

2021 Greenhouse Gas Emissions Inventory

This emissions summary compares data from Unitil's 2021 greenhouse gas emissions inventory with the 2020 and 2019 baseline inventory to show year-to-year changes across scopes and measure progress against the company's 2030 emissions target (50% reduction of Scope 1 emissions by 2030). Due to the magnitude of Unitil's Scope 3 emissions from energy delivery to customers (electricity and natural gas), these emissions are represented in separate figures. All emissions figures are in metric tons of carbon dioxide equivalent (MTCO₂e).

The Company revised certain 2019 and 2020 amounts, including scope 1 emissions and fugitive methane emissions, in this Report to correct calculation errors related to emission factors used in determining fugitive methane emissions. These revisions affected the 2019 and 2020 amounts in the Company's Greenhouse Gas Emissions Inventory. The 2021 fugitive emissions value reflects the corrected methodology.

2019-2021 Emissions by Scope

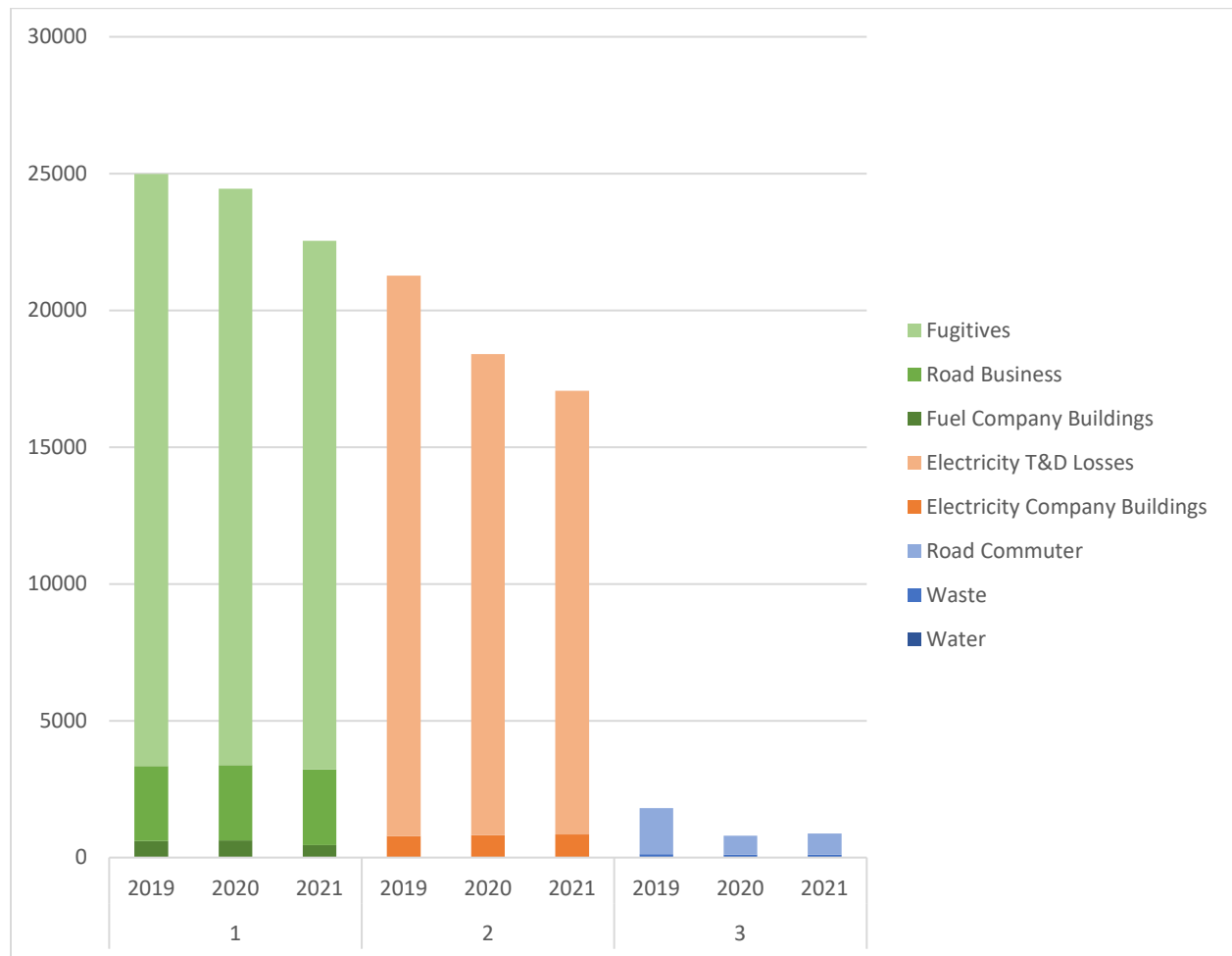


Figure 1: 2019-2021 Emissions by Scope and Category (Excluding Scope 3 Delivered Energy Emissions)

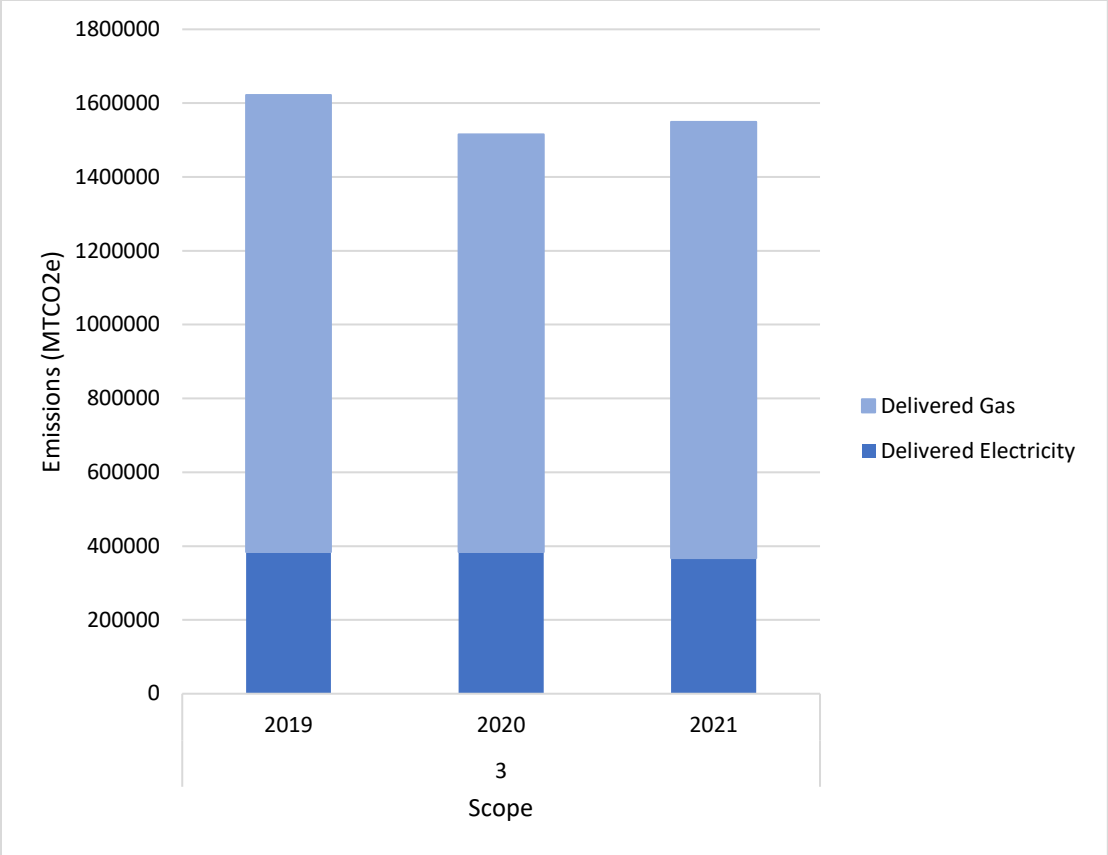


Figure 2: 2019-2021 Scope 3 Delivered Energy Summary Chart

2019-2021 Emissions Table

EMISSION NAME	SCOPE	TOTAL 2019 EMISSIONS MTCO2E	TOTAL 2020 EMISSIONS MTCO2E	TOTAL 2021 EMISSIONS MTCO2E	PERCENTAGE CHANGE 2019-2020
FUEL COMPANY BUILDINGS	1	599	622	452	-24.6%
FUGITIVES	1	21,636	21,066	19,321	-10.7%
ROAD BUSINESS	1	2,749	2,760	2,767	0.6%
ELECTRICITY COMPANY BUILDINGS	2	789	820	851	7.8%
ELECTRICITY T&D LOSSES	2	20,490	17,580	16,214	-20.9%
DELIVERED ELECTRICITY	3	384,300	384,300	367,788	-4.3%
DELIVERED GAS	3	1,238,000	1,131,000	1,181,181	-4.6%
ROAD COMMUTER	3	1,683	691	761	-54.8%
WASTE	3	124	111	116	-6.5%
WATER	3	3	2	1	-68.8%
SCOPE 1 TOTAL	1	24,984	24,447	22,540	-9.78%
SCOPE 2 TOTAL	2	21,279	18,400	17,065	-19.80%
SCOPE 3 TOTAL	3	1,624,110	1,516,104	1,549,847	-4.57%
Totals		1,670,374	1,558,953	1,589,452	-4.84%

Table 1: 2019-2021 Total Emissions and Percentage Changes from 2019

Scope 1 Emissions

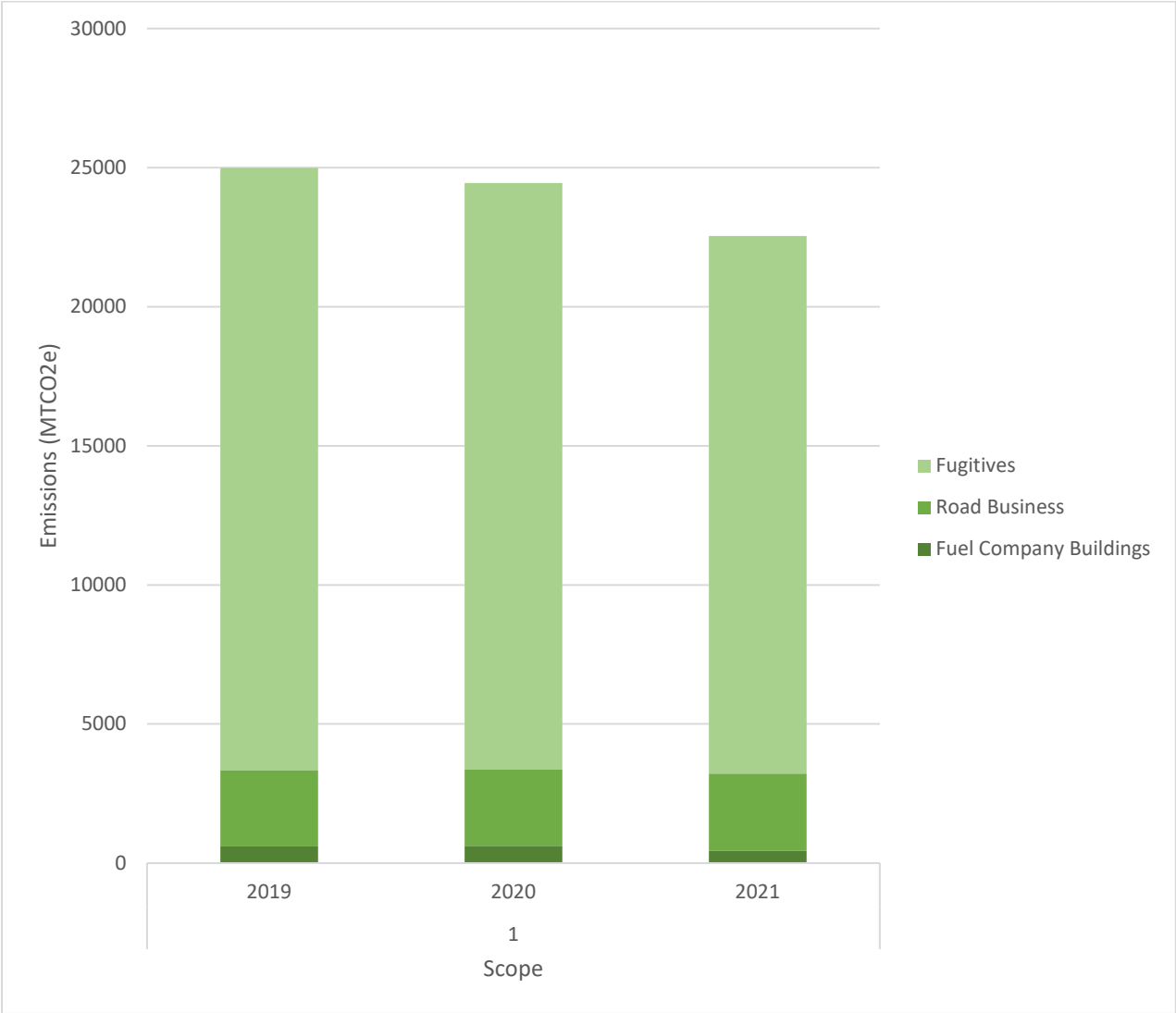


Figure 3: 2019-2021 Scope 1 Summary Chart

Fuel at Company Buildings

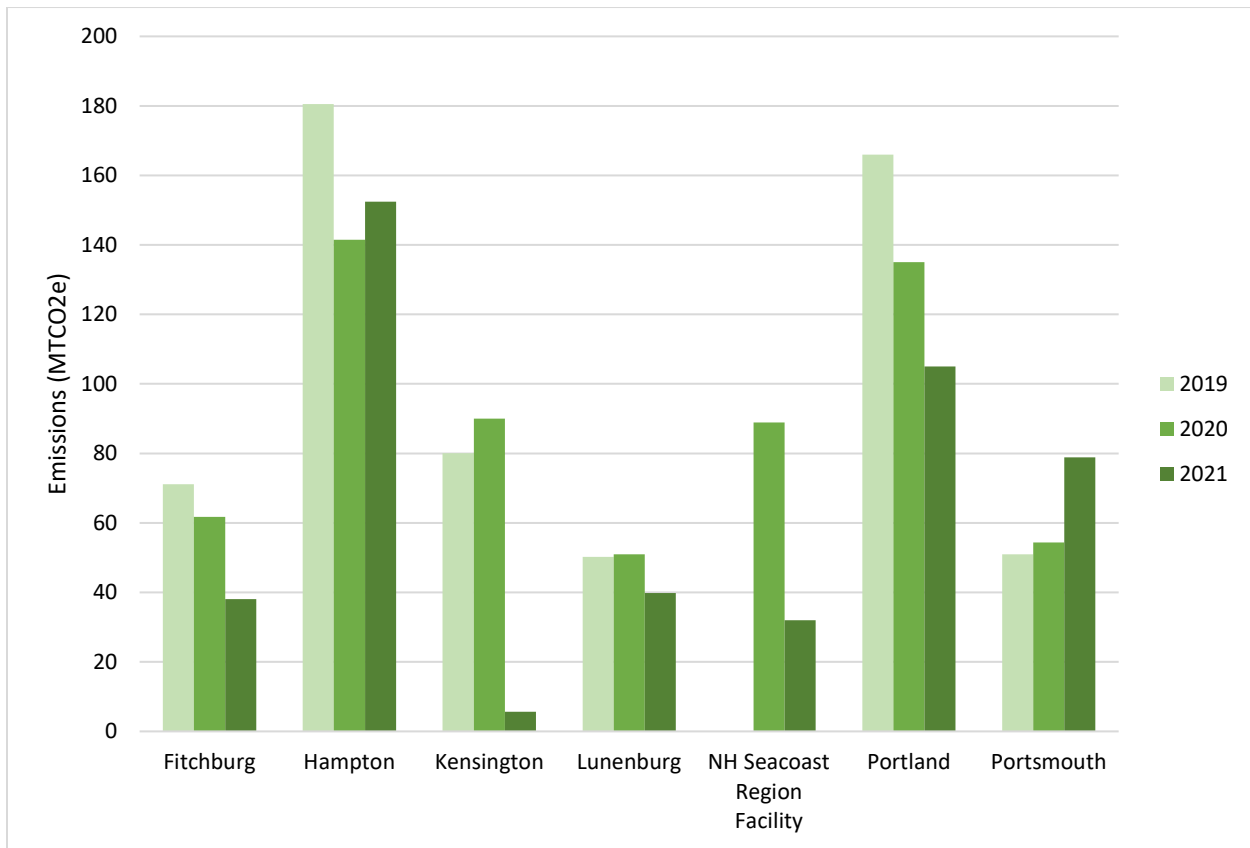


Figure 1: 2019-2021 Emissions from Fuel Use at Company Buildings

NODE	FUEL TYPE	TOTAL 2019 EMISSIONS (MTCO2E)	TOTAL 2020 EMISSIONS (MTCO2E)	TOTAL 2021 EMISSIONS (MTCO2E)	PERCENTAGE CHANGE 2019-2021
FITCHBURG	Natural Gas	71.1	61.7	38.1	-46.4%
HAMPTON	Natural Gas	179.0	141.0	152.0	-15.1%
HAMPTON	Diesel (Retail)	1.6	0.5	0.5	-69.7%
KENSINGTON	Oil (Gas)	0.0	10.3	0.0	N/A
KENSINGTON	Natural Gas	80.1	79.7	5.7	-92.9%
LUNENBURG	Natural Gas	50.2	51.0	39.8	-20.7%
PORTLAND	Natural Gas	166.0	135.0	105.0	-36.7%
PORTSMOUTH	Natural Gas	51.0	54.4	78.9	54.7%
SEACOAST	Natural Gas	0.0	88.9	32.0	N/A
	Totals	599.0	622.5	451.9	-24.5%

Table 3: 2019-2021 Emissions from Fuel Use at Company Buildings

Fugitives

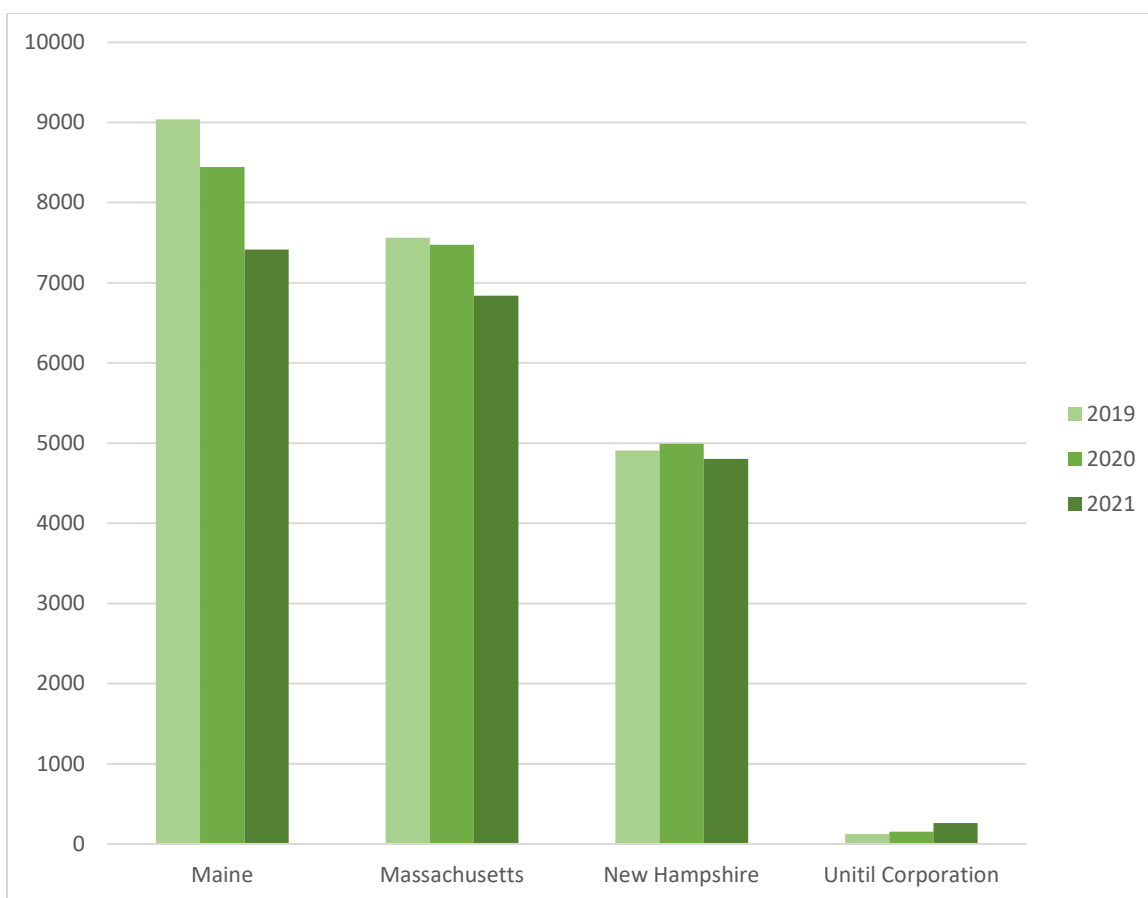


Figure 4: 2019-2021 Emissions from Fugitives

NODE	TOTAL 2019 EMISSIONS (MTCO2E)	TOTAL 2020 EMISSIONS (MTCO2E)	TOTAL 2021 EMISSIONS (MTCO2E)	PERCENTAGE CHANGE 2019-2021
MAINE	9040	8443	7413	-18.0%
MASSACHUSETTS	7563	7475	6842	-9.5%
NEW HAMPSHIRE	4906	4993	4806	-2.0%
UNITIL CORPORATION	126	155	261	107.1%
TOTALS	21636	21066	19321	-10.7%

Table 4: 2019-2021 Emissions from Fugitives

Road Business (Company-Owned Vehicles)

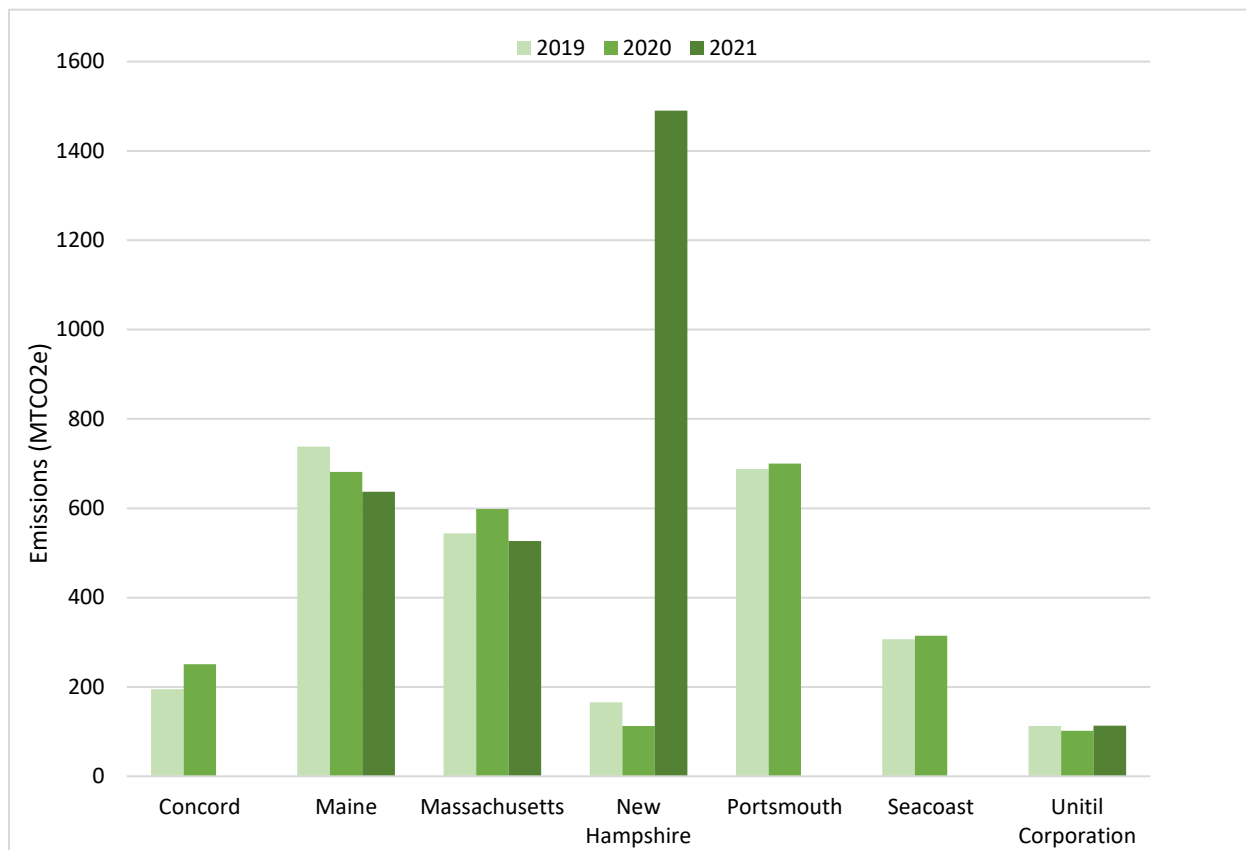


Figure 5: 2019-2021 Emissions from Road Business

NODE	TOTAL 2019 EMISSIONS (MTCO2E)	TOTAL 2020 EMISSIONS (MTCO2E)	TOTAL 2021 EMISSIONS (MTCO2E)	PERCENTAGE CHANGE 2019-2021
CONCORD	195.1	250.6	0.0	N/A
MAINE	737.7	681.5	637.0	-13.7%
MASSACHUSETTS	544.1	598.3	526.7	-3.2%
NEW HAMPSHIRE	165.5	112.4	1490.3	800.3%
PORTSMOUTH	687.7	700.2	0.0	N/A
SEACOAST	306.5	314.4	0.0	N/A
UNITIL CORPORATION	112.9	101.8	113.0	0.1%
TOTALS	2749.5	2759.2	2767.0	0.6%

Table 5: 2019-2021 Emissions from Road Business

Scope 2 Emissions

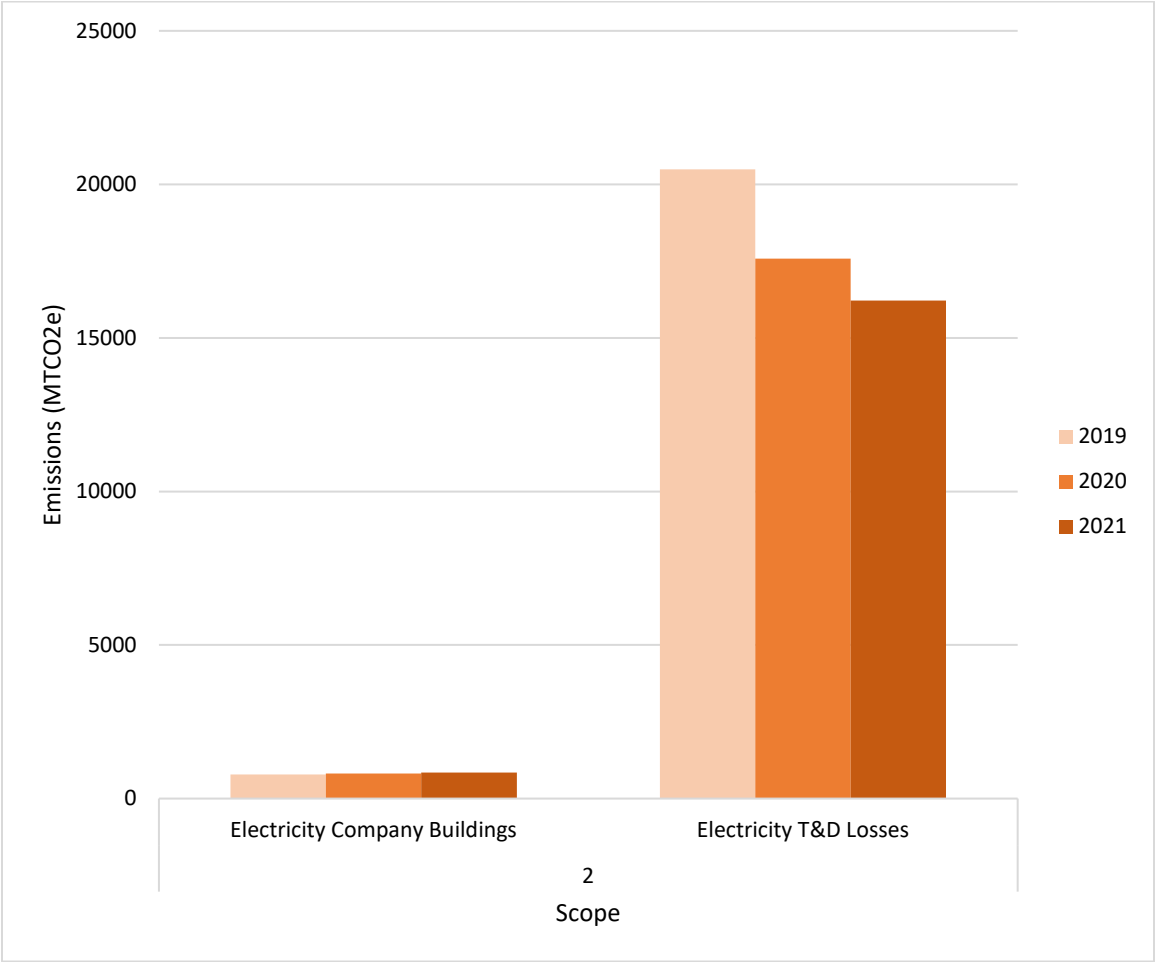


Figure 6: 2019-2021 Scope 2 Summary Chart

Electricity Use at Company Buildings

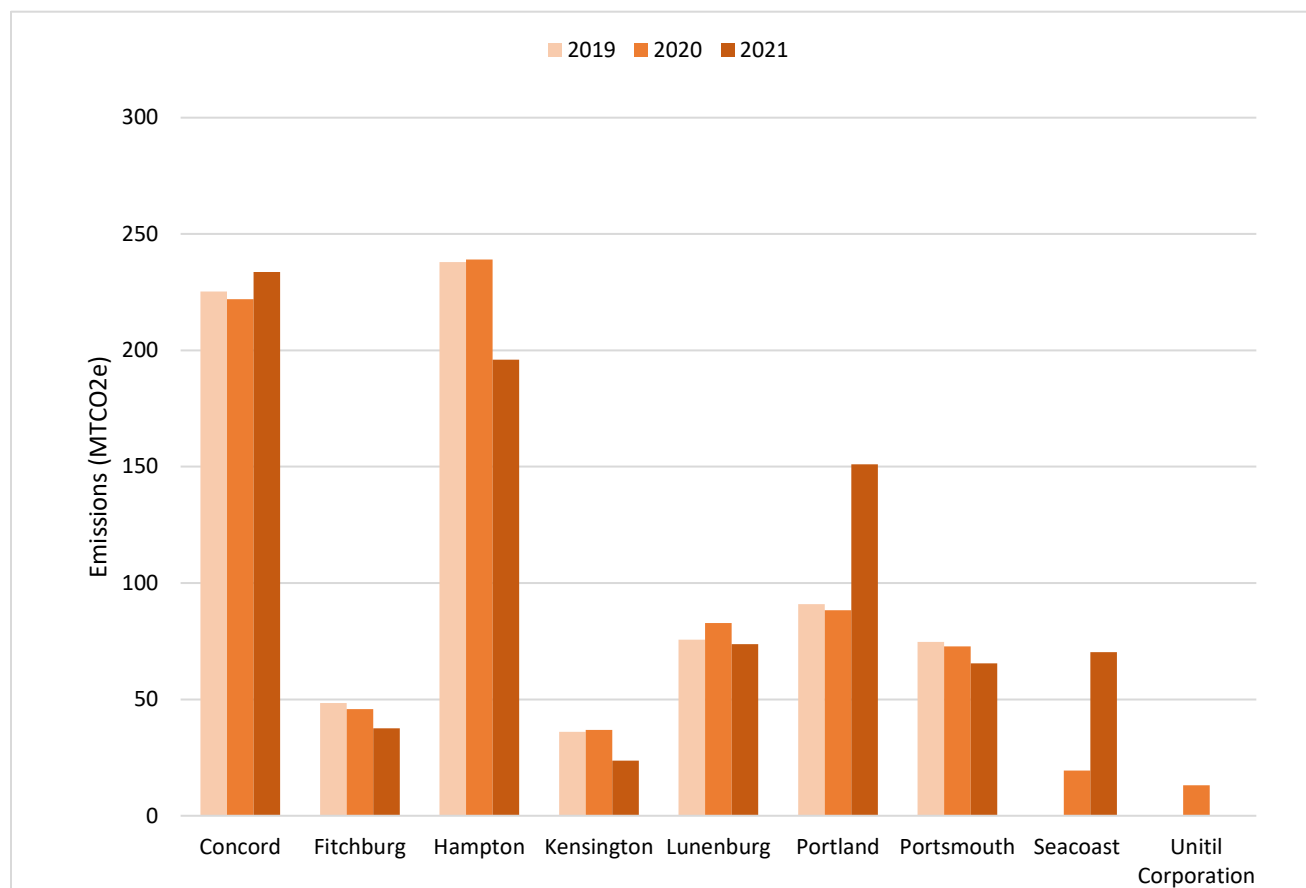


Figure 7: 2019-2021 Emissions from Electricity Use at Company Buildings

NODE	DATASOURCE (UNITIL METER # OR OTHER)	TOTAL 2019 EMISSIONS (MTCO2E)	TOTAL 2020 EMISSIONS (MTCO2E)	TOTAL 2021 EMISSIONS (MTCO2E)	PERCENTAGE CHANGE 2019-2021
CONCORD	1041709000	53.8	46.2	48.2	-10.4%
CONCORD	1041710000	0.7	0.6	0.7	-4.5%
CONCORD	1041711000	85.6	86.6	80.6	-5.8%
CONCORD	1041712000	19.1	17.3	23.8	24.6%
CONCORD	1041713000	23.4	23.1	30.1	28.6%
CONCORD	1041714000	42.7	48.2	50.3	17.8%
FITCHBURG	3102173000	1.1	1.0	0.7	-32.4%
FITCHBURG	3102174000	47.3	44.9	36.8	-22.2%
HAMPTON	2131555000	238.0	239.0	196.0	-17.6%
KENSINGTON	2150197000	0.7	1.2	0.0	-95.3%
KENSINGTON	2150198000	0.5	0.5	0.2	-67.0%
KENSINGTON	2150200000	34.9	35.3	23.5	-32.7%
LUNENBURG	3082349000	75.7	82.8	73.7	-2.6%

PORTLAND	Electricity (Central Maine Power)	91.0	88.3	151.0	65.9%
PORTSMOUTH	Electricity (Eversource)	74.7	72.8	65.5	-12.3%
SEACOAST	2115305001	0.0	19.4	70.3	N/A
UNITIL CORPORATION	Other Buildings - Electricity	0.0	13.1	0.0	N/A
	Totals	789.2	820.2	851.4	7.9%

Table 6: 2019-2021 Emissions from Electricity Use at Company Buildings

T&D Losses

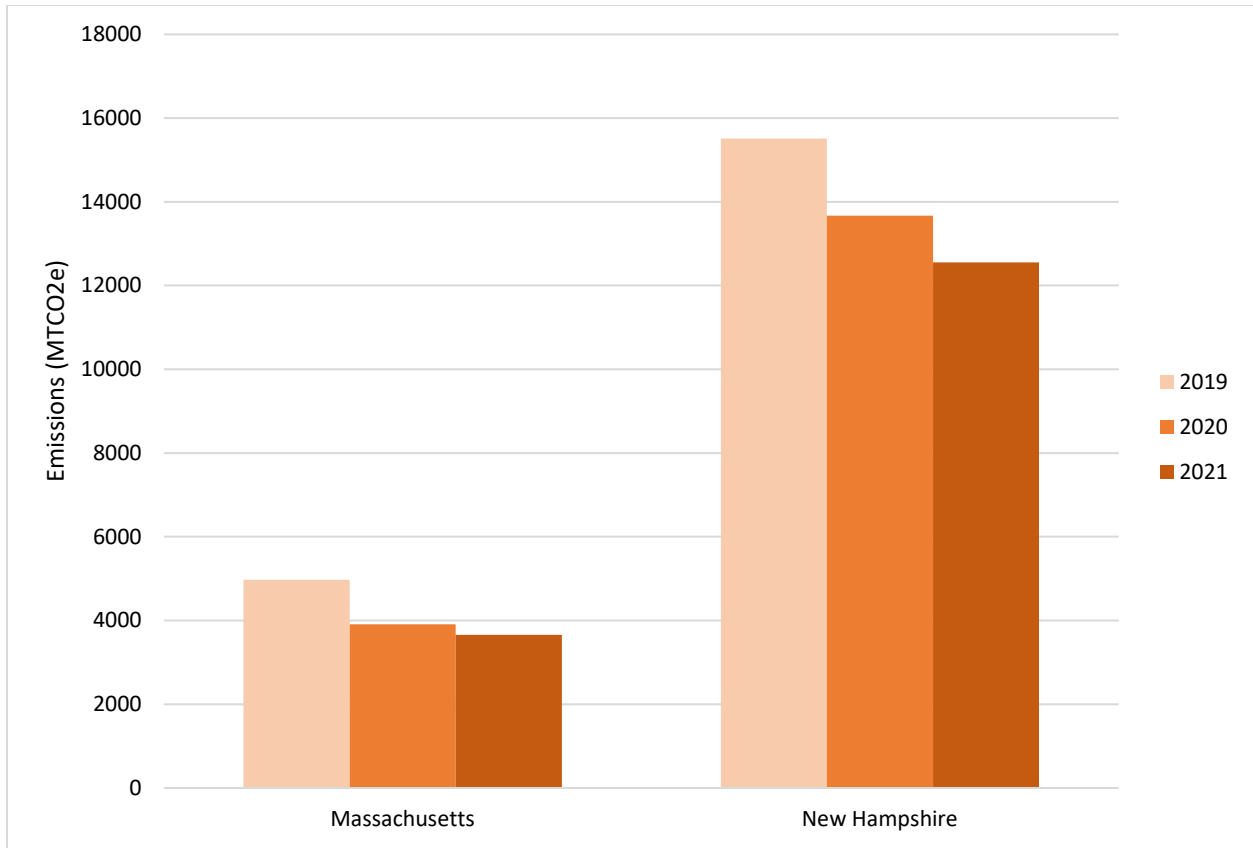


Figure 8: 2019-2021 Emissions from Transmission and Distribution Losses

NODE	ACTIVITY NAME	TOTAL 2019 EMISSIONS (MTCO2E)	TOTAL 2020 EMISSIONS (MTCO2E)	TOTAL 2021 EMISSIONS (MTCO2E)	PERCENTAGE CHANGE 2019-2020
MASSACHUSETTS	Electricity (Grid)	4970	3910	3658	-26.4%
NEW HAMPSHIRE	Electricity (Grid)	15510	13670	12556	-19.0%
	Totals	20480	17580	16214	-20.8%

Table 7: 2019-2021 Emissions from Transmission and Distribution Losses

Scope 3 Emissions

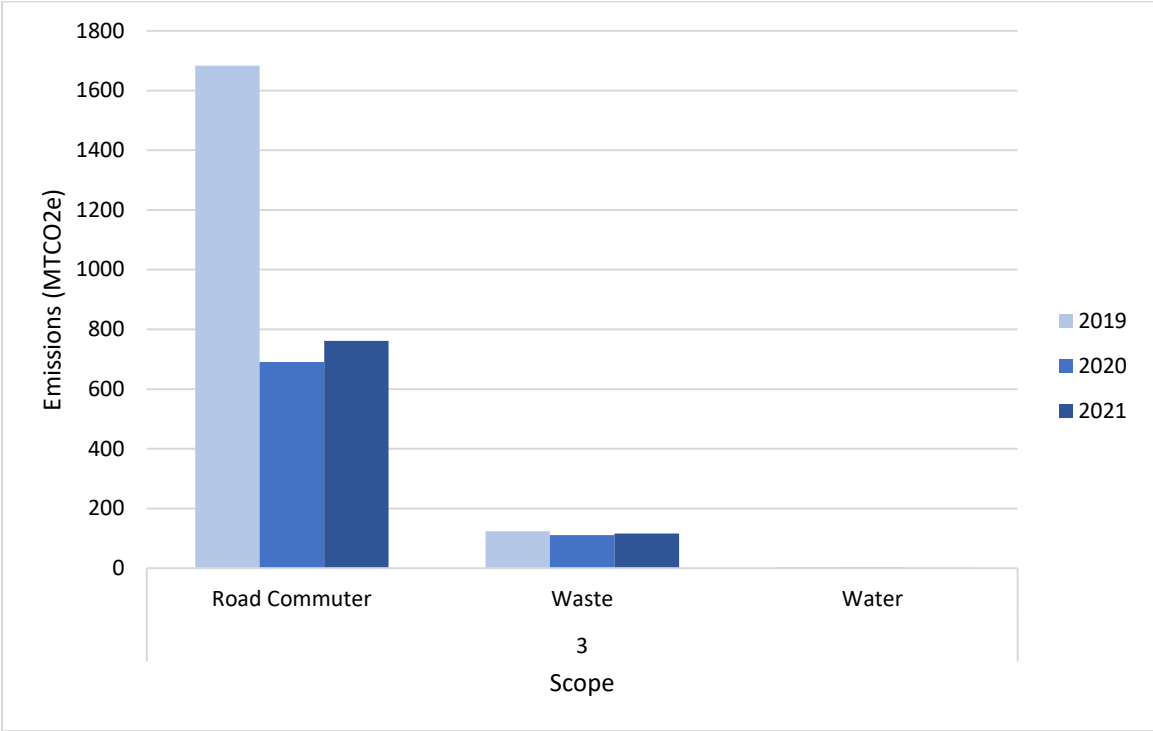


Figure 9: 2019-2021 Scope 3 Non-Delivered Energy Summary Chart

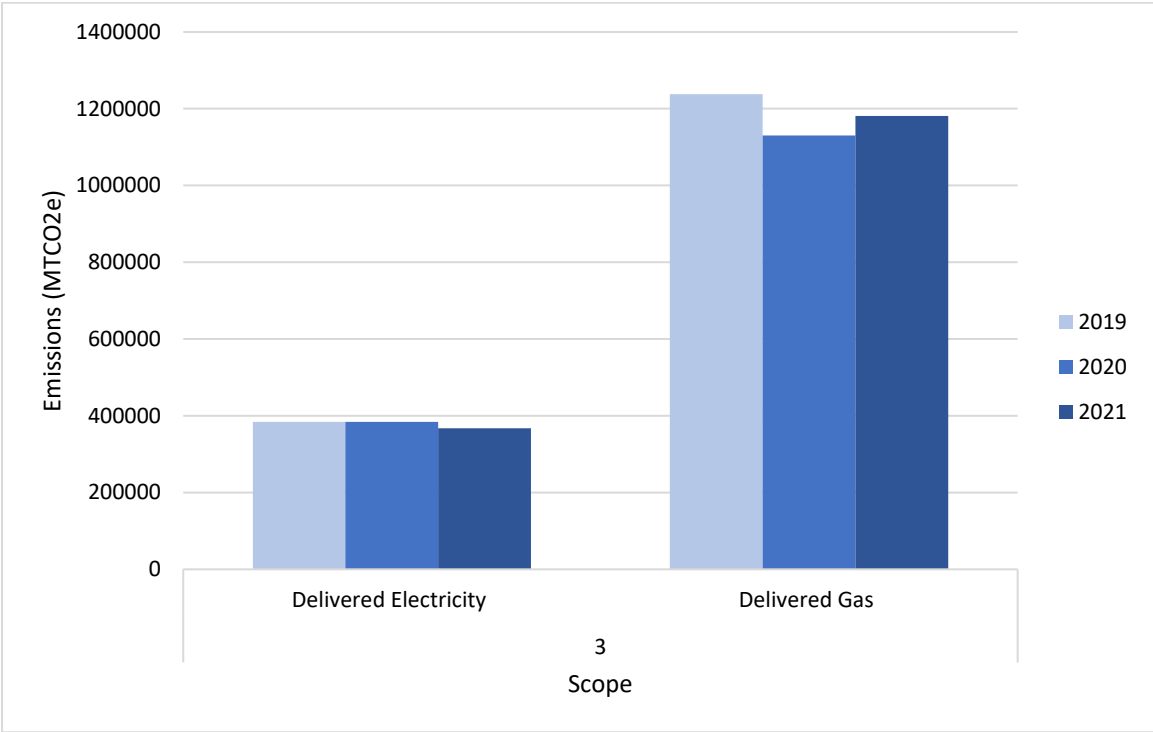


Figure 9: 2019-2021 Scope 3 Delivered Energy Summary Chart

Waste

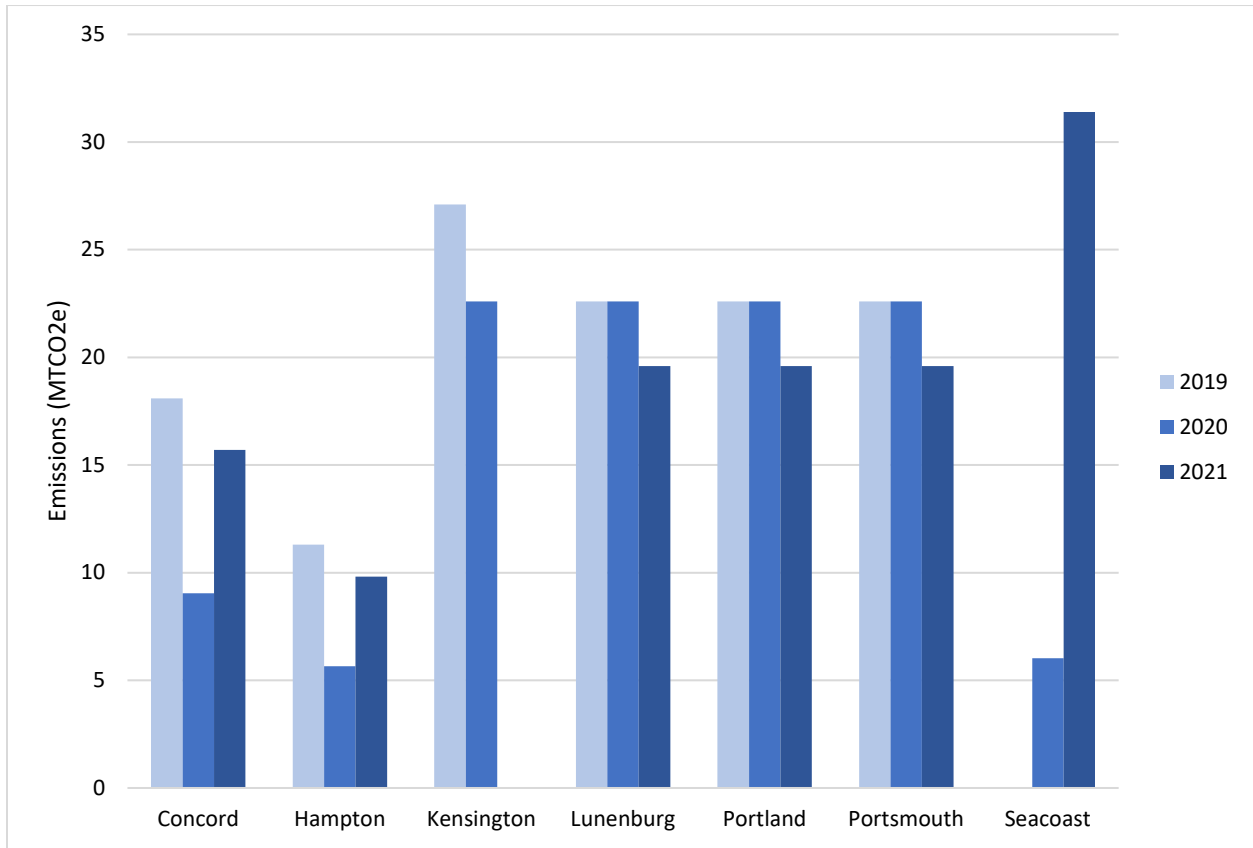


Figure 10: 2019-2021 Emissions from Waste

NODE	TOTAL 2019 EMISSIONS (MTCO2E)	TOTAL 2020 EMISSIONS (MTCO2E)	TOTAL 2021 EMISSIONS (MTCO2E)	PERCENTAGE CHANGE 2019-2020
CONCORD	18.1	9.0	15.7	-13%
HAMPTON	11.3	5.7	9.8	-13%
KENSINGTON	27.1	22.6	0.0	-100%
LUNENBURG	22.6	22.6	19.6	-13%
PORTLAND	22.6	22.6	19.6	-13%
PORTSMOUTH	22.6	22.6	19.6	-13%
SEACOAST	0.0	6.0	31.4	N/A
TOTALS	124.3	111.1	115.7	-7%

Table 8: 2019-2021 Emissions from Waste

Water

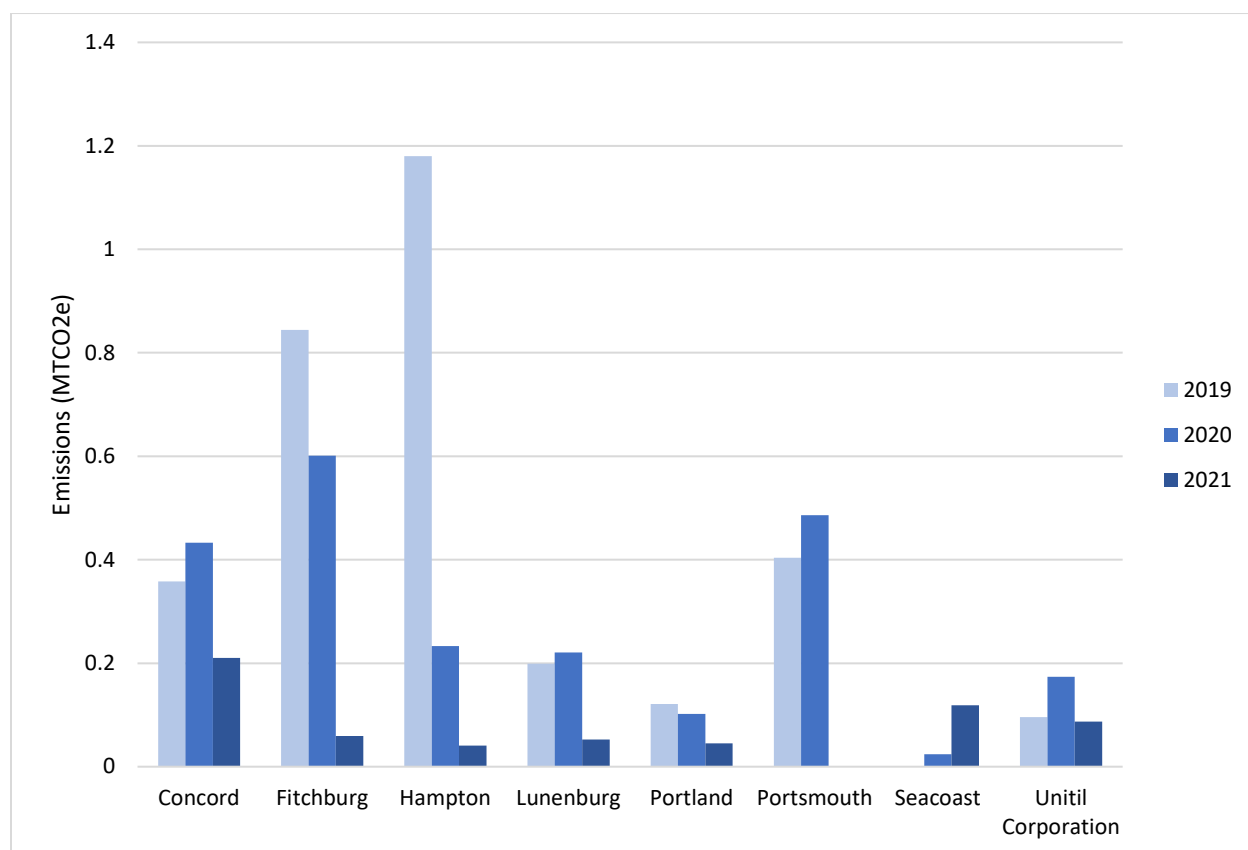


Figure 11: 2019-2021 Emissions from Water

NODE	ACTIVITY NAME	TOTAL 2019 EMISSIONS (MTCO2E)	TOTAL 2020 EMISSIONS (MTCO2E)	TOTAL 2021 EMISSIONS (MTCO2E)	PERCENTAGE CHANGE 2019-2021
CONCORD	Water	0.36	0.43	0.21	-41.3%
FITCHBURG	Water	0.84	0.60	0.06	-93.0%
HAMPTON	Water	1.18	0.23	0.04	-96.5%
LUNENBURG	Water	0.20	0.22	0.05	-73.5%
PORTLAND	Water	0.12	0.10	0.04	-62.9%
PORTSMOUTH	Water	0.40	0.49	0.00	-100.0%
SEACOAST	Water	0.00	0.02	0.12	N/A
UNITIL CORPORATION	Water	0.10	0.17	0.09	-8.6%
	Totals	3.20	2.27	0.61	-80.8%

Table 9: 2019-2021 Emissions from Water

Delivered Energy

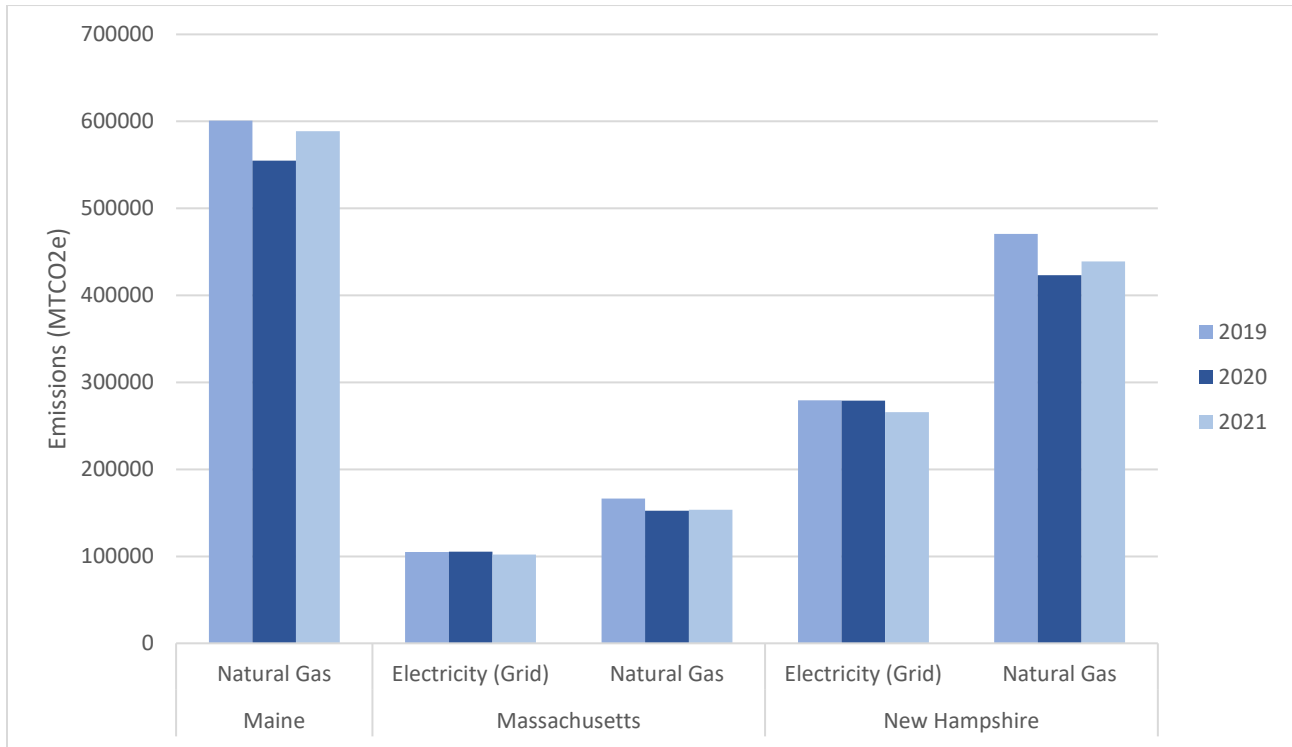


Figure 12: 2019-2021 Emissions from Delivered Energy

NODE	DATASOURCE	ACTIVITY NAME	TOTAL 2019 EMISSIONS (MTCO2E)	TOTAL 2020 EMISSIONS (MTCO2E)	TOTAL 2021 EMISSIONS (MTCO2E)	PERCENTAGE CHANGE 2019-2021
MAINE	NU-ME-Delivered Gas (Customers)	Natural Gas	601,000	554,900	588,650	-2.1%
MASSACHUSETTS	FGE - Delivered Electricity (Customers)	Electricity (Grid)	104,900	105,400	102,188	-2.6%
MASSACHUSETTS	FGE - Delivered Gas (Customers)	Natural Gas	166,400	152,600	153,542	-7.7%
NEW HAMPSHIRE	NU-NH - Delivered Gas (Customers)	Natural Gas	470,600	423,200	265,600	-43.6%
NEW HAMPSHIRE	UES - Delivered Electricity (Customers)	Electricity (Grid)	279,400	278,900	438,989	57.1%
		Totals	1,622,300	1,515,000	1,548,969	-4.5%

Table 10: 2019-2021 Emissions from Delivered Energy

Commuting

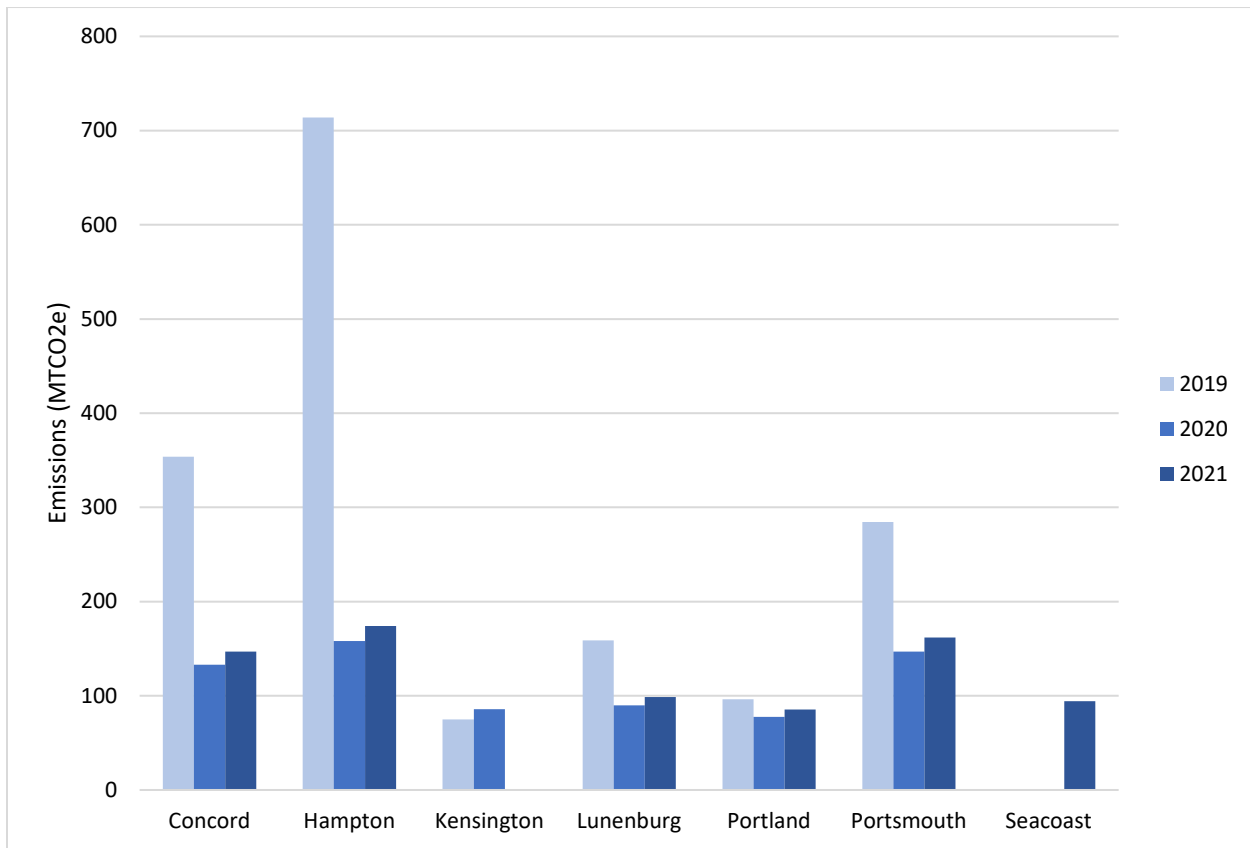


Figure 13: 2019-2021 Emissions from Commuting

NODE	COMMUTING TYPE	TOTAL 2019 EMISSIONS	TOTAL 2020 EMISSIONS	TOTAL 2021 EMISSIONS	PERCENTAGE CHANGE 2019-2020
CONCORD	Car	352.0	133.0	147.0	-58%
CONCORD	Motorcycle		0.0	0.0	N/A
CONCORD	Carpool (2ppl)	1.9		0.0	N/A
HAMPTON	Car	710.0	158.0	174.0	-75%
HAMPTON	Motorcycle		0.0	0.0	N/A
HAMPTON	Carpool (2ppl)	3.9		0.0	N/A
KENSINGTON	Car	74.5	85.7	0.0	N/A
KENSINGTON	Motorcycle		0.0	0.0	N/A
KENSINGTON	Carpool (2ppl)	0.4		0.0	N/A
LUNENBURG	Car	158.0	89.8	98.8	-37%
LUNENBURG	Motorcycle		0.0	0.0	N/A
LUNENBURG	Carpool (2ppl)	0.9		0.0	N/A
PORTLAND	Car	95.7	77.5	85.3	-11%
PORTLAND	Motorcycle		0.0	0.0	N/A

PORTLAND	Carpool (2ppl)	0.5		0.0	N/A
PORTSMOUTH	Car	283.0	147.0	162.0	-43%
PORTSMOUTH	Motorcycle		0.0	0.0	N/A
PORTSMOUTH	Carpool (2ppl)	1.6		0.0	N/A
SEACOAST	Car			94.3	N/A
	Totals	1682.4	691.1	761.4	-55%

Table 11: 2019-2021 Emissions from Commuting