



SIGMA TECH, INC.

Green House Gas (GHG) Inventory 2024

Sigmattech Proprietary

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Inventory Boundary

Organizational Boundary

- Corporate Enterprise
 - Space & Air Enterprises Division (SAED)
 - Army Enterprises Division (AED)

Consolidation Approach

- 100% of emissions from operations for which Sigmatech has operational control
- Scope 1 & 2 emissions

Covered Activities

- Stationary Combustion
- Refrigeration and AC
- Mobile Sources
- Electricity

Excluded Activities (N/A in Sigmatech facilities)

- Fire Suppression
- Purchased Gases
- Steam

Reporting Period – CY24

Inventory Considerations/Methods

Sigmatech is a Department of Defense service provider proven in it's capability to deliver management, technical, engineering, E-learning and training solutions. Sigmatech is **NOT** a manufacturer.

Sigmatech Facilities

- Owned- None
- Leased- 9 total (7 in boundary / 2 not in boundary)
- Facilities not in the defined Boundary (No Operational Control)
 - Clark St Arlington STE 1200 (KLO)
 - 4590 Corporate Dr HSV (KLO)

Sigmatech Mobile Sources

- Owned- None
- Leased- 1 Dodge Ram

EPA GHG Emissions Calculator Boundary
Questions Input provided by facility
Managers/Owners

In Boundary Leased Facilities - ID	Description	Sigmatech Leased SF	Facility Total SF	% SF
HQ	631 Discovery Dr. HSV	26,500	26,500	100%
C1	5030 Edison Ave CoS	9,000	9,000	100%
C2	5050 Edison Ave CoS	5,570	36,431	15.29%
C3	12325 Oracle Blvd CoS	2,937	20301	14.5%
NCR	Clark St Arlington	7,427	335,926	2.21%
CC	Cape Canaveral	286	3,178	9.00%
APG	Belcamp MD	2,392	100,379	2.38%

Emissions Summary

Scope 1 Emissions	Emissions CO ₂ -e (metric tons)
Stationary Combustion	1840
Mobile Sources	2
Refrigeration/AC	286
Fire Suppression	0
Purchased Gases	0
Location-Based Scope 2 Emissions	Emissions CO ₂ -e (metric tons)
Purchased and Consumed Electricity	305
Purchased and Consumed Steam	0
Market-Based Scope 2 Emissions	Emissions CO ₂ -e (metric tons)
Purchased and Consumed Electricity	366
Purchased and Consumed Steam	0
Total Organizational Emissions	Emissions CO ₂ -e (metric tons)
Total Scope 1 & Location-Based Scope 2	2433
Total Scope 1 & Market-Based Scope 2	2494
Reductions	Emissions CO ₂ -e (metric tons)
Offsets	0
Net Scope 1 and 2 Location-Based Emission	2433
Net Scope 1 and 2 Market-Based Emission	2494

Supplemental Information

	Co2-e (metric tons)
Biomass CO2 Emissions from Stationary Sources	0
Biomass CO2 Emissions from Mobile Sources	0

Sigmatech utilized the EPA Center for Corporate Climate Leadership
U.S. Environmental Protection Agency – EPA Simplified GHG Emissions
Calculator (August 2022)

Scope 1 Emissions Stationary Combustion

Source ID	Source description	Source Area (SF)	Fuel Combusted	QTY Combusted	Units
HQ*	631 Discovery Dr. HSV	26,500	N/A	0	SCF
C1	5030 Edison Ave CoS	9,000	Natural Gas	488,181	SCF
C2	5050 Edison Ave CoS	5,570	Natural Gas	2,746,112	SCF
C3	12325 Oracle Blvd CoS	2,937	Natural Gas	352,198	SCF
APG	Belcamp MD	2,392	Natural Gas	30,169,72	SCF
NCR	Clark St Arlington		N/A		
CC	Cape Canaveral		N/A		

Fuel Type	CO ₂ (kg)	CH ₄ (g)	N ₂ O (g)
Natural gas	1,837,688.4	34,768.9	3,375.6
Total Fossil Fuel Emissions	CO2 (kg)	CH4 (g)	N2O (g)
	1,837,688.4	34,768.9	3,375.6
Total Fossil Fuel Emissions	CO2 (kg)	CH4 (g)	N2O (g)
	0	0	0
Total Emission All Fuels	CO2 (kg)	CH4 (g)	N2O (g)
	1,837,688.4	34,768.9	3,375.6

- Based on % total facility SF

* HQ 12months at new location

Scope 1 Emissions Mobile Sources

Source ID	Source description	On-Road / Off0Road	Vehicle Type	Year	Fuel usage	Units	Miles Traveled
HQ1	Corporate Vehicle	On-Road	Light-Duty Trucks - Gasoline	2022	193	gal	3,277

Fuel Type	Fuel Usage (Gal)	CO ₂ (kg)	CO ₂ (metric tons)
Motor Gasoline	303	1,691	1.7

Scope 1 Emissions Refrigeration/AC

Source ID	Source description	Type of Equipment	Gas	New Units Charged (kg)	Operating Units (kg)	Disposed Units (kg)	Co2 Equivalent Emissions (kg)
HQ	631 Discovery Dr. NW HSV	Res/Comm A/C	R-422D	N/A	59.0	0	56,353.9
C1	5030 Edison Ave CoS	Res/Comm A/C	R-410A	N/A	40.0	0	29,232.0
C2	5050 Edison Ave CoS	Res/Comm A/C	R-422D	N/A	2.8	0	51,990.7
C2	5050 Edison Ave CoS	Res/Comm A/C	R-422D	N/A	2.8	0	51,990.7
C2	5050 Edison Ave CoS	Res/Comm A/C	R-422D	N/A	2.8	0	57,527.3,
C3	12325 Oracle Blvd CoS	Res/Comm A/C	R-422D	N/A	0.0	0	7,798.6
NCR	Clark St Arlington	Chillers	HFC-134a		23.1	0	4,946.4
CC	Cape Canaveral	Res/Comm A/C	R-422D	N/A	3.1	0	2,961.0
APG	Belcamp MD	Res/Comm A/C	R-422D	N/A	21.8	0	20,796.3
Leased Truck	Corporate vehicle	Light-Duty Truck A/C units	HFC-134a	N/A	10.0		2,860.0
Total CO2 Equivalent Emission – Refrigerant and AC Equipment							Metric Tons
							286.4

- Based on % total facility SF
- Gases not listed are N/A
- Adjusted Res/Comm/AC to Medium/Large Comm based on capacity – significant impact

Scope 2 Emissions Electricity

					Market-Based Emissions						Location-Based Emissions		
Source	Source	Source	eGRID Subregion	Electricity	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O
ID	Description	Area (sq ft)	where electricity is consumed	Purchased	Factors	Factors	Factors	Emissions	Emissions	Emissions	Emissions	Emissions	Emissions
				(kWh)	(lb/MWh)	(lb/MWh)	(lb/MWh)	(lb)	(lb)	(lb)	(lb)	(lb)	(lb)
HQ	631 Discovery Dr NW HSV	26,500	SRTV (SERC Tennessee Valley)	443,376	895.7		0.383	397,131.9	33.3	169.8	369,864.3	33.3	4.9
C1	5030 Edison Ave CoS	9,000	NWPP (WECC Northwest)	136,510	600		0.568	81,906.0	7.6	77.5	81,906	7.6	1.1
C 2	5050 Edison Ave CoS	5,570	NWPP (WECC Northwest)	126,818	600		0.568	76,090.8	7.1	72.0	76,090.8	7.1	1.0
C 3	Oracle Bldv CoS	2,937	NWPP (WECC Northwest)	21,005	600		0.568	12,602.9	1.2	11.9	12,602.9	1.2	0.2
NCR	1235 Clark Arlington	7,427	RFCE (RFC East)	149,308	652.5		0.202	97,423.2	6.7	30.2	97,423.2	6.7	0.9
CC	Cape Canaveral	286	FRCC (FRCC All)	4,592	835.1		0.248	3,834.8	0.2	1.1	3,834.8	0.2	0.0
APG	Belcamp MD	2,392	RFCE (RFC East)	40,903	652.5		0.202	26,689.3	1.8	8.3	26,689.3	1.8	0.2
Total Emissions All Sources				922,512				695,678.8	58.0	370.9	668,411.2	58.0	8.3

Scope 2 Emissions Steam

No facility uses Steam as a fuel