

Table 1: 2017-2018 Total Consumption and GHG Emissions by Source

Activity	Source	Scope	Consumption	Unit	Emissions (MT CO ₂ e)
Natural Gas (combustion)	Buildings	1	694,390	MCF	37,913
Fuel Oil #2 (combustion)	Buildings	1	2,288	tons	2,231
Gasoline (transportation)	Fleet	1	147,010	gal	1,290
Diesel Fuel (transportation)	Fleet	1	98,234	gal	1,003
Fertilizer	Landscaping	1	60,500	lb	242
Electricity Purchases	Buildings	2	164,693,079	kWh	56,933
Scope 1 and 2 Total		1 & 2		MT CO₂e	99,612
Mixed Solid Waste	Buildings	3	2,288	tons	833
Compost/Food Waste	Buildings	3	126	tons	68
Gasoline (commuting)	Non-UD Vehicles	3	2,415,190	gal	21,200
Jet Fuel (air travel)	Non-UD Aircraft		2,487	gal	24
Electricity (T&D Losses)	Power Grid	3	16,627,056	kWh	5,748
Scope 3 Total		3		MT CO₂e	27,873
All Scopes Total				MT CO₂e	127,485

Figure 1: 2017-2018 GHG Emissions Overview

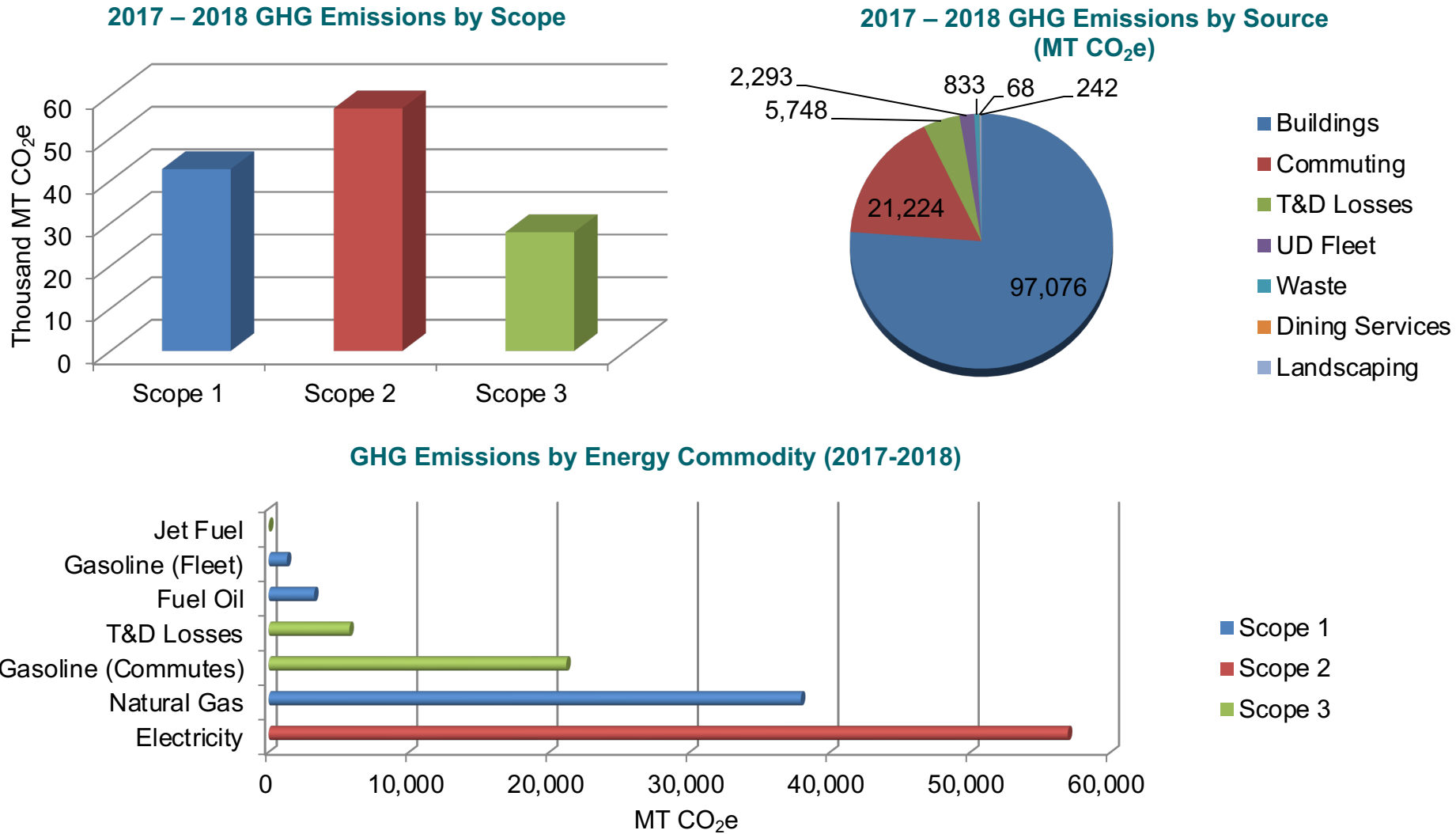


Figure 1: 2017-2018 GHG Emissions Overview

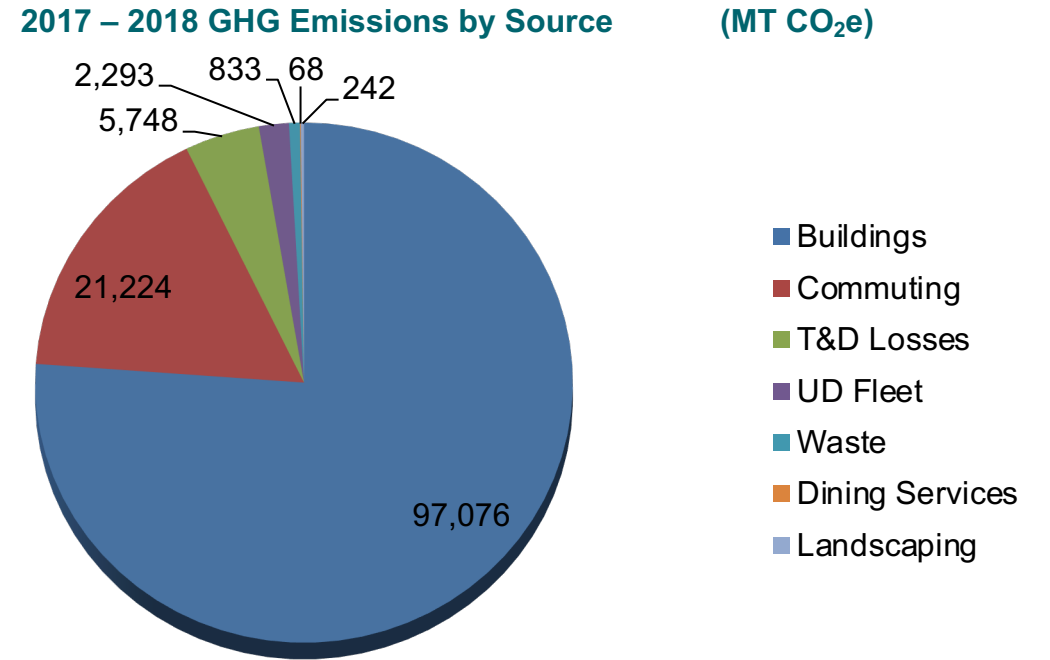
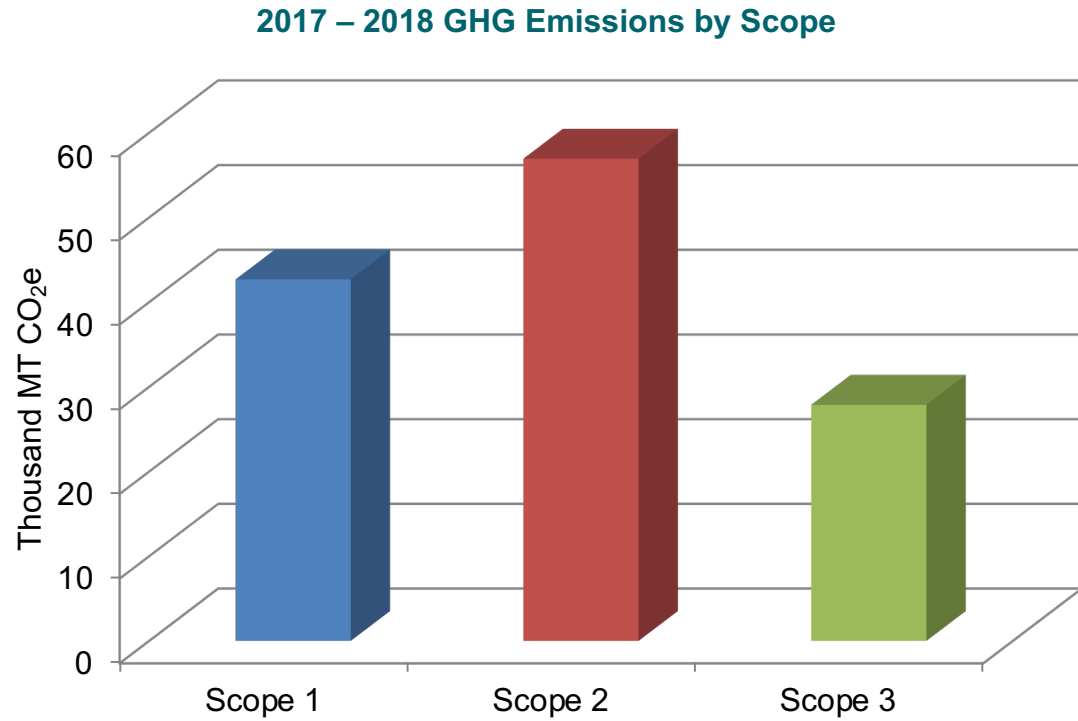


Figure 1A: 2017-2018 GHG Emissions Overview

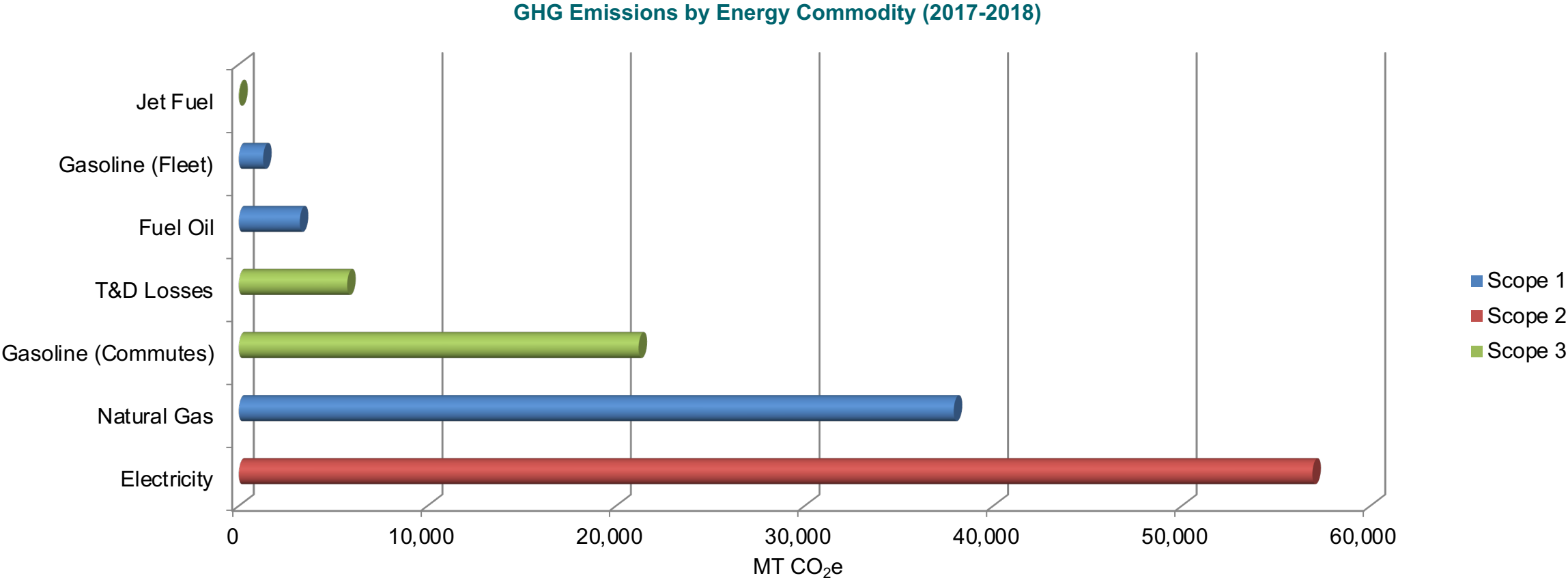


Figure 2: 2007-2008 v 2017-2018 GHG Emissions Comparisons

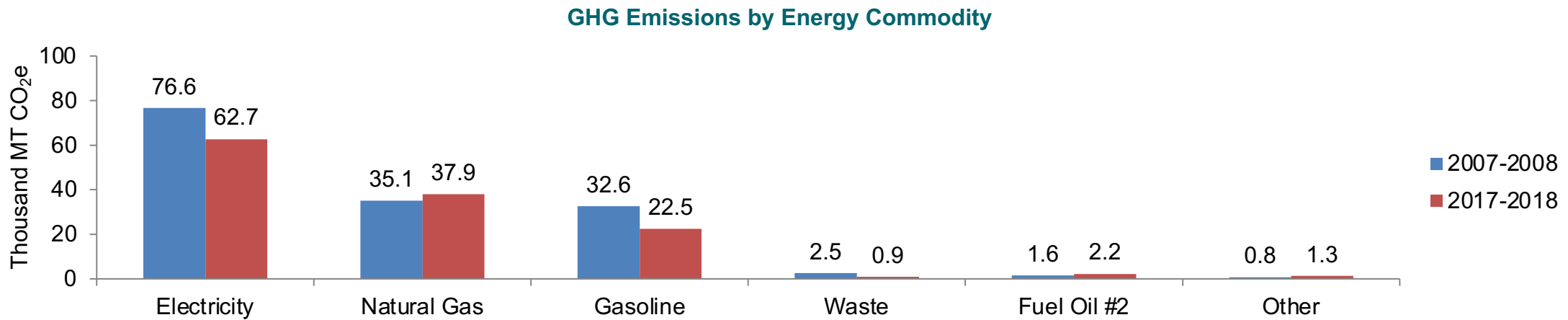
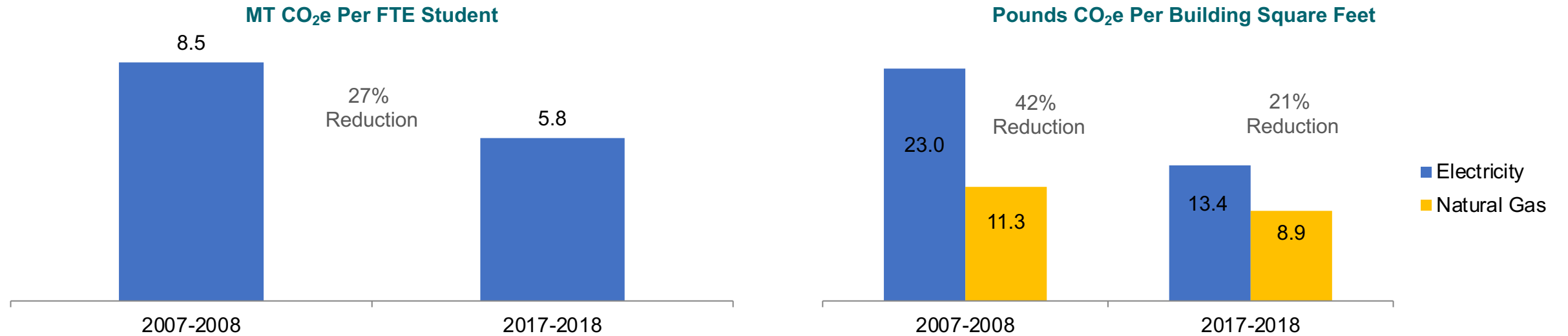


Figure 2: 2007-2008 v 2017-2018 GHG Emissions Comparisons

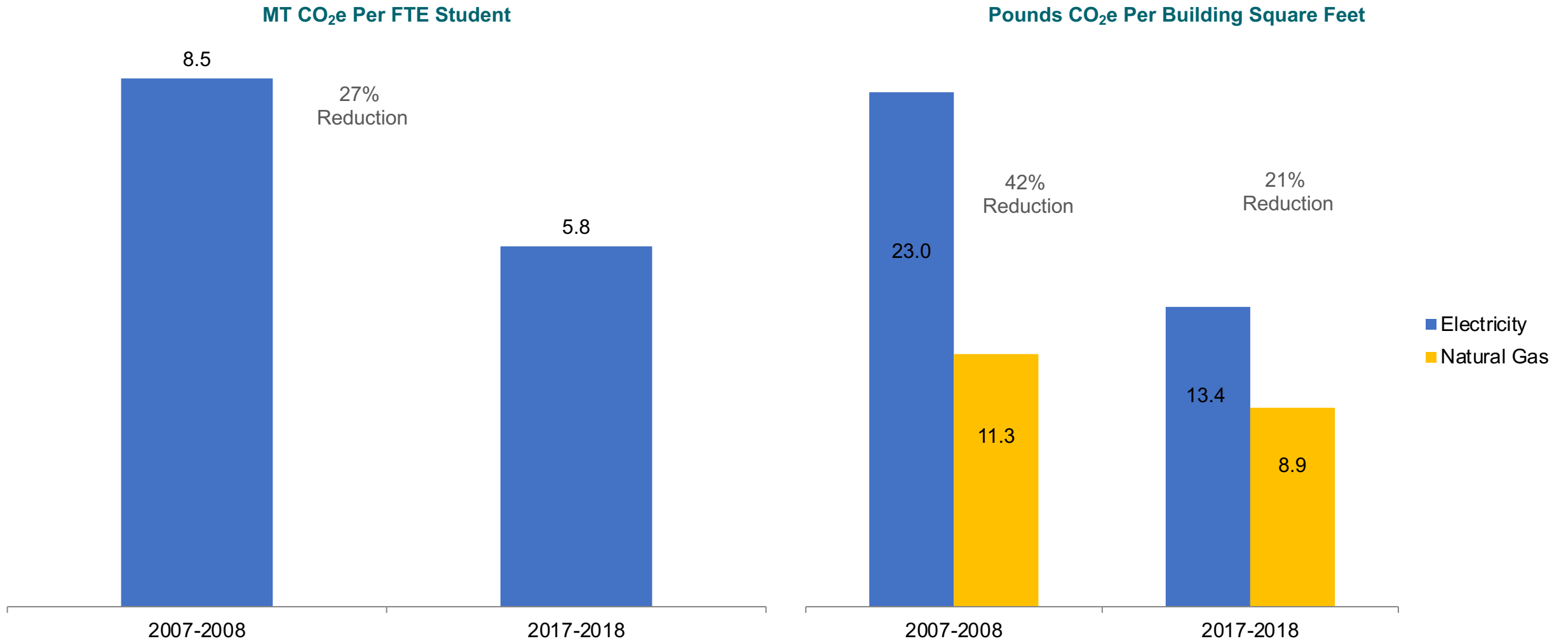


Figure 2A: 2007-2008 v 2017-2018 GHG Emissions Comparisons

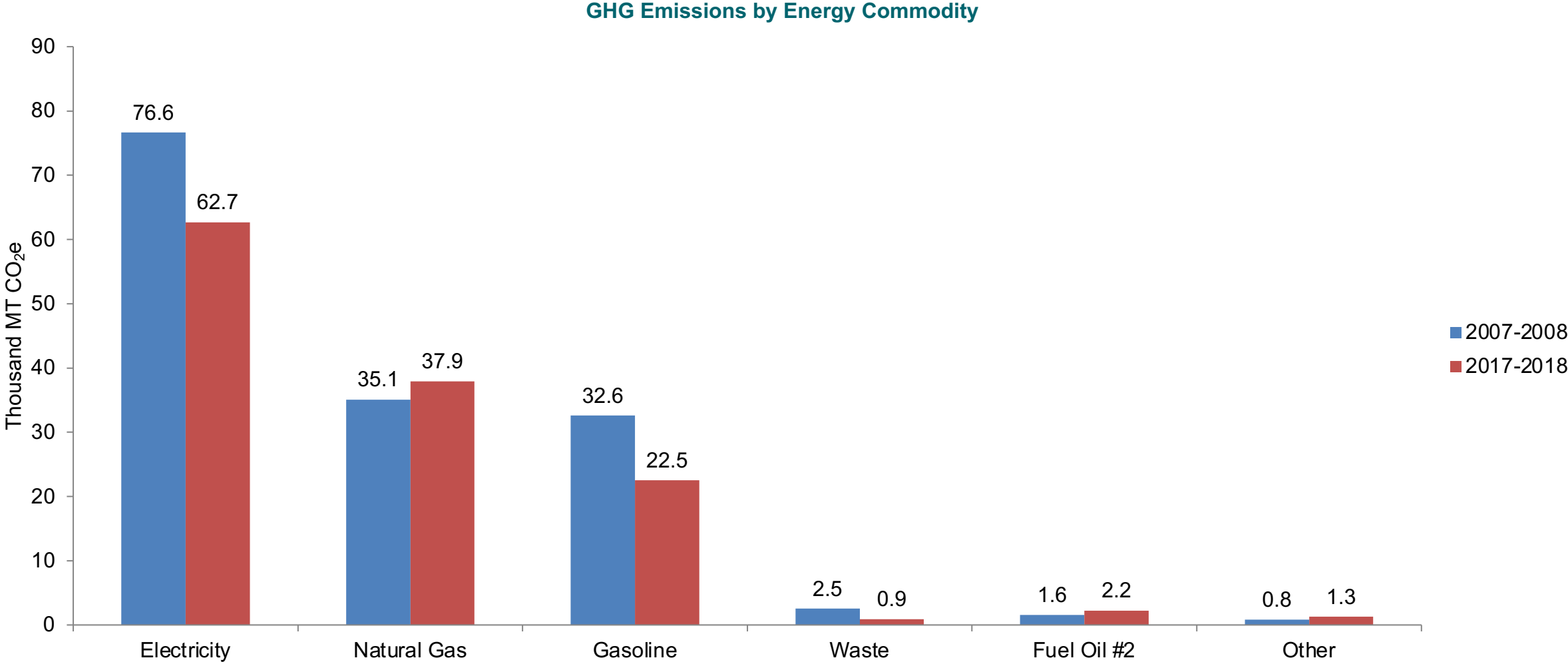


Figure 3: Emissions Progress Against 2020 Climate Action Plan Target

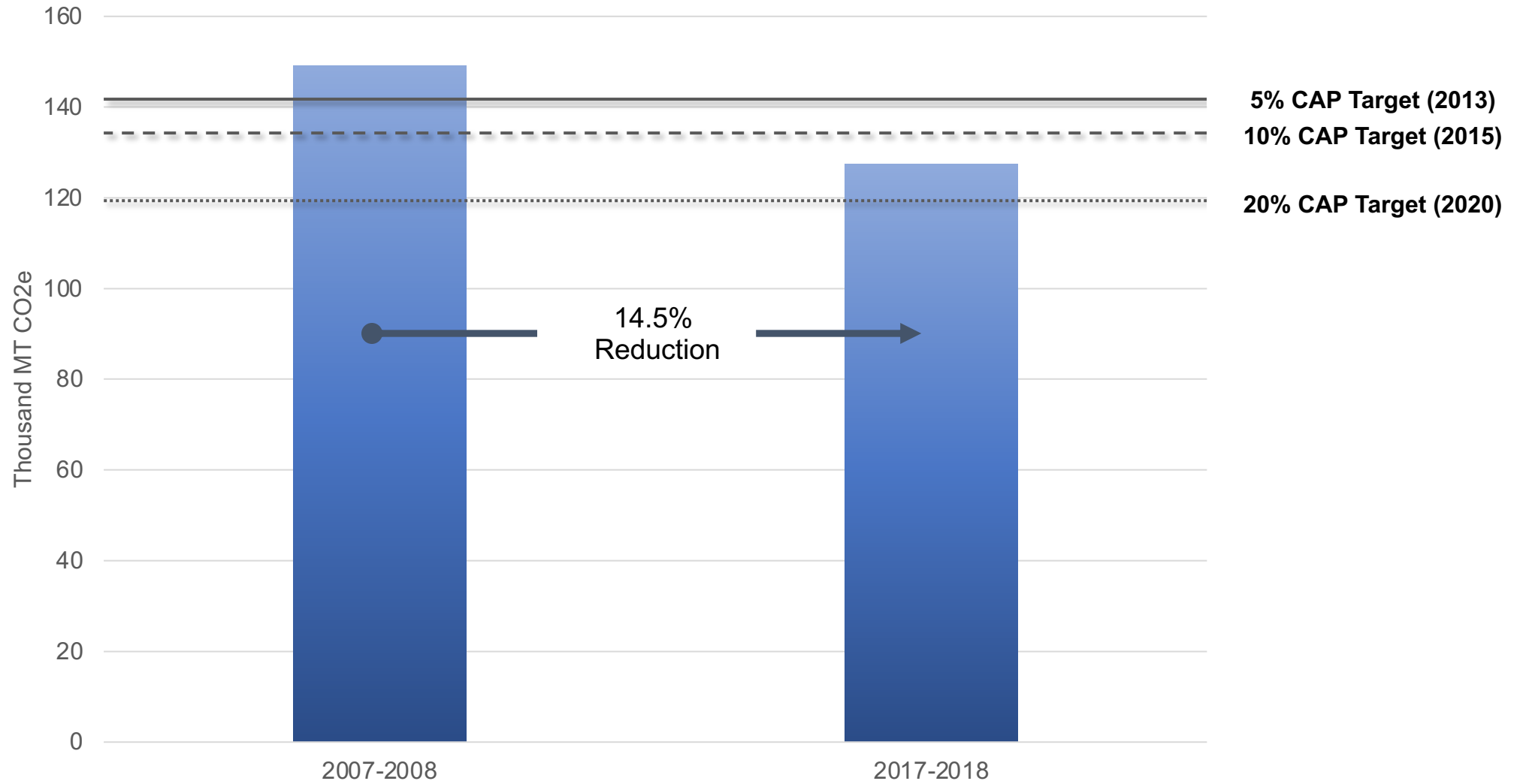


Figure 4: University of Delaware Peer Institution Sustainability Performance Analysis

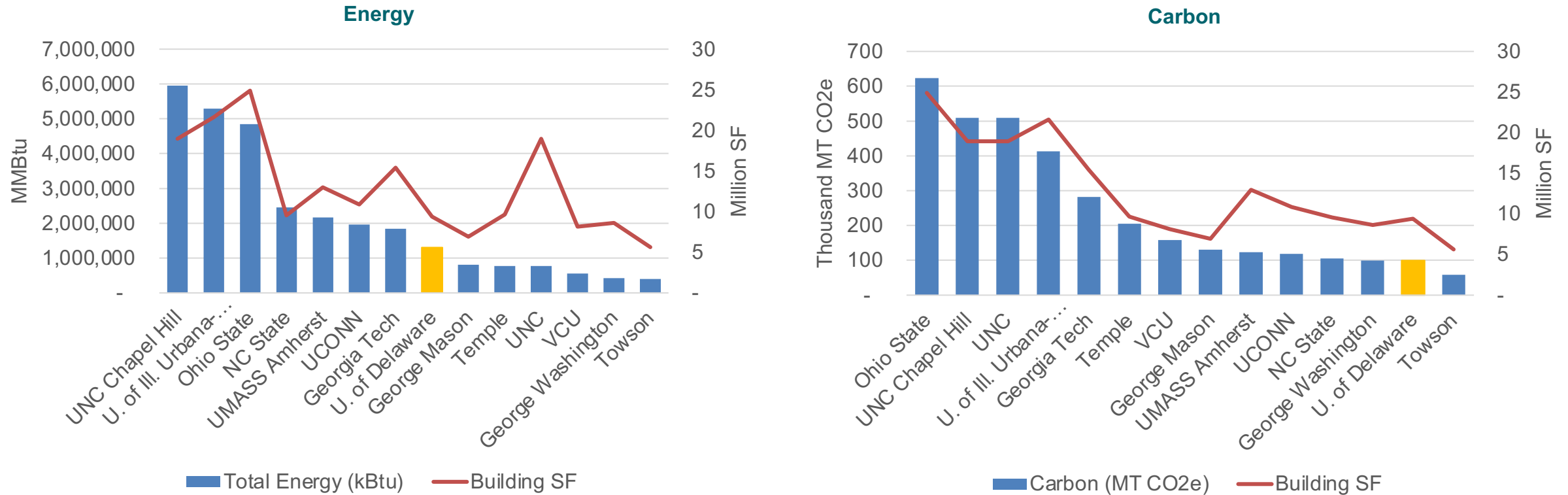


Figure 5: University of Delaware Peer Institution Intensity-based Performance Analysis

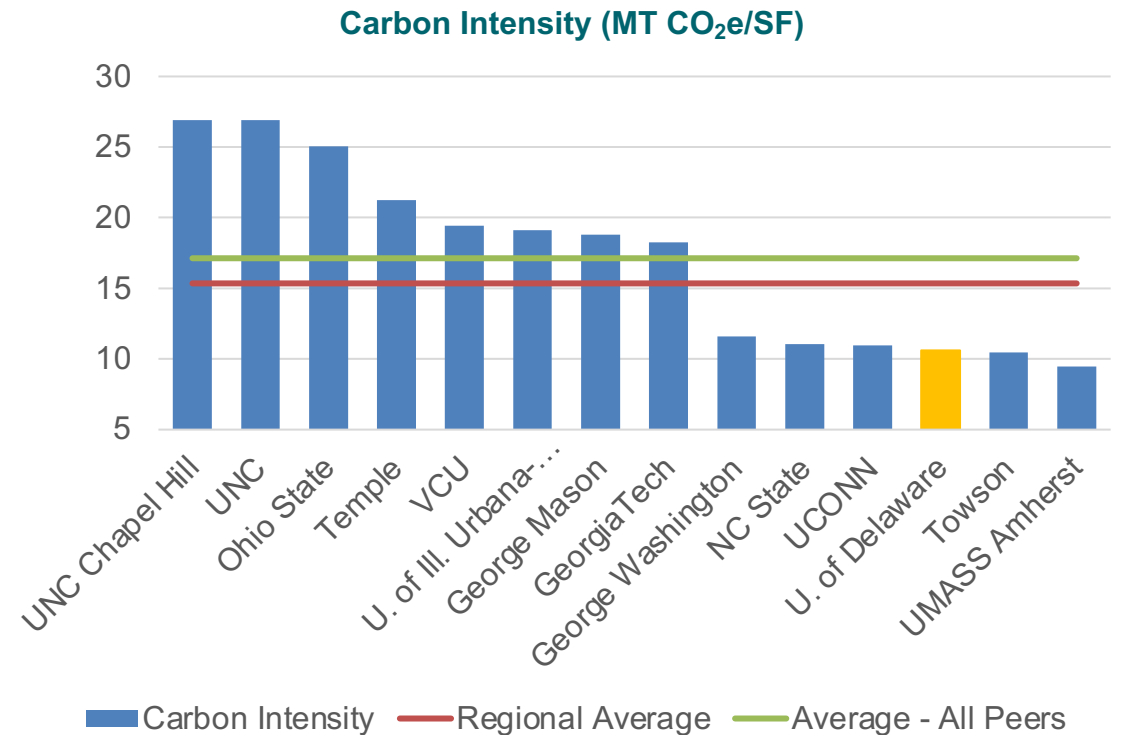
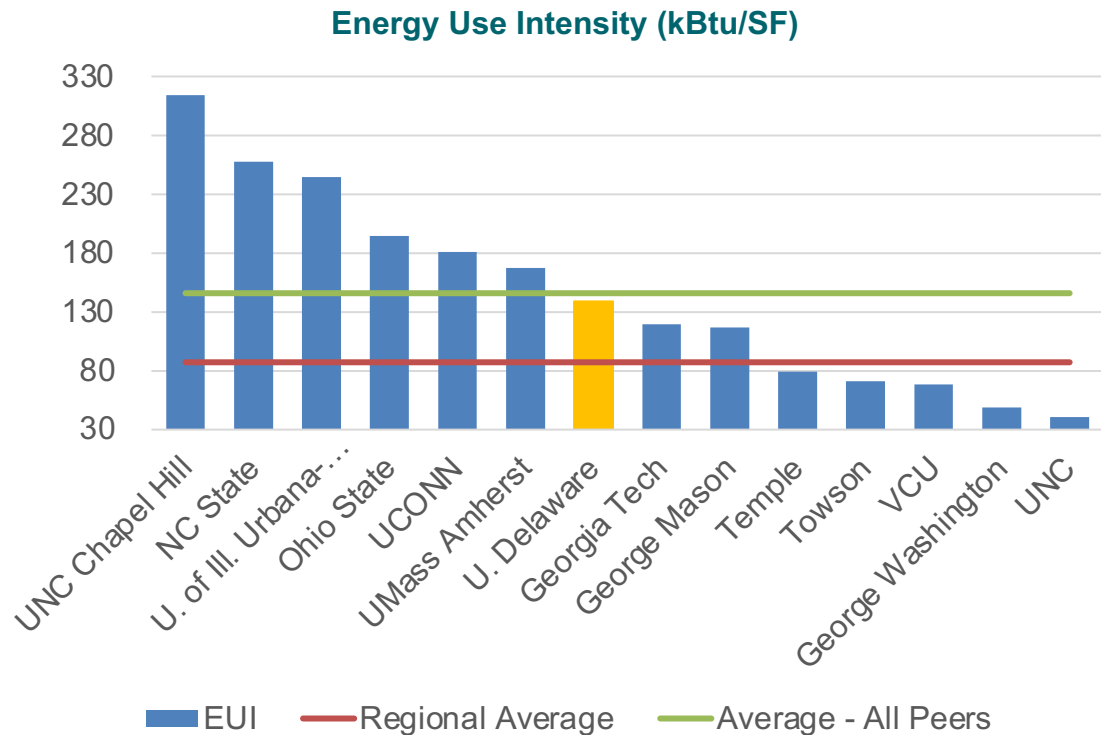


Table 2: University of Delaware Peer Institution Sustainability Programs

Institution	Carbon Goal	Presidents' Commitment Signatory	AASHE STARS Rating
Boston College		No	Reporter
Brown University	Zero Carbon by 2040	No	No
Carnegie Mellon University		No	Gold
College of William and Mary		No	Silver
University of Delaware	Zero Carbon by 2050	Yes	Reporter
Georgia Institute of Technology	Zero Carbon by 2050	Yes	Gold
Lehigh University		No	Silver
Pennsylvania State University	35% by 2020	No	Gold
University of Maryland	25% by 2020; 35% by 2030; 50% by 2040	Yes	Gold
University of North Carolina	Zero Carbon by 2050	Yes	Silver
University of Notre Dame	83% by 2050	No	Silver
University of Pittsburgh		No	Silver
University of Virginia	25% by 2025	No	Gold
Case Western University	Zero Carbon by 2050	Yes	Silver
Indiana University	80% by 2050	No	Gold
Iowa State University	65% by 2030	No	Gold
Michigan State University	65% by 2030	No	Silver
NC State University	Zero Carbon by 2050	Yes	Gold
Ohio State University	Zero Carbon by 2050	Yes	NA

Table 2 (continued): University of Delaware Peer Institution Sustainability Programs

Institution	Carbon Goal	Presidents' Commitment Signatory	AASHE STARS Rating
Purdue University		No	Silver
Rutgers University		No	NA
Stony Brook University	Zero Carbon by 2050	Yes	Reporter
Texas A&M University		No	Gold
University of Arizona	Zero Carbon by 2050	Yes	Gold
University of Connecticut	Zero Carbon by 2050	Yes	Gold
University of Illinois Urbana-Champaign	Zero Carbon by 2050	Yes	Gold
University of Massachusetts Amherst	Zero Carbon by 2050	Yes	Gold
University of Michigan	25% by 2025	No	Gold
University of Minnesota	Zero Carbon by 2050	Yes	Gold
University of North Carolina Chapel Hill	Zero Carbon by 2050	Yes	Gold
University of Utah	Zero Carbon by 2050	Yes	Silver
Virginia Polytechnic Institute and State University	80% by 2050	No	NA
Temple University	Zero Carbon by 2050	Yes	Silver
George Washington University	Zero Carbon by 2050	Yes	Gold
Virginia Commonwealth University	Zero Carbon by 2050	Yes	Silver
George Mason University	Zero Carbon by 2050	Yes	Gold
Towson University	Zero Carbon by 2050	Yes	Bronze

Table ##: University of Delaware Peer Institution Sustainability Programs

Institution	Carbon Goal	Presidents' Commitment Signatory	AASHE STARS Rating
Boston College		No	Reporter
Brown University	Zero Carbon by 2040	No	No
Carnegie Mellon University		No	Gold
College of William and Mary		No	Silver
University of Delaware	Zero Carbon by 2050	Yes	Reporter
Georgia Institute of Technology	Zero Carbon by 2050	Yes	Gold
Lehigh University		No	Silver
Pennsylvania State University	35% by 2020	No	Gold
University of Maryland	25% by 2020; 35% by 2030; 50% by 2040	Yes	Gold
University of North Carolina	Zero Carbon by 2050	Yes	Silver
University of Notre Dame	83% by 2050	No	Silver
University of Pittsburgh		No	Silver
University of Virginia	25% by 2025	No	Gold
Case Western University	Zero Carbon by 2050	Yes	Silver
Indiana University	80% by 2050	No	Gold
Iowa State University	65% by 2030	No	Gold
Michigan State University	65% by 2030	No	Silver
NC State University	Zero Carbon by 2050	Yes	Gold
Ohio State University	Zero Carbon by 2050	Yes	NA
Purdue University		No	Silver
Rutgers University		No	NA
Stony Brook University	Zero Carbon by 2050	Yes	Reporter
Texas A&M University		No	Gold
University of Arizona	Zero Carbon by 2050	Yes	Gold
University of Connecticut	Zero Carbon by 2050	Yes	Gold
University of Illinois Urbana-Champaign	Zero Carbon by 2050	Yes	Gold
University of Massachusetts Amherst	Zero Carbon by 2050	Yes	Gold
University of Michigan	25% by 2025	No	Gold
University of Minnesota	Zero Carbon by 2050	Yes	Gold
University of North Carolina Chapel Hill	Zero Carbon by 2050	Yes	Gold
University of Utah	Zero Carbon by 2050	Yes	Silver
Virginia Polytechnic Institute and State University	80% by 2050	No	NA
Temple University	Zero Carbon by 2050	Yes	Silver
George Washington University	Zero Carbon by 2050	Yes	Gold
Virginia Commonwealth University	Zero Carbon by 2050	Yes	Silver
George Mason University	Zero Carbon by 2050	Yes	Gold
Towson University	Zero Carbon by 2050	Yes	Bronze

Table A1: 2017-2018 Consumption Data and GHG Emission Factors

Scope	Source	Commodity	Usage	Unit	CO2 Factor	CO2 Unit	CH4 Factor	N2O Factor	CH4/N2O Unit
1	Building	Natural Gas	694,390	MCF	0.0544	Kg/CF	5	0.1	g/mmBtu
1	Building	Fuel Oil #2	217,139	Gal	10.21	Kg/gal	11	0.6	g/mmBtu
1	Fleet	Gasoline	147,010	Gal	8.7775	Kg/gal	0.000788	0.0008717	g/gal
1	Fleet	Diesel	98,234	Gal	10.21	Kg/gal	0.000027	0.0000531	g/gal
1	Landscaping	Fertilizer	60,500	lb	0.004	MT/lb			
2	Building	Electricity	164,693,079	kWh	762.113	lb CO2e/MWh			
3	Waste	MSW	2,288	Tons	0.35	MT/ton			
3	Waste	Food Comp.	126	Tons	0.54	MT/ton			
3	Commuting (Daily)	Gasoline	2,047,455	Gal	8.7775	Kg/gal	0.000788	0.0008717	g/gal
3	Commuting (Long Trips)	Gasoline	367,734	Gal	8.7775	Kg/gal	0.000788	0.0008717	g/gal
3	Commuting (Long Trips)	Jet Fuel (Trips)	2,487	Gal	9.5684	Kg/gal	0.27	0.31	g/gal
3	T&D Losses	Electricity	16,627,056	kWh	858.56	lb/MWh	26.44	11.49	lb/GWh

Table A2: 2017-1018 Emission Totals (Metric Tons)

Scope	Source	Commodity	CO2	CH4	CH4 CO2e	N2O	N2O CO2e	Total CO2e
1	Building	Natural Gas	37,803	3.5622	89.0555	0.0712	21.2308	37,913
1	Building	Fuel Oil #2	2,217	0.3296	8.2404	0.0179	5.3577	2,231
1	Fleet	Gasoline	1,290	0.00012	0.00305	0.000135	0.04033	1,290
1	Fleet	Diesel	1,003	0.000003	0.000069	0.000004	0.001269	1,003
1	Landscaping	Fertilizer	242					242
2	Building	Electricity						56,933
3	Waste	MSW	833					833
3	Waste	Food Waste /Comp.	68					68
3	Commuting	Gasoline (Daily)	17,972	0.001703	0.042576	0.001885	0.561672	17,972
3	Commuting	Gasoline (Trips)	3,228	0.000306	0.007647	0.000034	0.100880	3,228
3	Commuting	Jet Fuel (Trips)	24	0.000672	0.016789	0.000771	0.229767	24
3	T&D Losses	Electricity						5,748

Table A3: 2007-2008 Scope 1 and 2 Emissions Only

Source	Sector	Category	Consumption	Unit	Emissions (MT CO ₂ e)
Natural Gas	Buildings	1	642,625	MCF	35,087
Fuel Oil #2		1	154,525	gal	1,569
Electricity		2	137,925,068	kWh	71,665
Gasoline	Transportation	1	229,697	gal	2,022
Diesel Fuel		1	72,451	gal	735
Fertilizer	Landscaping	1	13,427	lb	54
Total Emissions				MT	111,132

Table A4: 2017-2018 Scope 1 and 2 Emissions Only

Source	Sector	Category	Consumption	Unit	Emissions (MT CO ₂ e)
Natural Gas	Buildings	1	694,390	MCF	37,913
Fuel Oil #2		1	217,139	gal	2,231
Electricity		2	164,693,079	kWh	56,933
Gasoline	Transportation	1	147,010	gal	1,290
Diesel Fuel		1	98,234	gal	1003
Fertilizer	Landscaping	1	60,500	lb	242
Total Emissions				MT	99,611

Table A5: 2017-2018 Presidents' Climate Commitment Summary Statistics

	Total (MT CO ₂ e)	Per Full-Time Enrollment	Per 1000 Square Feet	% Offset
Gross Emissions (Scope 1 + 2)	99,611	4.5	10.6	0%
Gross Emissions (Scope 1 + 2 + 3)	127,484	5.8	13.6	0%
Net Emissions	127,484	5.8	13.6	N/A

Table A5: 2017-2018 Presidents' Climate Commitment Summary Statistics

	Total (MT CO2e)
Stationary Combustion	40,143.5
Mobile Combustion	2,293.4
Process Emissions	0.0
Fugitive Emissions	242.0
Total Scope 1 Emissions	42,678.9