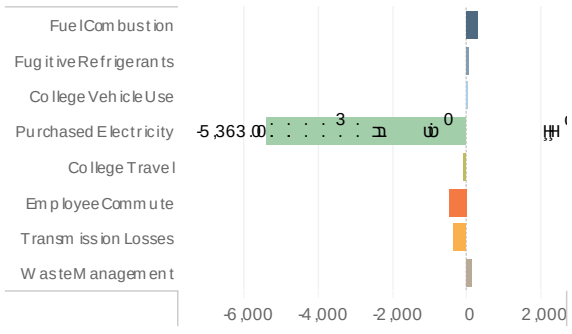
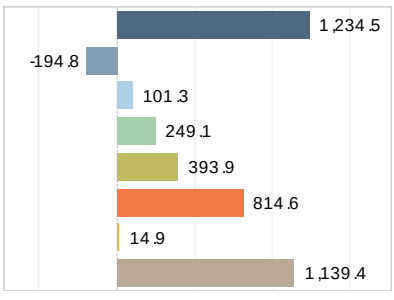
2022 Reported Emissions vs Baseline & Recent Historicals (Fiscal Years)

	2008	2021	2022
Scope 1	9,061.9	8,265.0	
Scope 2	7,263.8	1,651.7	
Scope 3	2,827.7		
Total Emissions (MTCO2e)	19,153.4		
Waste Management			
Metric Tons CO2e / Million Sq Ft	9,323.4		
Metric Tons CO2e / Million $	162.7		
Metric Tons CO2e / Students Enrolled	11.1		





Bowdoin College
FY22 Greenhouse Gas Inventory
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Bowdoin College's FY2022 total greenhouse gas emissions are broken down by scope and activity. The College emitted 13,349 metric tons of carbon dioxide equivalents (MTCO2e) in FY22. Bowdoin tracks annual emissions from onsite fuel combustion, college-owned vehicle use, fugitive emissions, electricity purchases & associated transmission losses, college air travel & employee commuting, and waste management practices. Scope 2 emissions were calculated using location-based greenhouse gas accounting methods. Bowdoin would report 0 MTCO2e total for Scope 2 emissions under market-based accounting with the College's current renewable energy strategy.

Scope	Emissions Source	Metric Tons CO2e	Metric Tons CO2	Metric Tons CH4	Metric Tons N2O
Scope 1	Natural Gas Combustion	8,840.7	8,831.7	0.1664	0.0166
	Liquid Fuel Combustion	101.6	101.2	0.0031	0.0012
	College Vehicle Use	355.9	354.2	0.0222	0.0039
	Fugitive Refrigerants	101.9			
	Scope Total	9,400.1			
Scope 2	Purchased Grid Electricity	1,900.8	1,829.0	1.0671	0.1584
	Scope Total	1,900.8			
FY22 Total Emissions Reported (MTCO2e):		13,348.6			

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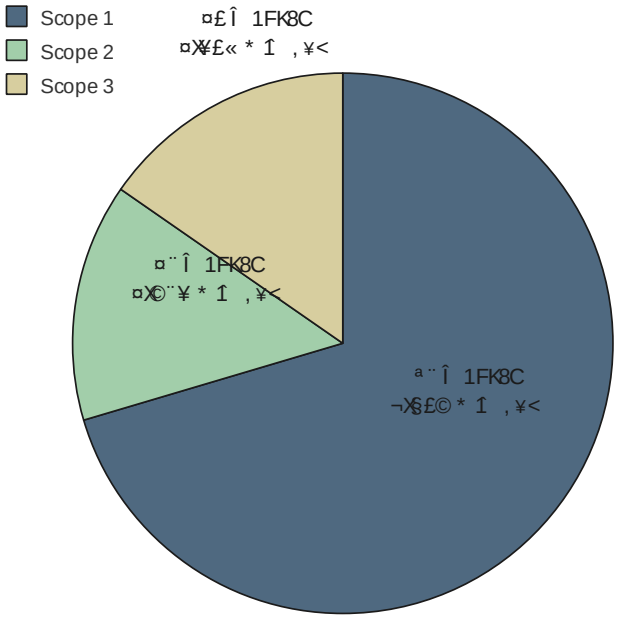

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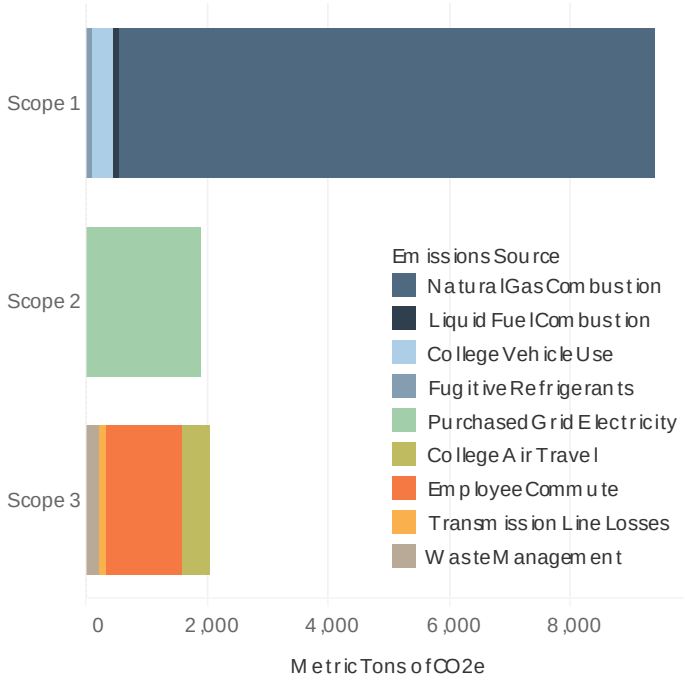

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The FY2022 Bowdoin College Greenhouse Gas Inventory presents a comprehensive accounting of Scope 1, Scope 2, & Scope 3 emissions resulting from the College operations during the past fiscal year. Reported sources of emissions were held consistent from previous annual greenhouse gas inventories. Scope 1 emissions extend from activities directly controlled by Bowdoin and result from fuels used for heating, fuels used to operate college-owned vehicles, and fugitive refrigerants. Scope 2 emissions result from Bowdoin's purchased grid electricity and are reported using location-based accounting. As a result, CES did not factor in market-based instruments Bowdoin has used to acquire RECs to offset its Scope 2 emissions in this report (Bowdoin can report 0 MTCO2e under market-based accounting for Scope 2 emissions in FY22). Scope 3 considers emissions from activities and assets not directly owned or controlled by the College. As in previous years, this category includes emissions from transmission line losses, air travel, employee travel to campus, & waste management. Primary usage data for FY2022 across all scopes came directly from the College. As in previous report versions, flight mileage and employee commute mileage are estimated based on available flight expenses and employee zip code data. Survey results determined the percentage of faculty who worked partially or entirely remote in FY2022.

CES reported Bowdoin's total emissions in metric tons of carbon dioxide equivalents (MTCO2e). Using MTCO2e allows for comparing different emissions sources by using a single value that accounts for the weighted impact of each ton of various emitted greenhouse gas chemicals (CO_2, N_2O, & CH_4). A metric ton is equal to 1,000 kilograms, or ~2,204.62 pounds. To account for the varying impacts of the different greenhouse gas chemicals, CES used the Global Warming Potential (GWP) international standards for each source of emissions resulting from Bowdoin's operations. GWP measures a substance's ability to absorb energy and thus accounts for each chemical's specific greenhouse gas impact. GWP measures appear in carbon dioxide equivalents (CO_2e), with carbon dioxide holding a GWP of 1. The GWP factors used in this assessment incorporate a 100-year time horizon. CO_2 has a GWP of 1, N_20 has a GWP of 298, & CH_4 has a GWP of 25.

Scope 1 emissions factors for on-site fuel combustion, transportation fuel use, & fugitive emissions come from the EPA default emissions factors for greenhouse gas reporting. Scope 2 Emissions for purchased electricity and Scope 3 Emissions for transmission line losses are calculated using the Maine state grid emissions factors from the EPA eGrid 2021 data (published Jan 2022). In FY22, Bowdoin's total emissions per kWh of grid electricity are down year-over-year, with the updated eGrid factor accounting for the continued decarbonization of the power grid. Emissions for Bowdoin's activities resulting from Scope 3 sources were also calculated using the EPA's default activity emissions factors.

In FY22, Bowdoin's emissions are up year-over-year from FY21, but down from the FY08 baseline. The significant decline from the FY08 baseline results from the reduced emissions factor used for the College's purchased electricity, with the grid in Maine becoming greener. The largest contributing factor to the year-over-year increase in emissions was an increase in energy consumption and vehicle/airmileage in FY22, with the College returning to a higher energy consumption baseline in the aftermath of the pandemic. Scope 3 emissions in particular rose substantially in FY22. FY22 total emissions equated to 12,515.2 MTCO2e. ~75% of total emissions were Scope 1, ~15% of total emissions were Scope 2, and ~10% of total emissions were Scope 3.