



New York State Metropolitan Transportation Authority Emissions Year 2009

New York State Metropolitan Transportation Authority

Detail Report - Control (Public)

Complete Inventory 2009

Description:

**Industry:** 48 - Transportation and Warehousing

Address: 347 Madison Avenue

10th Floor

New York, New York US

Contact: Website:

#### **Reporting Information**

Reporting Protocol: General Reporting Protocol 1.1 and associated updates and clarifications

**GWP Standard: SAR** 

Base Year:

Consolidation Methodology: Operational Control Only

Status: TCR Accepted

#### **Verification Information**

Verification Body:

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	140,986.76805	140,226.89241	216.26328	543.61236	0	0	0	0
Mobile Combustion	811,261.75607	805,566.55849	1,629.97588	4,065.2217	0	0	0	0
Total	952,248.52412	945,793.4509	1,846.23916	4,608.83406	0	0	0	0
NetTotal	952,248.52412	945,793.4509	1,846.23916	4,608.83406	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)	SF₀ (t of CO₂e)
Purchased Electricity - Market Based	1,312,580.32541	1,305,358.52704	1,244.08399	5,977.71438	0	0	0	0
Purchased Steam - Market Based	20,040.87703	19,996.01708	12.70861	32.15134	0	0	0	0
Total	1,332,621.20244	1,325,354.54412	1,256.7926	6,009.86572	0	0	0	0
NetTotal	1,332,621.20244	1,325,354.54412	1,256.7926	6,009.86572	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	965.84481	965.84481	0	0	0	0	0	0
Mobile Biomass Combustion	7,257.58185	7,257.58185	0	0	0	0	0	0
Total	8,223.42666	8,223.42666	0	0	0	0	0	0
NetTotal	8,223.42666	8,223.42666	0	0	0	0	0	0

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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)	SF <sub>6</sub> (t of CO <sub>2</sub> e)
Scope 3		83,773.68845	81,896.9941	107.14584	1,769.54851	0	0	0	0
	Total	83,773.68845	81,896.9941	107.14584	1,769.54851	0	0	0	0
<b>N</b>	NetTotal	83,773.68845	81,896.9941	107.14584	1,769.54851	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)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃ (t)	SF <sub>6</sub> (t)
Stationary Combustion	140,986.76805	140,226.89241	10.29826	1.75362	0	0	0	0
Mobile Combustion	811,261.75607	805,566.55849	77.61791	13.11366	0	0	0	0
Total	952,248.52412	945,793.4509	87.91617	14.86728	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	1,312,580.32541	1,305,358.52704	59.24209	19.28293	0	0	0	0
Purchased Steam - Market Based	20,040.87703	19,996.01708	0.60517	0.10371	0	0	0	0
Total	1,332,621.20244	1,325,354.54412	59.84726	19.38664	0	0	0	0

Biogenic - 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)
Stationary Biomass Combustion	965.84481	965.84481	0	0	0	0	0	0
Mobile Biomass Combustion	7,257.58185	7,257.58185	0	0	0	0	0	0
Total	8,223.42666	8,223.42666	0	0	0	0	0	0

Optional - Optional 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)	SF₀ (t)
Scope 3		83,773.68845	81,896.9941	5.10218	5.70822	0	0	0	0
	Total	83,773.68845	81,896.9941	5.10218	5.70822	0	0	0	0

# Simplified Estimation Methods (SEMs)

Estimated CO₂e as a Percentage of Total*	Total Emissions (t of CO <sub>2</sub> e)	Total Estimated CO <sub>2</sub> e (t)	
N/A	0	0	Location Based
0.0533745778396023%	2,293,093.15322	1,223.92879	Market Based
*Total based on scope 1, scope 2 & biomass emissions			

## Facility Emissions | MTA Bridges & Tunnels (B&T) Facilities (Non-traction electricity+heating)

Scope 1 - Direct Emissions		Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Stationary Combustion		6,576.57863	6,539.75547	0.75244	0.06782	0	0	0	0
	Total	6,576.57863	6,539.75547	0.75244	0.06782	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	15,957.62148	15,869.78073	0.54768	0.24625	0	0	0	0
Total	15,957.62148	15,869.78073	0.54768	0.24625	0	0	0	0

Biogenic - Direct 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)
Stationary Biomass Combustion	237.25453	237.25453	0	0	0	0	0	0
Total	237.25453	237.25453	0	0	0	0	0	0

## Facility Emissions | MTA Bridges & Tunnels (B&T) Ground-based fleet (non-revenue)

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

Scope 1 - Direct Emissions		Total CO₂e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Mobile Combustion		3,401.66834	3,315.12871	0.23527	0.26324	0	0	0	0
	Total	3,401.66834	3,315.12871	0.23527	0.26324	0	0	0	0

Biogenic - Direct Emissions	Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO <sub>2</sub> e)	NF₃(t)	SF₅(t)
Mobile Biomass Combustion	461.77327	461.77327	0	0	0	0	0	0
Total	461.77327	461.77327	0	0	0	0	0	0

## Facility Emissions | MTA Bus Company Facilities (Non-traction electricity+heating)

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

Scope 1 - Direct Emissions		Total CO₂e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Stationary Combustion		6,454.39365	6,418.34066	0.21666	0.10163	0	0	0	0
	Total	6,454.39365	6,418.34066	0.21666	0.10163	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Purchased Electricity - Market Based	3,733.27743	3,721.5311	0.17231	0.02622	0	0	0	0
Total	3,733.27743	3,721.5311	0.17231	0.02622	0	0	0	0

### Facility Emissions | MTA Bus Company Ground-based fleet (revenue)

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

N/A, N/A, New York, N/A, 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)
Mobile Combustion		126,093.06307	125,341.49752	14.15101	1.4658	0	0	0	0
	Total	126,093.06307	125,341.49752	14.15101	1.4658	0	0	0	0

Biogenic - Direct 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)
Mobile Biomass Combustion	2,901.83608	2,901.83608	0	0	0	0	0	0
Tota	2,901.83608	2,901.83608	0	0	0	0	0	0

### Facility Emissions | MTA Headquarters (HQ) Facilities (Non-traction electricity+heating)

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

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)	SF₀(t)
Purchased Electricity - Market Based	12,467.07797	12,429.74802	0.54905	0.08323	0	0	0	0
Purchased Steam - Market Based	3,349.47426	3,341.97802	0.10114	0.01733	0	0	0	0
Total	15,816.55223	15,771.72604	0.65019	0.10056	0	0	0	0

### Facility Emissions | MTA Headquarters (HQ) Ground-based fleet (non-revenue)

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

N/A, N/A, New York, N/A, 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		3,492.6105	3,491.09223	0.00413	0.00462	0	0	0	0
	Total	3,492.6105	3,491.09223	0.00413	0.00462	0	0	0	0

### Facility Emissions | MTA Long Island Bus (LIB) Facilities (Non-traction electricity+heating)

Scope 1 - Direct Emissions		Total CO₂e (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)
Stationary Combustion		3,743.00867	3,722.11125	0.06313	0.06313	0	0	0	0
	Total	3,743.00867	3,722.11125	0.06313	0.06313	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	10,824.60543	10,768.32879	0.80868	0.12676	0	0	0	0
Total	10,824.60543	10,768.32879	0.80868	0.12676	0	0	0	0

#### Facility Emissions | MTA Long Island Bus (LIB) Ground-based fleet (revenue+non-revenue)

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

N/A, N/A, New York, N/A, US

Scope 1 - Direct Emissions		Total CO <sub>2</sub> e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Mobile Combustion		41,066.48492	39,766.31257	24.18354	2.55587	0	0	0	0
	Total	41,066.48492	39,766.31257	24.18354	2.55587	0	0	0	0

#### Facility Emissions | MTA Long Island Rail Road (LIRR) Electricity - Traction Power (Revenue)

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

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)	SF₀(t)
Purchased Electricity - Market Based	277,321.81678	275,855.0001	17.41051	3.55224	0	0	0	0
Total	277,321.81678	275,855.0001	17.41051	3.55224	0	0	0	0

## Facility Emissions | MTA Long Island Rail Road (LIRR) Facilities (Non-traction electricity+heating)

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)	SF₅(t)
Stationary Combustion		11,727.27473	11,661.85698	0.20625	0.19705	0	0	0	0
	Total	11,727.27473	11,661.85698	0.20625	0.19705	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	42,908.40346	42,681.13193	2.36309	0.57305	0	0	0	0
Total	42,908.40346	42,681.13193	2.36309	0.57305	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)	SF₀(t)
Stationary Biomass Combustion	2.31667	2.31667	0	0	0	0	0	0
Total	2.31667	2.31667	0	0	0	0	0	0

## Facility Emissions | MTA Long Island Rail Road (LIRR) Ground-based fleet (revenue+non-revenue)

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

N/A, N/A, New York, N/A, 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		84,886.55517	83,972.83252	6.44186	2.51111	0	0	0	0
	Total	84,886.55517	83,972.83252	6.44186	2.51111	0	0	0	0

### Facility Emissions | MTA Metro-North Railroad (MNR) Electricity (CT) - Traction Power (Revenue)

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 CO <sub>2</sub> e)	NF₃(t)	SF₀(t)
Purchased Electricity - Market Based	65,412.43743	64,916.34258	6.05232	1.19031	0	0	0	0
Total	65,412.43743	64,916.34258	6.05232	1.19031	0	0	0	0

### Facility Emissions | MTA Metro-North Railroad (MNR) Electricity (NYS) - Traction Power (Revenue)

Equity share - 100% | Entity controls the facility emissions - Yes N/A, N/A, New York, N/A, US

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₀(t)
Purchased Electricity - Market Based	112,299.59266	111,706.36383	3.94317	1.64652	0	0	0	0
Total	112,299.59266	111,706.36383	3.94317	1.64652	0	0	0	0

### Facility Emissions | MTA Metro-North Railroad (MNR) Facilities - CT (Non-traction electricity+heating)

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 CO <sub>2</sub> e)	NF₃(t)	SF₀(t)
Purchased Electricity - Market Based	6,244.41826	6,197.05994	0.57776	0.11363	0	0	0	0
Total	6,244.41826	6,197.05994	0.57776	0.11363	0	0	0	0

#### Facility Emissions | MTA Metro-North Railroad (MNR) Facilities - NY (Non-traction electricity+heating)

Equity share - 100% | Entity controls the facility emissions - Yes N/A, N/A, New York, N/A, 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)	SF₅(t)
Stationary Combustion		12,094.56786	12,026.90597	1.31258	0.12936	0	0	0	0
	Total	12,094.56786	12,026.90597	1.31258	0.12936	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	28,549.42274	28,403.90195	1.0231	0.40012	0	0	0	0
Purchased Steam - Market Based	16,691.40277	16,654.03906	0.50403	0.08638	0	0	0	0
Total	45,240.82551	45,057.94101	1.52713	0.4865	0	0	0	0

### Facility Emissions | MTA Metro-North Railroad (MNR) Ground-based fleet (non-revenue)

Equity share - 100% | Entity controls the facility emissions - Yes 347 Madison Ave, New York, New York, 10017, 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		78,446.32231	77,593.42373	5.94315	2.34869	0	0	0	0
	Total	78,446.32231	77,593.42373	5.94315	2.34869	0	0	0	0

### Facility Emissions | MTA NYCT - Paratransit - Ground-based fleet (revenue+non-revenue)

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

N/A, N/A, New York, N/A, US

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)	SF₀(t)
Scope 3	83,773.68845	81,896.9941	5.10218	5.70822	0	0	0	0
Tota	83,773.68845	81,896.9941	5.10218	5.70822	0	0	0	0

### Facility Emissions | MTA NYCT Electricity - Traction Power (Revenue)

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 CO <sub>2</sub> e)	NF₃(t)	SF₀(t)
Purchased Electricity - Market Based	590,375.47268	587,128.95047	20.69498	9.07073	0	0	0	0
Total	590,375.47268	587,128.95047	20.69498	9.07073	0	0	0	0

## Facility Emissions | MTA NYCT Facilities (Non-traction electricity+heating)

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)	SF₅(t)
Stationary Combustion		100,180.49957	99,648.32248	7.7404	1.19236	0	0	0	0
	Total	100,180.49957	99,648.32248	7.7404	1.19236	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO₂e (t)	CO₂(t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO₂e)	NF₃(t)	SF₅(t)
Purchased Electricity - Market Based	146,486.17909	145,680.3876	5.09944	2.25387	0	0	0	0
Total	146,486.17909	145,680.3876	5.09944	2.25387	0	0	0	0

Biogenic - Direct Emissions	Total CO₂e (t)	CO <sub>2</sub> (t)	CH₄(t)	N₂O (t)	HFC (t of CO₂e)	PFC (t of CO <sub>2</sub> e)	NF₃(t)	SF₅(t)
Stationary Biomass Combustion	726.27361	726.27361	0	0	0	0	0	0
Total	726.27361	726.27361	0	0	0	0	0	0

### Facility Emissions | MTA NYCT Ground-based fleet (Revenue)

Equity share - 100% | Entity controls the facility emissions - Yes N/A, N/A, New York, N/A, 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)
Mobile Combustion		473,875.05176	472,086.27121	26.65895	3.96433	0	0	0	0
	Total	473,875.05176	472,086.27121	26.65895	3.96433	0	0	0	0

Biogenic - 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)	SF₅(t)
Mobile Biomass Combustion	3,893.9725	3,893.9725	0	0	0	0	0	0
Total	3,893.9725	3,893.9725	0	0	0	0	0	0

### Facility Emissions | Small Stationary Combustion

Equity share - 100% | Entity controls the facility emissions - Yes 347 Madison Ave, 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)	SF₀(t)
Stationary Combustion		210.44494	209.5996	0.0068	0.00227	0	0	0	0
	Total	210.44494	209.5996	0.0068	0.00227	0	0	0	0