444	700.974196

### Facility Emissions | MTA Mobile Non-revenue Fuel

Equity share - 100% | Entity controls the facility emissions - Yes

2 Broadway, New York, New York, 10004, US

Scope 1 - Direct Emissions		Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Mobile Combustion		46,272.344046	46,272.344046	0	0	0	0	0	0
	Total	46,272.344046	46,272.344046	0	0	0	0	0	0

Biogenic - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF <sub>6</sub> (t)
Mobile Biomass Combustion	156.725112	156.725112	0	0	0	0	0	0
To	tal 156.725112	156.725112	0	0	0	0	0	0

### Source Emissions | Diesel - MTAWD - Bulk

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Advanced Control	Emission Factor	No		All	1,174,348.5 gal	10.21 kg/gal	2019 Default Emission Factors - Table #2.1	11,990.098 185	11,990.098 185
Mobile Combustion	CH4	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Advanced Control	PreCalculate d	Yes		All	N/A	N/A	N/A	0	0
Mobile Combustion	N2O	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Advanced Control	PreCalculate d	Yes		All	N/A	N/A	N/A	0	0

# Source Emissions | Diesel - MTAWD - Fuel Card

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Advanced Control	Emission Factor	No		All	1,150,826.49 gal	10.21 kg/gal	2019 Default Emission Factors - Table #2.1	11,749.938 422	11,749.938 422
Mobile Combustion	CH4	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Advanced Control	PreCalculate d	Yes		All	N/A	N/A	N/A	0	0
Mobile Combustion	N2O	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Advanced Control	PreCalculate d	Yes		All	N/A	N/A	N/A	0	0

### Source Emissions | E85 - MTAWD (Gasoline Portion)

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Low Emission Vehicles	Emission Factor	No		All	4,809.98 gal	8.78 kg/gal	2019 Default Emission Factors - Table #2.1	42.231606	42.231606
Mobile Combustion	CH4	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Low Emission Vehicles	PreCalculate d	Yes		All	N/A	N/A	N/A	0	0
Mobile Combustion	N2O	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Low Emission Vehicles	PreCalculate d	Yes		All	N/A	N/A	N/A	0	0

## Source Emissions | E85 - MTAWD (Ethanol Portion CH4, N2O)

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Low Emission Vehicles	Not Reporting	No		All	27,256.54 gal	8.78 kg/gal	2019 Default Emission Factors - Table #2.1	0	0
Mobile Combustion	CH4	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Low Emission Vehicles	PreCalculate d	Yes		All	N/A	N/A	N/A	0	0
Mobile Combustion	N2O	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Low Emission Vehicles	PreCalculate d	Yes		All	N/A	N/A	N/A	0	0

## Source Emissions | E85 - MTAWD (Ethanol Portion CO2)

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Biomass Combustion - Biomass	CO2	Alternative Fuels	Light Duty Trucks	Flex-Fuel Internal Combustion Engine	Emission Factor	No		Ethanol	27,256.54 gal	5.75 kg/gal	2019 Default Emission Factors - Table #2.1	156.72511 2	156.725112
Mobile Combustion	CH4	Alternative Fuels	Light Duty Trucks	Flex-Fuel Internal Combustion Engine	Not Reporting	No		Ethanol	363,874.82 mi	0.013 g/mi	2019 Default Emission Factors - Table #2.6	0	0
Mobile Combustion	N2O	Alternative Fuels	Light Duty Trucks	Flex-Fuel Internal Combustion Engine	Not Reporting	No		Ethanol	363,874.82 mi	0.014 g/mi	2019 Default Emission Factors - Table #2.6	0	0

## Source Emissions | Gasoline - MTAWD - Bulk

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Low Emission Vehicles	Emission Factor	No		All	188,081 gal	8.78 kg/gal	2019 Default Emission Factors - Table #2.1	1,651.3511 8	1,651.3511 8
Mobile Combustion	CH4	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Low Emission Vehicles	PreCalculate d	Yes		All	N/A	N/A	N/A	0	0
Mobile Combustion	N2O	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Low Emission Vehicles	PreCalculate d	Yes		All	N/A	N/A	N/A	0	0

### Source Emissions | Gasoline - MTAWD - Fuel Card

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Low Emission Vehicles	Emission Factor	No		All	2,367,446.02 gal	8.78 kg/gal	2019 Default Emission Factors - Table #2.1	20,786.176 073	20,786.176 073
Mobile Combustion	CH4	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Low Emission Vehicles	PreCalculate d	Yes		All	N/A	N/A	N/A	0	0
Mobile Combustion	N2O	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Low Emission Vehicles	PreCalculate d	Yes		All	N/A	N/A	N/A	0	0

## Source Emissions | Kerosene - MTAWD - Bulk

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Kerosene	All	Unspecified Technology	Emission Factor	No		All	5,177.2 gal	10.15 kg/gal	2019 Default Emission Factors - Table #2.1	52.54858	52.54858
Mobile Combustion	CH4	Kerosene	All	Unspecified Technology	Emission Factor	No		All	5,177.2 gal		2019 Default Emission Factors - Table #2.6	0	0
Mobile Combustion	N2O	Kerosene	All	Unspecified Technology	Emission Factor	No		All	5,177.2 gal		2019 Default Emission Factors - Table #2.6	0	0

#### Facility Emissions | MTA Mobile Revenue Electricity

Equity share - 100% | Entity controls the facility emissions - Yes 2 Broadway, New York, New York, 10027, US

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	828,438.645415	825,645.723778	44.282366	5.860435	0	0	0	0
Total	828,438.645415	825,645.723778	44.282366	5.860435	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Purchased Electricity - Market Based	828,438.645415	825,645.723778	44.282366	5.860435	0	0	0	0
Total	828,438.645415	825,645.723778	44.282366	5.860435	0	0	0	0

### Source Emissions | Electricity (CT) - MNCRR - Eversource - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	102,158,614 kWh	558.2 lb/MWh	2019 Default Emission Factors - Table #3.1	25,866.107 69	25,866.107 69
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	102,158,614 kWh	90 lb/GWh	2019 Default Emission Factors - Table #3.1	4.170458	116.772826
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	102,158,614 kWh	12 lb/GWh	2019 Default Emission Factors - Table #3.1	0.556061	147.356185

### Source Emissions | Electricity (CT) - MNCRR - Eversource - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	102,158,614 kWh	558.2 lb/MWh	2019 Default Emission Factors - Table #3.1	25,866.107 69	25,866.107 69
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	102,158,614 kWh	90 lb/GWh	2019 Default Emission Factors - Table #3.1	4.170458	116.772826
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	102,158,614 kWh	12 lb/GWh	2019 Default Emission Factors - Table #3.1	0.556061	147.356185

### Source Emissions | Electricity (CT) - MNCRR - United Illuminating - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	21,934,519 kWh	558.2 lb/MWh	2019 Default Emission Factors - Table #3.1	5,553.7228 66	5,553.7228 66
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	21,934,519 kWh	90 lb/GWh	2019 Default Emission Factors - Table #3.1	0.895441	25.072343
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	21,934,519 kWh	12 lb/GWh	2019 Default Emission Factors - Table #3.1	0.119392	31.638908

### Source Emissions | Electricity (CT) - MNCRR - United Illuminating - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	21,934,519 kWh	558.2 lb/MWh	2019 Default Emission Factors - Table #3.1	5,553.7228 66	5,553.7228 66
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	21,934,519 kWh	90 lb/GWh	2019 Default Emission Factors - Table #3.1	0.895441	25.072343
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	21,934,519 kWh	12 lb/GWh	2019 Default Emission Factors - Table #3.1	0.119392	31.638908

### Source Emissions | Electricity (LI) - LIRRD - PSEG - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	303,541,378 kWh	1178.3 lb/MWh	2019 Default Emission Factors - Table #3.1	162,233.31 2633	162,233.31 2633
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	303,541,378 kWh	126 lb/GWh	2019 Default Emission Factors - Table #3.1	17.348211	485.749917
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	303,541,378 kWh	16 lb/GWh	2019 Default Emission Factors - Table #3.1	2.202947	583.781079

### Source Emissions | Electricity (LI) - LIRRD - PSEG - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	303,541,378 kWh	1178.3 lb/MWh	2019 Default Emission Factors - Table #3.1	162,233.31 2633	162,233.31 2633
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	303,541,378 kWh	126 lb/GWh	2019 Default Emission Factors - Table #3.1	17.348211	485.749917
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	303,541,378 kWh	16 lb/GWh	2019 Default Emission Factors - Table #3.1	2.202947	583.781079

### Source Emissions | Electricity (NYC) - LIRRD - NYPA - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	201,633,600 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	58,149.995 41	58,149.995 41
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	201,633,600 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	2.012111	56.339096
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	201,633,600 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.274379	72.710359

### Source Emissions | Electricity (NYC) - LIRRD - NYPA - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	201,633,600 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	58,149.995 41	58,149.995 41
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	201,633,600 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	2.012111	56.339096
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	201,633,600 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.274379	72.710359

### Source Emissions | Electricity (NYC) - MNCRR - NYPA - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	305,419,200 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	88,081.178 326	88,081.178 326
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	305,419,200 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	3.047792	85.338166
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	305,419,200 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.415608	110.136107

### Source Emissions | Electricity (NYC) - MNCRR - NYPA - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	305,419,200 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	88,081.178 326	88,081.178 326
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	305,419,200 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	3.047792	85.338166
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	305,419,200 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.415608	110.136107

### Source Emissions | Electricity (NYC) - NYCTA - NYPA - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	1,635,296,32 0 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	471,610.25 4945	471,610.25 4945
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	1,635,296,32 0 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	16.318694	456.92343
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	1,635,296,32 0 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	2.225276	589.698258

### Source Emissions | Electricity (NYC) - NYCTA - NYPA - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	1,635,296,32 0 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	471,610.25 4945	471,610.25 4945
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	1,635,296,32 0 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	16.318694	456.92343
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	1,635,296,32 0 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	2.225276	589.698258

### Source Emissions | Electricity (NYC) - NYCTA - PSEG - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	13,849,000 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	3,993.9736 55	3,993.9736 55
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	13,849,000 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	0.1382	3.869594
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	13,849,000 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.018845	4.994038

### Source Emissions | Electricity (NYC) - NYCTA - PSEG - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	13,849,000 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	3,993.9736 55	3,993.9736 55
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	13,849,000 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	0.1382	3.869594
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	13,849,000 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.018845	4.994038

### Source Emissions | Electricity (NYS) - MNCRR - NYSEG - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	35,219,752 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	10,157.178 254	10,157.178 254
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	35,219,752 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	0.351459	9.840865
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	35,219,752 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.047926	12.700467

# Source Emissions | Electricity (NYS) - MNCRR - NYSEG - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	35,219,752 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	10,157.178 254	10,157.178 254
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	35,219,752 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	0.351459	9.840865
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	35,219,752 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.047926	12.700467

#### Facility Emissions | MTA Mobile Revenue Fuel

Equity share - 100% | Entity controls the facility emissions - Yes 2 Broadway, New York, New York, 10017, US

Scope 1 - Direct Emissions		Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF <sub>6</sub> (t)
Mobile Combustion		594,889.918665	593,472.22865	11.437177	4.141317	0	0	0	0
	Total	594,889.918665	593,472.22865	11.437177	4.141317	0	0	0	0

## Source Emissions | Diesel - BUSES - Bulk

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Advanced Control	Emission Factor	No		All	44,690,712 gal	10.21 kg/gal	2019 Default Emission Factors - Table #2.1	456,292.16 952	456,292.16 952
Mobile Combustion	CH4	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Advanced Control	Emission Factor	No		All	134,999,036 mi	0.0051 g/mi	2019 Default Emission Factors - Table #2.4	0.688495	19.277862
Mobile Combustion	N2O	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Advanced Control	Emission Factor	No		All	134,999,036 mi	0.0048 g/mi	2019 Default Emission Factors - Table #2.4	0.647995	171.718774

# Source Emissions | Diesel - LIRRD - Bulk

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Diesel Fuel	Non-Highway	Locomotives	Emission Factor	No		All	7,401,911 gal	10.21 kg/gal	2019 Default Emission Factors - Table #2.1	75,573.511 31	75,573.511 31
Mobile Combustion	CH4	Diesel Fuel	Non-Highway	Locomotives	Emission Factor	No		All	7,401,911 gal	0.8 g/gal	2019 Default Emission Factors - Table #2.7	5.921529	165.802806
Mobile Combustion	N2O	Diesel Fuel	Non-Highway	Locomotives	Emission Factor	No		All	7,401,911 gal	0.26 g/gal	2019 Default Emission Factors - Table #2.7	1.924497	509.991668

### Source Emissions | Diesel - MNCRR - Bulk

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Diesel Fuel	Non-Highway	Locomotives	Emission Factor	No		All	6,033,942 gal	10.21 kg/gal	2019 Default Emission Factors - Table #2.1	61,606.547 82	61,606.547 82
Mobile Combustion	CH4	Diesel Fuel	Non-Highway	Locomotives	Emission Factor	No		All	6,033,942 gal	0.8 g/gal	2019 Default Emission Factors - Table #2.7	4.827154	135.160301
Mobile Combustion	N2O	Diesel Fuel	Non-Highway	Locomotives	Emission Factor	No		All	6,033,942 gal	0.26 g/gal	2019 Default Emission Factors - Table #2.7	1.568825	415.738604

### Facility Emissions | MTA Mobile Revenue Natural Gas

Equity share - 100% | Entity controls the facility emissions - Yes 2 Boradway, New York, New York, 10004, US

Scope 1 - Direct Emissions		Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Mobile Combustion		74,504.641789	68,986.447591	196.89202	0.019689	0	0	0	0
	Total	74,504.641789	68,986.447591	196.89202	0.019689	0	0	0	0

#### Source Emissions | CNG - BUSES - ConEd & National Grid

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Alternative Fuels	Buses	Internal Combustion Engine	Emission Factor	No		Compre ssed Natural Gas (CNG)	13,001,487 therm	0.05444 kg/scf	2019 Default Emission Factors - Table #2.1	68,986.447 591	68,986.447 591
Mobile Combustion	CH4	Alternative Fuels	Buses	Internal Combustion Engine	Emission Factor	No		Compre ssed Natural Gas (CNG)	19,689,202 mi	10 g/mi	2019 Default Emission Factors - Table #2.6	196.89202	5,512.9765 6
Mobile Combustion	N2O	Alternative Fuels	Buses	Internal Combustion Engine	Emission Factor	No		Compre ssed Natural Gas (CNG)	19,689,202 mi	0.001 g/mi	2019 Default Emission Factors - Table #2.6	0.019689	5.217639

#### Facility Emissions | MTA Stationary Non-revenue Electricity

Equity share  $\,$  - 100% | Entity controls the facility emissions - Yes

2 Broadway, New York, New York, 10004, US

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Purchased Electricity - Location Based	236,587.110556	235,949.826422	10.010179	1.347167	0	0	0	0
Total	236,587.110556	235,949.826422	10.010179	1.347167	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	236,587.110556	235,949.826422	10.010179	1.347167	0	0	0	0
Total	236,587.110556	235,949.826422	10.010179	1.347167	0	0	0	0

### Source Emissions | Electricity (CT) - MNCRR - Eversource - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	4,137.4 MWh	558.2 lb/MWh	2019 Default Emission Factors - Table #3.1	1,047.5710 65	1,047.5710 65
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	4,137.4 MWh	90 lb/GWh	2019 Default Emission Factors - Table #3.1	0.168903	4.729271
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	4,137.4 MWh	12 lb/GWh	2019 Default Emission Factors - Table #3.1	0.02252	5.96789

### Source Emissions | Electricity (CT) - MNCRR - Eversource - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	4,137.4 MWh	558.2 lb/MWh	2019 Default Emission Factors - Table #3.1	1,047.5710 65	1,047.5710 65
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	4,137.4 MWh	90 lb/GWh	2019 Default Emission Factors - Table #3.1	0.168903	4.729271
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	4,137.4 MWh	12 lb/GWh	2019 Default Emission Factors - Table #3.1	0.02252	5.96789

### Source Emissions | Electricity (CT) - MNCRR - South Norwalk - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	206,835 kWh	558.2 lb/MWh	2019 Default Emission Factors - Table #3.1	52.369704	52.369704
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	206,835 kWh	90 lb/GWh	2019 Default Emission Factors - Table #3.1	0.008444	0.236424
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	206,835 kWh	12 lb/GWh	2019 Default Emission Factors - Table #3.1	0.001126	0.298344

#### Source Emissions | Electricity (CT) - MNCRR - South Norwalk - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	206,835 kWh	558.2 lb/MWh	2019 Default Emission Factors - Table #3.1	52.369704	52.369704
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	206,835 kWh	90 lb/GWh	2019 Default Emission Factors - Table #3.1	0.008444	0.236424
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	206,835 kWh	12 lb/GWh	2019 Default Emission Factors - Table #3.1	0.001126	0.298344

### Source Emissions | Electricity (CT) - MNCRR - Third Taxing District - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	31,898 kWh	558.2 lb/MWh	2019 Default Emission Factors - Table #3.1	8.076432	8.076432
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	31,898 kWh	90 lb/GWh	2019 Default Emission Factors - Table #3.1	0.001302	0.036461
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	31,898 kWh	12 lb/GWh	2019 Default Emission Factors - Table #3.1	0.000174	0.04601

### Source Emissions | Electricity (CT) - MNCRR - Third Taxing District - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	31,898 kWh	558.2 lb/MWh	2019 Default Emission Factors - Table #3.1	8.076432	8.076432
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	31,898 kWh	90 lb/GWh	2019 Default Emission Factors - Table #3.1	0.001302	0.036461
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	31,898 kWh	12 lb/GWh	2019 Default Emission Factors - Table #3.1	0.000174	0.04601

### Source Emissions | Electricity (CT) - MNCRR - United Illuminating - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	14,498,755 kWh	558.2 lb/MWh	2019 Default Emission Factors - Table #3.1	3,671.0204 21	3,671.0204 21
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	14,498,755 kWh	90 lb/GWh	2019 Default Emission Factors - Table #3.1	0.591888	16.572862
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	14,498,755 kWh	12 lb/GWh	2019 Default Emission Factors - Table #3.1	0.078918	20.913373

### Source Emissions | Electricity (CT) - MNCRR - United Illuminating - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	14,498,755 kWh	558.2 lb/MWh	2019 Default Emission Factors - Table #3.1	3,671.0204 21	3,671.0204 21
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	14,498,755 kWh	90 lb/GWh	2019 Default Emission Factors - Table #3.1	0.591888	16.572862
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	14,498,755 kWh	12 lb/GWh	2019 Default Emission Factors - Table #3.1	0.078918	20.913373

### Source Emissions | Electricity (CT) - MNCRR - Wallingford - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	16,289 kWh	558.2 lb/MWh	2019 Default Emission Factors - Table #3.1	4.124303	4.124303
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	16,289 kWh	90 lb/GWh	2019 Default Emission Factors - Table #3.1	0.000665	0.018619
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	16,289 kWh	12 lb/GWh	2019 Default Emission Factors - Table #3.1	0.000089	0.023496

### Source Emissions | Electricity (CT) - MNCRR - Wallingford - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	16,289 kWh	558.2 lb/MWh	2019 Default Emission Factors - Table #3.1	4.124303	4.124303
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	16,289 kWh	90 lb/GWh	2019 Default Emission Factors - Table #3.1	0.000665	0.018619
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC New England	16,289 kWh	12 lb/GWh	2019 Default Emission Factors - Table #3.1	0.000089	0.023496

### Source Emissions | Electricity (LI) - LIRRD - PSEG - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	29,775,655 kWh	1178.3 lb/MWh	2019 Default Emission Factors - Table #3.1	15,914.150 414	15,914.150 414
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	29,775,655 kWh	126 lb/GWh	2019 Default Emission Factors - Table #3.1	1.701759	47.64926
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	29,775,655 kWh	16 lb/GWh	2019 Default Emission Factors - Table #3.1	0.216096	57.26555

## Source Emissions | Electricity (LI) - LIRRD - PSEG - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	29,775,655 kWh	1178.3 lb/MWh	2019 Default Emission Factors - Table #3.1	15,914.150 414	15,914.150 414
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	29,775,655 kWh	126 lb/GWh	2019 Default Emission Factors - Table #3.1	1.701759	47.64926
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	29,775,655 kWh	16 lb/GWh	2019 Default Emission Factors - Table #3.1	0.216096	57.26555

### Source Emissions | Electricity (LI) - LIRRD - Village of Freeport - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	367,114 kWh	1178.3 lb/MWh	2019 Default Emission Factors - Table #3.1	196.21087 8	196.210878
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	367,114 kWh	126 lb/GWh	2019 Default Emission Factors - Table #3.1	0.020982	0.587484
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	367,114 kWh	16 lb/GWh	2019 Default Emission Factors - Table #3.1	0.002664	0.706046

### Source Emissions | Electricity (LI) - LIRRD - Village of Freeport - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	367,114 kWh	1178.3 lb/MWh	2019 Default Emission Factors - Table #3.1	196.21087 8	196.210878
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	367,114 kWh	126 lb/GWh	2019 Default Emission Factors - Table #3.1	0.020982	0.587484
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	367,114 kWh	16 lb/GWh	2019 Default Emission Factors - Table #3.1	0.002664	0.706046

### Source Emissions | Electricity (LI) - LIRRD - Village of Greenport - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	23,362 kWh	1178.3 lb/MWh	2019 Default Emission Factors - Table #3.1	12.486254	12.486254
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	23,362 kWh	126 lb/GWh	2019 Default Emission Factors - Table #3.1	0.001335	0.037386
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	23,362 kWh	16 lb/GWh	2019 Default Emission Factors - Table #3.1	0.00017	0.044931

#### Source Emissions | Electricity (LI) - LIRRD - Village of Greenport - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	23,362 kWh	1178.3 lb/MWh	2019 Default Emission Factors - Table #3.1	12.486254	12.486254
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	23,362 kWh	126 lb/GWh	2019 Default Emission Factors - Table #3.1	0.001335	0.037386
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	23,362 kWh	16 lb/GWh	2019 Default Emission Factors - Table #3.1	0.00017	0.044931

### Source Emissions | Electricity (LI) - LIRRD - Village of Rockville - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	276,554 kWh	1178.3 lb/MWh	2019 Default Emission Factors - Table #3.1	147.80940 9	147.809409
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	276,554 kWh	126 lb/GWh	2019 Default Emission Factors - Table #3.1	0.015806	0.442563
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	276,554 kWh	16 lb/GWh	2019 Default Emission Factors - Table #3.1	0.002007	0.531878

#### Source Emissions | Electricity (LI) - LIRRD - Village of Rockville - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	276,554 kWh	1178.3 lb/MWh	2019 Default Emission Factors - Table #3.1	147.80940 9	147.809409
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	276,554 kWh	126 lb/GWh	2019 Default Emission Factors - Table #3.1	0.015806	0.442563
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Long Island	276,554 kWh	16 lb/GWh	2019 Default Emission Factors - Table #3.1	0.002007	0.531878

### Source Emissions | Electricity (NYC) - MTAWD - ConEd - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	2,951,471 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	851.18762 5	851.187625
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	2,951,471 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	0.029453	0.82468
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	2,951,471 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.004016	1.064319

### Source Emissions | Electricity (NYC) - MTAWD - ConEd - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	2,951,471 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	851.18762 5	851.187625
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	2,951,471 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	0.029453	0.82468
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	2,951,471 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.004016	1.064319

### Source Emissions | Electricity (NYC) - MTAWD - NYPA - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	725,045,511 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	209,099.04 4685	209,099.04 4685
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	725,045,511 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	7.235261	202.58731
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	725,045,511 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.986627	261.456025

### Source Emissions | Electricity (NYC) - MTAWD - NYPA - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	725,045,511 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	209,099.04 4685	209,099.04 4685
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	725,045,511 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	7.235261	202.58731
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	725,045,511 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.986627	261.456025

### Source Emissions | Electricity (NYC) - MTAWD - PSEG - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	4,686,286 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	1,351.4985 07	1,351.4985 07
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	4,686,286 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	0.046765	1.30941
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	4,686,286 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.006377	1.689905

### Source Emissions | Electricity (NYC) - MTAWD - PSEG - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	4,686,286 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	1,351.4985 07	1,351.4985 07
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	4,686,286 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	0.046765	1.30941
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	4,686,286 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.006377	1.689905

### Source Emissions | Electricity (NYS) - MNCRR - NYSEG - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	6,480,299 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	1,868.8817 59	1,868.8817 59
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	6,480,299 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	0.064667	1.810681
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	6,480,299 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.008818	2.336837

### Source Emissions | Electricity (NYS) - MNCRR - NYSEG - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	6,480,299 kWh	635.8 lb/MWh	2019 Default Emission Factors - Table #3.1	1,868.8817 59	1,868.8817 59
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	6,480,299 kWh	22 lb/GWh	2019 Default Emission Factors - Table #3.1	0.064667	1.810681
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC NYC/We stcheste r	6,480,299 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.008818	2.336837

### Source Emissions | Electricity (NYS) - MNCRR - Orange & Rockland - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Upstate NY	5,843,834 kWh	294.7 lb/MWh	2019 Default Emission Factors - Table #3.1	781.16767 5	781.167675
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Upstate NY	5,843,834 kWh	21 lb/GWh	2019 Default Emission Factors - Table #3.1	0.055665	1.558624
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Upstate NY	5,843,834 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.007952	2.107324

#### Source Emissions | Electricity (NYS) - MNCRR - Orange & Rockland - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Upstate NY	5,843,834 kWh	294.7 lb/MWh	2019 Default Emission Factors - Table #3.1	781.16767 5	781.167675
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Upstate NY	5,843,834 kWh	21 lb/GWh	2019 Default Emission Factors - Table #3.1	0.055665	1.558624
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Upstate NY	5,843,834 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.007952	2.107324

### Source Emissions | Electricity (NYS) - MTAWD - Central Hudson - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Upstate NY	7,063,666 kWh	294.7 lb/MWh	2019 Default Emission Factors - Table #3.1	944.22729	944.227291
Purchased Electricity - Location Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Upstate NY	7,063,666 kWh	21 lb/GWh	2019 Default Emission Factors - Table #3.1	0.067285	1.883969
Purchased Electricity - Location Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Upstate NY	7,063,666 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.009612	2.547203

### Source Emissions | Electricity (NYS) - MTAWD - Central Hudson - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Upstate NY	7,063,666 kWh	294.7 lb/MWh	2019 Default Emission Factors - Table #3.1	944.22729	944.227291
Purchased Electricity - Market Based	CH4	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Upstate NY	7,063,666 kWh	21 lb/GWh	2019 Default Emission Factors - Table #3.1	0.067285	1.883969
Purchased Electricity - Market Based	N2O	Regional Grid- Average	2016	Unspecified Technology	Emission Factor	No		NPCC Upstate NY	7,063,666 kWh	3 lb/GWh	2019 Default Emission Factors - Table #3.1	0.009612	2.547203

### Facility Emissions | MTA Stationary Non-revenue Fuel

Equity share  $\,$  - 100% | Entity controls the facility emissions - Yes

2 Broadway, New York, New York, 10004, US

Scope 1 - Direct Emissions		Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Stationary Combustion		30,205.515295	30,151.788342	0.299434	0.171105	0	0	0	0
	Total	30,205.515295	30,151.788342	0.299434	0.171105	0	0	0	0

Biogenic - Direct Emissions	Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t)	SF₃(t)
Stationary Biomass Combustion	1,391.489017	1,391.489017	0	0	0	0	0	0
Total	1,391.489017	1,391.489017	0	0	0	0	0	0

### Source Emissions | Biofuel 2B5 - MTAWD (Biodiesel Portion CH4, N2O)

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Not Reporting	No		Distillate Fuel Oil No. 2	144,358.17 gal	10.21 kg/gal	2019 Default Emission Factors - Table #1.1	0	0
Stationary Combustion	CH4	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Emission Factor	No		Distillate Fuel Oil No. 2	144,358.17 gal	0.7 g/MMBtu	2019 Default Emission Factors - Table #1.7	0.013945	0.39046
Stationary Combustion	N2O	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Emission Factor	No		Distillate Fuel Oil No. 2	144,358.17 gal	0.4 g/MMBtu	2019 Default Emission Factors - Table #1.7	0.007969	2.111671

### Source Emissions | Biofuel 2B5 - MTAWD (Biodiesel Portion CO2)

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Biomass Combustion - Biomass	CO2	Biomass Fuels - Liquid	Commercial	Unspecified Technology	Emission Factor	No		Biodiese I (100%)	144,358.17 gal	9.45 kg/gal	2019 Default Emission Factors - Table #1.1	1,364.1846 59	1,364.1846 59
Stationary Combustion	CH4	Biomass Fuels - Liquid	Commercial	Unspecified Technology	Not Reporting	No		Biodiese I (100%)	144,358.17 gal	10 g/MMBtu	2019 Default Emission Factors - Table #1.10	0	0
Stationary Combustion	N2O	Biomass Fuels - Liquid	Commercial	Unspecified Technology	Not Reporting	No		Biodiese I (100%)	144,358.17 gal	0.6 g/MMBtu	2019 Default Emission Factors - Table #1.10	0	0

## Source Emissions | Biofuel 2B5 - MTAWD (Diesel Portion)

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Emission Factor	No		Distillate Fuel Oil No. 2	2,742,805.14 gal	10.21 kg/gal	2019 Default Emission Factors - Table #1.1	28,004.040 428	28,004.040 428
Stationary Combustion	CH4	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Emission Factor	No		Distillate Fuel Oil No. 2	2,742,805.14 gal	0.7 g/MMBtu	2019 Default Emission Factors - Table #1.7	0.264955	7.418739
Stationary Combustion	N2O	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Emission Factor	No		Distillate Fuel Oil No. 2	2,742,805.14 gal	0.4 g/MMBtu	2019 Default Emission Factors - Table #1.7	0.151403	40.121754

### Source Emissions | Biofuel 4B5 - MTAWD (Biodiesel Portion CH4, N2O)

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Not Reporting	No		Distillate Fuel Oil No. 4	2,889.35 gal	10.96 kg/gal	2019 Default Emission Factors - Table #1.1	0	0
Stationary Combustion	CH4	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Emission Factor	No		Distillate Fuel Oil No. 4	2,889.35 gal	0.7 g/MMBtu	2019 Default Emission Factors - Table #1.7	0.000295	0.008268
Stationary Combustion	N2O	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Emission Factor	No		Distillate Fuel Oil No. 4	2,889.35 gal	0.4 g/MMBtu	2019 Default Emission Factors - Table #1.7	0.000169	0.044716

## Source Emissions | Biofuel 4B5 - MTAWD (Biodiesel Portion CO2)

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Biomass Combustion - Biomass	CO2	Biomass Fuels - Liquid	Commercial	Unspecified Technology	Emission Factor	No		Biodiese I (100%)	2,889.35 gal	9.45 kg/gal	2019 Default Emission Factors - Table #1.1	27.304358	27.304358
Stationary Combustion	CH4	Biomass Fuels - Liquid	Commercial	Unspecified Technology	Not Reporting	No		Biodiese I (100%)	2,889.35 gal	10 g/MMBtu	2019 Default Emission Factors - Table #1.10	0	0
Stationary Combustion	N2O	Biomass Fuels - Liquid	Commercial	Unspecified Technology	Not Reporting	No		Biodiese I (100%)	2,889.35 gal	0.6 g/MMBtu	2019 Default Emission Factors - Table #1.10	0	0

## Source Emissions | Biofuel 4B5 - MTAWD (Diesel Portion)

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Emission Factor	No		Distillate Fuel Oil No. 4	54,897.65 gal	10.96 kg/gal	2019 Default Emission Factors - Table #1.1	601.67824 4	601.678244
Stationary Combustion	CH4	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Emission Factor	No		Distillate Fuel Oil No. 4	54,897.65 gal	0.7 g/MMBtu	2019 Default Emission Factors - Table #1.7	0.005611	0.157095
Stationary Combustion	N2O	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Emission Factor	No		Distillate Fuel Oil No. 4	54,897.65 gal	0.4 g/MMBtu	2019 Default Emission Factors - Table #1.7	0.003206	0.849596

## Source Emissions | Diesel - MTAWD - Bulk

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Emission Factor	No		Distillate Fuel Oil No. 2	151,427 gal	10.21 kg/gal	2019 Default Emission Factors - Table #1.1	1,546.0696 7	1,546.0696 7
Stationary Combustion	CH4	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Emission Factor	No		Distillate Fuel Oil No. 2	151,427 gal	0.7 g/MMBtu	2019 Default Emission Factors - Table #1.7	0.014628	0.40958
Stationary Combustion	N2O	Petroleum Products	Commercial	Natural Gas/Diesel Oil Boilers	Emission Factor	No		Distillate Fuel Oil No. 2	151,427 gal	0.4 g/MMBtu	2019 Default Emission Factors - Table #1.7	0.008359	2.215074

### Facility Emissions | MTA Stationary Non-revenue Natural Gas

Equity share - 100% | Entity controls the facility emissions - Yes

2 Broadway, New York, New York, 10004, US

Scope 1 - Direct Emissions		Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Stationary Combustion		90,500.696561	90,053.146341	1.527475	1.527475	0	0	0	0
	Total	90,500.696561	90,053.146341	1.527475	1.527475	0	0	0	0

## Source Emissions | Natural Gas - MNCRR - Central Hudson

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average	23,509 therm	53.06 kg/MMBtu	2019 Default Emission Factors - Table #1.1	124.73875 4	124.738754
Stationary Combustion	CH4	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average	23,509 therm	0.9 g/MMBtu	2019 Default Emission Factors - Table #1.8	0.002116	0.059243
Stationary Combustion	N2O	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average	23,509 therm	0.9 g/MMBtu	2019 Default Emission Factors - Table #1.8	0.002116	0.56069

### Source Emissions | Natural Gas - MNCRR - Connecticut

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weight ed U.S. Average	2,672 therm	53.06 kg/MMBtu	2019 Default Emission Factors - Table #1.1	14.177632	14.177632
Stationary Combustion	CH4	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average	2,672 therm	0.9 g/MMBtu	2019 Default Emission Factors - Table #1.8	0.00024	0.006733
Stationary Combustion	N2O	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecif ied (Weight ed U.S. Average )	2,672 therm	0.9 g/MMBtu	2019 Default Emission Factors - Table #1.8	0.00024	0.063727

## Source Emissions | Natural Gas - MNCRR - Eversource

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecif ied (Weight ed U.S. Average )	67,970 therm	53.06 kg/MMBtu	2019 Default Emission Factors - Table #1.1	360.64882	360.64882
Stationary Combustion	CH4	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average	67,970 therm	0.9 g/MMBtu	2019 Default Emission Factors - Table #1.8	0.006117	0.171284
Stationary Combustion	N2O	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average	67,970 therm	0.9 g/MMBtu	2019 Default Emission Factors - Table #1.8	0.006117	1.621085

### Source Emissions | Natural Gas - MNCRR - Southern Connecticut

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average	293,652 therm	53.06 kg/MMBtu	2019 Default Emission Factors - Table #1.1	1,558.1175 12	1,558.1175 12
Stationary Combustion	CH4	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average	293,652 therm	0.9 g/MMBtu	2019 Default Emission Factors - Table #1.8	0.026429	0.740003
Stationary Combustion	N2O	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average	293,652 therm	0.9 g/MMBtu	2019 Default Emission Factors - Table #1.8	0.026429	7.0036

## Source Emissions | Natural Gas - MTAWD - ConEd

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecif ied (Weight ed U.S. Average )	6,321,358.42 therm	53.06 kg/MMBtu	2019 Default Emission Factors - Table #1.1	33,541.127 783	33,541.127 783
Stationary Combustion	CH4	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average	6,321,358.42 therm	0.9 g/MMBtu	2019 Default Emission Factors - Table #1.8	0.568922	15.929823
Stationary Combustion	N2O	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average		0.9 g/MMBtu	2019 Default Emission Factors - Table #1.8	0.568922	150.764398

### Source Emissions | Natural Gas - MTAWD - National Grid

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average	10,262,784.7 4 therm	53.06 kg/MMBtu	2019 Default Emission Factors - Table #1.1	54,454.335 84	54,454.335 84
Stationary Combustion	CH4	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average	10,262,784.7 4 therm	0.9 g/MMBtu	2019 Default Emission Factors - Table #1.8	0.923651	25.862218
Stationary Combustion	N2O	Natural Gas	Commercial	Boilers	Emission Factor	No		Unspecified (Weighted U.S. Average	10,262,784.7 4 therm	0.9 g/MMBtu	2019 Default Emission Factors - Table #1.8	0.923651	244.767416

#### Facility Emissions | MTA Stationary Non-revenue Steam

Equity share - 100% | Entity controls the facility emissions - Yes

2 Broadway, New York, New York, 10004, US

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO <sub>2</sub> e)	NF₃(t)	SF₀(t)
Purchased Steam - Location Based	9,936.92523	9,924.65	0.19621	0.02559	0	0	0	0
Total	9,936.92523	9,924.65	0.19621	0.02559	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF <sub>6</sub> (t)
Purchased Steam - Market Based	9,936.92523	9,924.65	0.19621	0.02559	0	0	0	0
Total	9,936.92523	9,924.65	0.19621	0.02559	0	0	0	0

### Source Emissions | Steam - MTAWD - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Steam - Location Based	CO2	Direct Line	PreCalculated	PreCalculated	PreCalculate d	Yes		PreCalc ulated	N/A	N/A	N/A	9,924.65	9,924.65
Purchased Steam - Location Based	CH4	Direct Line	PreCalculated	PreCalculated	PreCalculate d	Yes		PreCalc ulated	N/A	N/A	N/A	0.19621	5.49388
Purchased Steam - Location Based	N2O	Direct Line	PreCalculated	PreCalculated	PreCalculate d	Yes		PreCalc ulated	N/A	N/A	N/A	0.02559	6.78135

### Source Emissions | Steam - MTAWD - Market Based

Used location-based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Steam - Market Based	CO2	Direct Line	PreCalculated	PreCalculated	PreCalculate d	Yes		PreCalc ulated	N/A	N/A	N/A	9,924.65	9,924.65
Purchased Steam - Market Based	CH4	Direct Line	PreCalculated	PreCalculated	PreCalculate d	Yes		PreCalc ulated	N/A	N/A	N/A	0.19621	5.49388
Purchased Steam - Market Based	N2O	Direct Line	PreCalculated	PreCalculated	PreCalculate d	Yes		PreCalc ulated	N/A	N/A	N/A	0.02559	6.78135

### Facility Emissions | PARATRANSIT Mobile Revenue Fuel

Equity share - 100% | Entity controls the facility emissions - Yes

2 Broadway, New York, New York, 10004, US

Optional - Optional Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO <sub>2</sub> e)	NF₃(t)	SF <sub>6</sub> (t)
Scope 3	61,092.51	60,317.6	3.92	2.51	0	0	0	0
Total	61,092.51	60,317.6	3.92	2.51	0	0	0	0

### Source Emissions | Diesel - PTRAN

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Scope 3 (Optional)	CO2	N/A	All	Unspecified Technology	PreCalculate d	Yes		N/A	N/A	N/A	N/A	32,929.83	32,929.83
Scope 3 (Optional)	CH4	N/A	All	Unspecified Technology	PreCalculate d	Yes		N/A	N/A	N/A	N/A	2.14	59.92
Scope 3 (Optional)	N2O	N/A	All	Unspecified Technology	PreCalculate d	Yes		N/A	N/A	N/A	N/A	1.37	363.05

#### Source Emissions | Gasoline - PTRAN

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Scope 3 (Optional)	CO2	N/A	All	Unspecified Technology	PreCalculate d	Yes		N/A	N/A	N/A	N/A	27,387.77	27,387.77
Scope 3 (Optional)	CH4	N/A	All	Unspecified Technology	PreCalculate d	Yes		N/A	N/A	N/A	N/A	1.78	49.84
Scope 3 (Optional)	N2O	N/A	All	Unspecified Technology	PreCalculate d	Yes		N/A	N/A	N/A	N/A	1.14	302.1

### Facility Emissions | PARATRANSIT Mobile Revenue Natural Gas

Equity share - 100% | Entity controls the facility emissions - Yes

2 Broadway, New York, New York, 10004, US

Optional - Optional Emissions	Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF <sub>6</sub> (t)
Scope 3	1.19	1.19	0	0	0	0	0	0
Total	1.19	1.19	0	0	0	0	0	0

# Source Emissions | CNG - PTRAN

Activity <sup>-</sup>	Гуре G	ias	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Aditional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Scope (Option		O2	N/A	All	Unspecified Technology	PreCalculate d	Yes		N/A	N/A	N/A	N/A	1.19	1.19