

# Energy use and resulting greenhouse gas emissions from industry and agriculture in New York State \*

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In support of the State of New York's Climate Leadership and Community Protection Act (CLCPA) and as part of the state's Climate Smart Communities program, regions, counties, and municipalities within the state are preparing climate action plans describing local and regional actions aimed at reducing the greenhouse gas emissions responsible for climate change. A key element of each such action plan is a Greenhouse Gas Inventory, which should provide rigorously-derived estimates of the area's current levels of greenhouse gas (GHG) emissions to serve as a basis for goal-setting and advancing the area's renewable energy transition. Two sectors in which greenhouse gas emissions have been difficult to measure or estimate are the industrial and agricultural sectors, which can be responsible for as much as 15 to 25% of an area's total greenhouse gas emissions. A dataset from the US National Renewable Energy Laboratory (NREL) provides detailed breakdowns of US energy use by county and industry sector, which are analyzed in this report to generate profiles of energy use in the industrial and agricultural sectors for the region, using the US Environmental Protection Agency 2018 emission factors for estimating greenhouse gas emissions from energy use; these are used to estimate and analyze greenhouse gas emissions from industry and agriculture across the region.

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## 1 Introduction<sup>1</sup>

As the public comes to understand the gravity and urgency of the climate crisis, governments and related organizations are undertaking climate initiatives with the goal of reducing or eliminating the greenhouse gas emissions of a state, region, or community. A key first step in any such initiative is preparing a Greenhouse Gas Inventory [19][12] providing reliable estimates of annual anthropogenic (human-caused) greenhouse gas emissions for the region of interest. Such an inventory is needed in order to fill a number of key roles for the initiative:

- Providing a defined starting point or baseline: What are the region's current anthropogenic greenhouse gas emissions? What is their impact on the global climate crisis?
- Solution identification and prioritization: What economic sectors and activities are responsible for significant amounts of greenhouse gas emissions? What candidate solutions are potentially applicable and will have the greatest favorable impact?
- Target-setting: What reduced levels of net greenhouse gas emissions do we want to achieve, and over what time frame?
- Progress tracking (in due course):  $n$  years into the plan, what are the region's annual GHG emissions? How successful have actions under the plan been in reducing them? If other changes in GHG emissions have occurred, what were the causes? Does the plan need to be revised as a result?
- Public education and advocacy: What actions at an individual or community level have the greatest potential to reduce GHG emissions? How can individuals take action to further these reductions?

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\***Current version:** March 02, 2022; **Corresponding author:** [eric@orebed-analytics.com](mailto:eric@orebed-analytics.com). This report is publicly released under the [Creative Commons Attribution 4.0 International license](#). The accompanying software (used to generate the report) is released under MIT license; see LICENSE.md.

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These objectives can be more effectively realized to the extent that the prepared inventory has several important attributes: it needs to be

- credible, using sound methods based on authoritative research to measure and estimate emissions;
- transparent, using clearly-defined, surveyable algorithms and techniques to obtain emissions estimates;
- open, lending itself to being publicly reviewed, analyzed, and defended;
- fine-grained, permitting emissions sources to be unambiguously identified and made objects of targeted actions;
- versatile, facilitating the preparation of made-to-order analyses and visualizations in support of the diverse tasks and challenges of the transition to a sustainable economy;
- extendable, facilitating incorporation of new data as the effort proceeds.

The inventory presented in this document provides estimates for a clearly-defined subset of the region's greenhouse gas emissions: emissions resulting from energy use in the economic sectors of manufacturing, agriculture, construction, and mining, which may jointly constitute only around 10 to 15% of the total emissions across all economic sectors. At the same time, it is intended to illustrate effective methods for documenting and presenting the contents of an emissions inventory in order to inform and guide the activities through which emissions can be reduced or eliminated.

## 2 Data sources

The industrial and agricultural economic sectors have been recognized as being especially challenging to address in climate change mitigation activities due to the diversity of activities and processes involved [14]. Recognizing these challenges, a research group at the US National Renewable Energy Laboratory has sought to develop efficient and reliable techniques for estimating energy use in these sectors through the development of the NREL Industrial Emissions Tool (IET) [17]. In addition, they have used the IET to develop and publish a dataset of industrial and agricultural GHG energy use statistics broken down to the level of individual counties, NAICS activity codes [21], and fuel types used for energy generation for the entire United States, the NREL Industrial Energy Data Book (IEDB) [16], published through the [NREL data catalogue](#). The analyses presented here use the IEDB in conjunction with publicly-available tables of [County FIPS codes](#) [18] and [2017 NAICS codes](#) [21].

The energy use statistics in [16] are drawn from a variety of sources. Facilities with large amounts of greenhouse gas emissions are required to report their emissions under the US EPA's Greenhouse Gas Reporting Program (GHGRP) [24]. These reported quantities are used directly. To obtain emissions estimates for the far more numerous smaller emitters in the manufacturing, agricultural, mining, and construction sectors, data are combined from

- the EPA's Manufacturing Energy Consumption Survey (MECS) [8]
- the US Energy Information Administration's EIA Form-923 data on electricity use [5]
- the US Department of Agriculture's Agriculture Survey [27][28] and Census of Agriculture [26]
- the US Census Bureau's Economic Census [2] and County Business Patterns (CBP) dataset [25]

in order to first estimate the relationship between facility size and emissions for each economic sector; these estimates are combined with the numbers and sizes (employment, fuel and lubricant cost data, etc.) of emissions-generating facilities to obtain GHG emissions estimates [17].

Because of its reliance on census data available only after a time-lag of about three years, the NREL IEDB provides energy use data only through calendar year 2016. It is likely that any Greenhouse Gas Inventory would be similarly limited for similar reasons; for instance, New York State's Greenhouse Gas Inventory for years 1990-2016 [19] was not published until July 2019.

### 3 Tools and methods

The analyses and illustrations presented in this report were prepared using the R programming language [22] and the powerful associated collection of tools for data analysis and visualization [29][30]. The report itself is prepared using an R facility known as Rmarkdown [1], in which a single file or collection of files contains both the text of a document such as this one and the code (which needn't only be R code) used to generate the analysis it presents. Management of the document and code as a single unit permits the use of the rich, capable version control tools available to software developers and ensures that the document in its final form is reproducible. In use of Rmarkdown, the code used to generate elements such as figures and tables can be presented interleaved with the document text as desired, in the form of 'code chunks' such as the example below.

```
# I had been using countyNames.Rmd as a child document here, but ran into an Rstudio deficiency that  
# makes debugging the document harder: the "Run All Chunks Above" and "Run Current Chunk" icons  
# shown in the upper right corner of the chunk don't work when the chunk is a child document. This  
# is a longstanding issue: see https://community.rstudio.com/t/making-child-code-chunks-execute-  
# by-clicking-run-current-chunk/12907  
# and https://stackoverflow.com/questions/48764918/rmarkdown-running-child-chunks-from-inside-  
# rstudio/48777264.
```

```
# The NREL dataset identifies counties only by FIPS code. We get the corresponding county-names  
# and add them to the dataset along with the NAICS sector names and descriptions. Then we filter  
# to just the counties of the selected Region.
```

```
County_FIPS_codes <- read_delim("County FIPS codes.txt",  
  "\t", escape_double = FALSE, col_names = FALSE,  
  trim_ws = TRUE) %>%  
  transmute(COUNTY_FIPS = X1, County = X2, State = X3)
```

```
NYcountyEnergyEsts <- Updated_county_energy_estimates %>%  
  filter(STATE == "NEW YORK") %>% # Keep only the NEW YORK rows  
  left_join(County_FIPS_codes, by = "COUNTY_FIPS") %>% # Add county names  
  # We have to do some finagling here. The NREL IEDB dataset contains some records in which  
  # the NAICS code given is "11193 & 11194 & 11199" or "1125 & 1129". These result in NAs  
  # when we convert them to numeric; we replace them with synthesized codes in fixNAICSGaps.R.  
  mutate(across(NAICS, ~suppressWarnings(as.numeric(.)))) %>%  
  left_join(NAICS_Descriptions_2017, by = "NAICS") %>% # Add NAICS code names and  
  # descriptions  
  mutate(across(County, ~str_replace(., "St Lawrence", "St. Lawrence")))
```

```
RegionEnergyEsts <- NYcountyEnergyEsts %>%  
  filter(County %in% RegionCounties)
```

```
# The NREL dataset contains some rows with missing MMBTU_TOTAL values; these result in NAs.  
# Replace the NAs with 0s.
```

```
RegionEnergyEsts[["MMBTU_TOTAL"]][  
  which(is.na(RegionEnergyEsts[["MMBTU_TOTAL"]]))] <- 0
```

## 4 Energy use

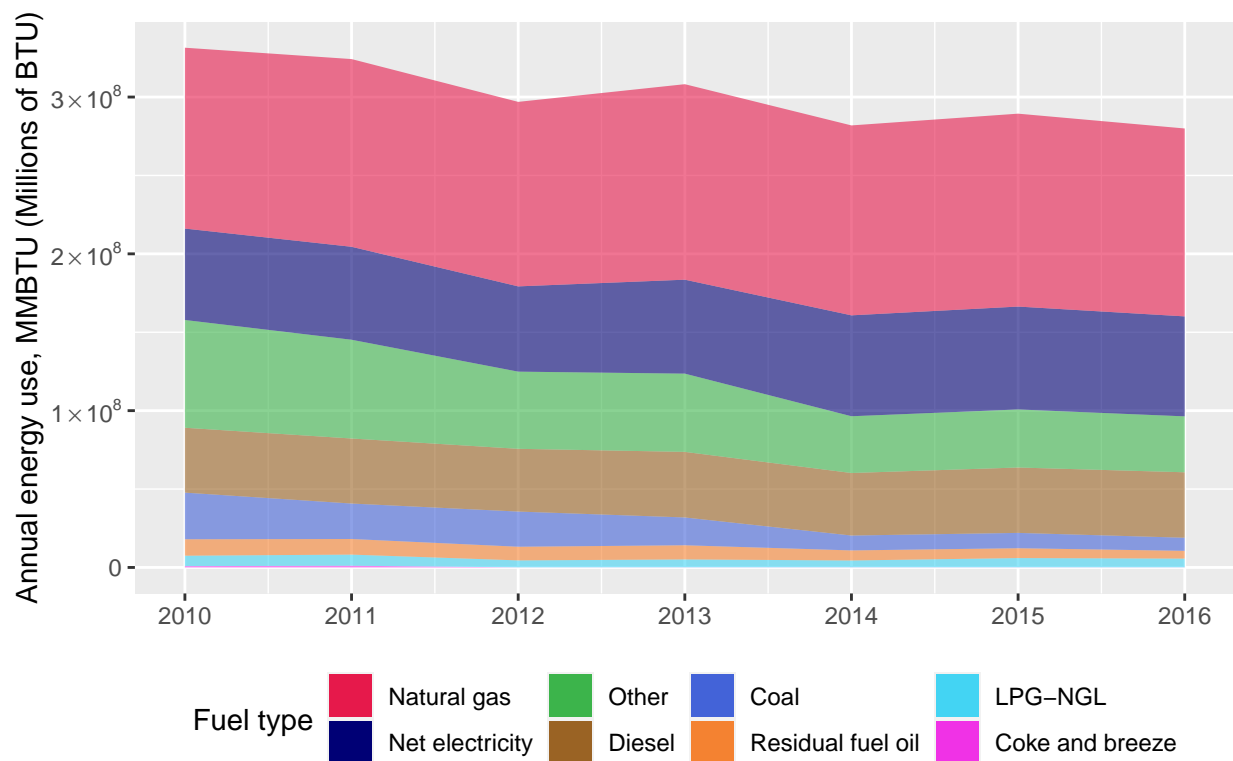
One of the benefits of using the NREL IEDB is the insight it provides into changes in energy use patterns that have occurred in recent years. Table 4.1 presents the total industrial and agricultural energy use in each county over the period from 2010 to 2016.

**Table 4.1:** Annual industrial and agricultural energy use (millions of BTU) by county

County	2010	2011	2012	2013	2014	2015	2016
Albany	12,900,574	8,047,105	7,160,941	7,505,268	8,035,015	7,681,018	8,665,138
Allegany	2,155,258	2,052,104	2,171,875	2,262,289	1,974,848	1,956,943	1,777,246
Bronx	3,112,838	2,884,385	2,614,949	2,922,750	2,404,009	2,850,451	3,220,160
Broome	2,175,135	4,284,168	2,707,025	3,050,257	2,672,043	2,846,493	1,709,254
Cattaraugus	6,182,921	6,309,069	5,430,079	5,819,223	5,660,582	5,402,719	5,312,729
Cayuga	3,158,338	3,408,043	2,498,487	2,808,603	3,247,175	3,422,186	3,288,238
Chautauqua	6,094,913	6,663,396	4,863,059	5,347,524	6,832,441	7,271,365	8,783,170
Chemung	3,319,030	3,546,585	4,233,842	4,413,778	3,376,190	3,390,966	3,253,609
Chenango	744,197	927,620	6,058,203	962,741	4,344,236	3,086,440	4,550,358
Clinton	4,079,695	4,087,511	4,054,267	4,679,225	4,426,746	4,262,801	4,487,155
Columbia	1,191,386	1,207,351	1,246,690	1,008,764	1,081,935	1,120,780	871,649
Cortland	942,113	1,080,591	1,042,164	1,023,798	1,151,086	1,234,708	1,166,341
Delaware	2,282,598	1,661,329	1,643,827	1,885,384	1,302,776	1,307,248	1,255,087
Dutchess	4,033,729	4,101,868	3,877,833	3,790,805	3,621,774	3,733,434	3,903,093
Erie	23,644,853	23,050,676	17,842,629	24,744,701	25,097,828	25,113,956	21,703,870
Essex	7,966,984	8,138,874	7,760,363	8,578,152	8,802,232	8,211,738	8,302,783
Franklin	3,329,428	3,771,610	3,781,123	3,821,420	1,541,001	1,635,972	1,345,784
Fulton	1,556,497	1,799,633	1,148,673	1,402,626	1,296,835	1,409,400	1,297,326
Genesee	2,128,299	2,316,040	2,273,436	2,305,993	2,161,033	2,158,380	2,092,930
Greene	3,148,612	1,484,087	445,630	463,704	425,612	472,936	468,094
Hamilton	74,424	77,256	72,406	74,269	74,225	71,391	70,279
Herkimer	1,611,605	1,692,922	1,872,087	1,751,614	2,706,182	1,857,169	3,241,599
Jefferson	9,546,831	10,288,379	5,613,693	7,479,828	5,210,713	5,206,968	5,150,743
Kings	8,971,447	9,713,127	7,360,749	9,659,826	9,465,263	9,937,381	9,296,764
Lewis	4,345,119	4,365,409	2,616,564	2,646,458	1,807,077	1,943,640	1,873,796
Livingston	1,050,511	680,880	678,948	723,956	678,595	900,794	703,236
Madison	992,582	1,069,098	1,106,903	1,163,394	1,050,460	1,111,284	1,046,982
Monroe	22,056,924	20,977,781	20,468,668	16,270,450	10,573,856	10,882,616	11,947,317
Montgomery	2,986,665	1,804,309	1,365,014	2,523,041	2,208,288	2,547,062	3,237,752
Nassau	8,659,527	8,709,506	10,552,414	10,245,941	9,156,352	9,524,669	10,621,695
New York	8,665,384	8,986,205	7,134,354	7,193,837	6,623,681	6,276,837	6,089,224
Niagara	16,299,695	16,910,937	19,014,532	18,194,934	5,724,825	5,646,694	5,664,462
Oneida	4,465,699	4,617,216	4,482,358	4,795,060	4,234,001	4,499,089	4,627,465
Onondaga	15,654,044	15,480,435	11,182,891	8,336,368	13,053,795	14,534,896	13,788,929
Ontario	4,259,065	4,623,869	4,439,976	6,044,648	4,625,392	5,315,453	5,296,114
Orange	3,758,219	3,280,175	3,114,916	3,970,485	3,438,945	3,700,313	3,692,398
Orleans	2,178,888	2,872,203	2,215,632	2,254,647	3,117,442	3,125,208	3,455,722
Oswego	5,144,046	5,709,409	5,394,961	5,613,469	6,327,283	6,421,478	6,093,817
Otsego	558,642	591,604	675,981	726,731	694,868	787,460	728,754
Putnam	1,745,897	1,737,162	837,324	922,828	913,327	956,790	960,355
Queens	11,893,589	11,710,972	9,476,937	9,906,532	9,141,616	9,667,263	9,988,170
Rensselaer	1,495,351	1,450,751	1,451,386	1,564,599	1,582,838	1,628,976	1,743,117

**Table 4.1:** Annual industrial and agricultural energy use (millions of BTU) by county (*continued*)

County	2010	2011	2012	2013	2014	2015	2016
Richmond	3,271,130	3,249,663	3,179,820	3,175,240	3,507,176	3,562,618	3,810,314
Rockland	4,829,082	4,150,793	4,273,430	4,973,581	4,554,927	4,778,427	4,488,993
Saratoga	15,605,936	13,782,163	13,161,861	10,882,163	8,897,522	11,885,253	7,515,853
Schenectady	1,678,964	1,739,215	1,657,107	1,905,830	2,200,957	2,166,684	2,092,955
Schoharie	333,749	395,665	391,896	426,809	451,090	499,625	460,153
Schuyler	1,841,017	3,234,645	3,238,801	3,328,980	2,969,854	3,123,443	3,160,241
Seneca	1,248,455	1,324,715	937,010	1,065,372	902,653	898,266	884,529
St. Lawrence	5,840,805	7,680,180	8,587,594	9,752,559	7,621,695	7,084,856	6,079,452
Steuben	9,376,078	4,900,524	4,279,938	5,366,128	3,911,927	4,444,935	3,753,572
Suffolk	18,016,949	17,957,206	19,781,974	22,721,323	21,809,632	22,336,877	17,187,427
Sullivan	991,990	1,003,803	1,134,149	1,035,904	635,483	655,437	764,196
Tioga	1,010,058	851,423	864,935	846,531	749,685	1,110,708	1,062,309
Tompkins	830,022	848,162	834,942	908,664	871,351	987,424	952,412
Ulster	1,790,561	1,858,565	1,965,926	2,233,877	2,216,052	2,191,182	2,343,191
Warren	7,355,821	7,410,537	6,740,942	7,876,383	8,530,112	8,434,136	8,082,176
Washington	9,778,740	7,837,254	7,487,679	6,916,468	5,853,859	5,947,099	5,871,524
Wayne	2,252,024	1,956,051	1,910,197	1,886,001	2,025,194	1,614,519	1,768,876
Westchester	11,506,696	11,890,646	9,806,018	9,150,266	9,224,754	9,040,907	9,688,485
Wyoming	2,409,376	2,929,486	1,846,682	1,906,683	1,847,607	2,012,895	1,835,037
Yates	927,381	1,049,149	866,141	979,382	1,257,519	1,518,366	1,371,324
State	331,456,386	324,221,495	296,930,831	308,198,065	281,903,467	289,407,020	279,945,722



**Figure 4.1:** Energy use summary, industrial and agricultural by fuel type

**Table 4.2:** Annual industrial and agricultural energy use (millions of BTU) by fuel type

Year	Natural gas	Net electricity	Other	Diesel	Coal	Residual fuel oil	LPG-NGL	Coke and breeze	Annual totals
2010	115,326,116	58,309,641	68,714,489	41,371,503	29,757,253	10,474,529	6,649,702	853,154	331,456,386
2011	119,713,295	59,282,052	62,980,793	41,478,265	22,612,894	9,953,820	7,095,840	1,104,536	324,221,495
2012	117,671,194	54,381,957	49,215,343	40,016,055	22,425,279	8,703,249	4,452,716	65,039	296,930,831
2013	124,673,858	59,914,773	49,904,122	41,818,375	17,723,500	9,029,432	5,045,423	88,580	308,198,065
2014	121,112,920	64,362,007	36,181,338	39,891,455	9,479,728	6,417,509	4,369,697	88,814	281,903,467
2015	123,028,074	65,607,979	37,026,027	41,702,514	9,767,163	6,282,970	5,894,882	97,413	289,407,020
2016	119,817,321	63,754,441	35,663,077	41,766,783	8,334,079	4,954,446	5,577,284	78,292	279,945,722
Totals	841,342,778	425,612,849	339,685,188	288,044,950	120,099,896	55,815,954	39,085,544	2,375,827	2,112,062,986

Figure 4.1 presents the same total energy use shown above, but this time broken down by fuel type.

Table 4.3 provides definitions of the fuel types used in the NREL IEDB and in this document, based on definitions provided by the US Energy Information Agency [6][10]. *Net electricity* in most cases refers to energy purchased from grid suppliers, but could refer increasingly to on-site renewable electricity generation in future years.

Figures 4.2, 4.3, and 4.4 show energy use by fuel type for each economic sector represented by a 3-digit NAICS code. (Here again, different panels have different vertical scales.) The contrasts in energy use from one economic sector to another are striking, suggesting that the challenges in making the transition to renewable energy will also be very diverse.

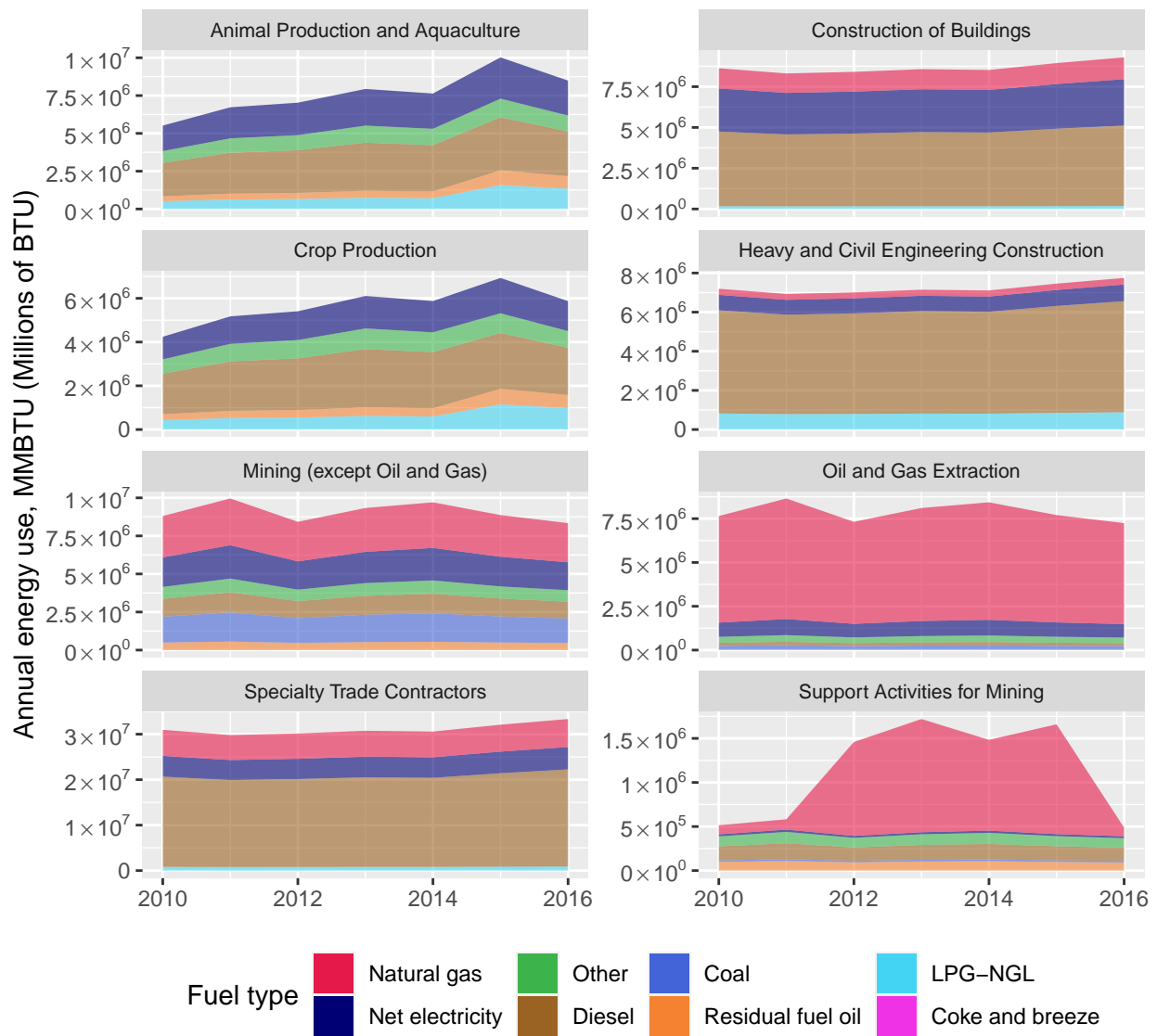
Table 4.4 provides numerical breakdowns of energy use by economic sector and fuel type, with the sectors having highest total energy use at the top and most-used fuels on the left. Table 4.5 provides

**Table 4.3:** Standard fuel types

Fuel type	Definition
Coal	Coal: A readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time. Includes Anthracite, Bituminous, and Lignite varieties, which have different levels of heat content.
Coke and Breeze	Coal Coke: A hard, porous product made from baking bituminous coal in ovens at temperatures as high as 2,000 degrees Fahrenheit. It is used both as a fuel and as a reducing agent in smelting iron ore in a blast furnace. Breeze: The fine screenings from crushed coke. Usually breeze will pass through a $\frac{1}{2}$ -inch or $\frac{3}{4}$ -inch screen opening. It is most often used as a fuel source in the process of agglomerating iron ore.
Diesel	Diesel fuel: A fuel composed of distillates obtained in petroleum refining operation or blends of such distillates with residual oil used in motor vehicles. The boiling point and specific gravity are higher for diesel fuels than for gasoline.
LPG-NGL	Liquefied Petroleum Gases (LPG): Ethane, ethylene, propane, propylene, normal butane, butylene, ethane-propane mixtures, propane-butane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids. Natural Gas Liquids (NGL): Those portions of reservoir gas that are liquefied at the surface in field facility or gas processing plants. Some examples are ethane, propane, butanes, pentanes, natural gasoline, and condensate.
Natural gas	A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in natural underground reservoirs at reservoir conditions.
Net electricity	Net Electricity: Net electricity is estimated for each manufacturing establishment as the sum of purchased electricity, transfers in, and generation from noncombustible renewable resources minus the quantities of electricity sold and transferred offsite. Thus net electricity excludes the quantities of electricity generated or cogenerated onsite from combustible energy sources.
Other	Energy source not falling into any of the other categories. Includes wood-derived and other biomass fuels, but can also include miscellany such as used vehicle tires.
Residual fuel oil	A general classification for the heavier oils, known as No. 5 and No. 6 fuel oils, that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations. It conforms to ASTM Specifications D396 and D975 and Federal Specification VV-F-815C. No. 5, a residual fuel oil of medium viscosity, is also known as Navy Special and is defined in Military Specification MIL-F-859E, including Amendment 2 (NATO Symbol F-770). It is used in steam-powered vessels in government service and inshore powerplants. No. 6 fuel oil includes Bunker C fuel oil and is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes.

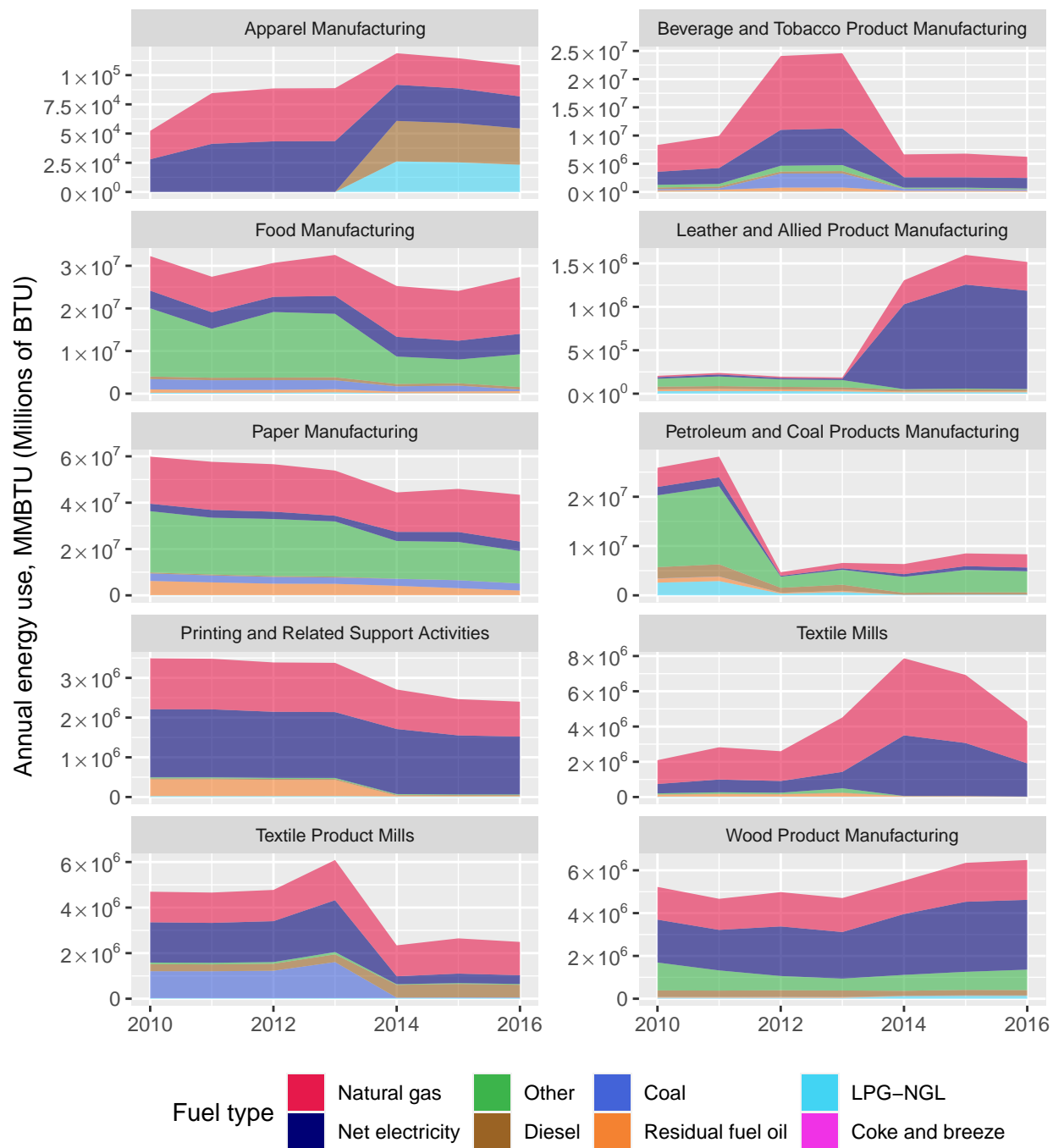
Source: The EIA Glossary

the analogous breakdowns by sector and county. Comparing the two tables makes it a straightforward process to identify the sectors and approximate locations of the industrial and agricultural activities having the greatest energy use and likely greenhouse gas emissions, which should help focus climate actions where they can have the greatest beneficial impact.

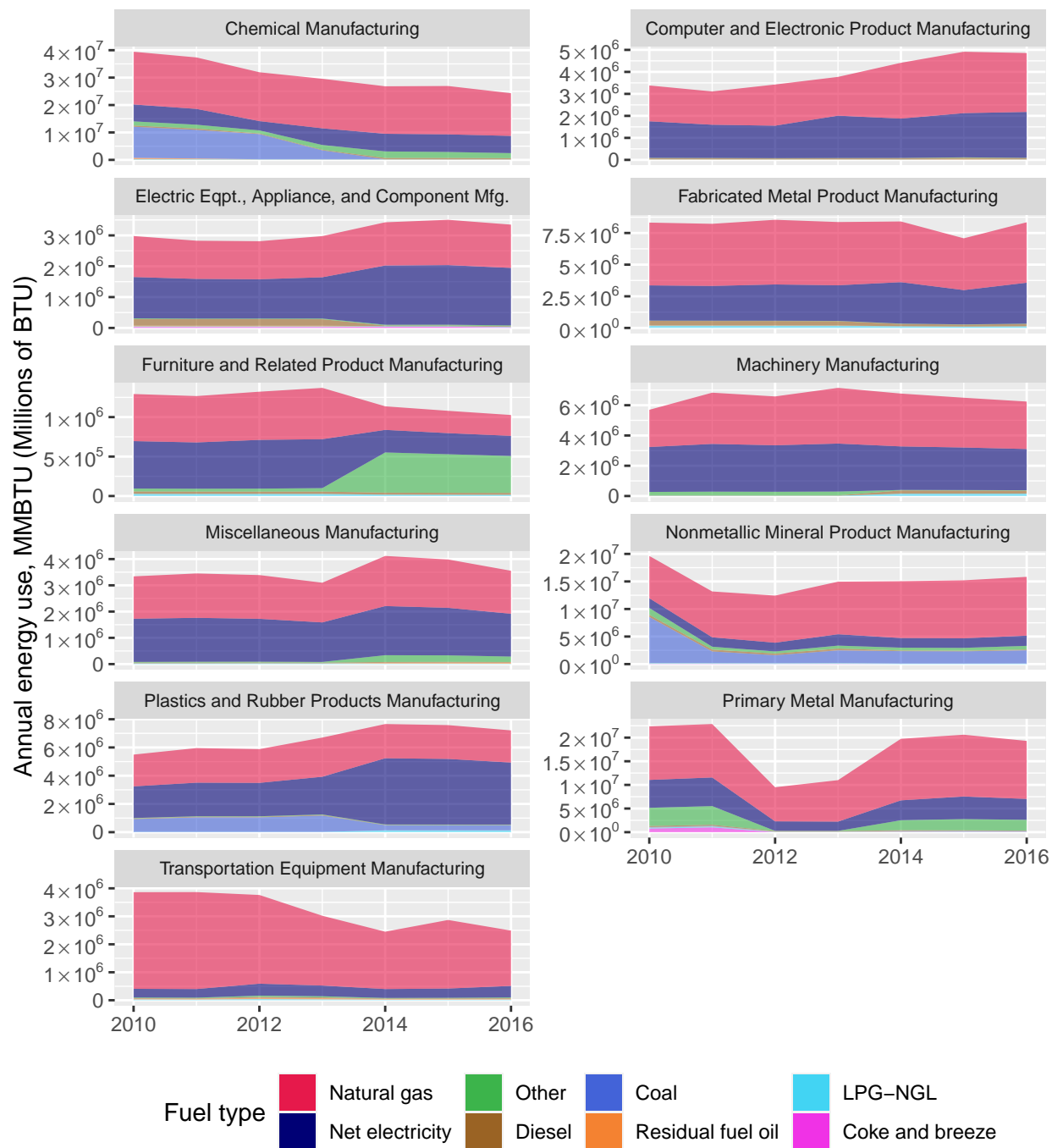


**Figure 4.2:** Annual energy use by *non-manufacturing* sector and fuel type, entire region





**Figure 4.3:** Annual energy use by *manufacturing* sector and fuel type, entire region



**Figure 4.4:** Annual energy use by *manufacturing* sector and fuel type, entire region (continued)

**Table 4.4:** 2016 energy use (millions of BTU) by industry sector and fuel type

Sector (NAICS)	Fuel types								Sector totals
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze	
322. Paper Manufacturing	20,187,068	4,117,423	46,180	13,954,158	3,015,491	37,708	2,042,639	0	43,400,667
238. Specialty Trade Contractors	6,152,122	4,932,487	21,366,231	0	0	887,824	0	0	33,338,663
311. Food Manufacturing	13,334,234	4,778,221	579,228	7,699,330	394,578	85,620	493,090	0	27,364,300
325. Chemical Manufacturing	15,568,680	6,273,203	444,947	1,841,850	0	117,468	61,100	0	24,307,248
331. Primary Metal Manufacturing	12,275,117	4,415,678	103,053	2,273,650	71,746	81,600	21,401	57,922	19,300,166
327. Nonmetallic Mineral Product Manufacturing	10,674,701	1,850,258	135,960	666,256	2,405,077	95,020	10,081	317	15,837,670
236. Construction of Buildings	1,335,158	2,844,667	4,932,114	0	0	182,464	0	0	9,294,403
112. Animal Production and Aquaculture	0	2,309,306	2,965,709	1,046,985	0	1,341,076	826,392	0	8,489,468
332. Fabricated Metal Product Manufacturing	4,773,014	3,237,252	181,332	23,428	0	131,836	0	0	8,346,863
212. Mining (except Oil and Gas)	2,572,046	1,835,919	1,104,421	748,504	1,609,897	0	467,812	0	8,338,598
324. Petroleum and Coal Products Manufacturing	2,681,309	766,386	449,728	4,272,422	25,297	120,021	7,256	0	8,322,418
237. Heavy and Civil Engineering Construction	336,479	849,111	5,677,447	0	0	884,845	0	0	7,747,881
211. Oil and Gas Extraction	5,762,157	769,154	164,816	319,630	202,023	0	27,946	0	7,245,726
326. Plastics and Rubber Products Manufacturing	2,278,194	4,390,484	18,561	24,068	366,679	130,701	0	0	7,208,687
321. Wood Product Manufacturing	1,862,288	3,260,538	251,243	953,721	7,890	139,375	5,688	0	6,480,742
333. Machinery Manufacturing	3,135,677	2,723,058	198,147	28,066	0	157,559	0	0	6,242,507
312. Beverage and Tobacco Product Manufacturing	3,749,101	1,878,811	46,761	147,032	197,265	30,418	184,263	0	6,233,650
111. Crop Production	0	1,367,955	2,160,208	762,619	0	976,833	601,940	0	5,869,555
334. Computer and Electronic Product Manufacturing	2,678,991	2,085,129	54,695	11,120	0	14,940	13,078	0	4,857,953
313. Textile Mills	2,382,231	1,884,935	12,276	479	0	8,524	4,820	0	4,293,265
339. Miscellaneous Manufacturing	1,637,101	1,629,532	25,891	206,684	0	15,417	38,971	0	3,553,596
335. Electrical Equipment, Appliance, and Component Manufacturing	1,403,002	1,864,473	21,516	26,053	0	14,027	0	20,053	3,349,123
314. Textile Product Mills	1,461,256	385,600	560,208	33,337	21,208	30,826	0	0	2,492,435
336. Transportation Equipment Manufacturing	1,977,141	411,816	21,702	25,926	0	26,469	26,458	0	2,489,511
323. Printing and Related Support Activities	879,003	1,457,182	18,766	14,714	0	12,645	18,753	0	2,401,062
316. Leather and Allied Product Manufacturing	331,948	1,131,811	19,701	7,870	0	15,425	10,214	0	1,516,969
337. Furniture and Related Product Manufacturing	264,551	255,230	24,431	467,086	0	15,340	0	0	1,026,638
213. Support Activities for Mining	98,203	21,415	150,420	108,089	16,928	0	92,545	0	487,600

**Table 4.4:** 2016 energy use (millions of BTU) by industry sector and fuel type (*continued*)

Sector (NAICS)	Fuel types								Sector totals
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze	
315. Apparel Manufacturing	26,552	27,407	31,092	0	0	23,305	0	0	108,356
Totals	119,817,321	63,754,441	41,766,783	35,663,077	8,334,079	5,577,284	4,954,446	78,292	279,945,722

**Table 4.5:** 2016 energy use (millions of BTU) by industry sector and region

Sector (NAICS)	Region										Sector totals
	Western New York	Capital District	New York City	Finger Lakes	Long Island	North Country	Hudson Valley	Central New York	Southern Tier	Mohawk Valley	
322. Paper Manufacturing	1,212,212	15,876,829	3,286,378	1,415,199	1,382,948	15,739,588	0	3,852,345	0	635,168	43,400,667
238. Specialty Trade Contractors	2,239,518	2,282,266	8,796,581	2,113,649	8,345,353	599,659	5,880,220	1,452,243	889,395	739,777	33,338,663
311. Food Manufacturing	6,691,565	510,524	2,971,123	3,289,333	784,157	874,395	2,859,551	1,178,814	7,068,897	1,135,943	27,364,300
325. Chemical Manufacturing	4,068,630	4,926,311	962,064	4,964,393	2,373,658	381,766	3,111,031	2,767,318	277,565	474,511	24,307,248
331. Primary Metal Manufacturing	6,635,353	184,958	2,105,772	756,420	175,618	1,246,566	1,098,267	5,345,271	271,680	1,480,262	19,300,166
327. Nonmetallic Mineral Product Manufacturing	1,315,729	3,930,413	918,160	2,404,232	861,495	675,471	2,385,516	1,451,117	1,794,019	101,518	15,837,670
236. Construction of Buildings	531,762	599,736	2,915,066	558,230	2,077,721	249,038	1,435,276	409,048	291,146	227,382	9,294,403
112. Animal Production and Aquaculture	1,062,879	508,501	0	1,710,892	29,199	1,528,959	227,768	901,832	1,334,197	1,185,243	8,489,468
332. Fabricated Metal Product Manufacturing	2,524,463	167,364	544,263	1,382,859	820,411	105,225	557,328	278,190	501,012	1,465,748	8,346,863
212. Mining (except Oil and Gas)	2,501,696	261,911	1,200,881	530,078	295,264	1,617,365	974,928	170,125	451,750	334,599	8,338,598
324. Petroleum and Coal Products Manufacturing	980,870	170,889	38,964	175,759	2,265,253	2,260,108	87,395	2,260,382	43,834	38,964	8,322,418
237. Heavy and Civil Engineering Construction	752,978	654,312	1,282,659	576,417	1,718,866	249,262	1,344,974	514,102	368,699	285,612	7,747,881
211. Oil and Gas Extraction	4,177,813	174,076	696,302	174,076	456,779	0	696,302	0	870,378	0	7,245,726
326. Plastics and Rubber Products Manufacturing	1,782,771	302,367	561,284	2,280,835	567,421	246,186	421,272	842,614	74,034	129,903	7,208,687
321. Wood Product Manufacturing	1,231,196	282,580	585,773	281,399	1,077,411	70,656	472,947	320,876	1,035,565	1,122,339	6,480,742
333. Machinery Manufacturing	1,738,954	712,870	197,706	1,572,315	429,640	46,687	254,771	397,009	636,351	256,204	6,242,507
312. Beverage and Tobacco Product Manufacturing	1,147,540	546,154	876,018	1,055,005	156,216	721,321	284,029	1,056,413	171,218	219,735	6,233,650
111. Crop Production	799,707	549,463	22,472	1,467,011	285,435	429,466	458,660	646,338	726,204	484,799	5,869,555
334. Computer and Electronic Product Manufacturing	39,712	1,378,592	52,949	296,055	943,133	0	1,824,983	296,055	26,474	0	4,857,953
313. Textile Mills	52,159	181,379	1,134,459	959,765	182,557	13,040	247,755	13,040	39,119	1,469,991	4,293,265
339. Miscellaneous Manufacturing	281,720	371,811	948,967	561,753	555,647	63,779	408,221	211,681	128,360	21,657	3,553,596
335. Electrical Equipment, Appliance, and Component Manufacturing	705,649	216,182	180,380	175,068	330,971	122,642	352,987	614,143	516,774	134,328	3,349,123
314. Textile Product Mills	128,722	65,447	315,866	171,278	436,002	45,889	233,539	56,755	83,085	955,852	2,492,435
336. Transportation Equipment Manufacturing	1,612	0	612,739	0	244,464	0	0	1,612	1,603,677	25,408	2,489,511
323. Printing and Related Support Activities	310,221	219,030	589,914	311,858	418,316	16,296	124,470	74,448	207,349	129,160	2,401,062
316. Leather and Allied Product Manufacturing	28,111	14,056	331,306	111,102	493,275	4,685	23,426	14,056	0	496,953	1,516,969
337. Furniture and Related Product Manufacturing	87,817	202,993	104,485	30,419	75,551	1,896	31,939	238,103	233,864	19,571	1,026,638
213. Support Activities for Mining	202,003	18,739	90,911	21,619	18,739	0	41,798	20,179	51,993	21,619	487,600

**Table 4.5:** 2016 energy use (millions of BTU) by industry sector and region (*continued*)

Sector (NAICS)	Region										Sector totals
	Western New York	Capital District	New York City	Finger Lakes	Long Island	North Country	Hudson Valley	Central New York	Southern Tier	Mohawk Valley	
315. Apparel Manufacturing	8,114	754	81,190	8,064	7,621	50	1,357	201	201	804	108,356
Totals	43,241,477	35,310,506	32,404,631	29,355,084	27,809,122	27,309,992	25,840,711	25,384,308	19,696,842	13,593,049	279,945,722

## 5 Greenhouse gas emissions

### 5.1 Assumptions

With the energy use information in hand, it remains only to estimate greenhouse gas emissions using the conversion factors provided by the EPA, considering in turn the various fuel types and industry sectors. Since the energy use quantities are all provided in units of millions of BTU (mmBTU) and quantities of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O generated are provided per mmBTU for each fuel type, the calculations are quite straightforward, although the assumptions underlying them warrant a degree of scrutiny.<sup>2</sup>

- Coal: The coal used in the US is of various types. For the year 2016, coal production by weight was 44.6% bituminous, 45.3% sub-bituminous, 9.8% lignite, and less than 0.3% anthracite by weight; or 55% bituminous, 38% sub-bituminous, 6.8% lignite, and less than 0.3% anthracite by heat content. The EPA emission factors include a set of emission values for a coal fuel type of “Mixed (Industrial Sector)” which are used below in computing GHG emissions from coal. This is clearly a weighted average of the emission values for the four coal types, based on the relative amounts of these coal grades used by the industrial sector [4].
- Coke and breeze: In addition to coke derived from coal, US petroleum refineries synthesize significant amounts of petroleum coke; however, nearly all of this ‘petcoke’ is exported rather than being used domestically [7]. The EPA emission factors provide values only for Coke (not Breeze), so these are used in the analysis below; breeze apparently differs from coke only in chunk size and not in composition to any significant degree.
- Diesel: Most diesel fuel used in the US is what is known as “Grade No.2-D diesel fuel”, where the “No.2” refers to the fuel’s level of density and viscosity. Grade No.2-D diesel fuel is very similar in composition to what the industry classifies as No.2 fuel oil [15]. The EPA emission factors don’t specify values for diesel fuel specifically, so the values for No.2 fuel oil are used below.
- LPG and NGL: The fuel type “LPG-NGL” would appear from its name to apply to two categories of fuels: “Liquefied Petroleum Gases” and “Natural Gas Liquids”. However, the EIA definitions don’t seem to clearly distinguish the two categories; both are composed primarily of liquefied propane and butane [11]. Accordingly, the analysis below uses the EPA’s emission factors for “Liquefied Petroleum Gases (LPG)” for this fuel type; EPA provides no separate factors for natural gas liquids.
- Natural gas: The natural gas fuel type is clearly delineated and has specified emission factors; these are used in the analysis below.
- Net electricity: For net electricity, the emission factors used are those provided by the EPA in [23] for the applicable eGRID subregion. Note that the EPA table gives emissions for all three of the principal GHGs in kg/MWh; these are converted to kg or g per mmBTU.
- Other: Other fuels for the region are almost entirely wood-based biomass fuels, based on statistics for New York State as a whole [9]. Modest quantities of wind and hydroelectric power are also generated for on-site industrial use. Like the latter, biomass is considered for this analysis to have no greenhouse gas emissions, since emitted carbon was earlier absorbed from the atmosphere through photosynthesis (recognizing that this may be an oversimplification; see for instance Costanza et al [3]). Changes in carbon sequestration capacity due to the conversion from wild forest to harvested commercial forest should be accounted for under land use change.
- Residual fuel oil: The term “residual fuel oil” as defined applies to both of what are classified as No.5 and No.6 residual fuel oils. No.5 residual fuel oil is evidently used mostly as a fuel for naval

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<sup>2</sup>The EPA tables give differing quantities of greenhouse gas emissions per unit fuel consumption (gallons) for gasoline-fueled vs. diesel-fueled agricultural equipment and for gasoline- vs. diesel-fueled construction equipment. However, the NREL dataset gives us no way to distinguish between gasoline-fueled and diesel-fueled equipment; the assumption appears to be that diesel fuel is used in most cases.

and commercial ships [11]. Accordingly, only the emission factors for No.6 residual fuel oil (which has a variety of onshore uses) are used in the analysis below.

**Table 5.1:** Summary: emission factors for NREL fuel types

Fuel type	CO <sub>2</sub> , kg per mmBTU	CH <sub>4</sub> , g per mmBTU	N <sub>2</sub> O, g per mmBTU	CO <sub>2</sub> -equivalent emissions, kgCO <sub>2</sub> per mmBTU
Coal	94.67	11.00	1.60	95.42
Coke and breeze	113.67	11.00	1.60	114.42
Diesel	73.96	3.00	0.60	74.21
LPG-NGL	61.71	3.00	0.60	61.96
Natural gas	53.06	1.00	0.10	53.11
Other	0.00	0.00	0.00	0.00
Residual fuel oil	75.10	3.00	0.60	75.35
Net electricity (NYUP)	39.21	2.79	0.40	39.39
Net electricity (NYCW)	84.59	2.93	0.40	84.78
Net electricity (NYLI)	156.76	16.76	2.13	157.81

Table 5.1 summarizes the emission factors used for these fuel types. Since the electricity on different portions of the electric transmission grid can be generated using a different mix of energy sources, the EPA specifies a set of emission factors for each of what it calls *eGRID subregions*. Accordingly, the table shows one set of *Net electricity* emission factors for each of the three eGRID subregions in New York State;<sup>3</sup> the emission factors used to compute each county’s emissions are those for the eGRID subregion in which the county is located.

The greenhouse gas emission quantities in this report are presented in terms of “CO<sub>2</sub>-equivalent emissions,” weighting emissions of other greenhouse gases based on their marginal impact on radiative forcing compared to that of an equivalent incremental concentration of CO<sub>2</sub> [13]. As can be seen in Table A.5, the global warming potentials of both methane and nitrous oxide are substantially larger than that of carbon dioxide; it is only because CO<sub>2</sub> is emitted in far greater quantities that it has a greater total impact on the global climate. Based on the NREL dataset and the EPA emission factors, CO<sub>2</sub> itself accounts for about 99.7% of the CO<sub>2</sub>-equivalent agricultural and industrial greenhouse gas emissions of the New York State Region; methane and nitrous oxide constitute an almost negligible fraction of these emissions.<sup>4</sup>

## 5.2 Results and analysis

Table 5.2 provides a summary view of estimated annual greenhouse gas emissions for the region, stratified by county. Table 5.3 shows *per capita* emissions from industrial and agriculture energy use for each county in the region. For comparison, 2016 emissions per capita for New York State as a whole were found to be about 10 metric tons CO<sub>2</sub>-equivalent per person – across all sectors – with the largest fractions resulting from transportation (37%) and from commercial (18%) and residential (21%) combustion

<sup>3</sup>NYLI abbreviates “New York Long Island”, i.e., Nassau and Suffolk counties; NYCW refers to the five boroughs of New York City together with Westchester County; and NYUP abbreviates “New York Upstate” and refers to the remainder of the state.

<sup>4</sup>This will not necessarily be true when use of nitrogen-based fertilizers and other agricultural chemicals is considered in a companion report.

primarily for heating [19]. Natural gas is the largest remaining source of greenhouse gas emissions as of 2016, with diesel fuel and net electricity also being significant contributors.

**Table 5.2:** Annual agricultural/industrial CO<sub>2</sub>-equivalent emissions (metric tons) by county

County	2010	2011	2012	2013	2014	2015	2016
Albany	817,777	379,511	350,302	377,595	392,268	380,792	419,522
Allegany	82,069	87,176	82,953	87,626	90,831	92,877	85,696
Bronx	190,885	185,813	173,553	192,135	164,986	190,802	212,114
Broome	106,623	172,900	132,729	164,227	142,232	151,618	91,306
Cattaraugus	337,918	349,931	307,405	330,353	328,802	313,414	306,627
Cayuga	156,712	170,616	132,998	147,926	166,967	176,667	169,856
Chautauqua	282,739	308,720	225,342	247,637	309,210	321,055	337,579
Chemung	171,294	182,059	202,387	211,442	172,023	173,028	165,858
Chenango	37,192	46,310	76,033	49,154	101,620	92,940	111,751
Clinton	178,668	178,806	176,972	212,368	185,274	177,315	186,359
Columbia	57,303	57,360	56,945	49,061	61,016	63,780	49,140
Cortland	45,034	52,771	53,057	52,383	57,015	61,847	58,596
Delaware	73,262	67,843	66,991	71,876	58,730	59,663	56,944
Dutchess	211,630	213,305	207,604	203,878	196,318	202,638	209,815
Erie	1,012,495	963,230	756,570	876,633	1,070,041	1,054,232	947,632
Essex	263,487	260,158	232,642	251,543	275,045	259,398	229,218
Franklin	167,250	189,597	190,061	192,221	83,159	88,776	71,796
Fulton	51,275	53,075	45,950	48,558	60,871	64,829	59,567
Genesee	85,136	94,149	91,947	92,946	102,929	102,890	101,896
Greene	239,041	103,482	25,478	26,497	24,592	26,977	26,767
Hamilton	4,431	4,604	4,305	4,451	4,447	4,292	4,228
Herkimer	78,574	81,800	90,479	84,839	135,118	95,242	160,390
Jefferson	322,850	362,752	198,987	256,283	196,264	196,745	193,735
Kings	521,953	566,501	486,028	626,992	604,970	630,565	600,279
Lewis	135,143	137,359	86,156	87,854	71,412	79,470	75,523
Livingston	52,795	36,560	36,469	38,833	36,944	49,377	38,788
Madison	44,035	46,996	48,941	51,975	53,063	57,458	54,061
Monroe	1,585,945	1,509,993	1,423,561	913,962	508,606	528,427	544,373
Montgomery	135,711	89,402	68,249	129,769	110,641	124,695	151,505
Nassau	812,197	804,973	874,067	848,824	684,626	721,109	803,138
New York	495,550	514,499	426,709	432,541	443,438	428,682	417,219
Niagara	424,224	459,810	1,022,873	991,665	278,747	272,411	272,718
Oneida	237,051	244,200	238,462	255,968	215,511	228,173	234,247
Onondaga	635,032	629,765	484,681	397,940	601,511	632,376	602,885
Ontario	227,963	245,722	237,788	321,764	241,853	275,221	274,222
Orange	206,148	177,520	170,357	215,119	183,408	197,458	198,105
Orleans	115,878	149,337	117,706	119,737	160,714	161,579	178,901
Oswego	273,811	308,357	288,569	300,629	334,343	339,421	323,914
Otsego	30,791	32,580	36,485	39,143	37,266	42,552	39,441
Putnam	81,589	80,845	50,604	54,767	54,443	57,056	57,568
Queens	692,540	666,054	600,325	614,799	607,559	643,912	665,546
Rensselaer	72,433	69,899	70,250	75,528	83,467	86,376	91,954
Richmond	196,252	194,385	193,352	193,584	212,706	216,563	230,894
Rockland	256,370	220,824	226,674	263,089	245,866	259,503	243,102
Saratoga	642,412	601,526	582,135	497,074	442,260	554,619	392,057



**Table 5.2:** Annual agricultural/industrial CO<sub>2</sub>-equivalent emissions (metric tons) by county (*continued*)

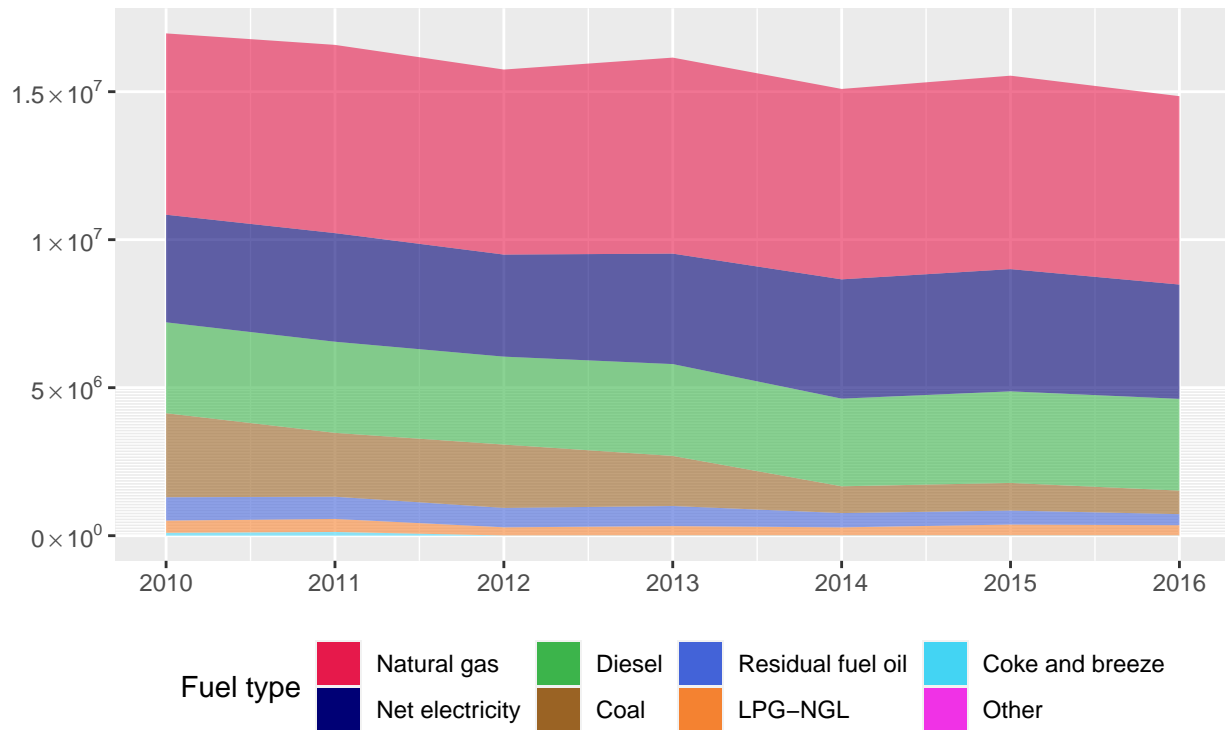
County	2010	2011	2012	2013	2014	2015	2016
Schenectady	86,974	91,285	85,439	82,578	115,627	114,722	110,851
Schoharie	19,414	22,344	22,055	23,942	24,833	27,559	25,516
Schuyler	132,564	197,421	193,079	198,382	152,206	159,598	161,948
Seneca	62,753	65,740	46,157	52,387	47,594	47,523	46,477
St. Lawrence	274,331	328,276	344,237	380,605	365,319	349,451	297,904
Steuben	239,293	225,349	192,541	245,494	188,509	218,552	181,768
Suffolk	1,523,350	1,511,549	1,579,211	1,786,421	1,930,361	2,004,109	1,543,858
Sullivan	43,427	43,992	49,653	44,776	33,323	34,627	36,456
Tioga	34,475	36,469	37,148	36,004	36,908	51,644	49,130
Tompkins	43,860	45,078	44,350	48,205	46,811	53,138	51,140
Ulster	115,742	118,966	125,445	145,614	146,859	144,798	158,820
Warren	189,774	197,925	168,033	237,750	264,370	247,166	304,714
Washington	347,343	300,623	299,842	268,102	245,823	251,483	247,762
Wayne	121,358	107,414	105,263	104,340	102,889	86,004	93,387
Westchester	685,637	693,390	615,729	596,628	597,500	585,398	623,409
Wyoming	152,159	188,486	142,288	146,265	139,337	149,618	99,440
Yates	47,366	53,609	44,574	50,193	61,177	76,280	68,484
State	16,969,286	16,580,989	15,747,176	16,150,878	15,092,564	15,540,490	14,847,892

**Table 5.3:** CO<sub>2</sub>-equivalent agricultural/industrial GHG emissions per capita, metric tons

County	2010	2011	2012	2013	2014	2015	2016
Albany	2.69	1.24	1.14	1.23	1.27	1.23	1.36
Allegany	1.68	1.79	1.72	1.83	1.90	1.96	1.82
Bronx	0.14	0.13	0.12	0.13	0.11	0.13	0.15
Broome	0.53	0.87	0.67	0.83	0.72	0.77	0.47
Cattaraugus	4.21	4.38	3.87	4.18	4.18	4.02	3.95
Cayuga	1.96	2.14	1.67	1.87	2.12	2.26	2.18
Chautauqua	2.10	2.30	1.69	1.86	2.34	2.45	2.61
Chemung	1.93	2.05	2.27	2.39	1.97	1.99	1.92
Chenango	0.74	0.92	1.52	0.99	2.06	1.90	2.30
Clinton	2.18	2.18	2.16	2.60	2.27	2.18	2.30
Columbia	0.91	0.92	0.91	0.79	0.98	1.04	0.81
Cortland	0.91	1.07	1.08	1.07	1.17	1.28	1.22
Delaware	1.53	1.42	1.42	1.53	1.26	1.29	1.25
Dutchess	0.71	0.72	0.70	0.69	0.66	0.69	0.71
Erie	1.10	1.05	0.82	0.95	1.16	1.14	1.03
Essex	6.71	6.59	5.95	6.48	7.13	6.76	6.02
Franklin	3.24	3.68	3.67	3.75	1.63	1.76	1.42
Fulton	0.92	0.96	0.83	0.89	1.12	1.20	1.11
Genesee	1.42	1.57	1.54	1.57	1.75	1.75	1.74
Greene	4.87	2.11	0.52	0.55	0.51	0.57	0.56
Hamilton	0.92	0.95	0.90	0.93	0.95	0.91	0.93
Herkimer	1.22	1.27	1.40	1.32	2.12	1.51	2.56
Jefferson	2.77	3.07	1.65	2.15	1.65	1.68	1.70
Kings	0.21	0.22	0.19	0.24	0.23	0.24	0.23
Lewis	4.99	5.07	3.16	3.23	2.62	2.94	2.81
Livingston	0.81	0.56	0.56	0.60	0.57	0.76	0.60
Madison	0.60	0.64	0.68	0.72	0.73	0.80	0.76
Monroe	2.13	2.02	1.90	1.22	0.68	0.71	0.73
Montgomery	2.70	1.79	1.37	2.61	2.22	2.51	3.07
Nassau	0.61	0.60	0.65	0.63	0.50	0.53	0.59
New York	0.31	0.32	0.26	0.27	0.27	0.26	0.25
Niagara	1.96	2.13	4.76	4.63	1.31	1.28	1.29
Oneida	1.01	1.04	1.02	1.09	0.92	0.98	1.01
Onondaga	1.36	1.35	1.04	0.85	1.28	1.35	1.29
Ontario	2.11	2.26	2.19	2.94	2.20	2.51	2.50
Orange	0.55	0.47	0.46	0.57	0.49	0.52	0.52
Orleans	2.70	3.50	2.77	2.83	3.83	3.88	4.33
Oswego	2.24	2.53	2.37	2.48	2.77	2.83	2.72
Otsego	0.50	0.53	0.59	0.64	0.61	0.70	0.66
Putnam	0.82	0.81	0.51	0.55	0.55	0.57	0.58
Queens	0.31	0.29	0.26	0.27	0.26	0.28	0.29
Rensselaer	0.45	0.44	0.44	0.47	0.52	0.54	0.57
Richmond	0.42	0.41	0.41	0.41	0.45	0.46	0.49
Rockland	0.82	0.70	0.71	0.82	0.76	0.80	0.74

**Table 5.3:** CO<sub>2</sub>-equivalent agricultural/industrial GHG emissions per capita, metric tons (*continued*)

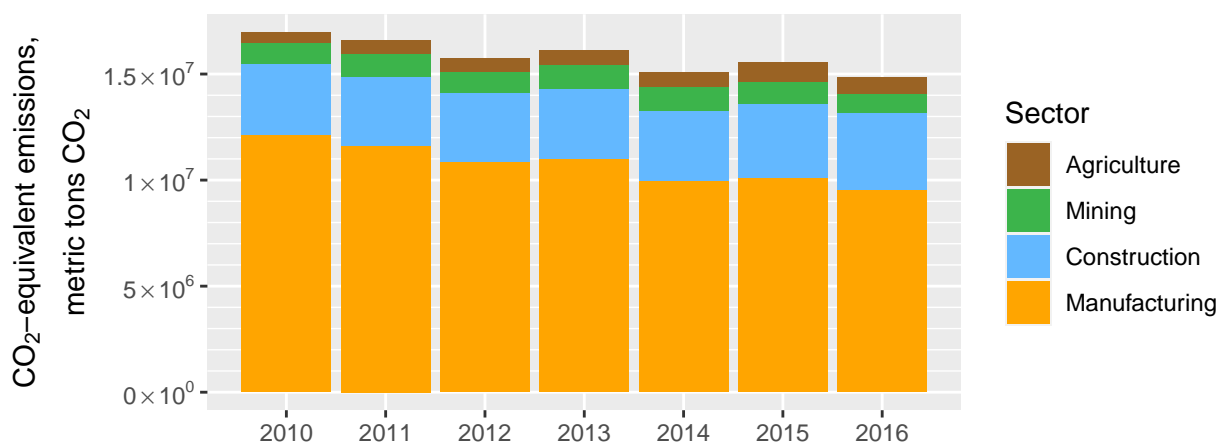
County	2010	2011	2012	2013	2014	2015	2016
Saratoga	2.92	2.72	2.62	2.22	1.97	2.45	1.73
Schenectady	0.56	0.59	0.55	0.53	0.75	0.74	0.72
Schoharie	0.59	0.68	0.69	0.75	0.78	0.88	0.81
Schuyler	7.24	10.68	10.39	10.72	8.32	8.77	8.95
Seneca	1.78	1.86	1.30	1.49	1.36	1.36	1.34
St. Lawrence	2.45	2.92	3.06	3.39	3.27	3.15	2.71
Steuben	2.42	2.27	1.94	2.48	1.92	2.24	1.88
Suffolk	1.02	1.01	1.05	1.19	1.29	1.34	1.03
Sullivan	0.56	0.57	0.65	0.58	0.44	0.46	0.49
Tioga	0.68	0.72	0.74	0.72	0.74	1.05	1.01
Tompkins	0.43	0.44	0.43	0.46	0.45	0.51	0.49
Ulster	0.63	0.65	0.69	0.80	0.81	0.81	0.89
Warren	2.89	3.01	2.57	3.65	4.07	3.83	4.72
Washington	5.49	4.76	4.75	4.27	3.94	4.04	4.01
Wayne	1.29	1.15	1.13	1.13	1.12	0.94	1.03
Westchester	0.72	0.72	0.64	0.62	0.62	0.60	0.64
Wyoming	3.61	4.50	3.41	3.53	3.38	3.65	2.44
Yates	1.87	2.11	1.76	2.00	2.43	3.04	2.75
State	0.87	0.85	0.80	0.82	0.77	0.79	0.75



**Figure 5.1:** CO<sub>2</sub>-equivalent agricultural/industrial emissions per fuel type, metric tons

As Figure 5.1 illustrates, emissions from coal were about 17% of the region's total industrial and agricultural greenhouse gas emissions in 2010, but about 5% by 2016.

### 5.3 Sector analysis



**Figure 5.2:** CO<sub>2</sub>-equivalent agricultural/industrial emissions per sector, metric tons

Figure 5.2 provides an overview of GHG emissions by economic sector for the region. Table 5.4 breaks down each sector's 2016 emissions by county.

**Table 5.4:** 2016 CO<sub>2</sub>-equivalent GHG emissions per sector and county, metric tons CO<sub>2</sub>

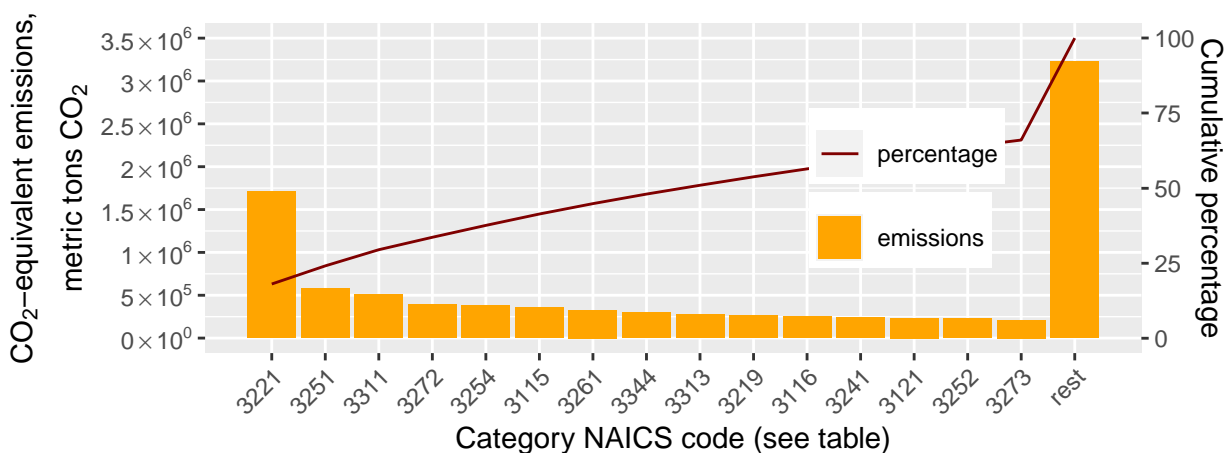
County	Manufacturing	Construction	Mining	Agriculture	Total
Albany	340,565	61,707	11,138	6,112	419,522
Allegany	33,490	6,230	28,902	17,074	85,696
Bronx	128,805	82,816	493	0	212,114
Broome	45,682	34,991	3,828	6,806	91,306
Cattaraugus	69,341	12,125	204,840	20,321	306,627
Cayuga	126,920	18,620	505	23,812	169,856
Chautauqua	238,624	18,824	50,303	29,828	337,579
Chemung	110,401	12,337	37,283	5,837	165,858
Chenango	87,216	7,122	686	16,726	111,751
Clinton	158,132	12,903	4,403	10,920	186,359
Columbia	16,696	19,785	2,779	9,880	49,140
Cortland	35,577	7,177	2,882	12,960	58,596
Delaware	24,791	9,669	8,713	13,772	56,944
Dutchess	111,298	76,369	12,125	10,022	209,815
Erie	670,569	157,727	99,408	19,928	947,632
Essex	215,812	8,482	181	4,744	229,218
Franklin	45,840	7,666	1,769	16,521	71,796
Fulton	44,151	10,067	1,010	4,339	59,567
Genesee	62,144	11,584	15,821	12,346	101,896
Greene	8,757	12,518	2,202	3,290	26,767
Hamilton	540	1,812	1,769	107	4,228
Herkimer	128,507	10,927	4,476	16,480	160,390
Jefferson	146,270	20,435	9,350	17,679	193,735
Kings	334,416	262,907	2,196	760	600,279
Lewis	45,957	4,258	1,697	23,611	75,523
Livingston	10,355	12,560	1,596	14,277	38,788
Madison	15,643	14,095	2,274	22,050	54,061
Monroe	408,870	114,868	8,591	12,044	544,373
Montgomery	122,113	7,099	5,812	16,481	151,505
Nassau	400,208	377,636	23,564	1,729	803,138
New York	158,821	140,090	118,063	246	417,219
Niagara	224,508	33,633	1,236	13,341	272,718
Oneida	166,923	36,101	4,374	26,849	234,247
Onondaga	496,366	88,012	2,827	15,680	602,885
Ontario	222,484	24,469	3,789	23,481	274,222
Orange	106,083	78,457	2,779	10,786	198,105
Orleans	155,026	7,938	5,996	9,940	178,901
Oswego	285,722	25,925	2,779	9,488	323,914
Otsego	11,320	9,551	1,191	17,379	39,441
Putnam	12,565	41,995	1,769	1,239	57,568
Queens	285,168	367,841	12,402	134	665,546
Rensselaer	46,439	35,280	2,779	7,455	91,954
Richmond	144,821	85,735	0	338	230,894
Rockland	172,023	65,182	5,338	559	243,102
Saratoga	337,256	45,553	505	8,742	392,057
Schenectady	79,474	27,857	977	2,543	110,851
Schoharie	5,239	7,377	4,124	8,776	25,516

**Table 5.4:** 2016 CO<sub>2</sub>-equivalent GHG emissions per sector and county, metric tons CO<sub>2</sub> (*continued*)

County	Manufacturing	Construction	Mining	Agriculture	Total
Schuyler	150,335	2,728	505	8,381	161,948
Seneca	19,586	6,257	1,769	18,864	46,477
St. Lawrence	198,978	15,310	51,491	32,125	297,904
Steuben	129,390	11,872	4,006	36,500	181,768
Suffolk	836,680	649,598	32,490	25,090	1,543,858
Sullivan	10,342	17,434	4,269	4,411	36,456
Tioga	25,527	8,459	4,814	10,330	49,130
Tompkins	12,612	13,148	12,406	12,974	51,140
Ulster	101,068	39,310	10,393	8,049	158,820
Warren	286,189	15,185	2,131	1,208	304,714
Washington	216,281	10,805	2,817	17,859	247,762
Wayne	47,163	19,729	4,651	21,844	93,387
Westchester	282,850	269,260	68,960	2,339	623,409
Wyoming	73,167	7,032	0	19,242	99,440
Yates	22,541	5,513	0	40,430	68,484
New York State totals	9,510,637	3,627,955	922,225	787,076	14,847,892

The more detailed breakdowns by NAICS category in the following sub-sections yield greater insight into the sources of these emissions. For each of the four sectors, the following pages provide a plot showing the relative emissions quantities for sub-categories of each sector, and the distribution of these emissions across the region. The breakdown to this level of detail makes it possible in some cases to identify specific manufacturing operations responsible for large quantities of emissions. In many cases, these operations are easily identified because they appear in a *large energy users* dataset accompanying the *county energy estimates* dataset used primarily in this analysis [16]. Unfortunately, only a fraction of manufacturing operations in the region count as large energy users by the criteria of the EPA’s Greenhouse Gas Reporting Program, so further research will be necessary to identify the next tier of significant GHG emitters. Fortunately, additional detail to the level of the entire NAICS six-digit classification can be available for analysis, although it is not presented in this report due to time and space limitations.

### 5.3.1 Manufacturing

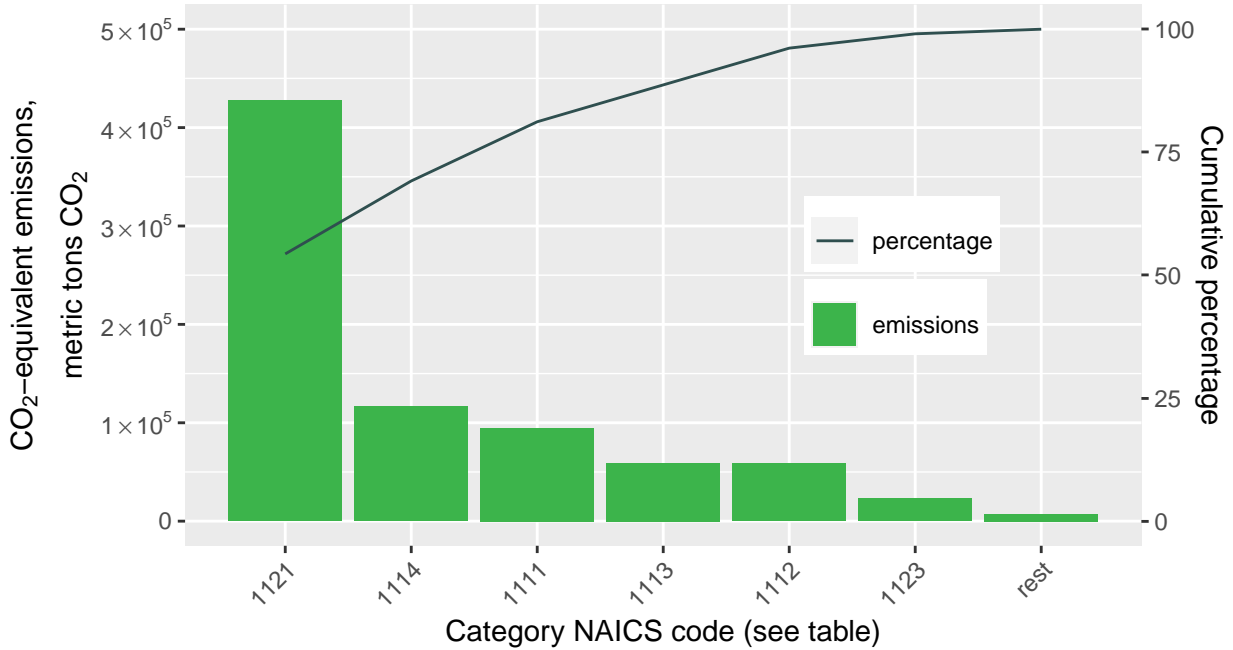


**Figure 5.3:** Manufacturing categories with highest CO<sub>2</sub>-equivalent GHG emissions

**Table 5.5:** Manufacturing categories with highest CO<sub>2</sub>-equivalent GHG emissions

NAICS	Manufacturing category	CO <sub>2</sub> -equivalent emissions, tonnes	County distribution	Principal counties
3221	Pulp, Paper, and Paperboard Mills	1,714,816		Essex, Washington, Onondaga, Warren
3251	Basic Chemical Manufacturing	575,003		Oswego, Niagara, Orleans, Erie
3311	Iron and Steel Mills and Ferroalloy Manufacturing	512,866		Erie, Chautauqua, Kings, Cayuga
3272	Glass and Glass Product Manufacturing	393,458		Ontario, Chemung, Cayuga, Suffolk
3254	Pharmaceutical and Medicine Manufacturing	377,718		Suffolk, Rockland, Clinton, Nassau
3115	Dairy Product Manufacturing	360,944		Erie, Chenango, Chautauqua, Kings
3261	Plastics Product Manufacturing	328,496		Monroe, Suffolk, Ontario, Onondaga
3344	Semiconductor and Other Electronic Component Manufacturing	302,847		Dutchess, Suffolk, Saratoga, Nassau
3313	Alumina and Aluminum Production and Processing	279,621		Oswego, St. Lawrence, Montgomery
3219	Other Wood Product Manufacturing	268,180		Suffolk, Kings, Chautauqua, Montgomery
3116	Animal Slaughtering and Processing	251,413		Bronx, Erie, Orange
3241	Petroleum and Coal Products Manufacturing	244,524		Nassau, Onondaga, Jefferson, Erie
3121	Beverage Manufacturing	234,578		Onondaga, Monroe, Queens, Suffolk
3252	Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	224,525		Saratoga, Albany, Schenectady, Suffolk
3273	Cement and Concrete Product Manufacturing	211,248		Warren, Albany, Suffolk
0	Remaining manufacturing categories	3,230,391		Suffolk, Erie, Westchester, Monroe

### 5.3.2 Agriculture



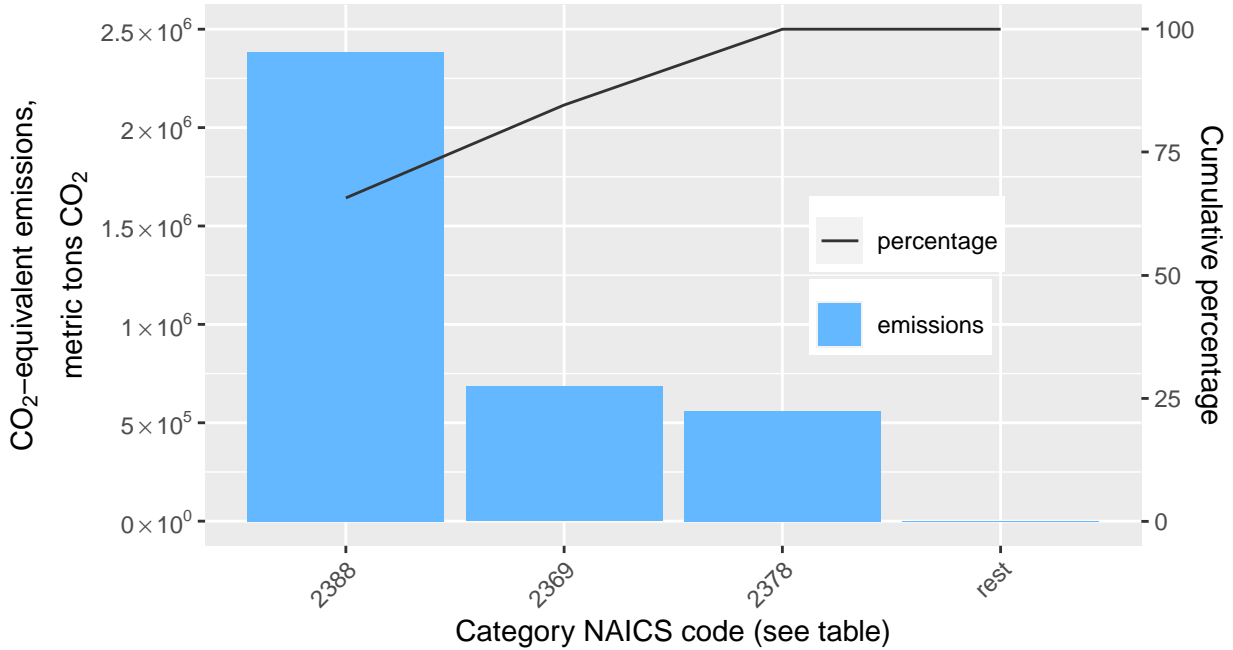
**Figure 5.4:** Agriculture categories with highest CO<sub>2</sub>-equivalent GHG emissions

**Table 5.6:** Agricultural categories with highest CO<sub>2</sub>-equivalent GHG emissions

NAICS	Agriculture category	CO <sub>2</sub> -equivalent emissions, tonnes	County distribution	Principal counties
1121	Cattle Ranching and Farming	427,567		Yates, St. Lawrence, Steuben, Lewis
1114	Greenhouse, Nursery, and Floriculture Production	116,724		Suffolk, Erie, Monroe, Steuben
1111	Oilseed and Grain Farming	94,703		Cayuga, Ontario, Wayne, Steuben
1113	Fruit and Tree Nut Farming	58,988		Chautauqua, Wayne, Yates, Suffolk
1112	Vegetable and Melon Farming	58,817		Suffolk, Orange, Columbia, Niagara
1123	Poultry and Egg Production	22,919		Suffolk, Erie, Yates
0	Remaining agriculture categories	7,354		Erie, Washington, Cattaraugus, Chautauqua



### 5.3.3 Construction

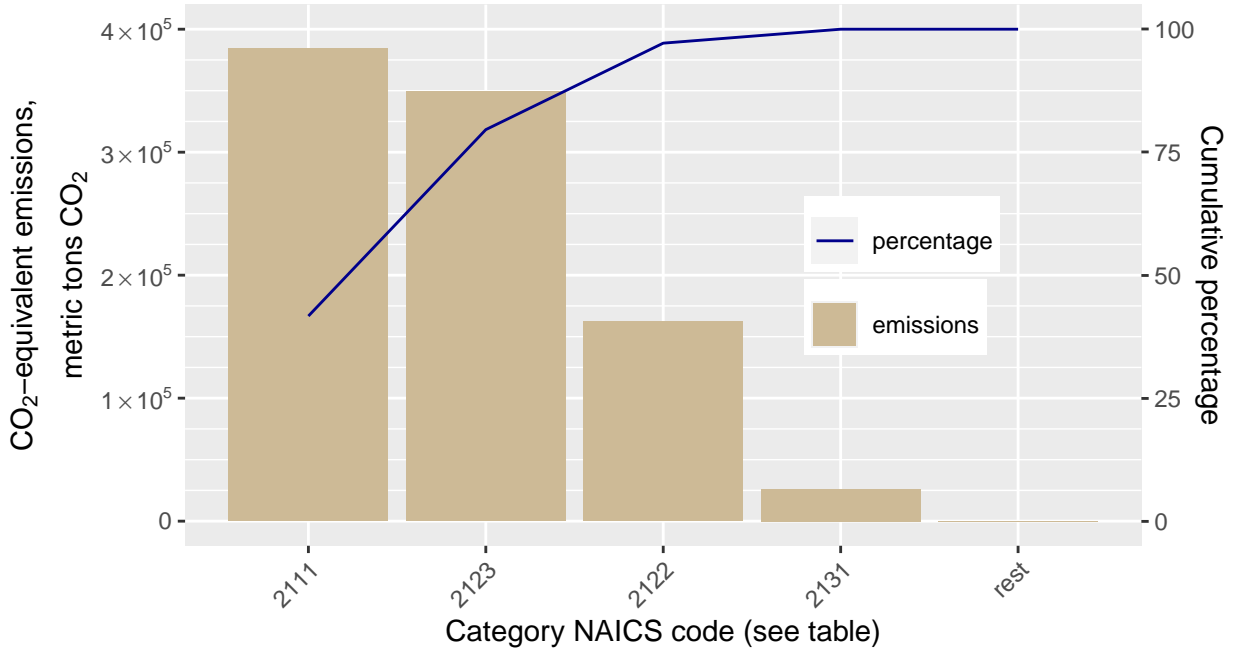


**Figure 5.5:** Construction categories with CO<sub>2</sub>-equivalent GHG emissions

**Table 5.7:** Construction categories with CO<sub>2</sub>-equivalent GHG emissions

NAICS Construction category		CO <sub>2</sub> -equivalent emissions, tonnes	County distribution	Principal counties
2388	Specialty Trade Contractors (unclassified)	2,383,845		Suffolk, Nassau, Queens, Kings
2369	Building Construction (unclassified)	685,034		Suffolk, Nassau, Queens, Kings
2378	Heavy and Civil Engineering Construction (unclassified)	559,074		Suffolk, Westchester, Nassau, Erie
0	Remaining construction categories	0		

### 5.3.4 Mining



**Figure 5.6:** Mining categories with CO<sub>2</sub>-equivalent GHG emissions

**Table 5.8:** Mining categories with CO<sub>2</sub>-equivalent GHG emissions

NAICS Mining category		CO <sub>2</sub> -equivalent emissions, tonnes	County distribution	Principal counties
2111	Oil and Gas Extraction	384,499		Erie, Cattaraugus, Chautauqua, Westchester
2123	Nonmetallic Mineral Mining and Quarrying	349,485		Cattaraugus, Suffolk, Dutchess, Ulster
2122	Metal Ore Mining	162,103		New York, St. Lawrence, Westchester
2131	Support Activities for Mining	26,135		Chautauqua, Cattaraugus, New York, Erie
0	Remaining mining categories	0		

## 6 Limitations and caveats

1. The NREL dataset and the heuristic methods used to generate the estimates it contains deserve scrutiny – ideally, by comparison with independent sources of information. This may be difficult as the NREL dataset is apparently the most detailed data source available in the areas it covers.
2. The presentation of agricultural GHG emissions provided in this report is substantially incomplete as it includes no information about GHG emissions due to use (or overuse) of agricultural chemicals including nitrate fertilizers. This information can be obtained; it just requires more work.
3. The GHG emissions profiled in this report are those resulting from fuel combustion for generation of heat, kinetic energy, or electricity. Halocarbon emissions as a byproduct of industrial processes are potentially a significant contributor to global warming because of their very high global warming potentials. The EPA requires reporting of emissions of many of these chemicals as toxic pollutants rather than as greenhouse gases; the relevant reports may provide information useful in analyzing greenhouse gas emissions as well.
4. Unfortunately omitted from the NREL dataset is data on GHG emissions from waste management operations such as landfills. This information is also readily obtained and will be included in any full inventory of GHG emissions across the region.

## 7 Next steps

1. Investigate alternative methods and data sources that could be used to validate energy use and GHG emissions for industry and agriculture based on the NREL IEDB. Useful data sources for this purpose have already been identified, and include agricultural census information from the US Department of Agriculture [26][27], US Census Bureau information[25][2], and information from the New York State government including NYSERDA's *Patterns and Trends* report [20] and from the [data.ny.gov](https://data.ny.gov) portal.
2. Conduct and report similar analyses for other sources of greenhouse gas emissions: residential and commercial buildings, transportation, agricultural emissions unrelated to energy use, etc.

# Appendices

## A EPA emission factors

Source: [23]. The EPA publication includes additional tables; the ones shown here are those directly bearing on the agricultural and industrial sectors' greenhouse gas emissions.

**Table A.1:** Emission factors, liquid fuels

Fuel Type	Heat Content (HHV), mmBtu per gallon	CO <sub>2</sub> Factor, kg CO <sub>2</sub> per mmBtu	CH <sub>4</sub> Factor, g CH <sub>4</sub> per mmBtu	N <sub>2</sub> O Factor, g N <sub>2</sub> O per mmBtu	CO <sub>2</sub> Factor, kg CO <sub>2</sub> per gallon	CH <sub>4</sub> Factor, g CH <sub>4</sub> per gallon	N <sub>2</sub> O Factor, g N <sub>2</sub> O per gallon
Asphalt and Road Oil	0.158	75.36	3.0	0.60	11.91	0.47	0.09
Aviation Gasoline	0.120	69.25	3.0	0.60	8.31	0.36	0.07
Butane	0.103	64.77	3.0	0.60	6.67	0.31	0.06
Butylene	0.105	68.72	3.0	0.60	7.22	0.32	0.06
Crude Oil	0.138	74.54	3.0	0.60	10.29	0.41	0.08
Distillate Fuel Oil No. 1	0.139	73.25	3.0	0.60	10.18	0.42	0.08
Distillate Fuel Oil No. 2	0.138	73.96	3.0	0.60	10.21	0.41	0.08
Distillate Fuel Oil No. 4	0.146	75.04	3.0	0.60	10.96	0.44	0.09
Ethane	0.068	59.60	3.0	0.60	4.05	0.20	0.04
Ethylene	0.058	65.96	3.0	0.60	3.83	0.17	0.03
Heavy Gas Oils	0.148	74.92	3.0	0.60	11.09	0.44	0.09
Isobutane	0.099	64.94	3.0	0.60	6.43	0.30	0.06
Isobutylene	0.103	68.86	3.0	0.60	7.09	0.31	0.06
Kerosene	0.135	75.20	3.0	0.60	10.15	0.41	0.08
Kerosene-Type Jet Fuel	0.135	72.22	3.0	0.60	9.75	0.41	0.08
Liquefied Petroleum Gases (LPG)	0.092	61.71	3.0	0.60	5.68	0.28	0.06
Lubricants	0.144	74.27	3.0	0.60	10.69	0.43	0.09
Motor Gasoline	0.125	70.22	3.0	0.60	8.78	0.38	0.08
Naphtha (<401 deg F)	0.125	68.02	3.0	0.60	8.50	0.38	0.08
Natural Gasoline	0.110	66.88	3.0	0.60	7.36	0.33	0.07
Other Oil (>401 deg F)	0.139	76.22	3.0	0.60	10.59	0.42	0.08
Pentanes Plus	0.110	70.02	3.0	0.60	7.70	0.33	0.07
Petrochemical	0.125	71.02	3.0	0.60	8.88	0.38	0.08
Feedstocks							
Petroleum Coke	0.143	102.41	3.0	0.60	14.64	0.43	0.09
Propane	0.091	62.87	3.0	0.60	5.72	0.27	0.05
Propylene	0.091	67.77	3.0	0.60	6.17	0.27	0.05
Residual Fuel Oil No. 5	0.140	72.93	3.0	0.60	10.21	0.42	0.08
Residual Fuel Oil No. 6	0.150	75.10	3.0	0.60	11.27	0.45	0.09
Special Naphtha	0.125	72.34	3.0	0.60	9.04	0.38	0.08
Unfinished Oils	0.139	74.54	3.0	0.60	10.36	0.42	0.08
Used Oil	0.138	74.00	3.0	0.60	10.21	0.41	0.08
Biodiesel (100%)	0.128	73.84	1.1	0.11	9.45	0.14	0.01
Ethanol (100%)	0.084	68.44	1.1	0.11	5.75	0.09	0.01
Rendered Animal Fat	0.125	71.06	1.1	0.11	8.88	0.14	0.01
Vegetable Oil	0.120	81.55	1.1	0.11	9.79	0.13	0.01
North American Softwood	NA	94.40	1.9	0.42	NA	NA	NA
North American Hardwood	NA	93.70	1.9	0.42	NA	NA	NA
Bagasse	NA	95.50	1.9	0.42	NA	NA	NA
Bamboo	NA	93.70	1.9	0.42	NA	NA	NA
Straw	NA	95.10	1.9	0.42	NA	NA	NA

**Table A.2:** Emission factors, solid fuels

Fuel Type	Heat Content (HHV), mmBtu per short ton	CO <sub>2</sub> Factor, kg CO <sub>2</sub> per mmBtu	CH <sub>4</sub> Factor, g CH <sub>4</sub> per mmBtu	N <sub>2</sub> O Factor, g N <sub>2</sub> O per mmBtu	CO <sub>2</sub> Factor, kg CO <sub>2</sub> per short ton	CH <sub>4</sub> Factor, g CH <sub>4</sub> per short ton	N <sub>2</sub> O Factor, g N <sub>2</sub> O per short ton
Anthracite Coal	25.09	103.69	11.0	1.6	2602	276	40
Bituminous Coal	24.93	93.28	11.0	1.6	2325	274	40
Sub-bituminous Coal	17.25	97.17	11.0	1.6	1676	190	28
Lignite Coal	14.21	97.72	11.0	1.6	1389	156	23
Mixed (Commercial Sector)	21.39	94.27	11.0	1.6	2016	235	34
Mixed (Electric Power Sector)	19.73	95.52	11.0	1.6	1885	217	32
Mixed (Industrial Coking)	26.28	93.90	11.0	1.6	2468	289	42
Mixed (Industrial Sector)	22.35	94.67	11.0	1.6	2116	246	36
Coal Coke	24.80	113.67	11.0	1.6	2819	273	40
Municipal Solid Waste	9.95	90.70	32.0	4.2	902	318	42
Petroleum Coke (Solid)	30.00	102.41	32.0	4.2	3072	960	126
Plastics	38.00	75.00	32.0	4.2	2850	1216	160
Tires	28.00	85.97	32.0	4.2	2407	896	118
Agricultural Byproducts	8.25	118.17	32.0	4.2	975	264	35
Peat	8.00	111.84	32.0	4.2	895	256	34
Solid Byproducts	10.39	105.51	32.0	4.2	1096	332	44
Wood and Wood Residuals	17.48	93.80	7.2	3.6	1640	126	63

**Table A.3:** Emission factors, gaseous fuels

Fuel Type	Heat Content (HHV), mmBtu per scf	CO <sub>2</sub> Factor, kg CO <sub>2</sub> per mmBtu	CH <sub>4</sub> Factor, g CH <sub>4</sub> per mmBtu	N <sub>2</sub> O Factor, g N <sub>2</sub> O per mmBtu	CO <sub>2</sub> Factor, kg CO <sub>2</sub> per scf	CH <sub>4</sub> Factor, g CH <sub>4</sub> per scf	N <sub>2</sub> O Factor, g N <sub>2</sub> O per scf
Natural Gas	0.001026	53.06	1.000	0.10	0.054440	0.001030	0.000100
Blast Furnace Gas	0.000092	274.32	0.022	0.10	0.025240	0.000002	0.000009
Coke Oven Gas	0.000599	46.85	0.480	0.10	0.028060	0.000288	0.000060
Fuel Gas	0.001388	59.00	3.000	0.60	0.081890	0.004164	0.000833
Propane Gas	0.002516	61.46	3.000	0.60	0.154630	0.007548	0.001510
Landfill Gas	0.000485	52.07	3.200	0.63	0.025254	0.001552	0.000306
Other Biomass Gases	0.000655	52.07	3.200	0.63	0.034106	0.002096	0.000413

**Table A.4:** Emission factors, grid electricity

eGRID Subregion	Total Output			Non-Baseload		
	CO <sub>2</sub> Factor, (kg / MWh)	CH <sub>4</sub> Factor, (g / MWh)	N <sub>2</sub> O Factor, (g / MWh)	CO <sub>2</sub> Factor, (kg / MWh)	CH <sub>4</sub> Factor, (g / MWh)	N <sub>2</sub> O Factor, (g / MWh)
AKGD (ASCC Alaska Grid)	486.39	34.93	4.99	620.42	49.90	7.26
AKMS (ASCC Miscellaneous)	228.20	10.43	1.81	695.72	30.84	5.44
AZNM (WECC Southwest)	473.37	35.83	5.44	628.13	44.00	6.35
CAMX (WECC California)	239.45	14.97	1.81	427.69	20.41	2.72
ERCT (ERCOT All)	457.77	34.47	4.99	636.30	48.99	6.80
FRCC (FRCC All)	458.90	34.02	4.54	539.09	35.38	4.99
HIMS (HICC Miscellaneous)	522.54	43.09	6.80	694.00	66.68	10.43
HIOA (HICC Oahu)	754.28	82.10	12.70	742.76	69.40	10.89
MROE (MRO East)	756.68	70.76	11.79	789.30	70.76	11.34
MROW (MRO West)	561.91	52.16	9.07	826.45	69.85	13.15
NEWE (NPCC New England)	253.20	40.82	5.44	442.30	39.01	4.99
NWPP (WECC Northwest)	295.38	27.67	4.08	691.68	56.25	9.07
NYCW (NPCC NYC/Westchester)	288.39	9.98	1.36	481.58	9.98	0.91
NYLI (NPCC Long Island)	534.47	57.15	7.26	607.27	16.33	1.81
NYUP (NPCC Upstate NY)	133.67	9.53	1.36	461.85	27.67	3.63
RFCE (RFC East)	343.91	22.68	4.08	650.63	35.83	7.71
RFCM (RFC Michigan)	576.97	30.39	8.16	819.23	45.81	11.34
RFCW (RFC West)	564.00	48.99	8.62	877.43	78.02	13.15
RMPA (WECC Rockies)	620.42	62.14	9.07	765.80	66.68	9.53
SPNO (SPP North)	640.65	67.59	9.98	903.01	91.63	13.15
SPSO (SPP South)	566.22	43.09	6.80	754.10	54.88	8.62
SRMV (SERC Mississippi Valley)	380.52	22.68	3.18	537.96	32.21	4.54
SRMW (SERC Midwest)	731.46	37.19	11.79	886.86	38.10	14.06
SRSO (SERC South)	494.14	39.46	5.90	659.30	52.16	7.71
SRTV (SERC Tennessee Valley)	537.69	42.18	7.71	797.14	61.23	11.34
SRVC (SERC Virginia/Carolina)	365.28	30.39	4.99	645.10	50.35	8.62
US Average	452.87	36.29	5.90	680.84	50.35	8.16

**Table A.5:** Global warming potentials (IPCC AR4)

Gas	100-Year GWP	Gas	100-Year GWP
CO <sub>2</sub>	1	HFC-236ea	1370
CH <sub>4</sub>	25	HFC-236fa	9810
N <sub>2</sub> O	298	HFC-245ca	693
HFC-23	14800	HFC-245fa	1030
HFC-32	675	HFC-365mfc	794
HFC-41	92	HFC-43-10mee	1640
HFC-125	3500	SF <sub>6</sub>	22800
HFC-134	1100	NF <sub>3</sub>	17200
HFC-134a	1430	CF <sub>4</sub>	7390
HFC-143	353	C <sub>2</sub> F <sub>6</sub>	12200
HFC-143a	4470	C <sub>3</sub> F <sub>8</sub>	8830
HFC-152	53	c-C <sub>4</sub> F <sub>8</sub>	10300
HFC-152a	124	C <sub>4</sub> F <sub>10</sub>	8860
HFC-161	12	C <sub>5</sub> F <sub>12</sub>	9160
HFC-227ea	3220	C <sub>6</sub> F <sub>14</sub>	9300
HFC-236cb	1340	C <sub>10</sub> F <sub>18</sub>	>7,500

**Table A.6:** Global warming potentials for blended refrigerants (IPCC AR4)

ASHRAE #	100-year GWP	Blend Composition
R-401A	16	53% HCFC-22 , 34% HCFC-124 , 13% HFC-152a
R-401B	14	61% HCFC-22 , 28% HCFC-124 , 11% HFC-152a
R-401C	19	33% HCFC-22 , 52% HCFC-124 , 15% HFC-152a
R-402A	2100	38% HCFC-22 , 6% HFC-125 , 2% propane
R-402B	1330	6% HCFC-22 , 38% HFC-125 , 2% propane
R-403B	3444	56% HCFC-22 , 39% PFC-218 , 5% propane
R-404A	3922	44% HFC-125 , 4% HFC-134a , 52% HFC 143a
R-406A	0	55% HCFC-22 , 41% HCFC-142b , 4% isobutane
R-407A	2107	20% HFC-32 , 40% HFC-125 , 40% HFC-134a
R-407B	2804	10% HFC-32 , 70% HFC-125 , 20% HFC-134a
R-407C	1774	23% HFC-32 , 25% HFC-125 , 52% HFC-134a
R-407D	1627	15% HFC-32 , 15% HFC-125 , 70% HFC-134a
R-407E	1552	25% HFC-32 , 15% HFC-125 , 60% HFC-134a
R-408A	2301	47% HCFC-22 , 7% HFC-125 , 46% HFC 143a
R-409A	0	60% HCFC-22 , 25% HCFC-124 , 15% HCFC-142b
R-410A	2088	50% HFC-32 , 50% HFC-125
R-410B	2229	45% HFC-32 , 55% HFC-125
R-411A	14	87.5% HCFC-22 , 11 HFC-152a , 1.5% propylene
R-411B	4	94% HCFC-22 , 3% HFC-152a , 3% propylene
R-413A	2053	88% HFC-134a , 9% PFC-218 , 3% isobutane
R-414A	0	51% HCFC-22 , 28.5% HCFC-124 , 16.5% HCFC-142b
R-414B	0	5% HCFC-22 , 39% HCFC-124 , 9.5% HCFC-142b
R-417A	2346	46.6% HFC-125 , 5% HFC-134a , 3.4% butane
R-422A	3143	85.1% HFC-125 , 11.5% HFC-134a , 3.4% isobutane
R-422D	2729	65.1% HFC-125 , 31.5% HFC-134a , 3.4% isobutane
R-423A	2280	47.5% HFC-227ea , 52.5% HFC-134a ,
R-424A	2440	50.5% HFC-125, 47% HFC-134a, 2.5% butane/pentane
R-426A	1508	5.1% HFC-125, 93% HFC-134a, 1.9% butane/pentane
R-428A	3607	77.5% HFC-125 , 2% HFC-143a , 1.9% isobutane
R-434A	3245	63.2% HFC-125, 16% HFC-134a, 18% HFC-143a, 2.8% isobutane
R-500	32	73.8% CFC-12 , 26.2% HFC-152a , 48.8% HCFC-22
R-502	0	48.8% HCFC-22 , 51.2% CFC-115
R-504	325	48.2% HFC-32 , 51.8% CFC-115
R-507	3985	5% HFC-125 , 5% HFC143a
R-508A	13214	39% HFC-23 , 61% PFC-116
R-508B	13396	46% HFC-23 , 54% PFC-116

## B Additional emissions tables

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
<b>Albany</b>								
1111. Oilseed and Grain Farming	0.0	34.5	173.1	0.0	0.0	65.4	49.0	0.0
1112. Vegetable and Melon Farming	0.0	125.2	302.9	0.0	0.0	114.4	85.7	0.0
1113. Fruit and Tree Nut Farming	0.0	138.5	271.9	0.0	0.0	102.6	76.9	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	342.8	1,006.4	0.0	0.0	380.0	284.7	0.0
1121. Cattle Ranching and Farming	0.0	411.7	1,051.5	0.0	0.0	397.0	297.5	0.0
1122. Hog and Pig Farming	0.0	2.9	6.2	0.0	0.0	2.3	1.8	0.0
1123. Poultry and Egg Production	0.0	94.6	121.1	0.0	0.0	45.7	34.3	0.0
1124. Sheep and Goat Farming	0.0	23.0	41.2	0.0	0.0	15.6	11.7	0.0
2111. Oil and Gas Extraction	7,370.7	708.7	295.8	0.0	470.2	0.0	51.0	0.0
2123. Nonmetallic Mineral Mining and Quarrying	116.2	264.4	456.5	0.0	753.8	0.0	178.2	0.0
2131. Support Activities for Mining	99.8	18.2	184.6	0.0	7.2	0.0	162.2	0.0
2369. Building Construction (unclassified)	1,110.7	1,755.2	5,732.9	0.0	0.0	177.1	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	515.1	964.1	12,143.3	0.0	0.0	1,580.2	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	5,703.0	3,391.3	27,674.1	0.0	0.0	960.1	0.0	0.0
3116. Animal Slaughtering and Processing	3,142.2	1,859.8	475.6	0.0	464.6	26.1	66.8	0.0
3121. Beverage Manufacturing	3,628.5	2,511.8	52.5	0.0	0.0	46.1	341.5	0.0
3132. Fabric Mills	4,311.9	2,387.9	18.8	0.0	0.0	12.8	0.0	0.0
3149. Other Textile Product Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	1.2	1.1	4.8	0.0	0.0	2.2	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	1.2	1.1	4.8	0.0	0.0	2.2	0.0	0.0
3162. Footwear Manufacturing	51.0	136.6	9.9	0.0	0.0	4.5	2.4	0.0
3211. Sawmills and Wood Preservation	290.3	222.1	161.2	0.0	2.5	7.3	3.9	0.0
3219. Other Wood Product Manufacturing	293.2	598.3	162.8	0.0	0.0	73.7	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	35,610.6	4,615.0	41.5	0.0	50,528.9	50.7	425.4	0.0
3231. Printing and Related Support Activities	554.0	696.4	23.4	0.0	0.0	12.5	3.6	0.0
3241. Petroleum and Coal Products Manufacturing	387.3	49.4	430.1	0.0	0.0	9.7	5.3	0.0
3251. Basic Chemical Manufacturing	679.0	31,792.5	334.9	0.0	0.0	339.4	0.0	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	34,643.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3254. Pharmaceutical and Medicine Manufacturing	643.2	344.6	500.0	0.0	0.0	22.6	0.0	0.0
3261. Plastics Product Manufacturing	1,180.5	2,152.0	18.8	0.0	412.0	138.1	0.0	0.0
3262. Rubber Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3271. Clay Product and Refractory Manufacturing	10,874.8	1,929.0	138.2	0.0	0.0	187.8	0.0	0.0
3272. Glass and Glass Product Manufacturing	407.0	150.7	38.6	0.0	1.8	17.5	0.0	0.0



**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3273. Cement and Concrete Product Manufacturing	6,849.1	5,787.1	138.2	0.0	62,189.4	189.5	303.8	7.3
3279. Other Nonmetallic Mineral Product Manufacturing	41,773.8	1,709.3	0.0	0.0	0.0	0.0	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	113.9	80.3	22.1	0.0	0.0	10.0	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	569.3	348.2	54.8	0.0	0.0	30.3	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	697.3	488.3	24.5	0.0	0.0	30.7	0.0	0.0
3332. Industrial Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	175.3	163.1	29.6	0.0	0.0	18.5	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	1,980.0	1,442.3	117.8	0.0	0.0	137.9	0.0	0.0
3344. Semiconductor and Other Electronic Component Manufacturing	1,696.2	2,228.2	64.7	0.0	0.0	39.2	5.1	0.0
3351. Electric Lighting Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3353. Electrical Equipment Manufacturing	83.2	99.0	5.4	0.0	0.0	2.4	0.0	0.1
3359. Other Electrical Equipment and Component Manufacturing	2,199.8	1,416.9	16.5	0.0	0.0	18.1	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	7.4	6.6	2.9	0.0	0.0	1.3	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	258.4	229.2	18.8	0.0	0.0	23.0	0.0	0.0
3379. Other Furniture Related Product Manufacturing	1,962.0	932.3	75.4	0.0	0.0	92.2	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	286.9	224.5	9.8	0.0	0.0	5.3	1.5	0.0
3399. Other Miscellaneous Manufacturing	341.0	272.7	13.3	0.0	0.0	6.9	2.3	0.0
<b>Allegany</b>								
1111. Oilseed and Grain Farming	0.0	103.6	519.3	0.0	0.0	196.1	146.9	0.0
1112. Vegetable and Melon Farming	0.0	176.5	426.8	0.0	0.0	161.2	120.8	0.0
1113. Fruit and Tree Nut Farming	0.0	174.6	342.8	0.0	0.0	129.4	97.0	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	561.9	1,649.3	0.0	0.0	622.7	466.6	0.0
1121. Cattle Ranching and Farming	0.0	2,077.5	5,279.6	0.0	0.0	1,993.3	1,493.7	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
1122. Hog and Pig Farming	0.0	17.3	37.3	0.0	0.0	14.1	10.5	0.0
1123. Poultry and Egg Production	0.0	67.6	86.5	0.0	0.0	32.6	24.5	0.0
1124. Sheep and Goat Farming	0.0	11.0	19.7	0.0	0.0	7.4	5.6	0.0
2111. Oil and Gas Extraction	22,112.2	2,126.2	887.4	0.0	1,410.5	0.0	152.9	0.0
2123. Nonmetallic Mineral Mining and Quarrying	85.9	166.6	458.9	0.0	194.5	0.0	103.7	0.0
2131. Support Activities for Mining	129.2	35.1	525.7	0.0	138.3	0.0	374.5	0.0
2369. Building Construction (unclassified)	114.7	181.3	592.2	0.0	0.0	18.3	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	83.8	156.9	1,976.8	0.0	0.0	257.2	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	430.6	256.1	2,089.7	0.0	0.0	72.5	0.0	0.0
3115. Dairy Product Manufacturing	5,019.1	2,225.8	318.9	0.0	0.0	43.3	701.2	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3211. Sawmills and Wood Preservation	290.3	222.1	161.2	0.0	2.5	7.3	3.9	0.0
3219. Other Wood Product Manufacturing	58.6	119.7	32.6	0.0	0.0	14.7	0.0	0.0
3231. Printing and Related Support Activities	13.6	19.4	1.1	0.0	0.0	0.5	0.3	0.0
3261. Plastics Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3271. Clay Product and Refractory Manufacturing	3,903.8	569.8	92.1	0.0	0.0	62.6	0.0	0.0
3272. Glass and Glass Product Manufacturing	59.3	26.5	11.5	0.0	1.8	5.2	0.0	0.0
3322. Cutlery and Handtool Manufacturing	220.6	128.9	14.9	0.0	0.0	9.5	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	7,986.7	4,285.4	393.9	0.0	0.0	26.8	0.0	0.0
3326. Spring and Wire Product Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	2,602.4	2,215.1	310.2	0.0	0.0	23.8	0.0	0.0
3353. Electrical Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3399. Other Miscellaneous Manufacturing	209.7	155.6	4.8	0.0	0.0	3.0	0.2	0.0
<b>Bronx</b>								
2131. Support Activities for Mining	99.8	39.1	184.6	0.0	7.2	0.0	162.2	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
2369. Building Construction (unclassified)	1,363.2	4,635.7	7,035.9	0.0	0.0	217.3	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	275.5	1,109.7	6,495.3	0.0	0.0	845.2	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	8,333.3	10,664.1	40,438.1	0.0	0.0	1,403.0	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	2,396.9	1,979.6	50.0	0.0	30.9	29.4	5.0	0.0
3115. Dairy Product Manufacturing	237.9	228.6	92.5	0.0	0.0	4.2	22.6	0.0
3116. Animal Slaughtering and Processing	26,019.5	28,088.9	1,783.7	0.0	7,957.4	147.8	923.4	0.0
3121. Beverage Manufacturing	369.3	596.4	20.8	0.0	0.0	9.4	40.7	0.0
3122. Tobacco Manufacturing	5,799.4	1,998.1	155.5	0.0	1,166.1	70.4	0.0	0.0
3132. Fabric Mills	358.5	522.7	5.2	0.0	0.0	2.3	1.3	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	358.5	522.7	5.2	0.0	0.0	2.3	1.3	0.0
3141. Textile Furnishings Mills	43.3	22.6	77.0	0.0	0.4	2.2	0.0	0.0
3149. Other Textile Product Mills	346.6	180.8	615.9	0.0	3.0	17.4	0.0	0.0
3151. Apparel Knitting Mills	0.8	1.6	3.2	0.0	0.0	1.4	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	1.6	3.2	6.4	0.0	0.0	2.9	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	15.6	24.5	18.4	0.0	0.0	12.5	0.0	0.0
3162. Footwear Manufacturing	51.0	293.9	9.9	0.0	0.0	4.5	2.4	0.0
3219. Other Wood Product Manufacturing	439.7	1,931.3	244.2	0.0	0.0	110.6	0.0	0.0
3231. Printing and Related Support Activities	176.3	542.1	13.7	0.0	0.0	6.2	3.3	0.0
3241. Petroleum and Coal Products Manufacturing	258.2	70.9	286.8	0.0	0.0	6.5	3.5	0.0
3254. Pharmaceutical and Medicine Manufacturing	3,233.5	2,837.6	637.8	0.0	0.0	4.3	0.0	0.0
3261. Plastics Product Manufacturing	2,404.8	7,209.0	29.3	0.0	1,126.3	223.9	0.0	0.0
3272. Glass and Glass Product Manufacturing	59.3	56.9	11.5	0.0	1.8	5.2	0.0	0.0
3311. Iron and Steel Mills and Ferroalloy Manufacturing	6,121.1	6,148.1	54.1	0.0	84.5	24.5	0.0	245.9
3321. Forging and Stamping	28.5	43.2	5.5	0.0	0.0	2.5	0.0	0.0
3322. Cutlery and Handtool Manufacturing	455.4	576.5	32.7	0.0	0.0	20.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	327.5	496.9	63.7	0.0	0.0	28.8	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	28.5	43.2	5.5	0.0	0.0	2.5	0.0	0.0
3325. Hardware Manufacturing	220.6	277.4	14.9	0.0	0.0	9.5	0.0	0.0
3326. Spring and Wire Product Manufacturing	14.2	21.6	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	291.8	385.4	28.8	0.0	0.0	15.8	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	71.2	108.0	13.8	0.0	0.0	6.3	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	71.2	108.0	13.8	0.0	0.0	6.3	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	37.5	7.2	0.0	0.0	3.3	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3332. Industrial Machinery Manufacturing	46.8	112.5	21.6	0.0	0.0	9.8	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	15.6	37.5	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	37.5	7.2	0.0	0.0	3.3	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	1,510.0	1,982.8	88.4	0.0	0.0	91.4	0.0	0.0
3351. Electric Lighting Equipment Manufacturing	166.4	426.3	10.8	0.0	0.0	4.9	0.0	0.2
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	158.9	260.8	27.5	0.0	0.0	15.8	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	139.0	222.7	19.8	0.0	0.0	12.3	0.0	0.0
3379. Other Furniture Related Product Manufacturing	5.0	9.5	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	46.3	89.0	3.0	0.0	0.0	1.4	0.7	0.0
3399. Other Miscellaneous Manufacturing	325.5	557.3	12.3	0.0	0.0	6.4	2.1	0.0
<b>Broome</b>								
1111. Oilseed and Grain Farming	0.0	49.3	247.3	0.0	0.0	93.4	70.0	0.0
1112. Vegetable and Melon Farming	0.0	165.1	399.3	0.0	0.0	150.8	113.0	0.0
1113. Fruit and Tree Nut Farming	0.0	222.8	437.3	0.0	0.0	165.1	123.7	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	276.2	810.7	0.0	0.0	306.1	229.4	0.0
1121. Cattle Ranching and Farming	0.0	482.7	1,242.2	0.0	0.0	469.0	351.4	0.0
1122. Hog and Pig Farming	0.0	10.1	21.7	0.0	0.0	8.2	6.1	0.0
1123. Poultry and Egg Production	0.0	94.6	121.1	0.0	0.0	45.7	34.3	0.0
1124. Sheep and Goat Farming	0.0	15.0	26.9	0.0	0.0	10.2	7.6	0.0
2123. Nonmetallic Mineral Mining and Quarrying	504.8	474.9	917.1	0.0	1,489.7	0.0	441.4	0.0
2369. Building Construction (unclassified)	688.5	1,087.9	3,553.5	0.0	0.0	109.8	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	299.5	560.5	7,060.1	0.0	0.0	918.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	3,130.8	1,861.8	15,192.5	0.0	0.0	527.1	0.0	0.0
3116. Animal Slaughtering and Processing	685.6	466.2	205.0	0.0	64.1	9.3	50.1	0.0
3121. Beverage Manufacturing	263.8	198.0	14.9	0.0	0.0	6.7	29.0	0.0
3149. Other Textile Product Mills	1,214.4	242.5	708.8	0.0	18.9	29.0	0.0	0.0
3151. Apparel Knitting Mills	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3211. Sawmills and Wood Preservation	193.5	148.1	107.5	0.0	1.7	4.9	2.6	0.0
3219. Other Wood Product Manufacturing	146.6	299.2	81.4	0.0	0.0	36.9	0.0	0.0
3231. Printing and Related Support Activities	74.6	106.6	5.8	0.0	0.0	2.6	1.4	0.0
3241. Petroleum and Coal Products Manufacturing	387.3	49.4	430.1	0.0	0.0	9.7	5.3	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3259. Other Chemical Product and Preparation Manufacturing	168.4	150.4	65.5	0.0	0.0	29.6	16.0	0.0
3261. Plastics Product Manufacturing	666.5	1,332.7	13.5	0.0	276.4	94.6	0.0	0.0
3279. Other Nonmetallic Mineral Product Manufacturing	376.4	168.1	73.2	0.0	0.0	33.1	0.0	0.0
3312. Steel Product Manufacturing from Purchased Steel	842.0	300.7	65.5	0.0	0.0	29.6	0.0	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	113.9	80.3	22.1	0.0	0.0	10.0	0.0	0.0
3325. Hardware Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3326. Spring and Wire Product Manufacturing	697.3	488.3	24.5	0.0	0.0	30.7	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	2,632.7	1,793.0	122.7	0.0	0.0	120.0	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	441.2	257.8	29.9	0.0	0.0	19.0	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	711.5	498.4	27.2	0.0	0.0	32.0	0.0	0.0
3332. Industrial Machinery Manufacturing	1,463.2	869.1	66.8	0.0	0.0	81.6	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	548.0	608.0	65.5	0.0	0.0	62.8	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3352. Household Appliance Manufacturing	10,088.4	9,142.2	165.8	0.0	0.0	11.3	0.0	0.0
3353. Electrical Equipment Manufacturing	303.3	295.1	6.0	0.0	0.0	4.1	0.0	0.3
3359. Other Electrical Equipment and Component Manufacturing	386.5	394.2	11.4	0.0	0.0	6.5	0.0	0.4
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	1,065.7	529.0	10.0	0.0	0.0	9.5	1.8	0.0
3399. Other Miscellaneous Manufacturing	54.0	48.2	3.5	0.0	0.0	1.6	0.9	0.0
<b>Cattaraugus</b>								
1111. Oilseed and Grain Farming	0.0	251.5	1,261.2	0.0	0.0	476.2	356.8	0.0
1112. Vegetable and Melon Farming	0.0	130.9	316.7	0.0	0.0	119.6	89.6	0.0
1113. Fruit and Tree Nut Farming	0.0	174.6	342.8	0.0	0.0	129.4	97.0	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	323.8	950.4	0.0	0.0	358.8	268.9	0.0
1121. Cattle Ranching and Farming	0.0	2,703.9	6,862.0	0.0	0.0	2,590.8	1,941.5	0.0
1122. Hog and Pig Farming	0.0	28.8	62.1	0.0	0.0	23.4	17.6	0.0
1123. Poultry and Egg Production	0.0	94.6	121.1	0.0	0.0	45.7	34.3	0.0
1124. Sheep and Goat Farming	0.0	37.1	66.4	0.0	0.0	25.1	18.8	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
2111. Oil and Gas Extraction	44,224.3	4,252.4	1,774.9	0.0	2,821.1	0.0	305.9	0.0
2123. Nonmetallic Mineral Mining and Quarrying	68,677.1	8,511.5	3,004.7	0.0	63,823.3	0.0	5,039.2	0.0
2131. Support Activities for Mining	258.4	70.2	1,051.4	0.0	276.6	0.0	748.9	0.0
2369. Building Construction (unclassified)	192.8	304.6	995.0	0.0	0.0	30.7	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	155.7	291.5	3,671.2	0.0	0.0	477.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	907.8	539.8	4,405.3	0.0	0.0	152.8	0.0	0.0
3115. Dairy Product Manufacturing	237.9	106.2	92.5	0.0	0.0	4.2	22.6	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	52.8	39.6	3.0	0.0	0.0	1.3	5.8	0.0
3122. Tobacco Manufacturing	20,354.9	2,833.1	273.9	0.0	6,496.6	150.9	0.0	0.0
3211. Sawmills and Wood Preservation	290.3	222.1	161.2	0.0	2.5	7.3	3.9	0.0
3219. Other Wood Product Manufacturing	961.9	1,681.1	241.5	0.0	0.0	138.3	0.0	0.0
3231. Printing and Related Support Activities	47.5	67.8	3.7	0.0	0.0	1.7	0.9	0.0
3241. Petroleum and Coal Products Manufacturing	258.2	32.9	286.8	0.0	0.0	6.5	3.5	0.0
3261. Plastics Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3272. Glass and Glass Product Manufacturing	7,313.6	1,632.5	355.4	0.0	0.0	160.9	0.0	0.0
3322. Cutlery and Handtool Manufacturing	3,438.4	1,340.8	79.3	0.0	0.0	86.0	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	263.3	159.0	23.2	0.0	0.0	13.3	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	220.6	128.9	14.9	0.0	0.0	9.5	0.0	0.0
3332. Industrial Machinery Manufacturing	46.8	52.3	21.6	0.0	0.0	9.8	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	5,384.1	4,928.0	716.1	0.0	0.0	486.5	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	2,633.6	2,249.9	324.6	0.0	0.0	30.4	0.0	0.0
3359. Other Electrical Equipment and Component Manufacturing	626.4	740.8	6.6	0.0	0.0	9.0	0.0	0.3
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	7.4	6.6	2.9	0.0	0.0	1.3	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0
<b>Cayuga</b>								
1111. Oilseed and Grain Farming	0.0	907.4	4,550.3	0.0	0.0	1,718.0	1,287.4	0.0
1112. Vegetable and Melon Farming	0.0	239.1	578.3	0.0	0.0	218.3	163.6	0.0
1113. Fruit and Tree Nut Farming	0.0	271.0	531.9	0.0	0.0	200.8	150.5	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	333.3	978.4	0.0	0.0	369.4	276.8	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
1121. Cattle Ranching and Farming	0.0	2,047.8	5,197.3	0.0	0.0	1,962.3	1,470.5	0.0
1122. Hog and Pig Farming	0.0	14.4	31.0	0.0	0.0	11.7	8.8	0.0
1123. Poultry and Egg Production	0.0	81.1	103.8	0.0	0.0	39.2	29.4	0.0
1124. Sheep and Goat Farming	0.0	10.0	17.9	0.0	0.0	6.8	5.1	0.0
2123. Nonmetallic Mineral Mining and Quarrying	43.0	83.3	229.5	0.0	97.3	0.0	51.9	0.0
2369. Building Construction (unclassified)	316.7	500.5	1,634.6	0.0	0.0	50.5	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	107.8	201.8	2,541.6	0.0	0.0	330.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,955.3	1,162.7	9,488.3	0.0	0.0	329.2	0.0	0.0
3115. Dairy Product Manufacturing	2,195.9	801.2	259.1	0.0	0.0	17.6	0.0	0.0
3121. Beverage Manufacturing	211.0	158.4	11.9	0.0	0.0	5.4	23.2	0.0
3149. Other Textile Product Mills	86.6	21.0	154.0	0.0	0.8	4.4	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3162. Footwear Manufacturing	51.0	136.6	9.9	0.0	0.0	4.5	2.4	0.0
3169. Other Leather and Allied Product Manufacturing	102.0	273.2	19.8	0.0	0.0	9.0	4.8	0.0
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	87.9	179.5	48.8	0.0	0.0	22.1	0.0	0.0
3231. Printing and Related Support Activities	33.9	48.4	2.6	0.0	0.0	1.2	0.6	0.0
3261. Plastics Product Manufacturing	826.6	1,583.2	14.7	0.0	320.1	106.6	0.0	0.0
3272. Glass and Glass Product Manufacturing	55,912.8	4,780.4	38.6	0.0	1.8	17.5	0.0	0.0
3311. Iron and Steel Mills and Ferroalloy Manufacturing	35,430.9	13,104.4	0.0	0.0	0.0	0.0	0.0	0.0
3315. Foundries	213.3	380.9	82.9	0.0	0.0	37.6	0.0	1.5
3321. Forging and Stamping	220.6	128.9	14.9	0.0	0.0	9.5	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	99.7	70.3	19.4	0.0	0.0	8.8	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	1,964.4	1,424.9	110.6	0.0	0.0	134.7	0.0	0.0
3353. Electrical Equipment Manufacturing	2,199.8	1,416.9	16.5	0.0	0.0	18.1	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	202.0	148.7	4.3	0.0	0.0	2.8	0.1	0.0



**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3399. Other Miscellaneous Manufacturing	209.7	155.6	4.8	0.0	0.0	3.0	0.2	0.0
<b>Chautauqua</b>								
1111. Oilseed and Grain Farming	0.0	148.0	741.9	0.0	0.0	280.1	209.9	0.0
1112. Vegetable and Melon Farming	0.0	125.2	302.9	0.0	0.0	114.4	85.7	0.0
1113. Fruit and Tree Nut Farming	0.0	1,963.0	3,853.2	0.0	0.0	1,454.8	1,090.2	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	219.0	642.9	0.0	0.0	242.7	181.9	0.0
1121. Cattle Ranching and Farming	0.0	3,246.5	8,191.7	0.0	0.0	3,092.8	2,317.7	0.0
1122. Hog and Pig Farming	0.0	24.4	52.8	0.0	0.0	19.9	14.9	0.0
1123. Poultry and Egg Production	0.0	337.8	432.3	0.0	0.0	163.2	122.3	0.0
1124. Sheep and Goat Farming	0.0	39.1	69.9	0.0	0.0	26.4	19.8	0.0
2111. Oil and Gas Extraction	36,853.6	3,543.6	1,479.1	0.0	2,350.9	0.0	254.9	0.0
2123. Nonmetallic Mineral Mining and Quarrying	85.9	166.6	458.9	0.0	194.5	0.0	103.7	0.0
2131. Support Activities for Mining	516.9	140.5	2,102.9	0.0	553.2	0.0	1,497.9	0.0
2369. Building Construction (unclassified)	371.8	587.5	1,918.9	0.0	0.0	59.3	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	107.8	201.8	2,541.6	0.0	0.0	330.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,920.4	1,142.0	9,318.8	0.0	0.0	323.3	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	5,535.3	1,375.6	36.1	0.0	159.5	36.3	6.3	0.0
3115. Dairy Product Manufacturing	21,255.4	7,248.5	2,165.5	0.0	0.0	18.3	9,138.0	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	2,739.5	2,046.1	60.0	0.0	0.0	43.9	405.4	0.0
3149. Other Textile Product Mills	86.6	21.0	154.0	0.0	0.8	4.4	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	16.4	12.1	21.6	0.0	0.0	14.0	0.0	0.0
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	12,794.8	14,093.0	805.0	0.0	0.0	896.6	0.0	0.0
3231. Printing and Related Support Activities	54.3	77.5	4.2	0.0	0.0	1.9	1.0	0.0
3241. Petroleum and Coal Products Manufacturing	516.4	65.9	573.5	0.0	0.0	13.0	7.0	0.0
3259. Other Chemical Product and Preparation Manufacturing	168.4	150.4	65.5	0.0	0.0	29.6	16.0	0.0
3261. Plastics Product Manufacturing	623.9	1,111.1	17.2	0.0	128.8	90.8	0.0	0.0
3271. Clay Product and Refractory Manufacturing	10,874.8	1,929.0	138.2	0.0	0.0	187.8	0.0	0.0
3272. Glass and Glass Product Manufacturing	118.5	52.9	23.0	0.0	3.6	10.4	0.0	0.0
3311. Iron and Steel Mills and Ferroalloy Manufacturing	52,756.5	13,104.4	46.1	0.0	2,807.2	56.3	0.0	0.0
3315. Foundries	213.3	380.9	82.9	0.0	0.0	37.6	0.0	1.5
3321. Forging and Stamping	31,844.9	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	1,921.2	1,294.7	95.4	0.0	0.0	88.0	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	220.6	128.9	14.9	0.0	0.0	9.5	0.0	0.0



**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3325. Hardware Manufacturing	234.8	139.0	17.7	0.0	0.0	10.8	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	1,771.8	1,216.0	94.3	0.0	0.0	84.8	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	8,740.9	4,813.9	429.4	0.0	0.0	62.5	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3332. Industrial Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	159.7	145.7	22.4	0.0	0.0	15.2	0.0	0.0
3335. Metalworking Machinery Manufacturing	253.3	250.2	65.6	0.0	0.0	34.8	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	5,543.8	5,073.7	738.5	0.0	0.0	501.7	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3351. Electric Lighting Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3353. Electrical Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3359. Other Electrical Equipment and Component Manufacturing	709.6	839.8	12.0	0.0	0.0	11.5	0.0	0.4
3361. Motor Vehicle Manufacturing	0.0	63.5	0.0	0.0	0.0	0.0	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	321.7	275.4	26.3	0.0	0.0	28.1	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	321.7	275.4	26.3	0.0	0.0	28.1	0.0	0.0
3379. Other Furniture Related Product Manufacturing	253.4	224.8	16.9	0.0	0.0	22.1	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	23.2	20.7	1.5	0.0	0.0	0.7	0.4	0.0
3399. Other Miscellaneous Manufacturing	54.0	48.2	3.5	0.0	0.0	1.6	0.9	0.0
<b>Chemung</b>								
1111. Oilseed and Grain Farming	0.0	113.4	568.8	0.0	0.0	214.7	160.9	0.0
1112. Vegetable and Melon Farming	0.0	148.0	358.0	0.0	0.0	135.2	101.3	0.0
1113. Fruit and Tree Nut Farming	0.0	168.6	331.0	0.0	0.0	125.0	93.6	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	142.8	419.3	0.0	0.0	158.3	118.6	0.0
1121. Cattle Ranching and Farming	0.0	438.8	1,131.1	0.0	0.0	427.0	320.0	0.0
1122. Hog and Pig Farming	0.0	7.2	15.5	0.0	0.0	5.9	4.4	0.0
1123. Poultry and Egg Production	0.0	13.5	17.3	0.0	0.0	6.5	4.9	0.0
1124. Sheep and Goat Farming	0.0	22.0	39.5	0.0	0.0	14.9	11.2	0.0
2111. Oil and Gas Extraction	29,482.9	2,834.9	1,183.2	0.0	1,880.7	0.0	203.9	0.0
2123. Nonmetallic Mineral Mining and Quarrying	379.0	141.4	283.4	0.0	735.9	0.0	157.1	0.0
2369. Building Construction (unclassified)	252.4	398.9	1,302.9	0.0	0.0	40.2	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
2378. Heavy and Civil Engineering Construction (unclassified)	107.8	201.8	2,541.6	0.0	0.0	330.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,082.4	643.7	5,252.4	0.0	0.0	182.2	0.0	0.0
3121. Beverage Manufacturing	158.3	118.8	8.9	0.0	0.0	4.0	17.4	0.0
3219. Other Wood Product Manufacturing	58.6	119.7	32.6	0.0	0.0	14.7	0.0	0.0
3231. Printing and Related Support Activities	27.1	38.8	2.1	0.0	0.0	1.0	0.5	0.0
3241. Petroleum and Coal Products Manufacturing	258.2	32.9	286.8	0.0	0.0	6.5	3.5	0.0
3251. Basic Chemical Manufacturing	340.5	1,758.1	79.7	0.0	0.0	36.1	0.0	0.0
3261. Plastics Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3272. Glass and Glass Product Manufacturing	69,498.5	2,291.2	46.1	0.0	34.2	28.7	0.0	0.0
3311. Iron and Steel Mills and Ferroalloy Manufacturing	6,121.1	2,856.9	54.1	0.0	84.5	24.5	0.0	245.9
3321. Forging and Stamping	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	3,886.7	1,680.1	83.2	0.0	0.0	104.7	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	683.0	478.3	21.7	0.0	0.0	29.5	0.0	0.0
3326. Spring and Wire Product Manufacturing	206.4	118.9	12.2	0.0	0.0	8.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	811.2	568.6	46.6	0.0	0.0	40.8	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	57.0	40.2	11.1	0.0	0.0	5.0	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	3,246.3	1,231.9	69.8	0.0	0.0	79.0	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3332. Industrial Machinery Manufacturing	501.2	555.8	43.8	0.0	0.0	53.0	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	1,478.8	886.5	74.0	0.0	0.0	84.9	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	2,602.4	2,215.1	310.2	0.0	0.0	23.8	0.0	0.0
3353. Electrical Equipment Manufacturing	344.9	344.7	8.7	0.0	0.0	5.3	0.0	0.4
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3391. Medical Equipment and Supplies Manufacturing	1,229.1	643.2	11.8	0.0	0.0	11.2	1.3	0.0
3399. Other Miscellaneous Manufacturing	209.7	155.6	4.8	0.0	0.0	3.0	0.2	0.0
<b>Chenango</b>								
1111. Oilseed and Grain Farming	0.0	69.0	346.2	0.0	0.0	130.7	98.0	0.0
1112. Vegetable and Melon Farming	0.0	91.1	220.3	0.0	0.0	83.2	62.3	0.0
1113. Fruit and Tree Nut Farming	0.0	144.5	283.7	0.0	0.0	107.1	80.3	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	266.6	782.7	0.0	0.0	295.5	221.5	0.0
1121. Cattle Ranching and Farming	0.0	2,468.8	6,221.2	0.0	0.0	2,348.8	1,760.2	0.0
1122. Hog and Pig Farming	0.0	21.6	46.6	0.0	0.0	17.6	13.2	0.0
1123. Poultry and Egg Production	0.0	135.1	172.9	0.0	0.0	65.3	48.9	0.0
1124. Sheep and Goat Farming	0.0	31.0	55.6	0.0	0.0	21.0	15.7	0.0
2123. Nonmetallic Mineral Mining and Quarrying	47.7	117.9	318.1	0.0	97.3	0.0	104.9	0.0
2369. Building Construction (unclassified)	87.2	137.8	450.1	0.0	0.0	13.9	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	71.9	134.5	1,694.4	0.0	0.0	220.5	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	651.8	387.6	3,162.8	0.0	0.0	109.7	0.0	0.0
3115. Dairy Product Manufacturing	39,211.8	14,353.3	4,405.1	0.0	0.0	299.3	3,038.5	0.0
3116. Animal Slaughtering and Processing	457.1	310.8	136.7	0.0	42.7	6.2	33.4	0.0
3132. Fabric Mills	358.5	242.9	5.2	0.0	0.0	2.3	1.3	0.0
3149. Other Textile Product Mills	1,171.1	232.0	631.8	0.0	18.5	26.8	0.0	0.0
3211. Sawmills and Wood Preservation	1,876.9	1,214.6	428.7	0.0	27.6	25.5	3.9	0.0
3219. Other Wood Product Manufacturing	117.3	239.3	65.1	0.0	0.0	29.5	0.0	0.0
3231. Printing and Related Support Activities	236.3	290.1	8.5	0.0	0.0	4.8	1.0	0.0
3254. Pharmaceutical and Medicine Manufacturing	2,858.6	855.3	332.3	0.0	0.0	31.0	0.0	0.0
3261. Plastics Product Manufacturing	67.5	135.6	3.3	0.0	9.2	14.9	0.0	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	71.2	50.2	13.8	0.0	0.0	6.3	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3332. Industrial Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	5,415.4	4,962.9	730.5	0.0	0.0	493.0	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	7.4	6.6	2.9	0.0	0.0	1.3	0.0	0.0
3399. Other Miscellaneous Manufacturing	619.4	549.4	7.0	0.0	0.0	9.0	14.4	0.0
<b>Clinton</b>								
1111. Oilseed and Grain Farming	0.0	69.0	346.2	0.0	0.0	130.7	98.0	0.0
1112. Vegetable and Melon Farming	0.0	91.1	220.3	0.0	0.0	83.2	62.3	0.0
1113. Fruit and Tree Nut Farming	0.0	132.5	260.0	0.0	0.0	98.2	73.6	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	352.3	1,034.3	0.0	0.0	390.5	292.6	0.0
1121. Cattle Ranching and Farming	0.0	1,287.7	3,258.5	0.0	0.0	1,230.2	921.9	0.0
1122. Hog and Pig Farming	0.0	11.5	24.8	0.0	0.0	9.4	7.0	0.0
1123. Poultry and Egg Production	0.0	135.1	172.9	0.0	0.0	65.3	48.9	0.0
1124. Sheep and Goat Farming	0.0	3.0	5.4	0.0	0.0	2.0	1.5	0.0
2123. Nonmetallic Mineral Mining and Quarrying	844.0	449.5	1,025.7	0.0	1,666.3	0.0	417.9	0.0
2369. Building Construction (unclassified)	275.4	435.2	1,421.4	0.0	0.0	43.9	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	107.8	201.8	2,541.6	0.0	0.0	330.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,140.6	678.3	5,534.8	0.0	0.0	192.0	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	207.2	93.7	10.2	0.0	1.6	4.6	2.5	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	105.5	79.2	5.9	0.0	0.0	2.7	11.6	0.0
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	87.9	179.5	48.8	0.0	0.0	22.1	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	35,886.7	8,680.7	69.1	0.0	51,824.5	93.9	10,634.6	0.0
3231. Printing and Related Support Activities	215.9	261.0	6.9	0.0	0.0	4.1	0.6	0.0
3241. Petroleum and Coal Products Manufacturing	162.8	46.5	274.3	0.0	20.5	62.5	1.8	0.0
3251. Basic Chemical Manufacturing	647.1	128.4	28.0	0.0	0.0	12.7	0.0	0.0
3254. Pharmaceutical and Medicine Manufacturing	16,923.9	501.9	134.9	0.0	0.0	5.7	0.0	0.0
3261. Plastics Product Manufacturing	2,632.6	3,801.3	21.5	0.0	1,342.8	222.0	0.0	0.0
3262. Rubber Product Manufacturing	464.0	925.9	3.7	0.0	248.8	50.1	0.0	0.0
3272. Glass and Glass Product Manufacturing	5,759.4	571.4	248.8	0.0	0.0	112.7	0.0	0.0
3279. Other Nonmetallic Mineral Product Manufacturing	3,513.4	1,282.0	207.3	0.0	0.0	140.8	0.0	0.0
3314. Nonferrous Metal (except Aluminum) Production and Processing	15.6	139.4	60.7	0.0	0.0	27.5	0.0	0.0
3315. Foundries	13.1	11.7	50.8	0.0	0.0	23.0	12.4	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3321. Forging and Stamping	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	234.8	139.0	17.7	0.0	0.0	10.8	0.0	0.0
3325. Hardware Manufacturing	683.0	478.3	21.7	0.0	0.0	29.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	234.8	139.0	17.7	0.0	0.0	10.8	0.0	0.0
3332. Industrial Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	159.7	145.7	22.4	0.0	0.0	15.2	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	62.4	69.7	28.8	0.0	0.0	13.1	0.0	0.0
3351. Electric Lighting Equipment Manufacturing	2,158.2	1,367.4	13.8	0.0	0.0	16.9	0.0	0.0
3353. Electrical Equipment Manufacturing	303.3	295.1	6.0	0.0	0.0	4.1	0.0	0.3
3359. Other Electrical Equipment and Component Manufacturing	303.3	295.1	6.0	0.0	0.0	4.1	0.0	0.3
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	217.4	162.5	5.3	0.0	0.0	3.3	0.4	0.0
3399. Other Miscellaneous Manufacturing	38.6	34.5	2.5	0.0	0.0	1.1	0.6	0.0
<b>Columbia</b>								
1111. Oilseed and Grain Farming	0.0	118.4	593.5	0.0	0.0	224.1	167.9	0.0
1112. Vegetable and Melon Farming	0.0	404.2	977.6	0.0	0.0	369.1	276.6	0.0
1113. Fruit and Tree Nut Farming	0.0	295.0	579.2	0.0	0.0	218.7	163.9	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	428.5	1,257.9	0.0	0.0	474.9	355.9	0.0
1121. Cattle Ranching and Farming	0.0	452.7	1,163.1	0.0	0.0	439.1	329.1	0.0
1122. Hog and Pig Farming	0.0	7.2	15.5	0.0	0.0	5.9	4.4	0.0
1123. Poultry and Egg Production	0.0	135.1	172.9	0.0	0.0	65.3	48.9	0.0
1124. Sheep and Goat Farming	0.0	34.1	61.0	0.0	0.0	23.0	17.3	0.0
2123. Nonmetallic Mineral Mining and Quarrying	202.1	431.0	915.4	0.0	948.4	0.0	281.9	0.0
2369. Building Construction (unclassified)	417.7	660.0	2,155.8	0.0	0.0	66.6	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	143.7	269.0	3,388.8	0.0	0.0	441.0	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,850.6	1,100.4	8,980.0	0.0	0.0	311.5	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	414.4	187.3	20.4	0.0	3.2	9.2	5.0	0.0
3115. Dairy Product Manufacturing	475.8	212.4	185.0	0.0	0.0	8.4	45.2	0.0
3116. Animal Slaughtering and Processing	457.1	310.8	136.7	0.0	42.7	6.2	33.4	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3121. Beverage Manufacturing	422.0	316.8	23.8	0.0	0.0	10.8	46.5	0.0
3122. Tobacco Manufacturing	5,799.4	928.5	155.5	0.0	1,166.1	70.4	0.0	0.0
3149. Other Textile Product Mills	86.6	21.0	154.0	0.0	0.8	4.4	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3211. Sawmills and Wood Preservation	193.5	148.1	107.5	0.0	1.7	4.9	2.6	0.0
3219. Other Wood Product Manufacturing	117.3	239.3	65.1	0.0	0.0	29.5	0.0	0.0
3231. Printing and Related Support Activities	27.1	38.8	2.1	0.0	0.0	1.0	0.5	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3261. Plastics Product Manufacturing	421.4	704.4	7.4	0.0	101.1	46.3	0.0	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	57.0	40.2	11.1	0.0	0.0	5.0	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	516.8	573.2	51.0	0.0	0.0	56.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3353. Electrical Equipment Manufacturing	83.2	99.0	5.4	0.0	0.0	2.4	0.0	0.1
3359. Other Electrical Equipment and Component Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	75.7	57.3	12.3	0.0	0.0	7.3	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0
3399. Other Miscellaneous Manufacturing	225.2	169.4	5.8	0.0	0.0	3.5	0.5	0.0
<b>Cortland</b>								
1111. Oilseed and Grain Farming	0.0	143.0	717.2	0.0	0.0	270.8	202.9	0.0
1112. Vegetable and Melon Farming	0.0	85.4	206.5	0.0	0.0	78.0	58.4	0.0
1113. Fruit and Tree Nut Farming	0.0	102.4	200.9	0.0	0.0	75.9	56.9	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	238.1	698.9	0.0	0.0	263.9	197.7	0.0
1121. Cattle Ranching and Farming	0.0	1,732.6	4,373.7	0.0	0.0	1,651.3	1,237.4	0.0
1122. Hog and Pig Farming	0.0	12.9	27.9	0.0	0.0	10.6	7.9	0.0
1123. Poultry and Egg Production	0.0	81.1	103.8	0.0	0.0	39.2	29.4	0.0
1124. Sheep and Goat Farming	0.0	14.0	25.1	0.0	0.0	9.5	7.1	0.0
2123. Nonmetallic Mineral Mining and Quarrying	329.2	372.2	719.3	0.0	1,278.7	0.0	182.5	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
2369. Building Construction (unclassified)	146.9	232.1	758.1	0.0	0.0	23.4	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	83.8	156.9	1,976.8	0.0	0.0	257.2	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	535.4	318.4	2,598.0	0.0	0.0	90.1	0.0	0.0
3115. Dairy Product Manufacturing	2,195.9	801.2	259.1	0.0	0.0	17.6	0.0	0.0
3121. Beverage Manufacturing	52.8	39.6	3.0	0.0	0.0	1.3	5.8	0.0
3149. Other Textile Product Mills	1,214.4	242.5	708.8	0.0	18.9	29.0	0.0	0.0
3219. Other Wood Product Manufacturing	2,134.7	4,328.5	221.0	0.0	0.0	270.8	0.0	0.0
3231. Printing and Related Support Activities	33.9	48.4	2.6	0.0	0.0	1.2	0.6	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3251. Basic Chemical Manufacturing	328.2	659.3	31.9	0.0	0.0	14.4	0.0	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	351.3	256.4	0.0	0.0	0.0	281.7	0.0	0.0
3261. Plastics Product Manufacturing	691.6	1,312.0	8.2	0.0	301.6	76.9	0.0	0.0
3271. Clay Product and Refractory Manufacturing	10,874.8	1,929.0	138.2	0.0	0.0	187.8	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	1,003.3	677.5	56.0	0.0	0.0	47.8	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3332. Industrial Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	1,463.2	869.1	66.8	0.0	0.0	81.6	0.0	0.0
3353. Electrical Equipment Manufacturing	303.3	295.1	6.0	0.0	0.0	4.1	0.0	0.3
3391. Medical Equipment and Supplies Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0
3399. Other Miscellaneous Manufacturing	23.2	20.7	1.5	0.0	0.0	0.7	0.4	0.0
<b>Delaware</b>								
1111. Oilseed and Grain Farming	0.0	78.9	395.7	0.0	0.0	149.4	111.9	0.0
1112. Vegetable and Melon Farming	0.0	136.6	330.5	0.0	0.0	124.8	93.5	0.0
1113. Fruit and Tree Nut Farming	0.0	192.7	378.2	0.0	0.0	142.8	107.0	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	190.5	559.1	0.0	0.0	211.1	158.2	0.0
1121. Cattle Ranching and Farming	0.0	1,903.4	4,837.1	0.0	0.0	1,826.2	1,368.5	0.0
1122. Hog and Pig Farming	0.0	10.1	21.7	0.0	0.0	8.2	6.1	0.0
1123. Poultry and Egg Production	0.0	108.1	138.4	0.0	0.0	52.2	39.1	0.0
1124. Sheep and Goat Farming	0.0	23.0	41.2	0.0	0.0	15.6	11.7	0.0
2123. Nonmetallic Mineral Mining and Quarrying	1,882.0	1,543.1	1,983.1	0.0	2,400.8	0.0	903.6	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
2369. Building Construction (unclassified)	234.1	369.9	1,208.2	0.0	0.0	37.3	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	71.9	134.5	1,694.4	0.0	0.0	220.5	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	861.3	512.2	4,179.4	0.0	0.0	145.0	0.0	0.0
3115. Dairy Product Manufacturing	7,528.7	3,338.7	478.4	0.0	0.0	65.0	1,051.8	0.0
3121. Beverage Manufacturing	105.5	79.2	5.9	0.0	0.0	2.7	11.6	0.0
3219. Other Wood Product Manufacturing	117.3	239.3	65.1	0.0	0.0	29.5	0.0	0.0
3231. Printing and Related Support Activities	3,247.0	3,535.6	64.8	0.0	0.0	4.8	280.7	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3254. Pharmaceutical and Medicine Manufacturing	2,697.8	769.2	207.3	0.0	0.0	25.3	0.0	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3332. Industrial Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3361. Motor Vehicle Manufacturing	0.0	63.5	0.0	0.0	0.0	0.0	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0
3399. Other Miscellaneous Manufacturing	194.3	141.8	3.8	0.0	0.0	2.6	0.0	0.0
<b>Dutchess</b>								
1111. Oilseed and Grain Farming	0.0	83.8	420.4	0.0	0.0	158.7	118.9	0.0
1112. Vegetable and Melon Farming	0.0	353.0	853.7	0.0	0.0	322.3	241.5	0.0
1113. Fruit and Tree Nut Farming	0.0	174.6	342.8	0.0	0.0	129.4	97.0	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	533.3	1,565.4	0.0	0.0	591.0	442.9	0.0
1121. Cattle Ranching and Farming	0.0	550.6	1,422.5	0.0	0.0	537.1	402.5	0.0
1122. Hog and Pig Farming	0.0	12.9	27.9	0.0	0.0	10.6	7.9	0.0
1123. Poultry and Egg Production	0.0	135.1	172.9	0.0	0.0	65.3	48.9	0.0
1124. Sheep and Goat Farming	0.0	50.1	89.7	0.0	0.0	33.9	25.4	0.0
2123. Nonmetallic Mineral Mining and Quarrying	894.2	1,890.7	4,120.7	0.0	3,988.1	0.0	1,231.4	0.0
2369. Building Construction (unclassified)	1,510.0	2,386.2	7,793.9	0.0	0.0	240.7	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	443.2	829.5	10,448.9	0.0	0.0	1,359.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	7,763.0	4,616.3	37,670.7	0.0	0.0	1,306.9	0.0	0.0
3116. Animal Slaughtering and Processing	685.6	466.2	205.0	0.0	64.1	9.3	50.1	0.0
3121. Beverage Manufacturing	158.3	118.8	8.9	0.0	0.0	4.0	17.4	0.0
3149. Other Textile Product Mills	130.0	31.5	231.0	0.0	1.1	6.5	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0



**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	2,950.1	5,710.4	381.1	0.0	0.0	372.2	0.0	0.0
3231. Printing and Related Support Activities	122.1	174.4	9.5	0.0	0.0	4.3	2.3	0.0
3241. Petroleum and Coal Products Manufacturing	387.3	49.4	430.1	0.0	0.0	9.7	5.3	0.0
3251. Basic Chemical Manufacturing	12.3	1,098.8	47.8	0.0	0.0	21.7	0.0	0.0
3253. Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	26.7	23.8	103.7	0.0	0.0	46.9	25.3	0.0
3261. Plastics Product Manufacturing	328.8	589.5	9.4	0.0	66.7	49.1	0.0	0.0
3262. Rubber Product Manufacturing	657.8	1,244.2	6.5	0.0	297.0	69.5	0.0	0.0
3271. Clay Product and Refractory Manufacturing	415.5	74.2	32.3	0.0	0.0	14.6	0.0	0.0
3272. Glass and Glass Product Manufacturing	1,450.4	523.3	119.7	0.0	1.8	54.2	0.0	0.0
3274. Lime and Gypsum Product Manufacturing	2,285.5	40.8	177.7	0.0	0.0	80.5	0.0	0.0
3313. Alumina and Aluminum Production and Processing	106.7	95.2	414.6	0.0	0.0	187.8	0.0	0.0
3321. Forging and Stamping	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	142.4	100.4	27.7	0.0	0.0	12.5	0.0	0.0
3325. Hardware Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	597.8	368.3	60.3	0.0	0.0	32.8	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	263.3	159.0	23.2	0.0	0.0	13.3	0.0	0.0
3332. Industrial Machinery Manufacturing	190.9	180.5	36.8	0.0	0.0	21.7	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	159.7	145.7	22.4	0.0	0.0	15.2	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	159.7	145.7	22.4	0.0	0.0	15.2	0.0	0.0
3344. Semiconductor and Other Electronic Component Manufacturing	59,153.2	22,242.2	1,737.9	0.0	0.0	141.6	192.2	0.0
3351. Electric Lighting Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3352. Household Appliance Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	39.7	35.4	15.4	0.0	0.0	7.0	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3391. Medical Equipment and Supplies Manufacturing	38.6	34.5	2.5	0.0	0.0	1.1	0.6	0.0
3399. Other Miscellaneous Manufacturing	263.8	203.8	8.3	0.0	0.0	4.6	1.1	0.0
<b>Erie</b>								
1111. Oilseed and Grain Farming	0.0	212.1	1,063.4	0.0	0.0	401.5	300.9	0.0
1112. Vegetable and Melon Farming	0.0	347.3	839.9	0.0	0.0	317.1	237.6	0.0
1113. Fruit and Tree Nut Farming	0.0	301.1	591.0	0.0	0.0	223.1	167.2	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	790.4	2,320.2	0.0	0.0	876.0	656.5	0.0
1121. Cattle Ranching and Farming	0.0	1,658.6	4,190.3	0.0	0.0	1,582.1	1,185.6	0.0
1122. Hog and Pig Farming	0.0	38.8	83.8	0.0	0.0	31.7	23.7	0.0
1123. Poultry and Egg Production	0.0	418.9	536.1	0.0	0.0	202.4	151.7	0.0
1124. Sheep and Goat Farming	0.0	45.1	80.7	0.0	0.0	30.5	22.8	0.0
2111. Oil and Gas Extraction	73,707.2	7,087.3	2,958.1	0.0	4,701.8	0.0	509.8	0.0
2123. Nonmetallic Mineral Mining and Quarrying	912.1	1,253.4	2,802.6	0.0	2,924.5	0.0	876.5	0.0
2131. Support Activities for Mining	229.0	53.3	710.3	0.0	145.5	0.0	536.7	0.0
2369. Building Construction (unclassified)	2,698.8	4,264.7	13,929.6	0.0	0.0	430.3	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	1,245.8	2,331.7	29,369.9	0.0	0.0	3,821.8	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	15,060.5	8,955.8	73,082.2	0.0	0.0	2,535.5	0.0	0.0
3113. Sugar and Confectionery Product Manufacturing	14,053.5	5,127.8	0.0	0.0	0.0	563.3	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	3,541.7	1,593.0	62.6	0.0	88.2	48.1	57.9	0.0
3115. Dairy Product Manufacturing	37,274.1	12,336.2	3,323.7	0.0	0.0	128.6	10,007.4	0.0
3116. Animal Slaughtering and Processing	19,037.5	8,334.6	1,328.1	0.0	5,522.8	98.3	188.8	0.0
3121. Beverage Manufacturing	6,157.0	4,399.6	100.6	0.0	0.0	84.6	723.7	0.0
3132. Fabric Mills	716.9	485.8	10.3	0.0	0.0	4.7	2.5	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	716.9	485.8	10.3	0.0	0.0	4.7	2.5	0.0
3141. Textile Furnishings Mills	130.0	31.5	231.0	0.0	1.1	6.5	0.0	0.0
3149. Other Textile Product Mills	2,992.1	621.4	2,418.3	0.0	42.7	86.3	0.0	0.0
3151. Apparel Knitting Mills	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	0.8	0.7	3.2	0.0	0.0	1.4	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	154.6	73.6	60.8	0.0	0.0	73.1	0.0	0.0
3162. Footwear Manufacturing	51.0	136.6	9.9	0.0	0.0	4.5	2.4	0.0
3169. Other Leather and Allied Product Manufacturing	255.0	682.9	49.6	0.0	0.0	22.4	12.1	0.0
3211. Sawmills and Wood Preservation	1,973.7	1,288.7	482.4	0.0	28.4	27.9	5.3	0.0
3212. Veneer, Plywood, and Engineered Wood Product Manufacturing	1,091.7	941.1	146.3	0.0	0.0	66.3	0.0	0.0
3219. Other Wood Product Manufacturing	1,953.2	3,421.9	499.3	0.0	0.0	283.9	0.0	0.0
3231. Printing and Related Support Activities	5,828.4	6,824.6	114.2	0.0	0.0	96.1	85.1	0.0
3241. Petroleum and Coal Products Manufacturing	9,760.0	178.3	1,421.3	0.0	20.5	88.5	15.8	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3251. Basic Chemical Manufacturing	9,497.4	45,345.0	594.9	0.0	0.0	532.3	0.0	0.0
3254. Pharmaceutical and Medicine Manufacturing	6,296.6	2,860.8	1,444.3	0.0	0.0	64.7	0.0	0.0
3261. Plastics Product Manufacturing	6,943.1	10,617.7	91.7	0.0	3,023.7	697.1	0.0	0.0
3262. Rubber Product Manufacturing	30,211.7	25,369.3	13.9	0.0	119.6	82.5	0.0	0.0
3271. Clay Product and Refractory Manufacturing	11,705.8	2,077.5	202.8	0.0	0.0	217.0	0.0	0.0
3272. Glass and Glass Product Manufacturing	59.3	26.5	11.5	0.0	1.8	5.2	0.0	0.0
3273. Cement and Concrete Product Manufacturing	959.9	857.1	124.4	0.0	2,332.1	56.3	30.4	2.2
3279. Other Nonmetallic Mineral Product Manufacturing	7,194.1	1,709.3	138.2	0.0	0.0	169.0	0.0	0.0
3311. Iron and Steel Mills and Ferroalloy Manufacturing	129,091.8	52,084.1	407.4	0.0	1,284.3	203.3	0.0	2,606.6
3312. Steel Product Manufacturing from Purchased Steel	421.0	150.4	32.7	0.0	0.0	14.8	0.0	0.0
3314. Nonferrous Metal (except Aluminum) Production and Processing	366.9	2,703.3	475.3	0.0	0.0	309.1	0.0	0.0
3315. Foundries	26.1	23.3	101.5	0.0	0.0	46.0	24.8	0.0
3321. Forging and Stamping	1,223.9	806.4	71.0	0.0	0.0	57.3	0.0	0.0
3322. Cutlery and Handtool Manufacturing	99.7	70.3	19.4	0.0	0.0	8.8	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	2,248.7	1,525.6	159.1	0.0	0.0	116.9	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	6,684.8	2,572.7	149.1	0.0	0.0	165.0	0.0	0.0
3326. Spring and Wire Product Manufacturing	740.0	518.4	32.8	0.0	0.0	34.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	11,779.9	6,869.9	714.2	0.0	0.0	239.1	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	1,409.0	936.9	106.9	0.0	0.0	73.6	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	4,883.0	2,379.2	165.8	0.0	0.0	161.8	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	1,845.0	1,230.2	140.3	0.0	0.0	125.1	0.0	0.0
3332. Industrial Machinery Manufacturing	817.0	875.6	138.3	0.0	0.0	100.9	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	836.2	864.5	95.8	0.0	0.0	86.7	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	1,353.0	1,437.7	146.9	0.0	0.0	143.0	0.0	0.0
3335. Metalworking Machinery Manufacturing	1,871.7	1,984.1	335.0	0.0	0.0	233.3	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	253.3	250.2	65.6	0.0	0.0	34.8	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	10,989.0	10,349.5	1,456.9	0.0	0.0	858.4	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3351. Electric Lighting Equipment Manufacturing	428.1	443.7	14.1	0.0	0.0	7.7	0.0	0.5
3352. Household Appliance Manufacturing	344.9	344.7	8.7	0.0	0.0	5.3	0.0	0.4
3353. Electrical Equipment Manufacturing	3,359.4	2,599.5	50.6	0.0	0.0	37.6	0.0	1.3
3359. Other Electrical Equipment and Component Manufacturing	9,395.1	9,216.1	185.3	0.0	0.0	122.8	0.0	2,262.9
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	49.6	44.3	19.3	0.0	0.0	8.7	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	136.5	101.3	18.8	0.0	0.0	11.9	0.0	0.0
3379. Other Furniture Related Product Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	3,711.2	2,429.6	47.2	0.0	0.0	44.0	34.7	0.0
3399. Other Miscellaneous Manufacturing	3,140.1	2,370.3	44.9	0.0	0.0	42.9	48.3	0.0
<b>Essex</b>								
1111. Oilseed and Grain Farming	0.0	24.7	123.7	0.0	0.0	46.7	35.0	0.0
1112. Vegetable and Melon Farming	0.0	119.5	289.1	0.0	0.0	109.2	81.8	0.0
1113. Fruit and Tree Nut Farming	0.0	102.4	200.9	0.0	0.0	75.9	56.9	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	190.5	559.1	0.0	0.0	211.1	158.2	0.0
1121. Cattle Ranching and Farming	0.0	335.3	863.5	0.0	0.0	326.0	244.3	0.0
1122. Hog and Pig Farming	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1123. Poultry and Egg Production	0.0	162.2	207.5	0.0	0.0	78.4	58.7	0.0
1124. Sheep and Goat Farming	0.0	21.0	37.7	0.0	0.0	14.2	10.7	0.0
2123. Nonmetallic Mineral Mining and Quarrying	4.8	34.5	88.6	0.0	0.0	0.0	53.0	0.0
2369. Building Construction (unclassified)	284.6	449.7	1,468.8	0.0	0.0	45.4	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	59.9	112.1	1,412.0	0.0	0.0	183.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	675.0	401.4	3,275.7	0.0	0.0	113.6	0.0	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	158.3	118.8	8.9	0.0	0.0	4.0	17.4	0.0
3132. Fabric Mills	358.5	242.9	5.2	0.0	0.0	2.3	1.3	0.0
3141. Textile Furnishings Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	58.6	119.7	32.6	0.0	0.0	14.7	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	84,188.2	9,759.4	0.0	0.0	0.0	313.4	117,946.7	0.0
3231. Printing and Related Support Activities	13.6	19.4	1.1	0.0	0.0	0.5	0.3	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3251. Basic Chemical Manufacturing	328.2	659.3	31.9	0.0	0.0	14.4	0.0	0.0
3261. Plastics Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	9.9	8.9	3.9	0.0	0.0	1.7	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	15.4	13.8	1.0	0.0	0.0	0.5	0.2	0.0
<b>Franklin</b>								
1111. Oilseed and Grain Farming	0.0	152.9	766.6	0.0	0.0	289.4	216.9	0.0
1112. Vegetable and Melon Farming	0.0	125.2	302.9	0.0	0.0	114.4	85.7	0.0
1113. Fruit and Tree Nut Farming	0.0	126.4	248.2	0.0	0.0	93.7	70.2	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	247.6	726.8	0.0	0.0	274.4	205.6	0.0
1121. Cattle Ranching and Farming	0.0	2,254.1	5,685.4	0.0	0.0	2,146.5	1,608.6	0.0
1122. Hog and Pig Farming	0.0	12.9	27.9	0.0	0.0	10.6	7.9	0.0
1123. Poultry and Egg Production	0.0	216.2	276.7	0.0	0.0	104.5	78.3	0.0
1124. Sheep and Goat Farming	0.0	11.0	19.7	0.0	0.0	7.4	5.6	0.0
2123. Nonmetallic Mineral Mining and Quarrying	116.2	264.4	456.5	0.0	753.8	0.0	178.2	0.0
2369. Building Construction (unclassified)	206.5	326.4	1,066.0	0.0	0.0	32.9	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	47.9	89.7	1,129.6	0.0	0.0	147.0	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	698.3	415.3	3,388.7	0.0	0.0	117.6	0.0	0.0
3115. Dairy Product Manufacturing	2,509.6	1,112.9	159.5	0.0	0.0	21.7	350.6	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	52.8	39.6	3.0	0.0	0.0	1.3	5.8	0.0
3122. Tobacco Manufacturing	26,154.3	3,761.6	429.4	0.0	7,662.6	221.3	0.0	0.0
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	29.3	59.8	16.3	0.0	0.0	7.4	0.0	0.0
3231. Printing and Related Support Activities	20.3	29.1	1.6	0.0	0.0	0.7	0.4	0.0
3241. Petroleum and Coal Products Manufacturing	258.2	32.9	286.8	0.0	0.0	6.5	3.5	0.0
3261. Plastics Product Manufacturing	497.7	993.7	5.3	0.0	253.4	57.5	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3399. Other Miscellaneous Manufacturing	15.4	13.8	1.0	0.0	0.0	0.5	0.2	0.0
<b>Fulton</b>								
1111. Oilseed and Grain Farming	0.0	29.6	148.4	0.0	0.0	56.0	42.0	0.0
1112. Vegetable and Melon Farming	0.0	17.1	41.3	0.0	0.0	15.6	11.7	0.0
1113. Fruit and Tree Nut Farming	0.0	96.3	189.1	0.0	0.0	71.4	53.5	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	209.5	615.0	0.0	0.0	232.2	174.0	0.0
1121. Cattle Ranching and Farming	0.0	423.8	1,062.1	0.0	0.0	401.0	300.5	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
1122. Hog and Pig Farming	0.0	2.9	6.2	0.0	0.0	2.3	1.8	0.0
1123. Poultry and Egg Production	0.0	27.0	34.6	0.0	0.0	13.1	9.8	0.0
1124. Sheep and Goat Farming	0.0	13.0	23.3	0.0	0.0	8.8	6.6	0.0
2123. Nonmetallic Mineral Mining and Quarrying	85.9	166.6	458.9	0.0	194.5	0.0	103.7	0.0
2369. Building Construction (unclassified)	192.8	304.6	995.0	0.0	0.0	30.7	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	59.9	112.1	1,412.0	0.0	0.0	183.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,024.2	609.1	4,970.0	0.0	0.0	172.4	0.0	0.0
3115. Dairy Product Manufacturing	7,338.8	2,072.8	540.1	0.0	0.0	44.8	50.2	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	52.8	39.6	3.0	0.0	0.0	1.3	5.8	0.0
3132. Fabric Mills	1,075.4	728.7	15.5	0.0	0.0	7.0	3.8	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	358.5	242.9	5.2	0.0	0.0	2.3	1.3	0.0
3149. Other Textile Product Mills	4,937.8	1,188.9	1,627.5	0.0	164.8	125.1	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	1.2	1.1	4.8	0.0	0.0	2.2	0.0	0.0
3161. Leather and Hide Tanning and Finishing	4,499.4	11,380.6	277.2	0.0	0.0	217.7	211.4	0.0
3162. Footwear Manufacturing	51.0	136.6	9.9	0.0	0.0	4.5	2.4	0.0
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	117.3	239.3	65.1	0.0	0.0	29.5	0.0	0.0
3231. Printing and Related Support Activities	13.6	19.4	1.1	0.0	0.0	0.5	0.3	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3272. Glass and Glass Product Manufacturing	2,747.3	1,218.3	87.3	0.0	327.3	118.6	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3332. Industrial Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	225.2	169.4	5.8	0.0	0.0	3.5	0.5	0.0
3399. Other Miscellaneous Manufacturing	23.2	20.7	1.5	0.0	0.0	0.7	0.4	0.0
<b>Genesee</b>								
1111. Oilseed and Grain Farming	0.0	414.3	2,077.3	0.0	0.0	784.3	587.7	0.0
1112. Vegetable and Melon Farming	0.0	227.7	550.8	0.0	0.0	207.9	155.8	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
1113. Fruit and Tree Nut Farming	0.0	60.2	118.2	0.0	0.0	44.6	33.4	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	200.0	587.0	0.0	0.0	221.6	166.1	0.0
1121. Cattle Ranching and Farming	0.0	1,077.6	2,723.5	0.0	0.0	1,028.3	770.6	0.0
1122. Hog and Pig Farming	0.0	14.4	31.0	0.0	0.0	11.7	8.8	0.0
1123. Poultry and Egg Production	0.0	67.6	86.5	0.0	0.0	32.6	24.5	0.0
1124. Sheep and Goat Farming	0.0	8.0	14.3	0.0	0.0	5.4	4.1	0.0
2111. Oil and Gas Extraction	7,370.7	708.7	295.8	0.0	470.2	0.0	51.0	0.0
2123. Nonmetallic Mineral Mining and Quarrying	604.5	984.3	1,861.8	0.0	2,883.6	0.0	590.8	0.0
2369. Building Construction (unclassified)	238.7	377.2	1,231.9	0.0	0.0	38.1	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	59.9	112.1	1,412.0	0.0	0.0	183.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,198.8	712.9	5,817.2	0.0	0.0	201.8	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	414.4	187.3	20.4	0.0	3.2	9.2	5.0	0.0
3115. Dairy Product Manufacturing	9,610.5	3,079.5	607.0	0.0	0.0	62.3	378.2	0.0
3121. Beverage Manufacturing	105.5	79.2	5.9	0.0	0.0	2.7	11.6	0.0
3152. Cut and Sew Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3162. Footwear Manufacturing	1,277.6	2,797.0	75.4	0.0	0.0	51.2	0.0	0.0
3219. Other Wood Product Manufacturing	29.3	59.8	16.3	0.0	0.0	7.4	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	28,403.9	386.1	0.0	0.0	0.0	0.0	0.0	0.0
3231. Printing and Related Support Activities	33.9	48.4	2.6	0.0	0.0	1.2	0.6	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	2,555.2	932.3	37.7	0.0	0.0	25.6	0.0	0.0
3261. Plastics Product Manufacturing	101.2	203.4	4.9	0.0	13.8	22.3	0.0	0.0
3272. Glass and Glass Product Manufacturing	347.8	124.2	27.0	0.0	0.0	12.2	0.0	0.0
3315. Foundries	232.7	20.8	0.0	0.0	0.0	41.0	0.0	0.0
3321. Forging and Stamping	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	3,203.6	1,201.8	61.5	0.0	0.0	75.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	142.4	100.4	27.7	0.0	0.0	12.5	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	1,002.4	1,111.5	87.7	0.0	0.0	106.1	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	237.7	232.8	58.4	0.0	0.0	31.5	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	175.3	163.1	29.6	0.0	0.0	18.5	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	485.6	538.3	36.6	0.0	0.0	49.8	0.0	0.0
3353. Electrical Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	15.4	13.8	1.0	0.0	0.0	0.5	0.2	0.0
3399. Other Miscellaneous Manufacturing	30.9	27.6	2.0	0.0	0.0	0.9	0.5	0.0
<b>Greene</b>								
1111. Oilseed and Grain Farming	0.0	14.8	74.2	0.0	0.0	28.0	21.0	0.0
1112. Vegetable and Melon Farming	0.0	85.4	206.5	0.0	0.0	78.0	58.4	0.0
1113. Fruit and Tree Nut Farming	0.0	78.3	153.7	0.0	0.0	58.0	43.5	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	190.5	559.1	0.0	0.0	211.1	158.2	0.0
1121. Cattle Ranching and Farming	0.0	203.7	530.3	0.0	0.0	200.2	150.0	0.0
1122. Hog and Pig Farming	0.0	7.2	15.5	0.0	0.0	5.9	4.4	0.0
1123. Poultry and Egg Production	0.0	40.5	51.9	0.0	0.0	19.6	14.7	0.0
1124. Sheep and Goat Farming	0.0	7.0	12.6	0.0	0.0	4.7	3.6	0.0
2123. Nonmetallic Mineral Mining and Quarrying	422.0	224.7	512.8	0.0	833.2	0.0	209.0	0.0
2369. Building Construction (unclassified)	247.8	391.7	1,279.2	0.0	0.0	39.5	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	83.8	156.9	1,976.8	0.0	0.0	257.2	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,222.1	726.7	5,930.2	0.0	0.0	205.7	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	207.2	93.7	10.2	0.0	1.6	4.6	2.5	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	105.5	79.2	5.9	0.0	0.0	2.7	11.6	0.0
3149. Other Textile Product Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3231. Printing and Related Support Activities	20.3	29.1	1.6	0.0	0.0	0.7	0.4	0.0
3241. Petroleum and Coal Products Manufacturing	258.2	32.9	286.8	0.0	0.0	6.5	3.5	0.0
3251. Basic Chemical Manufacturing	328.2	659.3	31.9	0.0	0.0	14.4	0.0	0.0
3272. Glass and Glass Product Manufacturing	347.8	124.2	27.0	0.0	0.0	12.2	0.0	0.0
3273. Cement and Concrete Product Manufacturing	959.9	857.1	124.4	0.0	2,332.1	56.3	30.4	2.2
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3332. Industrial Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0



**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3353. Electrical Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3379. Other Furniture Related Product Manufacturing	251.0	222.6	15.9	0.0	0.0	21.7	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0
3399. Other Miscellaneous Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0
<b>Hamilton</b>								
1113. Fruit and Tree Nut Farming	0.0	12.0	23.6	0.0	0.0	8.9	6.7	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	9.5	28.0	0.0	0.0	10.6	7.9	0.0
2123. Nonmetallic Mineral Mining and Quarrying	116.2	264.4	456.5	0.0	753.8	0.0	178.2	0.0
2369. Building Construction (unclassified)	73.4	116.0	379.0	0.0	0.0	11.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	186.2	110.7	903.6	0.0	0.0	31.4	0.0	0.0
3272. Glass and Glass Product Manufacturing	347.8	124.2	27.0	0.0	0.0	12.2	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
<b>Herkimer</b>								
1111. Oilseed and Grain Farming	0.0	246.6	1,236.5	0.0	0.0	466.8	349.8	0.0
1112. Vegetable and Melon Farming	0.0	165.1	399.3	0.0	0.0	150.8	113.0	0.0
1113. Fruit and Tree Nut Farming	0.0	72.3	141.8	0.0	0.0	53.6	40.1	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	342.8	1,006.4	0.0	0.0	380.0	284.7	0.0
1121. Cattle Ranching and Farming	0.0	2,006.6	5,060.7	0.0	0.0	1,910.7	1,431.8	0.0
1122. Hog and Pig Farming	0.0	11.5	24.8	0.0	0.0	9.4	7.0	0.0
1123. Poultry and Egg Production	0.0	148.6	190.2	0.0	0.0	71.8	53.8	0.0
1124. Sheep and Goat Farming	0.0	26.0	46.6	0.0	0.0	17.6	13.2	0.0
2123. Nonmetallic Mineral Mining and Quarrying	581.1	572.4	1,198.8	0.0	1,684.3	0.0	439.0	0.0
2369. Building Construction (unclassified)	243.3	384.4	1,255.6	0.0	0.0	38.8	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	59.9	112.1	1,412.0	0.0	0.0	183.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,094.0	650.6	5,308.9	0.0	0.0	184.2	0.0	0.0
3115. Dairy Product Manufacturing	475.8	212.4	185.0	0.0	0.0	8.4	45.2	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3132. Fabric Mills	358.5	242.9	5.2	0.0	0.0	2.3	1.3	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	16,778.2	11,293.1	39.5	0.0	0.0	53.6	86.8	0.0
3149. Other Textile Product Mills	86.6	21.0	154.0	0.0	0.8	4.4	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3152. Cut and Sew Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	87.9	179.5	48.8	0.0	0.0	22.1	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	24,458.2	5,902.0	386.3	0.0	0.0	192.0	76.0	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3261. Plastics Product Manufacturing	101.2	203.4	4.9	0.0	13.8	22.3	0.0	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	3,203.6	1,201.8	61.5	0.0	0.0	75.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	747.2	447.0	61.4	0.0	0.0	36.1	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	35,193.7	20,348.2	1,974.9	0.0	0.0	1,340.4	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3353. Electrical Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3359. Other Electrical Equipment and Component Manufacturing	303.3	295.1	6.0	0.0	0.0	4.1	0.0	0.3
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	7.4	6.6	2.9	0.0	0.0	1.3	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	15.4	13.8	1.0	0.0	0.0	0.5	0.2	0.0
3399. Other Miscellaneous Manufacturing	23.2	20.7	1.5	0.0	0.0	0.7	0.4	0.0
<b>Jefferson</b>								
1111. Oilseed and Grain Farming	0.0	133.2	667.7	0.0	0.0	252.1	188.9	0.0
1112. Vegetable and Melon Farming	0.0	176.5	426.8	0.0	0.0	161.2	120.8	0.0
1113. Fruit and Tree Nut Farming	0.0	210.7	413.7	0.0	0.0	156.2	117.0	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	190.5	559.1	0.0	0.0	211.1	158.2	0.0
1121. Cattle Ranching and Farming	0.0	2,551.4	6,428.8	0.0	0.0	2,427.2	1,818.9	0.0
1122. Hog and Pig Farming	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1123. Poultry and Egg Production	0.0	81.1	103.8	0.0	0.0	39.2	29.4	0.0
1124. Sheep and Goat Farming	0.0	14.0	25.1	0.0	0.0	9.5	7.1	0.0
2123. Nonmetallic Mineral Mining and Quarrying	623.7	1,405.2	2,512.1	0.0	3,866.5	0.0	943.0	0.0
2369. Building Construction (unclassified)	514.1	812.3	2,653.3	0.0	0.0	82.0	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	215.6	403.6	5,083.2	0.0	0.0	661.5	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
2388. Specialty Trade Contractors (unclassified)	1,513.0	899.7	7,342.1	0.0	0.0	254.7	0.0	0.0
3115. Dairy Product Manufacturing	5,019.1	2,225.8	318.9	0.0	0.0	43.3	701.2	0.0
3121. Beverage Manufacturing	422.0	316.8	23.8	0.0	0.0	10.8	46.5	0.0
3149. Other Textile Product Mills	86.6	21.0	154.0	0.0	0.8	4.4	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3211. Sawmills and Wood Preservation	193.5	148.1	107.5	0.0	1.7	4.9	2.6	0.0
3219. Other Wood Product Manufacturing	87.9	179.5	48.8	0.0	0.0	22.1	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	46,386.0	10,523.7	506.9	0.0	19,080.8	248.4	2,009.5	0.0
3231. Printing and Related Support Activities	20.3	29.1	1.6	0.0	0.0	0.7	0.4	0.0
3241. Petroleum and Coal Products Manufacturing	37,245.5	9,158.6	5,118.6	0.0	777.4	2,256.5	123.3	0.0
3261. Plastics Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3332. Industrial Machinery Manufacturing	159.7	145.7	22.4	0.0	0.0	15.2	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3353. Electrical Equipment Manufacturing	344.9	344.7	8.7	0.0	0.0	5.3	0.0	0.4
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	23.2	20.7	1.5	0.0	0.0	0.7	0.4	0.0
3399. Other Miscellaneous Manufacturing	634.9	563.2	8.0	0.0	0.0	9.5	14.6	0.0
<b>Kings</b>								
1111. Oilseed and Grain Farming	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1112. Vegetable and Melon Farming	0.0	183.8	206.5	0.0	0.0	78.0	58.4	0.0
1113. Fruit and Tree Nut Farming	0.0	13.0	11.8	0.0	0.0	4.5	3.3	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	61.5	83.9	0.0	0.0	31.7	23.7	0.0
2123. Nonmetallic Mineral Mining and Quarrying	43.0	179.3	229.5	0.0	97.3	0.0	51.9	0.0
2131. Support Activities for Mining	426.6	121.5	640.2	0.0	14.5	0.0	392.2	0.0
2369. Building Construction (unclassified)	6,522.1	22,179.3	33,663.2	0.0	0.0	1,039.8	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	539.0	2,171.1	12,708.1	0.0	0.0	1,653.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	24,988.3	31,977.3	121,257.7	0.0	0.0	4,206.9	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	10,930.8	10,246.9	246.6	0.0	218.5	157.9	138.3	0.0
3115. Dairy Product Manufacturing	8,036.0	7,318.9	1,713.3	0.0	0.0	97.9	666.9	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3116. Animal Slaughtering and Processing	5,656.2	7,681.0	1,227.4	0.0	699.5	60.2	250.4	0.0
3121. Beverage Manufacturing	3,741.9	6,022.1	116.5	0.0	0.0	69.5	515.8	0.0
3131. Fiber, Yarn, and Thread Mills	716.9	1,045.4	10.3	0.0	0.0	4.7	2.5	0.0
3132. Fabric Mills	5,735.5	8,363.4	82.6	0.0	0.0	37.4	20.2	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	1,075.4	1,568.1	15.5	0.0	0.0	7.0	3.8	0.0
3141. Textile Furnishings Mills	649.8	338.9	1,154.8	0.0	5.6	32.7	0.0	0.0
3149. Other Textile Product Mills	1,950.9	905.9	2,017.5	0.0	25.3	66.0	0.0	0.0
3151. Apparel Knitting Mills	3.7	7.1	14.4	0.0	0.0	6.5	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	167.7	310.5	382.9	0.0	0.0	214.4	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	6.6	12.6	25.6	0.0	0.0	11.6	0.0	0.0
3161. Leather and Hide Tanning and Finishing	102.0	587.9	19.8	0.0	0.0	9.0	4.8	0.0
3162. Footwear Manufacturing	153.0	881.8	29.7	0.0	0.0	13.5	7.3	0.0
3169. Other Leather and Allied Product Manufacturing	1,583.5	7,782.7	134.8	0.0	0.0	78.1	14.5	0.0
3211. Sawmills and Wood Preservation	96.8	159.3	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	5,319.2	22,086.5	1,404.1	0.0	0.0	864.4	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	9,599.1	5,030.2	113.1	0.0	3,533.5	51.2	1,933.6	0.0
3231. Printing and Related Support Activities	1,462.7	4,292.5	94.0	0.0	0.0	44.5	20.9	0.0
3251. Basic Chemical Manufacturing	16,846.1	6,319.3	144.9	0.0	0.0	118.8	0.0	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	701.3	673.8	34.1	0.0	0.0	15.4	8.3	0.0
3253. Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	26.7	51.2	103.7	0.0	0.0	46.9	25.3	0.0
3259. Other Chemical Product and Preparation Manufacturing	1,573.8	2,530.6	231.3	0.0	0.0	142.3	16.0	0.0
3261. Plastics Product Manufacturing	5,180.7	15,882.4	88.9	0.0	2,139.8	558.3	0.0	0.0
3262. Rubber Product Manufacturing	227.6	830.8	4.5	0.0	52.9	26.9	0.0	0.0
3271. Clay Product and Refractory Manufacturing	415.5	159.7	32.3	0.0	0.0	14.6	0.0	0.0
3272. Glass and Glass Product Manufacturing	6,589.0	2,026.6	410.0	0.0	25.2	185.7	0.0	0.0
3311. Iron and Steel Mills and Ferroalloy Manufacturing	33,822.3	31,134.5	203.7	0.0	642.2	101.6	0.0	1,303.3
3312. Steel Product Manufacturing from Purchased Steel	2,105.1	1,617.9	163.7	0.0	0.0	74.1	0.0	0.0
3315. Foundries	329.7	842.1	82.9	0.0	0.0	58.0	0.0	1.5
3321. Forging and Stamping	334.5	450.3	37.1	0.0	0.0	19.6	0.0	0.0
3322. Cutlery and Handtool Manufacturing	28.5	43.2	5.5	0.0	0.0	2.5	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	1,694.4	2,455.9	273.5	0.0	0.0	129.4	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	85.4	129.6	16.6	0.0	0.0	7.5	0.0	0.0
3325. Hardware Manufacturing	28.5	43.2	5.5	0.0	0.0	2.5	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3326. Spring and Wire Product Manufacturing	220.6	277.4	14.9	0.0	0.0	9.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	448.4	623.1	59.2	0.0	0.0	29.6	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	448.4	623.1	59.2	0.0	0.0	29.6	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	420.0	579.9	53.7	0.0	0.0	27.1	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	31.2	75.0	14.4	0.0	0.0	6.5	0.0	0.0
3332. Industrial Machinery Manufacturing	109.3	262.4	50.4	0.0	0.0	22.8	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	37.5	7.2	0.0	0.0	3.3	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	62.4	150.0	28.8	0.0	0.0	13.1	0.0	0.0
3335. Metalworking Machinery Manufacturing	124.9	299.9	57.6	0.0	0.0	26.1	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	124.9	299.9	57.6	0.0	0.0	26.1	0.0	0.0
3344. Semiconductor and Other Electronic Component Manufacturing	433.9	1,458.9	42.2	0.0	0.0	19.1	10.3	0.0
3351. Electric Lighting Equipment Manufacturing	665.6	1,705.2	43.1	0.0	0.0	19.5	0.0	0.8
3353. Electrical Equipment Manufacturing	124.8	319.7	8.1	0.0	0.0	3.7	0.0	0.1
3359. Other Electrical Equipment and Component Manufacturing	751.2	1,913.8	14.7	0.0	0.0	12.7	0.0	0.5
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	325.1	624.6	126.4	0.0	0.0	57.2	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	99.3	190.7	38.6	0.0	0.0	17.5	0.0	0.0
3379. Other Furniture Related Product Manufacturing	22.3	42.9	8.7	0.0	0.0	3.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	2,002.4	2,801.7	53.1	0.0	0.0	30.8	10.5	0.0
3399. Other Miscellaneous Manufacturing	3,925.1	7,306.1	95.4	0.0	0.0	69.3	71.1	0.0
<b>Lewis</b>								
1111. Oilseed and Grain Farming	0.0	83.8	420.4	0.0	0.0	158.7	118.9	0.0
1112. Vegetable and Melon Farming	0.0	79.7	192.8	0.0	0.0	72.8	54.5	0.0
1113. Fruit and Tree Nut Farming	0.0	36.1	70.9	0.0	0.0	26.8	20.1	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	295.2	866.6	0.0	0.0	327.2	245.2	0.0
1121. Cattle Ranching and Farming	0.0	3,922.4	9,851.1	0.0	0.0	3,719.3	2,787.2	0.0
1122. Hog and Pig Farming	0.0	17.3	37.3	0.0	0.0	14.1	10.5	0.0
1123. Poultry and Egg Production	0.0	40.5	51.9	0.0	0.0	19.6	14.7	0.0
1124. Sheep and Goat Farming	0.0	14.0	25.1	0.0	0.0	9.5	7.1	0.0
2123. Nonmetallic Mineral Mining and Quarrying	379.0	141.4	283.4	0.0	735.9	0.0	157.1	0.0
2369. Building Construction (unclassified)	110.2	174.1	568.6	0.0	0.0	17.6	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
2388. Specialty Trade Contractors (unclassified)	512.1	304.5	2,485.0	0.0	0.0	86.2	0.0	0.0
3115. Dairy Product Manufacturing	4,905.0	1,165.4	188.5	0.0	0.0	23.0	27.6	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	52.8	39.6	3.0	0.0	0.0	1.3	5.8	0.0
3211. Sawmills and Wood Preservation	290.3	222.1	161.2	0.0	2.5	7.3	3.9	0.0
3221. Pulp, Paper, and Paperboard Mills	19,198.1	4,675.0	226.1	0.0	7,067.0	102.4	3,867.1	0.0
3323. Architectural and Structural Metals Manufacturing	57.0	40.2	11.1	0.0	0.0	5.0	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	683.0	478.3	21.7	0.0	0.0	29.5	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	485.6	538.3	36.6	0.0	0.0	49.8	0.0	0.0
3359. Other Electrical Equipment and Component Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3399. Other Miscellaneous Manufacturing	388.6	283.6	7.6	0.0	0.0	5.2	0.0	0.0
<b>Livingston</b>								
1111. Oilseed and Grain Farming	0.0	512.9	2,571.9	0.0	0.0	971.0	727.7	0.0
1112. Vegetable and Melon Farming	0.0	153.7	371.8	0.0	0.0	140.4	105.2	0.0
1113. Fruit and Tree Nut Farming	0.0	132.5	260.0	0.0	0.0	98.2	73.6	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	314.3	922.5	0.0	0.0	348.3	261.0	0.0
1121. Cattle Ranching and Farming	0.0	1,113.1	2,822.4	0.0	0.0	1,065.6	798.5	0.0
1122. Hog and Pig Farming	0.0	17.3	37.3	0.0	0.0	14.1	10.5	0.0
1123. Poultry and Egg Production	0.0	108.1	138.4	0.0	0.0	52.2	39.1	0.0
1124. Sheep and Goat Farming	0.0	24.0	43.0	0.0	0.0	16.2	12.2	0.0
2123. Nonmetallic Mineral Mining and Quarrying	85.9	166.6	458.9	0.0	194.5	0.0	103.7	0.0
2131. Support Activities for Mining	227.0	20.1	270.9	0.0	0.0	0.0	67.8	0.0
2369. Building Construction (unclassified)	247.8	391.7	1,279.2	0.0	0.0	39.5	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	155.7	291.5	3,671.2	0.0	0.0	477.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	907.8	539.8	4,405.3	0.0	0.0	152.8	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	207.2	93.7	10.2	0.0	1.6	4.6	2.5	0.0
3115. Dairy Product Manufacturing	237.9	106.2	92.5	0.0	0.0	4.2	22.6	0.0
3116. Animal Slaughtering and Processing	457.1	310.8	136.7	0.0	42.7	6.2	33.4	0.0
3121. Beverage Manufacturing	105.5	79.2	5.9	0.0	0.0	2.7	11.6	0.0
3211. Sawmills and Wood Preservation	193.5	148.1	107.5	0.0	1.7	4.9	2.6	0.0
3219. Other Wood Product Manufacturing	87.9	179.5	48.8	0.0	0.0	22.1	0.0	0.0
3231. Printing and Related Support Activities	377.6	444.5	9.6	0.0	0.0	6.3	0.3	0.0
3251. Basic Chemical Manufacturing	2,635.0	427.3	34.6	0.0	0.0	23.5	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3261. Plastics Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3262. Rubber Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	697.3	488.3	24.5	0.0	0.0	30.7	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3332. Industrial Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	46.8	52.3	21.6	0.0	0.0	9.8	0.0	0.0
3335. Metalworking Machinery Manufacturing	485.6	538.3	36.6	0.0	0.0	49.8	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	222.1	215.4	51.2	0.0	0.0	28.3	0.0	0.0
3353. Electrical Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3359. Other Electrical Equipment and Component Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3399. Other Miscellaneous Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0
<b>Madison</b>								
1111. Oilseed and Grain Farming	0.0	167.7	840.8	0.0	0.0	317.5	237.9	0.0
1112. Vegetable and Melon Farming	0.0	216.3	523.2	0.0	0.0	197.5	148.0	0.0
1113. Fruit and Tree Nut Farming	0.0	78.3	153.7	0.0	0.0	58.0	43.5	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	304.7	894.5	0.0	0.0	337.7	253.1	0.0
1121. Cattle Ranching and Farming	0.0	3,300.7	8,289.7	0.0	0.0	3,129.8	2,345.4	0.0
1122. Hog and Pig Farming	0.0	2.9	6.2	0.0	0.0	2.3	1.8	0.0
1123. Poultry and Egg Production	0.0	40.5	51.9	0.0	0.0	19.6	14.7	0.0
1124. Sheep and Goat Farming	0.0	18.0	32.3	0.0	0.0	12.2	9.1	0.0
2123. Nonmetallic Mineral Mining and Quarrying	159.1	347.7	686.0	0.0	851.1	0.0	230.1	0.0
2369. Building Construction (unclassified)	330.5	522.2	1,705.7	0.0	0.0	52.7	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	83.8	156.9	1,976.8	0.0	0.0	257.2	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,361.7	809.8	6,607.9	0.0	0.0	229.3	0.0	0.0
3115. Dairy Product Manufacturing	2,747.5	1,219.1	251.9	0.0	0.0	25.9	373.2	0.0
3116. Animal Slaughtering and Processing	457.1	310.8	136.7	0.0	42.7	6.2	33.4	0.0
3121. Beverage Manufacturing	158.3	118.8	8.9	0.0	0.0	4.0	17.4	0.0
3149. Other Textile Product Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0
3219. Other Wood Product Manufacturing	58.6	119.7	32.6	0.0	0.0	14.7	0.0	0.0
3231. Printing and Related Support Activities	33.9	48.4	2.6	0.0	0.0	1.2	0.6	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3261. Plastics Product Manufacturing	1,155.6	2,238.0	11.9	0.0	550.4	127.0	0.0	0.0
3315. Foundries	213.3	380.9	82.9	0.0	0.0	37.6	0.0	1.5
3324. Boiler, Tank, and Shipping Container Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	740.0	518.4	32.8	0.0	0.0	34.5	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	1,478.8	886.5	74.0	0.0	0.0	84.9	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3353. Electrical Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3359. Other Electrical Equipment and Component Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0
3399. Other Miscellaneous Manufacturing	23.2	20.7	1.5	0.0	0.0	0.7	0.4	0.0
<b>Monroe</b>								
1111. Oilseed and Grain Farming	0.0	335.4	1,681.6	0.0	0.0	634.9	475.8	0.0
1112. Vegetable and Melon Farming	0.0	398.5	963.8	0.0	0.0	363.9	272.7	0.0
1113. Fruit and Tree Nut Farming	0.0	192.7	378.2	0.0	0.0	142.8	107.0	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	742.8	2,180.4	0.0	0.0	823.2	616.9	0.0
1121. Cattle Ranching and Farming	0.0	297.4	763.6	0.0	0.0	288.3	216.0	0.0
1122. Hog and Pig Farming	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1123. Poultry and Egg Production	0.0	27.0	34.6	0.0	0.0	13.1	9.8	0.0
1124. Sheep and Goat Farming	0.0	21.0	37.7	0.0	0.0	14.2	10.7	0.0
2123. Nonmetallic Mineral Mining and Quarrying	593.5	1,307.5	2,514.5	0.0	3,307.2	0.0	868.4	0.0
2369. Building Construction (unclassified)	2,359.1	3,728.0	12,176.6	0.0	0.0	376.1	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	622.9	1,165.8	14,684.9	0.0	0.0	1,910.9	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	11,766.7	6,997.2	57,099.0	0.0	0.0	1,981.0	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	15,766.1	4,702.1	123.7	0.0	428.6	122.4	60.6	0.0
3115. Dairy Product Manufacturing	2,509.6	1,112.9	159.5	0.0	0.0	21.7	350.6	0.0
3116. Animal Slaughtering and Processing	1,599.8	1,087.8	478.4	0.0	149.5	21.7	116.9	0.0
3121. Beverage Manufacturing	15,873.7	9,314.6	284.6	0.0	0.0	49.1	7,443.3	0.0
3132. Fabric Mills	358.5	242.9	5.2	0.0	0.0	2.3	1.3	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	1,075.4	728.7	15.5	0.0	0.0	7.0	3.8	0.0
3141. Textile Furnishings Mills	86.6	21.0	154.0	0.0	0.8	4.4	0.0	0.0



**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3149. Other Textile Product Mills	5,111.0	1,230.9	1,935.5	0.0	166.3	133.8	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	171.4	86.1	84.0	0.0	0.0	87.8	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3169. Other Leather and Allied Product Manufacturing	102.0	273.2	19.8	0.0	0.0	9.0	4.8	0.0
3219. Other Wood Product Manufacturing	498.4	1,017.1	276.8	0.0	0.0	125.3	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	23,188.3	4,615.0	82.9	0.0	15,547.3	56.3	0.0	0.0
3231. Printing and Related Support Activities	5,618.9	6,435.1	111.1	0.0	0.0	90.8	69.6	0.0
3241. Petroleum and Coal Products Manufacturing	774.6	98.8	860.3	0.0	0.0	19.5	10.5	0.0
3251. Basic Chemical Manufacturing	14,356.3	3,927.7	195.9	0.0	0.0	172.2	0.0	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	2,905.8	1,088.9	54.7	0.0	0.0	33.3	4.2	0.0
3254. Pharmaceutical and Medicine Manufacturing	3,019.4	941.5	457.3	0.0	0.0	36.7	0.0	0.0
3259. Other Chemical Product and Preparation Manufacturing	15,978.6	11,285.1	1,723.9	0.0	0.0	649.3	4,269.8	0.0
3261. Plastics Product Manufacturing	20,670.4	33,128.2	272.8	0.0	9,785.5	1,960.9	0.0	0.0
3271. Clay Product and Refractory Manufacturing	831.1	148.4	64.6	0.0	0.0	29.3	0.0	0.0
3272. Glass and Glass Product Manufacturing	3,646.7	1,452.0	243.9	0.0	205.0	157.8	0.0	0.0
3311. Iron and Steel Mills and Ferroalloy Manufacturing	12,242.3	5,713.9	108.2	0.0	169.0	49.0	0.0	491.8
3313. Alumina and Aluminum Production and Processing	799.9	476.2	103.7	0.0	0.0	46.9	25.3	0.0
3315. Foundries	116.4	10.4	0.0	0.0	0.0	20.5	0.0	0.0
3321. Forging and Stamping	1,907.0	1,284.7	92.7	0.0	0.0	86.8	0.0	0.0
3322. Cutlery and Handtool Manufacturing	128.2	90.3	24.9	0.0	0.0	11.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	2,077.8	1,405.1	125.9	0.0	0.0	101.8	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	683.0	478.3	21.7	0.0	0.0	29.5	0.0	0.0
3325. Hardware Manufacturing	3,438.4	1,340.8	79.3	0.0	0.0	86.0	0.0	0.0
3326. Spring and Wire Product Manufacturing	57.0	40.2	11.1	0.0	0.0	5.0	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	7,436.4	4,880.5	527.0	0.0	0.0	372.8	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	313.3	220.8	60.9	0.0	0.0	27.6	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	3,102.4	2,071.0	158.1	0.0	0.0	141.6	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	46.8	52.3	21.6	0.0	0.0	9.8	0.0	0.0
3332. Industrial Machinery Manufacturing	3,411.0	2,967.1	300.7	0.0	0.0	297.3	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	37,608.2	3,032.2	321.9	0.0	0.0	265.6	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3335. Metalworking Machinery Manufacturing	4,831.2	3,730.3	619.9	0.0	0.0	437.0	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	1,280.4	1,295.2	198.2	0.0	0.0	143.2	0.0	0.0
3344. Semiconductor and Other Electronic Component Manufacturing	4,962.3	7,704.4	96.5	0.0	0.0	112.0	170.9	0.0
3351. Electric Lighting Equipment Manufacturing	386.5	394.2	11.4	0.0	0.0	6.5	0.0	0.4
3353. Electrical Equipment Manufacturing	834.4	988.4	20.1	0.0	0.0	15.1	0.0	0.6
3359. Other Electrical Equipment and Component Manufacturing	917.6	1,087.4	25.5	0.0	0.0	17.6	0.0	0.7
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	39.7	35.4	15.4	0.0	0.0	7.0	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	12.4	11.1	4.8	0.0	0.0	2.2	0.0	0.0
3379. Other Furniture Related Product Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	4,830.8	3,155.1	84.0	0.0	0.0	24.8	233.2	0.0
3399. Other Miscellaneous Manufacturing	697.4	559.3	27.6	0.0	0.0	14.3	4.9	0.0
<b>Montgomery</b>								
1111. Oilseed and Grain Farming	0.0	78.9	395.7	0.0	0.0	149.4	111.9	0.0
1112. Vegetable and Melon Farming	0.0	148.0	358.0	0.0	0.0	135.2	101.3	0.0
1113. Fruit and Tree Nut Farming	0.0	144.5	283.7	0.0	0.0	107.1	80.3	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	190.5	559.1	0.0	0.0	211.1	158.2	0.0
1121. Cattle Ranching and Farming	0.0	2,517.0	6,311.6	0.0	0.0	2,383.0	1,785.7	0.0
1122. Hog and Pig Farming	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1123. Poultry and Egg Production	0.0	67.6	86.5	0.0	0.0	32.6	24.5	0.0
1124. Sheep and Goat Farming	0.0	15.0	26.9	0.0	0.0	10.2	7.6	0.0
2123. Nonmetallic Mineral Mining and Quarrying	391.4	876.4	1,599.0	0.0	2,358.8	0.0	586.5	0.0
2369. Building Construction (unclassified)	169.8	268.4	876.5	0.0	0.0	27.1	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	35.9	67.3	847.2	0.0	0.0	110.2	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	710.0	422.2	3,445.1	0.0	0.0	119.5	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	5,535.3	1,375.6	36.1	0.0	159.5	36.3	6.3	0.0
3115. Dairy Product Manufacturing	475.8	212.4	185.0	0.0	0.0	8.4	45.2	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	52.8	39.6	3.0	0.0	0.0	1.3	5.8	0.0
3132. Fabric Mills	716.9	485.8	10.3	0.0	0.0	4.7	2.5	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	17,136.7	11,536.0	44.6	0.0	0.0	56.0	88.1	0.0
3149. Other Textile Product Mills	4,937.8	1,188.9	1,627.5	0.0	164.8	125.1	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3161. Leather and Hide Tanning and Finishing	1,328.6	2,933.6	85.3	0.0	0.0	55.7	2.4	0.0
3219. Other Wood Product Manufacturing	12,677.6	13,853.7	739.8	0.0	0.0	867.1	0.0	0.0
3231. Printing and Related Support Activities	1,954.1	1,503.8	16.9	0.0	0.0	19.1	2.7	0.0
3241. Petroleum and Coal Products Manufacturing	258.2	32.9	286.8	0.0	0.0	6.5	3.5	0.0
3261. Plastics Product Manufacturing	565.2	1,129.3	8.6	0.0	262.6	72.4	0.0	0.0
3313. Alumina and Aluminum Production and Processing	22,433.1	11,427.7	0.0	0.0	0.0	0.0	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	683.0	478.3	21.7	0.0	0.0	29.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	57.0	40.2	11.1	0.0	0.0	5.0	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	234.8	139.0	17.7	0.0	0.0	10.8	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	159.7	145.7	22.4	0.0	0.0	15.2	0.0	0.0
3353. Electrical Equipment Manufacturing	303.3	295.1	6.0	0.0	0.0	4.1	0.0	0.3
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0
3399. Other Miscellaneous Manufacturing	38.6	34.5	2.5	0.0	0.0	1.1	0.6	0.0
<b>Nassau</b>								
1112. Vegetable and Melon Farming	0.0	45.6	27.5	0.0	0.0	10.4	7.8	0.0
1113. Fruit and Tree Nut Farming	0.0	96.5	47.3	0.0	0.0	17.9	13.4	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	534.1	391.4	0.0	0.0	147.8	110.7	0.0
1121. Cattle Ranching and Farming	0.0	13.7	9.7	0.0	0.0	3.7	2.7	0.0
1123. Poultry and Egg Production	0.0	162.4	51.9	0.0	0.0	19.6	14.7	0.0
2111. Oil and Gas Extraction	14,741.4	5,678.2	591.6	0.0	940.4	0.0	102.0	0.0
2123. Nonmetallic Mineral Mining and Quarrying	85.9	667.6	458.9	0.0	194.5	0.0	103.7	0.0
2369. Building Construction (unclassified)	6,779.1	42,913.5	34,989.8	0.0	0.0	1,080.8	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	1,078.1	8,083.1	25,416.2	0.0	0.0	3,307.3	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	30,225.8	72,001.4	146,672.7	0.0	0.0	5,088.6	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	7,725.0	8,820.3	75.9	0.0	188.9	61.0	8.8	0.0
3115. Dairy Product Manufacturing	5,494.9	9,767.2	503.9	0.0	0.0	51.7	746.4	0.0
3116. Animal Slaughtering and Processing	2,913.6	6,827.6	407.3	0.0	443.3	23.0	50.1	0.0
3121. Beverage Manufacturing	474.8	1,427.5	26.7	0.0	0.0	12.1	52.3	0.0
3132. Fabric Mills	1,433.9	3,892.1	20.6	0.0	0.0	9.3	5.0	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	1,792.4	4,865.1	25.8	0.0	0.0	11.7	6.3	0.0
3141. Textile Furnishings Mills	5,067.7	4,888.9	1,858.5	0.0	165.9	131.7	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3149. Other Textile Product Mills	736.5	715.0	1,308.8	0.0	6.4	37.0	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	83.9	288.4	99.2	0.0	0.0	81.8	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	0.8	2.9	3.2	0.0	0.0	1.4	0.0	0.0
3161. Leather and Hide Tanning and Finishing	51.0	547.1	9.9	0.0	0.0	4.5	2.4	0.0
3169. Other Leather and Allied Product Manufacturing	51.0	547.1	9.9	0.0	0.0	4.5	2.4	0.0
3211. Sawmills and Wood Preservation	193.5	593.2	107.5	0.0	1.7	4.9	2.6	0.0
3219. Other Wood Product Manufacturing	2,574.5	20,934.5	465.2	0.0	0.0	381.4	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	9,599.1	9,363.7	113.1	0.0	3,533.5	51.2	1,933.6	0.0
3231. Printing and Related Support Activities	2,177.0	12,229.8	93.6	0.0	0.0	55.0	46.9	0.0
3241. Petroleum and Coal Products Manufacturing	37,374.6	36,754.4	5,262.0	0.0	777.4	2,259.7	125.0	0.0
3251. Basic Chemical Manufacturing	328.2	2,641.0	31.9	0.0	0.0	14.4	0.0	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	701.3	1,254.2	34.1	0.0	0.0	15.4	8.3	0.0
3253. Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	26.7	95.4	103.7	0.0	0.0	46.9	25.3	0.0
3254. Pharmaceutical and Medicine Manufacturing	4,359.0	7,697.5	1,512.9	0.0	0.0	44.0	0.0	0.0
3259. Other Chemical Product and Preparation Manufacturing	168.4	602.3	65.5	0.0	0.0	29.6	16.0	0.0
3261. Plastics Product Manufacturing	2,360.8	16,979.6	49.9	0.0	660.3	304.9	0.0	0.0
3262. Rubber Product Manufacturing	101.2	814.8	4.9	0.0	13.8	22.3	0.0	0.0
3272. Glass and Glass Product Manufacturing	407.0	603.6	38.6	0.0	1.8	17.5	0.0	0.0
3312. Steel Product Manufacturing from Purchased Steel	421.0	602.3	32.7	0.0	0.0	14.8	0.0	0.0
3313. Alumina and Aluminum Production and Processing	1,079.1	2,054.1	414.6	0.0	0.0	507.0	0.0	0.0
3314. Nonferrous Metal (except Aluminum) Production and Processing	31.2	1,116.5	121.3	0.0	0.0	55.0	0.0	0.0
3315. Foundries	575.4	1,697.5	133.7	0.0	0.0	122.0	12.4	1.5
3321. Forging and Stamping	71.2	201.1	13.8	0.0	0.0	6.3	0.0	0.0
3322. Cutlery and Handtool Manufacturing	3,232.1	4,894.8	67.1	0.0	0.0	77.8	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	3,687.8	6,181.6	155.7	0.0	0.0	117.9	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	725.8	2,036.5	30.0	0.0	0.0	33.2	0.0	0.0
3325. Hardware Manufacturing	14.2	40.2	2.8	0.0	0.0	1.3	0.0	0.0
3326. Spring and Wire Product Manufacturing	28.5	80.4	5.5	0.0	0.0	2.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	1,153.0	3,242.9	113.0	0.0	0.0	70.9	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3328. Coating, Engraving, Heat Treating, and Allied Activities	1,060.3	2,874.7	67.1	0.0	0.0	52.8	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	1,074.5	2,914.9	69.9	0.0	0.0	54.1	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	69.8	7.2	0.0	0.0	3.3	0.0	0.0
3332. Industrial Machinery Manufacturing	579.2	2,575.2	79.9	0.0	0.0	69.4	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	62.4	279.1	28.8	0.0	0.0	13.1	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	723.3	3,089.0	95.0	0.0	0.0	81.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	109.3	488.5	50.4	0.0	0.0	22.8	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	548.0	2,435.6	65.5	0.0	0.0	62.8	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	929.8	3,881.9	139.0	0.0	0.0	106.3	0.0	0.0
3344. Semiconductor and Other Electronic Component Manufacturing	5,179.2	32,220.7	117.5	0.0	0.0	121.5	176.0	0.0
3351. Electric Lighting Equipment Manufacturing	594.5	2,571.0	24.8	0.0	0.0	12.6	0.0	0.6
3353. Electrical Equipment Manufacturing	1,096.1	4,943.2	23.4	0.0	0.0	17.9	0.0	0.8
3359. Other Electrical Equipment and Component Manufacturing	249.6	1,190.3	16.2	0.0	0.0	7.3	0.0	0.3
3361. Motor Vehicle Manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3364. Aerospace Product and Parts Manufacturing	5,887.8	12,031.4	398.7	0.0	0.0	340.2	77.1	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	189.9	637.7	56.7	0.0	0.0	27.4	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	224.7	679.4	35.9	0.0	0.0	21.3	0.0	0.0
3379. Other Furniture Related Product Manufacturing	70.7	211.7	10.4	0.0	0.0	6.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	726.9	2,473.1	38.3	0.0	0.0	18.2	8.4	0.0
3399. Other Miscellaneous Manufacturing	710.2	2,540.2	46.0	0.0	0.0	20.8	11.2	0.0
<b>New York</b>								
1112. Vegetable and Melon Farming	0.0	85.8	96.4	0.0	0.0	36.4	27.3	0.0
2111. Oil and Gas Extraction	22,112.2	4,575.5	887.4	0.0	1,410.5	0.0	152.9	0.0
2122. Metal Ore Mining	13,623.9	35,315.2	14,315.0	0.0	15,052.7	0.0	8,388.1	0.0
2131. Support Activities for Mining	328.8	153.8	894.9	0.0	152.8	0.0	698.9	0.0
2369. Building Construction (unclassified)	4,167.5	14,172.3	21,510.3	0.0	0.0	664.4	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	718.7	2,894.9	16,944.2	0.0	0.0	2,204.9	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	10,521.4	13,464.1	51,055.9	0.0	0.0	1,771.3	0.0	0.0
3113. Sugar and Confectionery Product Manufacturing	2,133.1	2,049.4	0.0	0.0	0.0	187.8	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	1,036.0	1,007.9	51.0	0.0	8.0	23.1	12.5	0.0
3115. Dairy Product Manufacturing	2,141.1	2,057.0	832.3	0.0	0.0	37.7	203.3	0.0
3116. Animal Slaughtering and Processing	914.2	1,337.7	273.4	0.0	85.4	12.4	66.8	0.0
3121. Beverage Manufacturing	2,313.3	3,302.8	72.7	0.0	0.0	38.6	92.9	0.0
3131. Fiber, Yarn, and Thread Mills	1,075.4	1,568.1	15.5	0.0	0.0	7.0	3.8	0.0
3132. Fabric Mills	6,452.5	9,408.9	92.9	0.0	0.0	42.1	22.7	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	9,678.7	14,113.3	139.3	0.0	0.0	63.1	34.0	0.0
3141. Textile Furnishings Mills	1,647.7	747.7	1,478.6	0.0	22.6	50.8	0.0	0.0
3149. Other Textile Product Mills	779.8	406.7	1,385.7	0.0	6.8	39.2	0.0	0.0
3151. Apparel Knitting Mills	3.3	6.3	12.8	0.0	0.0	5.8	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	399.1	732.5	928.8	0.0	0.0	511.0	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	12.7	24.5	49.5	0.0	0.0	22.4	0.0	0.0
3161. Leather and Hide Tanning and Finishing	255.0	1,469.7	49.6	0.0	0.0	22.4	12.1	0.0
3162. Footwear Manufacturing	255.0	1,469.7	49.6	0.0	0.0	22.4	12.1	0.0
3169. Other Leather and Allied Product Manufacturing	1,070.8	6,172.6	208.1	0.0	0.0	94.3	50.8	0.0
3219. Other Wood Product Manufacturing	175.9	772.5	97.7	0.0	0.0	44.2	0.0	0.0
3231. Printing and Related Support Activities	3,105.1	9,320.8	155.9	0.0	0.0	84.2	61.1	0.0
3251. Basic Chemical Manufacturing	328.2	1,418.8	31.9	0.0	0.0	14.4	0.0	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	350.7	336.9	17.0	0.0	0.0	7.7	4.2	0.0
3254. Pharmaceutical and Medicine Manufacturing	2,435.2	2,794.9	832.3	0.0	0.0	56.5	0.0	0.0
3259. Other Chemical Product and Preparation Manufacturing	168.4	323.6	65.5	0.0	0.0	29.6	16.0	0.0
3261. Plastics Product Manufacturing	303.7	1,313.1	14.8	0.0	41.5	66.8	0.0	0.0
3262. Rubber Product Manufacturing	33.7	145.9	1.6	0.0	4.6	7.4	0.0	0.0
3271. Clay Product and Refractory Manufacturing	415.5	159.7	32.3	0.0	0.0	14.6	0.0	0.0
3272. Glass and Glass Product Manufacturing	5,937.2	1,400.4	283.3	0.0	5.4	128.3	0.0	0.0
3274. Lime and Gypsum Product Manufacturing	4,571.0	175.7	355.4	0.0	0.0	160.9	0.0	0.0
3314. Nonferrous Metal (except Aluminum) Production and Processing	140.5	2,699.2	546.1	0.0	0.0	247.3	0.0	0.0
3321. Forging and Stamping	14.2	21.6	2.8	0.0	0.0	1.3	0.0	0.0
3322. Cutlery and Handtool Manufacturing	14.2	21.6	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	113.9	172.8	22.1	0.0	0.0	10.0	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	28.5	43.2	5.5	0.0	0.0	2.5	0.0	0.0
3325. Hardware Manufacturing	28.5	43.2	5.5	0.0	0.0	2.5	0.0	0.0
3326. Spring and Wire Product Manufacturing	14.2	21.6	2.8	0.0	0.0	1.3	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	42.7	64.8	8.3	0.0	0.0	3.8	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	71.2	108.0	13.8	0.0	0.0	6.3	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	142.4	216.0	27.7	0.0	0.0	12.5	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	37.5	7.2	0.0	0.0	3.3	0.0	0.0
3332. Industrial Machinery Manufacturing	15.6	37.5	7.2	0.0	0.0	3.3	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	78.0	187.4	36.0	0.0	0.0	16.3	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	485.6	1,158.5	36.6	0.0	0.0	49.8	0.0	0.0
3335. Metalworking Machinery Manufacturing	93.6	224.9	43.2	0.0	0.0	19.6	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	31.2	75.0	14.4	0.0	0.0	6.5	0.0	0.0
3344. Semiconductor and Other Electronic Component Manufacturing	216.9	729.4	21.1	0.0	0.0	9.5	5.1	0.0
3351. Electric Lighting Equipment Manufacturing	249.6	639.5	16.2	0.0	0.0	7.3	0.0	0.3
3352. Household Appliance Manufacturing	41.6	106.6	2.7	0.0	0.0	1.2	0.0	0.0
3359. Other Electrical Equipment and Component Manufacturing	124.8	319.7	8.1	0.0	0.0	3.7	0.0	0.1
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	213.5	365.7	48.7	0.0	0.0	25.4	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	29.8	57.2	11.6	0.0	0.0	5.2	0.0	0.0
3379. Other Furniture Related Product Manufacturing	2.5	4.8	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	456.7	809.4	20.8	0.0	0.0	10.3	4.2	0.0
3399. Other Miscellaneous Manufacturing	9,091.2	14,695.5	291.8	0.0	0.0	128.2	292.9	0.0
<b>Niagara</b>								
1111. Oilseed and Grain Farming	0.0	335.4	1,681.6	0.0	0.0	634.9	475.8	0.0
1112. Vegetable and Melon Farming	0.0	404.2	977.6	0.0	0.0	369.1	276.6	0.0
1113. Fruit and Tree Nut Farming	0.0	566.0	1,111.0	0.0	0.0	419.5	314.3	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	504.7	1,481.6	0.0	0.0	559.4	419.2	0.0
1121. Cattle Ranching and Farming	0.0	413.6	1,064.9	0.0	0.0	402.0	301.3	0.0
1122. Hog and Pig Farming	0.0	14.4	31.0	0.0	0.0	11.7	8.8	0.0
1123. Poultry and Egg Production	0.0	162.2	207.5	0.0	0.0	78.4	58.7	0.0
1124. Sheep and Goat Farming	0.0	14.0	25.1	0.0	0.0	9.5	7.1	0.0
2123. Nonmetallic Mineral Mining and Quarrying	43.0	83.3	229.5	0.0	97.3	0.0	51.9	0.0
2131. Support Activities for Mining	29.4	16.9	341.1	0.0	131.1	0.0	212.3	0.0
2369. Building Construction (unclassified)	679.3	1,073.4	3,506.1	0.0	0.0	108.3	0.0	0.0



**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
2378. Heavy and Civil Engineering Construction (unclassified)	143.7	269.0	3,388.8	0.0	0.0	441.0	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	3,631.3	2,159.4	17,621.1	0.0	0.0	611.3	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	2,189.7	826.2	39.8	0.0	29.4	24.7	2.5	0.0
3115. Dairy Product Manufacturing	237.9	106.2	92.5	0.0	0.0	4.2	22.6	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	2,739.5	2,046.1	60.0	0.0	0.0	43.9	405.4	0.0
3122. Tobacco Manufacturing	5,799.4	928.5	155.5	0.0	1,166.1	70.4	0.0	0.0
3141. Textile Furnishings Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0
3149. Other Textile Product Mills	173.3	42.0	307.9	0.0	1.5	8.7	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	205.2	418.8	114.0	0.0	0.0	51.6	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	44,369.0	11,574.2	165.8	0.0	0.0	225.3	364.6	0.0
3231. Printing and Related Support Activities	290.6	367.6	12.7	0.0	0.0	6.7	2.1	0.0
3241. Petroleum and Coal Products Manufacturing	421.0	79.5	561.1	0.0	20.5	69.0	5.3	0.0
3251. Basic Chemical Manufacturing	59,107.6	42,414.2	933.3	0.0	0.0	459.2	0.0	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	1,628.2	622.7	35.9	0.0	0.0	20.5	4.2	0.0
3254. Pharmaceutical and Medicine Manufacturing	321.6	172.3	250.0	0.0	0.0	11.3	0.0	0.0
3261. Plastics Product Manufacturing	952.9	1,765.9	14.3	0.0	359.1	111.2	0.0	0.0
3262. Rubber Product Manufacturing	67.5	135.6	3.3	0.0	9.2	14.9	0.0	0.0
3271. Clay Product and Refractory Manufacturing	4,319.3	644.0	124.4	0.0	0.0	77.2	0.0	0.0
3279. Other Nonmetallic Mineral Product Manufacturing	3,889.8	1,450.0	280.5	0.0	0.0	174.0	0.0	0.0
3311. Iron and Steel Mills and Ferroalloy Manufacturing	663.2	5,897.0	0.0	0.0	0.0	0.0	0.0	0.0
3312. Steel Product Manufacturing from Purchased Steel	421.0	150.4	32.7	0.0	0.0	14.8	0.0	0.0
3315. Foundries	3,262.4	289.4	0.0	0.0	0.0	281.7	0.0	0.0
3321. Forging and Stamping	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	142.4	100.4	27.7	0.0	0.0	12.5	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	71.2	50.2	13.8	0.0	0.0	6.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	1,167.2	819.6	115.8	0.0	0.0	72.1	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	974.8	657.4	50.5	0.0	0.0	45.3	0.0	0.0



**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3329. Other Fabricated Metal Product Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3332. Industrial Machinery Manufacturing	563.6	625.4	72.7	0.0	0.0	66.1	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	501.2	555.8	43.8	0.0	0.0	53.0	0.0	0.0
3335. Metalworking Machinery Manufacturing	428.7	413.3	95.2	0.0	0.0	53.2	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	190.9	180.5	36.8	0.0	0.0	21.7	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	1,384.2	1,472.5	161.3	0.0	0.0	149.5	0.0	0.0
3344. Semiconductor and Other Electronic Component Manufacturing	650.8	1,016.9	63.2	0.0	0.0	28.6	15.4	0.0
3351. Electric Lighting Equipment Manufacturing	83.2	99.0	5.4	0.0	0.0	2.4	0.0	0.1
3353. Electrical Equipment Manufacturing	428.1	443.7	14.1	0.0	0.0	7.7	0.0	0.5
3359. Other Electrical Equipment and Component Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	268.3	238.1	22.7	0.0	0.0	24.7	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	7.4	6.6	2.9	0.0	0.0	1.3	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	38.6	34.5	2.5	0.0	0.0	1.1	0.6	0.0
3399. Other Miscellaneous Manufacturing	84.9	75.8	5.5	0.0	0.0	2.5	1.3	0.0
<b>Oneida</b>								
1111. Oilseed and Grain Farming	0.0	414.3	2,077.3	0.0	0.0	784.3	587.7	0.0
1112. Vegetable and Melon Farming	0.0	341.6	826.1	0.0	0.0	311.9	233.7	0.0
1113. Fruit and Tree Nut Farming	0.0	96.3	189.1	0.0	0.0	71.4	53.5	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	428.5	1,257.9	0.0	0.0	474.9	355.9	0.0
1121. Cattle Ranching and Farming	0.0	3,400.2	8,551.3	0.0	0.0	3,228.6	2,419.4	0.0
1122. Hog and Pig Farming	0.0	5.8	12.4	0.0	0.0	4.7	3.5	0.0
1123. Poultry and Egg Production	0.0	189.2	242.1	0.0	0.0	91.4	68.5	0.0
1124. Sheep and Goat Farming	0.0	32.0	57.4	0.0	0.0	21.7	16.2	0.0
2123. Nonmetallic Mineral Mining and Quarrying	288.0	597.7	1,374.4	0.0	1,142.9	0.0	385.6	0.0
2131. Support Activities for Mining	227.0	20.1	270.9	0.0	0.0	0.0	67.8	0.0
2369. Building Construction (unclassified)	780.3	1,233.0	4,027.3	0.0	0.0	124.4	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	299.5	560.5	7,060.1	0.0	0.0	918.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	3,189.0	1,896.4	15,474.9	0.0	0.0	536.9	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3115. Dairy Product Manufacturing	2,985.3	1,325.3	344.4	0.0	0.0	30.0	395.8	0.0
3116. Animal Slaughtering and Processing	8,981.4	5,800.7	589.5	0.0	2,792.5	60.2	717.9	0.0
3121. Beverage Manufacturing	3,892.2	2,709.8	67.3	0.0	0.0	52.9	370.6	0.0
3132. Fabric Mills	4,311.9	2,387.9	18.8	0.0	0.0	12.8	0.0	0.0
3149. Other Textile Product Mills	25,265.9	3,268.6	4,576.4	0.0	842.9	342.3	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	2.1	1.8	8.0	0.0	0.0	3.6	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	0.8	0.7	3.2	0.0	0.0	1.4	0.0	0.0
3211. Sawmills and Wood Preservation	290.3	222.1	161.2	0.0	2.5	7.3	3.9	0.0
3219. Other Wood Product Manufacturing	2,369.3	4,807.1	351.3	0.0	0.0	329.8	0.0	0.0
3231. Printing and Related Support Activities	951.3	1,259.2	21.3	0.0	0.0	17.4	15.7	0.0
3241. Petroleum and Coal Products Manufacturing	258.2	32.9	286.8	0.0	0.0	6.5	3.5	0.0
3251. Basic Chemical Manufacturing	19,845.2	2,033.0	857.2	0.0	0.0	388.2	0.0	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	350.7	156.5	17.0	0.0	0.0	7.7	4.2	0.0
3253. Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	0.0	95.2	414.6	0.0	0.0	187.8	0.0	0.0
3261. Plastics Product Manufacturing	328.8	589.5	9.4	0.0	66.7	49.1	0.0	0.0
3271. Clay Product and Refractory Manufacturing	415.5	74.2	32.3	0.0	0.0	14.6	0.0	0.0
3312. Steel Product Manufacturing from Purchased Steel	9,541.8	3,387.2	176.0	0.0	0.0	179.9	0.0	0.0
3314. Nonferrous Metal (except Aluminum) Production and Processing	23,565.0	0.0	0.0	0.0	0.0	0.0	39.5	0.0
3315. Foundries	13.1	11.7	50.8	0.0	0.0	23.0	12.4	0.0
3321. Forging and Stamping	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	363.0	229.3	42.6	0.0	0.0	22.1	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	405.7	259.4	50.9	0.0	0.0	25.8	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	249.1	149.0	20.5	0.0	0.0	12.0	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	661.8	386.8	44.8	0.0	0.0	28.6	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	485.6	538.3	36.6	0.0	0.0	49.8	0.0	0.0
3332. Industrial Machinery Manufacturing	579.2	642.9	79.9	0.0	0.0	69.4	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	501.2	555.8	43.8	0.0	0.0	53.0	0.0	0.0
3335. Metalworking Machinery Manufacturing	2,808.9	2,413.0	354.2	0.0	0.0	48.8	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	485.6	538.3	36.6	0.0	0.0	49.8	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	78.0	87.1	36.0	0.0	0.0	16.3	0.0	0.0
3351. Electric Lighting Equipment Manufacturing	303.3	295.1	6.0	0.0	0.0	4.1	0.0	0.3
3353. Electrical Equipment Manufacturing	124.8	148.6	8.1	0.0	0.0	3.7	0.0	0.1
3359. Other Electrical Equipment and Component Manufacturing	1,722.5	1,974.7	30.0	0.0	0.0	27.0	0.0	1.2
3364. Aerospace Product and Parts Manufacturing	492.3	439.5	191.4	0.0	0.0	86.7	46.7	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	258.4	229.2	18.8	0.0	0.0	23.0	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	61.8	55.1	4.0	0.0	0.0	1.8	1.0	0.0
3399. Other Miscellaneous Manufacturing	77.2	68.9	5.0	0.0	0.0	2.3	1.2	0.0
<b>Onondaga</b>								
1111. Oilseed and Grain Farming	0.0	251.5	1,261.2	0.0	0.0	476.2	356.8	0.0
1112. Vegetable and Melon Farming	0.0	318.8	771.1	0.0	0.0	291.1	218.2	0.0
1113. Fruit and Tree Nut Farming	0.0	258.9	508.2	0.0	0.0	191.9	143.8	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	514.2	1,509.5	0.0	0.0	569.9	427.1	0.0
1121. Cattle Ranching and Farming	0.0	1,346.9	3,393.0	0.0	0.0	1,281.1	960.0	0.0
1122. Hog and Pig Farming	0.0	4.3	9.3	0.0	0.0	3.5	2.6	0.0
1123. Poultry and Egg Production	0.0	162.2	207.5	0.0	0.0	78.4	58.7	0.0
1124. Sheep and Goat Farming	0.0	26.0	46.6	0.0	0.0	17.6	13.2	0.0
2123. Nonmetallic Mineral Mining and Quarrying	116.2	264.4	456.5	0.0	753.8	0.0	178.2	0.0
2131. Support Activities for Mining	326.8	38.3	455.6	0.0	7.2	0.0	230.0	0.0
2369. Building Construction (unclassified)	1,716.6	2,712.6	8,860.0	0.0	0.0	273.7	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	706.7	1,322.8	16,661.8	0.0	0.0	2,168.1	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	8,100.5	4,817.0	39,308.5	0.0	0.0	1,363.8	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	2,396.9	919.9	50.0	0.0	30.9	29.4	5.0	0.0
3115. Dairy Product Manufacturing	7,414.6	2,278.3	347.9	0.0	0.0	44.7	378.2	0.0
3116. Animal Slaughtering and Processing	8,981.4	5,800.7	589.5	0.0	2,792.5	60.2	717.9	0.0
3121. Beverage Manufacturing	34,620.5	4,405.8	51.1	0.0	0.0	41.8	744.1	0.0
3122. Tobacco Manufacturing	5,799.4	928.5	155.5	0.0	1,166.1	70.4	0.0	0.0
3132. Fabric Mills	358.5	242.9	5.2	0.0	0.0	2.3	1.3	0.0
3141. Textile Furnishings Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3149. Other Textile Product Mills	86.6	21.0	154.0	0.0	0.8	4.4	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	0.8	0.7	3.2	0.0	0.0	1.4	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3211. Sawmills and Wood Preservation	1,683.4	1,066.5	321.2	0.0	25.9	20.6	1.3	0.0
3219. Other Wood Product Manufacturing	351.8	718.0	195.4	0.0	0.0	88.5	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	170,048.1	25,639.1	0.0	0.0	0.0	0.0	0.0	0.0
3231. Printing and Related Support Activities	1,209.0	1,627.3	41.4	0.0	0.0	26.5	20.6	0.0
3241. Petroleum and Coal Products Manufacturing	37,503.6	9,191.6	5,405.4	0.0	777.4	2,263.0	126.8	0.0
3251. Basic Chemical Manufacturing	668.7	2,417.4	111.6	0.0	0.0	50.6	0.0	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	404.0	204.2	17.0	0.0	0.0	101.6	4.2	0.0
3254. Pharmaceutical and Medicine Manufacturing	1,952.8	1,040.3	457.3	0.0	0.0	39.5	0.0	0.0
3259. Other Chemical Product and Preparation Manufacturing	168.4	150.4	65.5	0.0	0.0	29.6	16.0	0.0
3261. Plastics Product Manufacturing	10,308.2	16,093.3	133.6	0.0	2,779.7	182.5	0.0	0.0
3262. Rubber Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3271. Clay Product and Refractory Manufacturing	415.5	74.2	32.3	0.0	0.0	14.6	0.0	0.0
3272. Glass and Glass Product Manufacturing	118.5	52.9	23.0	0.0	3.6	10.4	0.0	0.0
3311. Iron and Steel Mills and Ferroalloy Manufacturing	31,085.8	14,431.2	90.1	0.0	1,436.4	73.5	0.0	737.7
3312. Steel Product Manufacturing from Purchased Steel	421.0	150.4	32.7	0.0	0.0	14.8	0.0	0.0
3314. Nonferrous Metal (except Aluminum) Production and Processing	15.6	139.4	60.7	0.0	0.0	27.5	0.0	0.0
3315. Foundries	1,786.7	2,938.9	256.0	0.0	0.0	230.3	37.2	5.4
3321. Forging and Stamping	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	1,487.2	965.4	94.2	0.0	0.0	70.6	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	206.4	118.9	12.2	0.0	0.0	8.3	0.0	0.0
3326. Spring and Wire Product Manufacturing	234.8	139.0	17.7	0.0	0.0	10.8	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	341.8	240.9	66.4	0.0	0.0	30.1	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	754.2	528.5	35.5	0.0	0.0	35.8	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	839.7	588.7	52.1	0.0	0.0	43.3	0.0	0.0
3332. Industrial Machinery Manufacturing	253.3	250.2	65.6	0.0	0.0	34.8	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	516.8	573.2	51.0	0.0	0.0	56.3	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	594.8	660.3	87.1	0.0	0.0	72.6	0.0	0.0
3335. Metalworking Machinery Manufacturing	46.8	52.3	21.6	0.0	0.0	9.8	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	501.2	555.8	43.8	0.0	0.0	53.0	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	1,710.1	1,865.2	175.5	0.0	0.0	184.1	0.0	0.0
3344. Semiconductor and Other Electronic Component Manufacturing	4,962.3	7,704.4	96.5	0.0	0.0	112.0	170.9	0.0
3351. Electric Lighting Equipment Manufacturing	124.8	148.6	8.1	0.0	0.0	3.7	0.0	0.1
3353. Electrical Equipment Manufacturing	1,544.0	1,828.2	32.1	0.0	0.0	26.6	0.0	1.0
3359. Other Electrical Equipment and Component Manufacturing	10,171.6	9,241.2	171.2	0.0	0.0	13.7	0.0	0.1
3361. Motor Vehicle Manufacturing	0.0	63.5	0.0	0.0	0.0	0.0	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2,194.8	1,501.2	226.3	0.0	0.0	24.4	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	88.1	68.4	17.1	0.0	0.0	9.4	0.0	0.0
3379. Other Furniture Related Product Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	3,872.4	2,781.7	65.3	0.0	0.0	15.5	243.8	0.0
3399. Other Miscellaneous Manufacturing	527.5	407.6	16.6	0.0	0.0	9.3	2.2	0.0
<b>Ontario</b>								
1111. Oilseed and Grain Farming	0.0	680.6	3,412.8	0.0	0.0	1,288.5	965.6	0.0
1112. Vegetable and Melon Farming	0.0	387.1	936.3	0.0	0.0	353.5	264.9	0.0
1113. Fruit and Tree Nut Farming	0.0	271.0	531.9	0.0	0.0	200.8	150.5	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	400.0	1,174.1	0.0	0.0	443.3	332.2	0.0
1121. Cattle Ranching and Farming	0.0	2,164.5	5,451.2	0.0	0.0	2,058.1	1,542.3	0.0
1122. Hog and Pig Farming	0.0	10.1	21.7	0.0	0.0	8.2	6.1	0.0
1123. Poultry and Egg Production	0.0	108.1	138.4	0.0	0.0	52.2	39.1	0.0
1124. Sheep and Goat Farming	0.0	22.0	39.5	0.0	0.0	14.9	11.2	0.0
2123. Nonmetallic Mineral Mining and Quarrying	288.0	597.7	1,374.4	0.0	1,142.9	0.0	385.6	0.0
2369. Building Construction (unclassified)	472.7	747.1	2,440.0	0.0	0.0	75.4	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	167.7	313.9	3,953.6	0.0	0.0	514.5	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	2,385.9	1,418.8	11,577.9	0.0	0.0	401.7	0.0	0.0
3112. Grain and Oilseed Milling	24,317.6	9,142.2	497.5	0.0	0.0	1,351.9	972.3	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	3,127.4	1,405.7	42.2	0.0	85.0	38.9	53.0	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	2,739.5	2,046.1	60.0	0.0	0.0	43.9	405.4	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3149. Other Textile Product Mills	86.6	21.0	154.0	0.0	0.8	4.4	0.0	0.0
3162. Footwear Manufacturing	51.0	136.6	9.9	0.0	0.0	4.5	2.4	0.0
3219. Other Wood Product Manufacturing	175.9	359.0	97.7	0.0	0.0	44.2	0.0	0.0
3231. Printing and Related Support Activities	54.3	77.5	4.2	0.0	0.0	1.9	1.0	0.0
3241. Petroleum and Coal Products Manufacturing	4,729.8	499.1	1,794.4	0.0	0.0	57.7	3.5	0.0
3259. Other Chemical Product and Preparation Manufacturing	168.4	150.4	65.5	0.0	0.0	29.6	16.0	0.0
3261. Plastics Product Manufacturing	11,252.5	17,770.7	141.0	0.0	3,159.4	268.6	0.0	0.0
3262. Rubber Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3272. Glass and Glass Product Manufacturing	105,613.9	2,047.1	61.6	0.0	32.4	36.1	0.0	0.0
3279. Other Nonmetallic Mineral Product Manufacturing	376.4	168.1	73.2	0.0	0.0	33.1	0.0	0.0
3313. Alumina and Aluminum Production and Processing	799.9	476.2	103.7	0.0	0.0	46.9	25.3	0.0
3321. Forging and Stamping	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	71.2	50.2	13.8	0.0	0.0	6.3	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	234.8	139.0	17.7	0.0	0.0	10.8	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	1,501.5	975.5	97.0	0.0	0.0	71.8	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	11,439.3	5,636.2	475.9	0.0	0.0	114.0	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3332. Industrial Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	46.8	52.3	21.6	0.0	0.0	9.8	0.0	0.0
3335. Metalworking Machinery Manufacturing	46.8	52.3	21.6	0.0	0.0	9.8	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	723.3	771.1	95.0	0.0	0.0	81.3	0.0	0.0
3353. Electrical Equipment Manufacturing	83.2	99.0	5.4	0.0	0.0	2.4	0.0	0.1
3359. Other Electrical Equipment and Component Manufacturing	344.9	344.7	8.7	0.0	0.0	5.3	0.0	0.4
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	12.4	11.1	4.8	0.0	0.0	2.2	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	70.7	52.8	10.4	0.0	0.0	6.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3399. Other Miscellaneous Manufacturing	23.2	20.7	1.5	0.0	0.0	0.7	0.4	0.0
<b>Orange</b>								
1111. Oilseed and Grain Farming	0.0	44.4	222.6	0.0	0.0	84.0	63.0	0.0
1112. Vegetable and Melon Farming	0.0	603.4	1,459.5	0.0	0.0	551.0	412.9	0.0
1113. Fruit and Tree Nut Farming	0.0	222.8	437.3	0.0	0.0	165.1	123.7	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	419.0	1,230.0	0.0	0.0	464.4	348.0	0.0
1121. Cattle Ranching and Farming	0.0	637.1	1,606.4	0.0	0.0	606.5	454.5	0.0
1123. Poultry and Egg Production	0.0	162.2	207.5	0.0	0.0	78.4	58.7	0.0
1124. Sheep and Goat Farming	0.0	31.0	55.6	0.0	0.0	21.0	15.7	0.0
2123. Nonmetallic Mineral Mining and Quarrying	202.1	431.0	915.4	0.0	948.4	0.0	281.9	0.0
2369. Building Construction (unclassified)	1,298.9	2,052.6	6,704.2	0.0	0.0	207.1	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	479.1	896.8	11,296.1	0.0	0.0	1,469.9	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	8,170.4	4,858.6	39,647.4	0.0	0.0	1,375.5	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	2,604.1	1,013.6	60.2	0.0	32.5	34.0	7.5	0.0
3115. Dairy Product Manufacturing	237.9	106.2	92.5	0.0	0.0	4.2	22.6	0.0
3116. Animal Slaughtering and Processing	12,981.7	4,770.4	445.3	0.0	4,614.9	49.2	71.9	0.0
3121. Beverage Manufacturing	844.1	633.5	47.6	0.0	0.0	21.5	92.9	0.0
3131. Fiber, Yarn, and Thread Mills	716.9	485.8	10.3	0.0	0.0	4.7	2.5	0.0
3132. Fabric Mills	1,433.9	971.6	20.6	0.0	0.0	9.3	5.0	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	1,075.4	728.7	15.5	0.0	0.0	7.0	3.8	0.0
3141. Textile Furnishings Mills	1,301.1	263.5	862.7	0.0	19.6	33.4	0.0	0.0
3149. Other Textile Product Mills	1,387.7	284.5	1,016.7	0.0	20.4	37.7	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	1.6	1.5	6.4	0.0	0.0	2.9	0.0	0.0
3161. Leather and Hide Tanning and Finishing	153.0	409.8	29.7	0.0	0.0	13.5	7.3	0.0
3219. Other Wood Product Manufacturing	381.1	777.8	211.6	0.0	0.0	95.9	0.0	0.0
3231. Printing and Related Support Activities	189.9	271.3	14.8	0.0	0.0	6.7	3.6	0.0
3241. Petroleum and Coal Products Manufacturing	387.3	49.4	430.1	0.0	0.0	9.7	5.3	0.0
3251. Basic Chemical Manufacturing	5,325.2	9,468.4	128.9	0.0	0.0	121.0	0.0	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	350.7	156.5	17.0	0.0	0.0	7.7	4.2	0.0
3254. Pharmaceutical and Medicine Manufacturing	321.6	172.3	250.0	0.0	0.0	11.3	0.0	0.0
3259. Other Chemical Product and Preparation Manufacturing	1,405.4	1,025.6	165.8	0.0	0.0	112.7	0.0	0.0
3261. Plastics Product Manufacturing	986.7	1,833.7	16.0	0.0	363.7	118.6	0.0	0.0
3262. Rubber Product Manufacturing	67.5	135.6	3.3	0.0	9.2	14.9	0.0	0.0
3271. Clay Product and Refractory Manufacturing	415.5	74.2	32.3	0.0	0.0	14.6	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3272. Glass and Glass Product Manufacturing	644.8	240.1	46.1	0.0	34.2	28.7	0.0	0.0
3273. Cement and Concrete Product Manufacturing	959.9	857.1	124.4	0.0	2,332.1	56.3	30.4	2.2
3279. Other Nonmetallic Mineral Product Manufacturing	752.9	336.1	146.3	0.0	0.0	66.3	0.0	0.0
3314. Nonferrous Metal (except Aluminum) Production and Processing	20,138.6	0.0	18.7	0.0	0.0	0.0	0.0	0.0
3321. Forging and Stamping	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	818.4	497.2	75.3	0.0	0.0	42.4	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	1,366.1	956.5	43.4	0.0	0.0	59.0	0.0	0.0
3325. Hardware Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3326. Spring and Wire Product Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	142.4	100.4	27.7	0.0	0.0	12.5	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	263.3	159.0	23.2	0.0	0.0	13.3	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3332. Industrial Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	62.4	69.7	28.8	0.0	0.0	13.1	0.0	0.0
3335. Metalworking Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	175.3	163.1	29.6	0.0	0.0	18.5	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3351. Electric Lighting Equipment Manufacturing	1,639.3	1,875.7	24.6	0.0	0.0	24.5	0.0	1.1
3353. Electrical Equipment Manufacturing	124.8	148.6	8.1	0.0	0.0	3.7	0.0	0.1
3359. Other Electrical Equipment and Component Manufacturing	971.3	1,085.4	15.3	0.0	0.0	14.3	0.0	0.7
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	80.7	61.7	14.2	0.0	0.0	8.1	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	78.2	59.5	13.3	0.0	0.0	7.7	0.0	0.0
3379. Other Furniture Related Product Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	256.0	196.9	7.8	0.0	0.0	4.4	1.0	0.0
3399. Other Miscellaneous Manufacturing	410.4	334.8	17.8	0.0	0.0	8.9	3.4	0.0



**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
<b>Orleans</b>								
1111. Oilseed and Grain Farming	0.0	330.4	1,656.9	0.0	0.0	625.6	468.8	0.0
1112. Vegetable and Melon Farming	0.0	290.3	702.2	0.0	0.0	265.1	198.7	0.0
1113. Fruit and Tree Nut Farming	0.0	301.1	591.0	0.0	0.0	223.1	167.2	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	142.8	419.3	0.0	0.0	158.3	118.6	0.0
1121. Cattle Ranching and Farming	0.0	573.6	1,465.6	0.0	0.0	553.3	414.7	0.0
1123. Poultry and Egg Production	0.0	81.1	103.8	0.0	0.0	39.2	29.4	0.0
1124. Sheep and Goat Farming	0.0	5.0	9.0	0.0	0.0	3.4	2.5	0.0
2123. Nonmetallic Mineral Mining and Quarrying	475.6	734.3	1,173.5	0.0	2,591.8	0.0	435.2	0.0
2131. Support Activities for Mining	227.0	20.1	270.9	0.0	0.0	0.0	67.8	0.0
2369. Building Construction (unclassified)	165.2	261.1	852.8	0.0	0.0	26.3	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	83.8	156.9	1,976.8	0.0	0.0	257.2	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	628.5	373.7	3,049.8	0.0	0.0	105.8	0.0	0.0
3121. Beverage Manufacturing	158.3	118.8	8.9	0.0	0.0	4.0	17.4	0.0
3132. Fabric Mills	32,373.3	11,674.3	46.1	0.0	0.0	56.3	6.8	0.0
3219. Other Wood Product Manufacturing	29.3	59.8	16.3	0.0	0.0	7.4	0.0	0.0
3231. Printing and Related Support Activities	13.6	19.4	1.1	0.0	0.0	0.5	0.3	0.0
3251. Basic Chemical Manufacturing	98,216.3	3,003.4	877.0	0.0	0.0	397.2	0.0	0.0
3261. Plastics Product Manufacturing	227.6	386.1	4.5	0.0	52.9	26.9	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	71.2	50.2	13.8	0.0	0.0	6.3	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	234.8	139.0	17.7	0.0	0.0	10.8	0.0	0.0
3332. Industrial Machinery Manufacturing	175.3	163.1	29.6	0.0	0.0	18.5	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	251.0	222.6	15.9	0.0	0.0	21.7	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	3,152.6	2,142.7	51.8	0.0	0.0	3.5	227.9	0.0
3399. Other Miscellaneous Manufacturing	15.4	13.8	1.0	0.0	0.0	0.5	0.2	0.0
<b>Oswego</b>								
1111. Oilseed and Grain Farming	0.0	113.4	568.8	0.0	0.0	214.7	160.9	0.0
1112. Vegetable and Melon Farming	0.0	335.9	812.4	0.0	0.0	306.7	229.8	0.0
1113. Fruit and Tree Nut Farming	0.0	228.8	449.1	0.0	0.0	169.6	127.1	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	428.5	1,257.9	0.0	0.0	474.9	355.9	0.0
1121. Cattle Ranching and Farming	0.0	529.9	1,374.7	0.0	0.0	519.0	388.9	0.0
1122. Hog and Pig Farming	0.0	10.1	21.7	0.0	0.0	8.2	6.1	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
1123. Poultry and Egg Production	0.0	94.6	121.1	0.0	0.0	45.7	34.3	0.0
1124. Sheep and Goat Farming	0.0	25.0	44.8	0.0	0.0	16.9	12.7	0.0
2123. Nonmetallic Mineral Mining and Quarrying	202.1	431.0	915.4	0.0	948.4	0.0	281.9	0.0
2369. Building Construction (unclassified)	610.4	964.6	3,150.7	0.0	0.0	97.3	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	203.6	381.1	4,800.8	0.0	0.0	624.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	2,281.2	1,356.5	11,069.6	0.0	0.0	384.0	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	207.2	93.7	10.2	0.0	1.6	4.6	2.5	0.0
3116. Animal Slaughtering and Processing	457.1	310.8	136.7	0.0	42.7	6.2	33.4	0.0
3121. Beverage Manufacturing	52.8	39.6	3.0	0.0	0.0	1.3	5.8	0.0
3149. Other Textile Product Mills	86.6	21.0	154.0	0.0	0.8	4.4	0.0	0.0
3211. Sawmills and Wood Preservation	193.5	148.1	107.5	0.0	1.7	4.9	2.6	0.0
3219. Other Wood Product Manufacturing	146.6	299.2	81.4	0.0	0.0	36.9	0.0	0.0
3231. Printing and Related Support Activities	54.3	77.5	4.2	0.0	0.0	1.9	1.0	0.0
3241. Petroleum and Coal Products Manufacturing	258.2	32.9	286.8	0.0	0.0	6.5	3.5	0.0
3251. Basic Chemical Manufacturing	119,218.2	11,574.2	0.0	0.0	0.0	0.0	0.0	0.0
3254. Pharmaceutical and Medicine Manufacturing	160.8	86.1	125.0	0.0	0.0	5.7	0.0	0.0
3313. Alumina and Aluminum Production and Processing	147,209.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3321. Forging and Stamping	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	903.6	607.2	36.6	0.0	0.0	39.0	0.0	0.0
3326. Spring and Wire Product Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	227.9	160.6	44.3	0.0	0.0	20.1	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3332. Industrial Machinery Manufacturing	485.6	538.3	36.6	0.0	0.0	49.8	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	15.4	13.8	1.0	0.0	0.0	0.5	0.2	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3399. Other Miscellaneous Manufacturing	209.7	155.6	4.8	0.0	0.0	3.0	0.2	0.0
<b>Otsego</b>								
1111. Oilseed and Grain Farming	0.0	157.8	791.4	0.0	0.0	298.8	223.9	0.0
1112. Vegetable and Melon Farming	0.0	136.6	330.5	0.0	0.0	124.8	93.5	0.0
1113. Fruit and Tree Nut Farming	0.0	210.7	413.7	0.0	0.0	156.2	117.0	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	352.3	1,034.3	0.0	0.0	390.5	292.6	0.0
1121. Cattle Ranching and Farming	0.0	2,258.4	5,723.6	0.0	0.0	2,161.0	1,619.4	0.0
1122. Hog and Pig Farming	0.0	2.9	6.2	0.0	0.0	2.3	1.8	0.0
1123. Poultry and Egg Production	0.0	94.6	121.1	0.0	0.0	45.7	34.3	0.0
1124. Sheep and Goat Farming	0.0	46.1	82.5	0.0	0.0	31.1	23.3	0.0
2123. Nonmetallic Mineral Mining and Quarrying	90.7	201.2	547.5	0.0	194.5	0.0	156.8	0.0
2369. Building Construction (unclassified)	202.0	319.1	1,042.4	0.0	0.0	32.2	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	107.8	201.8	2,541.6	0.0	0.0	330.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	721.6	429.1	3,501.6	0.0	0.0	121.5	0.0	0.0
3116. Animal Slaughtering and Processing	457.1	310.8	136.7	0.0	42.7	6.2	33.4	0.0
3121. Beverage Manufacturing	1,733.0	1,099.2	40.0	0.0	0.0	23.8	29.0	0.0
3132. Fabric Mills	358.5	242.9	5.2	0.0	0.0	2.3	1.3	0.0
3152. Cut and Sew Apparel Manufacturing	0.8	0.7	3.2	0.0	0.0	1.4	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3169. Other Leather and Allied Product Manufacturing	51.0	136.6	9.9	0.0	0.0	4.5	2.4	0.0
3211. Sawmills and Wood Preservation	1,586.7	992.5	267.5	0.0	25.1	18.2	0.0	0.0
3219. Other Wood Product Manufacturing	58.6	119.7	32.6	0.0	0.0	14.7	0.0	0.0
3231. Printing and Related Support Activities	20.3	29.1	1.6	0.0	0.0	0.7	0.4	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3254. Pharmaceutical and Medicine Manufacturing	160.8	86.1	125.0	0.0	0.0	5.7	0.0	0.0
3261. Plastics Product Manufacturing	497.7	993.7	5.3	0.0	253.4	57.5	0.0	0.0
3321. Forging and Stamping	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3332. Industrial Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	190.9	180.5	36.8	0.0	0.0	21.7	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3359. Other Electrical Equipment and Component Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0
3399. Other Miscellaneous Manufacturing	30.9	27.6	2.0	0.0	0.0	0.9	0.5	0.0
<b>Putnam</b>								
1112. Vegetable and Melon Farming	0.0	51.2	123.9	0.0	0.0	46.8	35.1	0.0
1113. Fruit and Tree Nut Farming	0.0	6.0	11.8	0.0	0.0	4.5	3.3	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	142.8	419.3	0.0	0.0	158.3	118.6	0.0
1121. Cattle Ranching and Farming	0.0	10.3	29.1	0.0	0.0	11.0	8.2	0.0
1123. Poultry and Egg Production	0.0	13.5	17.3	0.0	0.0	6.5	4.9	0.0
1124. Sheep and Goat Farming	0.0	4.0	7.2	0.0	0.0	2.7	2.0	0.0
2123. Nonmetallic Mineral Mining and Quarrying	116.2	264.4	456.5	0.0	753.8	0.0	178.2	0.0
2369. Building Construction (unclassified)	784.9	1,240.3	4,051.0	0.0	0.0	125.1	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	179.7	336.3	4,236.0	0.0	0.0	551.2	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	4,608.9	2,740.7	22,365.2	0.0	0.0	775.9	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	414.4	187.3	20.4	0.0	3.2	9.2	5.0	0.0
3121. Beverage Manufacturing	52.8	39.6	3.0	0.0	0.0	1.3	5.8	0.0
3149. Other Textile Product Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0
3219. Other Wood Product Manufacturing	58.6	119.7	32.6	0.0	0.0	14.7	0.0	0.0
3231. Printing and Related Support Activities	47.5	67.8	3.7	0.0	0.0	1.7	0.9	0.0
3253. Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	26.7	23.8	103.7	0.0	0.0	46.9	25.3	0.0
3261. Plastics Product Manufacturing	67.5	135.6	3.3	0.0	9.2	14.9	0.0	0.0
3313. Alumina and Aluminum Production and Processing	5,485.2	1,632.5	355.4	0.0	0.0	160.9	86.8	0.0
3321. Forging and Stamping	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	57.0	40.2	11.1	0.0	0.0	5.0	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	71.2	50.2	13.8	0.0	0.0	6.3	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	234.8	139.0	17.7	0.0	0.0	10.8	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	159.7	145.7	22.4	0.0	0.0	15.2	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3353. Electrical Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3359. Other Electrical Equipment and Component Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	17.4	15.5	6.8	0.0	0.0	3.1	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	63.3	46.2	7.5	0.0	0.0	5.1	0.0	0.0
3379. Other Furniture Related Product Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	1,011.7	480.7	6.5	0.0	0.0	7.9	0.9	0.0
3399. Other Miscellaneous Manufacturing	69.5	62.0	4.5	0.0	0.0	2.0	1.1	0.0
<b>Queens</b>								
1112. Vegetable and Melon Farming	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	41.0	55.9	0.0	0.0	21.1	15.8	0.0
2111. Oil and Gas Extraction	7,370.7	1,525.2	295.8	0.0	470.2	0.0	51.0	0.0
2123. Nonmetallic Mineral Mining and Quarrying	383.8	378.7	372.0	0.0	735.9	0.0	210.2	0.0
2131. Support Activities for Mining	227.0	43.2	270.9	0.0	0.0	0.0	67.8	0.0
2369. Building Construction (unclassified)	8,546.2	29,062.6	44,110.4	0.0	0.0	1,362.5	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	1,090.0	4,390.5	25,698.6	0.0	0.0	3,344.1	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	34,276.0	43,862.7	166,327.0	0.0	0.0	5,770.5	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	6,145.9	5,609.3	122.8	0.0	120.7	82.1	65.4	0.0
3115. Dairy Product Manufacturing	4,650.6	4,451.9	991.7	0.0	0.0	59.4	553.9	0.0
3116. Animal Slaughtering and Processing	4,056.4	5,340.0	749.0	0.0	550.1	38.5	133.6	0.0
3121. Beverage Manufacturing	15,043.8	14,900.0	123.2	0.0	0.0	125.7	474.8	0.0
3131. Fiber, Yarn, and Thread Mills	358.5	522.7	5.2	0.0	0.0	2.3	1.3	0.0
3132. Fabric Mills	3,584.7	5,227.1	51.6	0.0	0.0	23.4	12.6	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	1,792.4	2,613.6	25.8	0.0	0.0	11.7	6.3	0.0
3141. Textile Furnishings Mills	1,647.7	747.7	1,478.6	0.0	22.6	50.8	0.0	0.0
3149. Other Textile Product Mills	519.9	271.1	923.8	0.0	4.5	26.1	0.0	0.0
3151. Apparel Knitting Mills	2.9	5.5	11.2	0.0	0.0	5.1	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	235.1	422.9	333.6	0.0	0.0	237.3	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	90.8	162.9	84.1	0.0	0.0	79.1	0.0	0.0
3161. Leather and Hide Tanning and Finishing	51.0	293.9	9.9	0.0	0.0	4.5	2.4	0.0
3169. Other Leather and Allied Product Manufacturing	255.0	1,469.7	49.6	0.0	0.0	22.4	12.1	0.0
3211. Sawmills and Wood Preservation	193.5	318.7	107.5	0.0	1.7	4.9	2.6	0.0
3219. Other Wood Product Manufacturing	791.5	3,476.4	439.6	0.0	0.0	199.1	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	9,599.1	5,030.2	113.1	0.0	3,533.5	51.2	1,933.6	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3231. Printing and Related Support Activities	6,212.6	16,387.8	167.1	0.0	0.0	71.5	340.3	0.0
3241. Petroleum and Coal Products Manufacturing	516.4	141.7	573.5	0.0	0.0	13.0	7.0	0.0
3251. Basic Chemical Manufacturing	5,485.2	1,756.6	355.4	0.0	0.0	160.9	0.0	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	32.0	61.5	124.4	0.0	0.0	56.3	0.0	0.0
3254. Pharmaceutical and Medicine Manufacturing	1,631.2	1,868.1	207.3	0.0	0.0	28.2	0.0	0.0
3261. Plastics Product Manufacturing	700.1	2,873.4	27.5	0.0	117.4	130.8	0.0	0.0
3262. Rubber Product Manufacturing	67.5	291.8	3.3	0.0	9.2	14.9	0.0	0.0
3272. Glass and Glass Product Manufacturing	14,300.9	6,068.8	567.7	0.0	861.9	363.5	0.0	0.0
3311. Iron and Steel Mills and Ferroalloy Manufacturing	6,121.1	6,148.1	54.1	0.0	84.5	24.5	0.0	245.9
3314. Nonferrous Metal (except Aluminum) Production and Processing	46.8	899.7	182.0	0.0	0.0	82.4	0.0	0.0
3321. Forging and Stamping	249.1	320.6	20.5	0.0	0.0	12.0	0.0	0.0
3322. Cutlery and Handtool Manufacturing	28.5	43.2	5.5	0.0	0.0	2.5	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	8,021.1	9,688.2	358.8	0.0	0.0	316.4	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	42.7	64.8	8.3	0.0	0.0	3.8	0.0	0.0
3325. Hardware Manufacturing	28.5	43.2	5.5	0.0	0.0	2.5	0.0	0.0
3326. Spring and Wire Product Manufacturing	42.7	64.8	8.3	0.0	0.0	3.8	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	313.3	475.3	60.9	0.0	0.0	27.6	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	277.6	363.8	26.0	0.0	0.0	14.5	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	99.7	151.2	19.4	0.0	0.0	8.8	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	37.5	7.2	0.0	0.0	3.3	0.0	0.0
3332. Industrial Machinery Manufacturing	362.6	800.8	116.0	0.0	0.0	57.6	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	175.3	351.0	29.6	0.0	0.0	18.5	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	206.5	426.0	44.0	0.0	0.0	25.0	0.0	0.0
3335. Metalworking Machinery Manufacturing	62.4	150.0	28.8	0.0	0.0	13.1	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	569.1	1,226.8	160.0	0.0	0.0	82.6	0.0	0.0
3344. Semiconductor and Other Electronic Component Manufacturing	216.9	729.4	21.1	0.0	0.0	9.5	5.1	0.0
3351. Electric Lighting Equipment Manufacturing	897.8	2,016.2	30.8	0.0	0.0	16.6	0.0	1.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3353. Electrical Equipment Manufacturing	511.3	1,168.0	19.4	0.0	0.0	10.2	0.0	0.5
3359. Other Electrical Equipment and Component Manufacturing	124.8	319.7	8.1	0.0	0.0	3.7	0.0	0.1
3361. Motor Vehicle Manufacturing	0.0	136.6	0.0	0.0	0.0	0.0	0.0	0.0
3364. Aerospace Product and Parts Manufacturing	13,049.7	24,907.6	829.2	0.0	0.0	1,126.6	1,823.1	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	291.6	538.1	96.2	0.0	0.0	45.3	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	142.7	252.0	38.3	0.0	0.0	19.1	0.0	0.0
3379. Other Furniture Related Product Manufacturing	270.8	517.1	23.7	0.0	0.0	25.2	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	1,625.6	2,979.2	54.6	0.0	0.0	32.3	24.1	0.0
3399. Other Miscellaneous Manufacturing	5,072.8	8,088.2	116.8	0.0	0.0	41.4	253.6	0.0
<b>Rensselaer</b>								
1111. Oilseed and Grain Farming	0.0	64.1	321.5	0.0	0.0	121.4	91.0	0.0
1112. Vegetable and Melon Farming	0.0	176.5	426.8	0.0	0.0	161.2	120.8	0.0
1113. Fruit and Tree Nut Farming	0.0	204.7	401.9	0.0	0.0	151.7	113.7	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	285.7	838.6	0.0	0.0	316.6	237.3	0.0
1121. Cattle Ranching and Farming	0.0	550.4	1,401.0	0.0	0.0	529.0	396.4	0.0
1122. Hog and Pig Farming	0.0	2.9	6.2	0.0	0.0	2.3	1.8	0.0
1123. Poultry and Egg Production	0.0	148.6	190.2	0.0	0.0	71.8	53.8	0.0
1124. Sheep and Goat Farming	0.0	17.0	30.5	0.0	0.0	11.5	8.6	0.0
2123. Nonmetallic Mineral Mining and Quarrying	202.1	431.0	915.4	0.0	948.4	0.0	281.9	0.0
2369. Building Construction (unclassified)	647.2	1,022.7	3,340.3	0.0	0.0	103.2	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	299.5	560.5	7,060.1	0.0	0.0	918.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	3,223.9	1,917.1	15,644.3	0.0	0.0	542.8	0.0	0.0
3115. Dairy Product Manufacturing	2,985.3	1,325.3	344.4	0.0	0.0	30.0	395.8	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	105.5	79.2	5.9	0.0	0.0	2.7	11.6	0.0
3149. Other Textile Product Mills	130.0	31.5	231.0	0.0	1.1	6.5	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3211. Sawmills and Wood Preservation	387.0	296.2	214.9	0.0	3.4	9.7	5.3	0.0
3219. Other Wood Product Manufacturing	844.7	1,441.7	176.4	0.0	0.0	108.8	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	13,598.7	3,571.2	311.0	0.0	0.0	140.8	76.0	0.0
3231. Printing and Related Support Activities	47.5	67.8	3.7	0.0	0.0	1.7	0.9	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3254. Pharmaceutical and Medicine Manufacturing	1,631.2	868.1	207.3	0.0	0.0	28.2	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3261. Plastics Product Manufacturing	1,063.0	2,123.1	13.9	0.0	516.0	129.8	0.0	0.0
3262. Rubber Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3274. Lime and Gypsum Product Manufacturing	2,285.5	40.8	177.7	0.0	0.0	80.5	0.0	0.0
3313. Alumina and Aluminum Production and Processing	5,485.2	1,632.5	355.4	0.0	0.0	160.9	86.8	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	113.9	80.3	22.1	0.0	0.0	10.0	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3335. Metalworking Machinery Manufacturing	46.8	52.3	21.6	0.0	0.0	9.8	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3351. Electric Lighting Equipment Manufacturing	83.2	99.0	5.4	0.0	0.0	2.4	0.0	0.1
3353. Electrical Equipment Manufacturing	303.3	295.1	6.0	0.0	0.0	4.1	0.0	0.3
3359. Other Electrical Equipment and Component Manufacturing	83.2	99.0	5.4	0.0	0.0	2.4	0.0	0.1
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	30.9	27.6	2.0	0.0	0.0	0.9	0.5	0.0
3399. Other Miscellaneous Manufacturing	23.2	20.7	1.5	0.0	0.0	0.7	0.4	0.0
<b>Richmond</b>								
1112. Vegetable and Melon Farming	0.0	24.5	27.5	0.0	0.0	10.4	7.8	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	82.0	111.8	0.0	0.0	42.2	31.6	0.0
2369. Building Construction (unclassified)	1,643.1	5,587.8	8,480.9	0.0	0.0	262.0	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	335.4	1,350.9	7,907.3	0.0	0.0	1,029.0	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	8,100.5	10,366.2	39,308.5	0.0	0.0	1,363.8	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	207.2	201.6	10.2	0.0	1.6	4.6	2.5	0.0
3115. Dairy Product Manufacturing	237.9	228.6	92.5	0.0	0.0	4.2	22.6	0.0
3116. Animal Slaughtering and Processing	457.1	668.9	136.7	0.0	42.7	6.2	33.4	0.0
3121. Beverage Manufacturing	52.8	85.2	3.0	0.0	0.0	1.3	5.8	0.0
3152. Cut and Sew Apparel Manufacturing	1.2	2.4	4.8	0.0	0.0	2.2	0.0	0.0
3169. Other Leather and Allied Product Manufacturing	51.0	293.9	9.9	0.0	0.0	4.5	2.4	0.0
3219. Other Wood Product Manufacturing	146.6	643.8	81.4	0.0	0.0	36.9	0.0	0.0



**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3221. Pulp, Paper, and Paperboard Mills	112,329.9	12,453.8	0.0	0.0	0.0	0.0	0.0	0.0
3231. Printing and Related Support Activities	81.4	250.2	6.3	0.0	0.0	2.9	1.5	0.0
3241. Petroleum and Coal Products Manufacturing	258.2	70.9	286.8	0.0	0.0	6.5	3.5	0.0
3272. Glass and Glass Product Manufacturing	118.5	113.9	23.0	0.0	3.6	10.4	0.0	0.0
3311. Iron and Steel Mills and Ferroalloy Manufacturing	6,121.1	6,148.1	54.1	0.0	84.5	24.5	0.0	245.9
3323. Architectural and Structural Metals Manufacturing	142.4	216.0	27.7	0.0	0.0	12.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	42.7	64.8	8.3	0.0	0.0	3.8	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	14.2	21.6	2.8	0.0	0.0	1.3	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	37.5	7.2	0.0	0.0	3.3	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	37.5	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	37.5	7.2	0.0	0.0	3.3	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	15.6	37.5	7.2	0.0	0.0	3.3	0.0	0.0
3351. Electric Lighting Equipment Manufacturing	41.6	106.6	2.7	0.0	0.0	1.2	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	93.1	156.6	19.0	0.0	0.0	10.3	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	123.5	237.3	8.0	0.0	0.0	3.6	2.0	0.0
3399. Other Miscellaneous Manufacturing	263.8	438.6	8.3	0.0	0.0	4.6	1.1	0.0
<b>Rockland</b>								
1112. Vegetable and Melon Farming	0.0	11.4	27.5	0.0	0.0	10.4	7.8	0.0
1113. Fruit and Tree Nut Farming	0.0	6.0	11.8	0.0	0.0	4.5	3.3	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	66.7	195.7	0.0	0.0	73.9	55.4	0.0
1123. Poultry and Egg Production	0.0	27.0	34.6	0.0	0.0	13.1	9.8	0.0
2123. Nonmetallic Mineral Mining and Quarrying	738.5	611.4	1,000.3	0.0	2,573.9	0.0	414.1	0.0
2369. Building Construction (unclassified)	1,239.2	1,958.3	6,396.2	0.0	0.0	197.6	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	311.4	582.9	7,342.5	0.0	0.0	955.5	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	6,983.2	4,152.6	33,886.6	0.0	0.0	1,175.7	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	1,982.6	732.5	29.6	0.0	27.8	20.1	0.0	0.0
3115. Dairy Product Manufacturing	2,195.9	801.2	259.1	0.0	0.0	17.6	0.0	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	105.5	79.2	5.9	0.0	0.0	2.7	11.6	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	716.9	485.8	10.3	0.0	0.0	4.7	2.5	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3141. Textile Furnishings Mills	173.3	42.0	307.9	0.0	1.5	8.7	0.0	0.0
3149. Other Textile Product Mills	86.6	21.0	154.0	0.0	0.8	4.4	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	2.5	2.2	9.6	0.0	0.0	4.3	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	0.8	0.7	3.2	0.0	0.0	1.4	0.0	0.0
3219. Other Wood Product Manufacturing	58.6	119.7	32.6	0.0	0.0	14.7	0.0	0.0
3231. Printing and Related Support Activities	392.3	512.9	20.6	0.0	0.0	10.3	4.0	0.0
3241. Petroleum and Coal Products Manufacturing	258.2	32.9	286.8	0.0	0.0	6.5	3.5	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	350.7	156.5	17.0	0.0	0.0	7.7	4.2	0.0
3254. Pharmaceutical and Medicine Manufacturing	126,546.7	4,045.8	2,634.6	0.0	0.0	105.3	0.0	0.0
3261. Plastics Product Manufacturing	2,860.2	4,187.3	26.0	0.0	1,395.7	248.9	0.0	0.0
3262. Rubber Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3272. Glass and Glass Product Manufacturing	407.0	150.7	38.6	0.0	1.8	17.5	0.0	0.0
3311. Iron and Steel Mills and Ferroalloy Manufacturing	6,121.1	2,856.9	54.1	0.0	84.5	24.5	0.0	245.9
3314. Nonferrous Metal (except Aluminum) Production and Processing	15.6	139.4	60.7	0.0	0.0	27.5	0.0	0.0
3321. Forging and Stamping	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	113.9	80.3	22.1	0.0	0.0	10.0	0.0	0.0
3326. Spring and Wire Product Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	85.4	60.2	16.6	0.0	0.0	7.5	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3332. Industrial Machinery Manufacturing	563.6	625.4	72.7	0.0	0.0	66.1	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	46.8	52.3	21.6	0.0	0.0	9.8	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	1,463.2	869.1	66.8	0.0	0.0	81.6	0.0	0.0
3351. Electric Lighting Equipment Manufacturing	428.1	443.7	14.1	0.0	0.0	7.7	0.0	0.5
3353. Electrical Equipment Manufacturing	83.2	99.0	5.4	0.0	0.0	2.4	0.0	0.1
3359. Other Electrical Equipment and Component Manufacturing	166.4	198.1	10.8	0.0	0.0	4.9	0.0	0.2
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	29.8	26.6	11.6	0.0	0.0	5.2	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3372. Office Furniture (including Fixtures) Manufacturing	12.4	11.1	4.8	0.0	0.0	2.2	0.0	0.0
3379. Other Furniture Related Product Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	914.1	780.8	17.3	0.0	0.0	14.6	16.0	0.0
3399. Other Miscellaneous Manufacturing	317.8	252.1	11.8	0.0	0.0	6.2	2.0	0.0
<b>Saratoga</b>								
1111. Oilseed and Grain Farming	0.0	64.1	321.5	0.0	0.0	121.4	91.0	0.0
1112. Vegetable and Melon Farming	0.0	216.3	523.2	0.0	0.0	197.5	148.0	0.0
1113. Fruit and Tree Nut Farming	0.0	204.7	401.9	0.0	0.0	151.7	113.7	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	542.8	1,593.4	0.0	0.0	601.6	450.8	0.0
1121. Cattle Ranching and Farming	0.0	498.2	1,279.0	0.0	0.0	482.9	361.9	0.0
1122. Hog and Pig Farming	0.0	2.9	6.2	0.0	0.0	2.3	1.8	0.0
1123. Poultry and Egg Production	0.0	94.6	121.1	0.0	0.0	45.7	34.3	0.0
1124. Sheep and Goat Farming	0.0	17.0	30.5	0.0	0.0	11.5	8.6	0.0
2123. Nonmetallic Mineral Mining and Quarrying	43.0	83.3	229.5	0.0	97.3	0.0	51.9	0.0
2369. Building Construction (unclassified)	1,046.5	1,653.7	5,401.3	0.0	0.0	166.8	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	227.6	426.0	5,365.7	0.0	0.0	698.2	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	4,620.6	2,747.6	22,421.7	0.0	0.0	777.9	0.0	0.0
3115. Dairy Product Manufacturing	2,195.9	801.2	259.1	0.0	0.0	17.6	0.0	0.0
3121. Beverage Manufacturing	527.5	395.9	29.7	0.0	0.0	13.5	58.1	0.0
3141. Textile Furnishings Mills	1,214.4	242.5	708.8	0.0	18.9	29.0	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	0.8	0.7	3.2	0.0	0.0	1.4	0.0	0.0
3211. Sawmills and Wood Preservation	193.5	148.1	107.5	0.0	1.7	4.9	2.6	0.0
3219. Other Wood Product Manufacturing	351.8	718.0	195.4	0.0	0.0	88.5	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	79,999.2	16,372.4	704.8	0.0	15,547.3	338.0	151.9	0.0
3231. Printing and Related Support Activities	3,301.3	3,613.1	69.1	0.0	0.0	6.7	281.8	0.0
3241. Petroleum and Coal Products Manufacturing	4,600.7	482.6	1,651.0	0.0	0.0	54.5	1.8	0.0
3251. Basic Chemical Manufacturing	1,622.4	916.1	87.8	0.0	0.0	39.8	0.0	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	125,297.9	669.3	846.2	0.0	0.0	571.0	4.2	0.0
3254. Pharmaceutical and Medicine Manufacturing	160.8	86.1	125.0	0.0	0.0	5.7	0.0	0.0
3261. Plastics Product Manufacturing	295.1	521.7	7.8	0.0	62.1	41.7	0.0	0.0
3271. Clay Product and Refractory Manufacturing	415.5	74.2	32.3	0.0	0.0	14.6	0.0	0.0
3313. Alumina and Aluminum Production and Processing	799.9	476.2	103.7	0.0	0.0	46.9	25.3	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	277.6	169.1	26.0	0.0	0.0	14.5	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3324. Boiler, Tank, and Shipping Container Manufacturing	683.0	478.3	21.7	0.0	0.0	29.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	85.4	60.2	16.6	0.0	0.0	7.5	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	220.6	128.9	14.9	0.0	0.0	9.5	0.0	0.0
3332. Industrial Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3344. Semiconductor and Other Electronic Component Manufacturing	49,719.2	12,648.6	1,336.8	0.0	0.0	0.0	0.0	0.0
3351. Electric Lighting Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3353. Electrical Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3359. Other Electrical Equipment and Component Manufacturing	626.4	740.8	6.6	0.0	0.0	9.0	0.0	0.3
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	12.4	11.1	4.8	0.0	0.0	2.2	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	209.7	155.6	4.8	0.0	0.0	3.0	0.2	0.0
3399. Other Miscellaneous Manufacturing	46.3	41.4	3.0	0.0	0.0	1.4	0.7	0.0
<b>Schenectady</b>								
1111. Oilseed and Grain Farming	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1112. Vegetable and Melon Farming	0.0	74.0	179.0	0.0	0.0	67.6	50.6	0.0
1113. Fruit and Tree Nut Farming	0.0	72.3	141.8	0.0	0.0	53.6	40.1	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	123.8	363.4	0.0	0.0	137.2	102.8	0.0
1121. Cattle Ranching and Farming	0.0	204.8	520.1	0.0	0.0	196.3	147.1	0.0
1122. Hog and Pig Farming	0.0	7.2	15.5	0.0	0.0	5.9	4.4	0.0
1124. Sheep and Goat Farming	0.0	9.0	16.1	0.0	0.0	6.1	4.6	0.0
2123. Nonmetallic Mineral Mining and Quarrying	43.0	83.3	229.5	0.0	97.3	0.0	51.9	0.0
2131. Support Activities for Mining	99.8	18.2	184.6	0.0	7.2	0.0	162.2	0.0
2369. Building Construction (unclassified)	523.2	826.8	2,700.6	0.0	0.0	83.4	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	143.7	269.0	3,388.8	0.0	0.0	441.0	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	2,944.6	1,751.0	14,288.9	0.0	0.0	495.7	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	414.4	187.3	20.4	0.0	3.2	9.2	5.0	0.0
3116. Animal Slaughtering and Processing	457.1	310.8	136.7	0.0	42.7	6.2	33.4	0.0
3121. Beverage Manufacturing	6,363.1	2,597.2	43.5	0.0	0.0	46.3	57.9	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	358.5	242.9	5.2	0.0	0.0	2.3	1.3	0.0
3149. Other Textile Product Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0
3151. Apparel Knitting Mills	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	0.8	0.7	3.2	0.0	0.0	1.4	0.0	0.0
3169. Other Leather and Allied Product Manufacturing	51.0	136.6	9.9	0.0	0.0	4.5	2.4	0.0
3219. Other Wood Product Manufacturing	87.9	179.5	48.8	0.0	0.0	22.1	0.0	0.0
3231. Printing and Related Support Activities	404.8	483.2	11.8	0.0	0.0	7.3	0.8	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	29,949.6	3,206.6	366.2	0.0	0.0	15.4	8.3	0.0
3261. Plastics Product Manufacturing	387.7	636.6	5.7	0.0	96.5	38.8	0.0	0.0
3262. Rubber Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3279. Other Nonmetallic Mineral Product Manufacturing	376.4	168.1	73.2	0.0	0.0	33.1	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	540.9	328.1	49.3	0.0	0.0	27.8	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	249.1	149.0	20.5	0.0	0.0	12.0	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	21,126.6	4,928.0	0.0	0.0	0.0	0.0	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	516.8	573.2	51.0	0.0	0.0	56.3	0.0	0.0
3344. Semiconductor and Other Electronic Component Manufacturing	216.9	339.0	21.1	0.0	0.0	9.5	5.1	0.0
3359. Other Electrical Equipment and Component Manufacturing	668.0	790.3	9.3	0.0	0.0	10.2	0.0	0.4
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3372. Office Furniture (including Fixtures) Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	30.9	27.6	2.0	0.0	0.0	0.9	0.5	0.0
3399. Other Miscellaneous Manufacturing	46.3	41.4	3.0	0.0	0.0	1.4	0.7	0.0
<b>Schoharie</b>								
1111. Oilseed and Grain Farming	0.0	39.5	197.8	0.0	0.0	74.7	56.0	0.0
1112. Vegetable and Melon Farming	0.0	176.5	426.8	0.0	0.0	161.2	120.8	0.0
1113. Fruit and Tree Nut Farming	0.0	84.3	165.5	0.0	0.0	62.5	46.8	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	104.8	307.5	0.0	0.0	116.1	87.0	0.0
1121. Cattle Ranching and Farming	0.0	1,176.3	2,978.2	0.0	0.0	1,124.4	842.6	0.0
1122. Hog and Pig Farming	0.0	10.1	21.7	0.0	0.0	8.2	6.1	0.0
1123. Poultry and Egg Production	0.0	81.1	103.8	0.0	0.0	39.2	29.4	0.0
1124. Sheep and Goat Farming	0.0	32.0	57.4	0.0	0.0	21.7	16.2	0.0
2123. Nonmetallic Mineral Mining and Quarrying	232.3	528.7	913.1	0.0	1,507.7	0.0	356.4	0.0
2131. Support Activities for Mining	227.0	20.1	270.9	0.0	0.0	0.0	67.8	0.0
2369. Building Construction (unclassified)	146.9	232.1	758.1	0.0	0.0	23.4	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	95.8	179.4	2,259.2	0.0	0.0	294.0	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	512.1	304.5	2,485.0	0.0	0.0	86.2	0.0	0.0
3115. Dairy Product Manufacturing	237.9	106.2	92.5	0.0	0.0	4.2	22.6	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	105.5	79.2	5.9	0.0	0.0	2.7	11.6	0.0
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	815.4	1,381.9	160.1	0.0	0.0	101.4	0.0	0.0
3231. Printing and Related Support Activities	6.8	9.7	0.5	0.0	0.0	0.2	0.1	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3261. Plastics Product Manufacturing	261.3	453.9	6.1	0.0	57.5	34.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3399. Other Miscellaneous Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
<b>Schuyler</b>								
1111. Oilseed and Grain Farming	0.0	64.1	321.5	0.0	0.0	121.4	91.0	0.0
1112. Vegetable and Melon Farming	0.0	91.1	220.3	0.0	0.0	83.2	62.3	0.0
1113. Fruit and Tree Nut Farming	0.0	367.3	721.0	0.0	0.0	272.2	204.0	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	142.8	419.3	0.0	0.0	158.3	118.6	0.0
1121. Cattle Ranching and Farming	0.0	833.3	2,102.2	0.0	0.0	793.7	594.8	0.0
1122. Hog and Pig Farming	0.0	14.4	31.0	0.0	0.0	11.7	8.8	0.0
1123. Poultry and Egg Production	0.0	148.6	190.2	0.0	0.0	71.8	53.8	0.0
1124. Sheep and Goat Farming	0.0	17.0	30.5	0.0	0.0	11.5	8.6	0.0
2123. Nonmetallic Mineral Mining and Quarrying	43.0	83.3	229.5	0.0	97.3	0.0	51.9	0.0
2369. Building Construction (unclassified)	55.1	87.0	284.3	0.0	0.0	8.8	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	35.9	67.3	847.2	0.0	0.0	110.2	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	186.2	110.7	903.6	0.0	0.0	31.4	0.0	0.0
3115. Dairy Product Manufacturing	713.7	318.6	277.4	0.0	0.0	12.6	67.8	0.0
3119. Other Food Manufacturing	128,180.8	0.0	246.1	0.0	0.0	0.0	0.0	0.0
3121. Beverage Manufacturing	949.6	712.7	53.5	0.0	0.0	24.2	104.5	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	358.5	242.9	5.2	0.0	0.0	2.3	1.3	0.0
3211. Sawmills and Wood Preservation	8,497.9	6,461.3	861.3	0.0	284.4	107.3	168.4	0.0
3231. Printing and Related Support Activities	6.8	9.7	0.5	0.0	0.0	0.2	0.1	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3251. Basic Chemical Manufacturing	12.3	1,098.8	47.8	0.0	0.0	21.7	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0
<b>Seneca</b>								
1111. Oilseed and Grain Farming	0.0	488.2	2,448.3	0.0	0.0	924.4	692.7	0.0
1112. Vegetable and Melon Farming	0.0	74.0	179.0	0.0	0.0	67.6	50.6	0.0
1113. Fruit and Tree Nut Farming	0.0	421.5	827.4	0.0	0.0	312.4	234.1	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	104.8	307.5	0.0	0.0	116.1	87.0	0.0
1121. Cattle Ranching and Farming	0.0	2,061.5	5,180.8	0.0	0.0	1,956.0	1,465.8	0.0
1122. Hog and Pig Farming	0.0	7.2	15.5	0.0	0.0	5.9	4.4	0.0
1123. Poultry and Egg Production	0.0	243.2	311.3	0.0	0.0	117.5	88.1	0.0
1124. Sheep and Goat Farming	0.0	18.0	32.3	0.0	0.0	12.2	9.1	0.0
2123. Nonmetallic Mineral Mining and Quarrying	116.2	264.4	456.5	0.0	753.8	0.0	178.2	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
2369. Building Construction (unclassified)	123.9	195.8	639.6	0.0	0.0	19.8	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	71.9	134.5	1,694.4	0.0	0.0	220.5	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	477.2	283.8	2,315.6	0.0	0.0	80.3	0.0	0.0
3115. Dairy Product Manufacturing	237.9	106.2	92.5	0.0	0.0	4.2	22.6	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	5,304.5	3,376.9	125.9	0.0	0.0	74.1	98.7	0.0
3231. Printing and Related Support Activities	13.6	19.4	1.1	0.0	0.0	0.5	0.3	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3313. Alumina and Aluminum Production and Processing	702.7	512.8	829.2	0.0	0.0	563.3	0.0	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3332. Industrial Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	2,602.4	2,215.1	310.2	0.0	0.0	23.8	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	642.6	570.1	8.5	0.0	0.0	9.7	14.7	0.0
3399. Other Miscellaneous Manufacturing	23.2	20.7	1.5	0.0	0.0	0.7	0.4	0.0
<b>St. Lawrence</b>								
1111. Oilseed and Grain Farming	0.0	167.7	840.8	0.0	0.0	317.5	237.9	0.0
1112. Vegetable and Melon Farming	0.0	301.7	729.8	0.0	0.0	275.5	206.5	0.0
1113. Fruit and Tree Nut Farming	0.0	156.6	307.3	0.0	0.0	116.0	86.9	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	371.4	1,090.2	0.0	0.0	411.6	308.5	0.0
1121. Cattle Ranching and Farming	0.0	4,945.0	12,445.0	0.0	0.0	4,698.6	3,521.0	0.0
1122. Hog and Pig Farming	0.0	14.4	31.0	0.0	0.0	11.7	8.8	0.0
1123. Poultry and Egg Production	0.0	121.6	155.6	0.0	0.0	58.8	44.0	0.0
1124. Sheep and Goat Farming	0.0	36.1	64.6	0.0	0.0	24.4	18.3	0.0
2122. Metal Ore Mining	25,922.0	14,792.1	5,796.4	0.0	0.0	0.0	0.0	0.0
2123. Nonmetallic Mineral Mining and Quarrying	624.1	655.8	1,428.3	0.0	1,781.6	0.0	490.9	0.0
2369. Building Construction (unclassified)	436.0	689.0	2,250.5	0.0	0.0	69.5	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	143.7	269.0	3,388.8	0.0	0.0	441.0	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,152.2	685.2	5,591.3	0.0	0.0	194.0	0.0	0.0
3115. Dairy Product Manufacturing	4,391.7	1,602.4	518.3	0.0	0.0	35.2	0.0	0.0
3116. Animal Slaughtering and Processing	914.2	621.6	273.4	0.0	85.4	12.4	66.8	0.0



**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3121. Beverage Manufacturing	158.3	118.8	8.9	0.0	0.0	4.0	17.4	0.0
3149. Other Textile Product Mills	1,214.4	242.5	708.8	0.0	18.9	29.0	0.0	0.0
3161. Leather and Hide Tanning and Finishing	51.0	136.6	9.9	0.0	0.0	4.5	2.4	0.0
3219. Other Wood Product Manufacturing	87.9	179.5	48.8	0.0	0.0	22.1	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	57,236.2	11,560.9	241.2	0.0	31,094.7	163.9	0.0	0.0
3231. Printing and Related Support Activities	40.7	58.1	3.2	0.0	0.0	1.4	0.8	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3254. Pharmaceutical and Medicine Manufacturing	160.8	86.1	125.0	0.0	0.0	5.7	0.0	0.0
3261. Plastics Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3272. Glass and Glass Product Manufacturing	13,109.0	4,656.1	177.4	0.0	1.8	230.5	0.0	0.0
3279. Other Nonmetallic Mineral Product Manufacturing	376.4	168.1	73.2	0.0	0.0	33.1	0.0	0.0
3313. Alumina and Aluminum Production and Processing	61,952.4	2,051.1	165.8	0.0	0.0	189.2	1,161.3	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	725.8	508.4	30.0	0.0	0.0	33.2	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3353. Electrical Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	209.7	155.6	4.8	0.0	0.0	3.0	0.2	0.0
3399. Other Miscellaneous Manufacturing	15.4	13.8	1.0	0.0	0.0	0.5	0.2	0.0
<b>Steuben</b>								
1111. Oilseed and Grain Farming	0.0	591.8	2,967.6	0.0	0.0	1,120.4	839.6	0.0
1112. Vegetable and Melon Farming	0.0	267.6	647.1	0.0	0.0	244.3	183.1	0.0
1113. Fruit and Tree Nut Farming	0.0	379.3	744.6	0.0	0.0	281.1	210.7	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	676.1	1,984.8	0.0	0.0	749.4	561.5	0.0
1121. Cattle Ranching and Farming	0.0	4,364.0	11,067.6	0.0	0.0	4,178.6	3,131.3	0.0
1122. Hog and Pig Farming	0.0	21.6	46.6	0.0	0.0	17.6	13.2	0.0
1123. Poultry and Egg Production	0.0	337.8	432.3	0.0	0.0	163.2	122.3	0.0
1124. Sheep and Goat Farming	0.0	39.1	69.9	0.0	0.0	26.4	19.8	0.0
2123. Nonmetallic Mineral Mining and Quarrying	300.7	583.3	1,606.2	0.0	680.9	0.0	363.0	0.0
2131. Support Activities for Mining	99.8	18.2	184.6	0.0	7.2	0.0	162.2	0.0
2369. Building Construction (unclassified)	353.4	558.5	1,824.1	0.0	0.0	56.3	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	119.8	224.2	2,824.0	0.0	0.0	367.5	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	838.0	498.3	4,066.4	0.0	0.0	141.1	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3115. Dairy Product Manufacturing	7,652.5	2,384.5	440.4	0.0	0.0	48.9	400.8	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	1,160.6	871.1	65.4	0.0	0.0	29.6	127.8	0.0
3132. Fabric Mills	358.5	242.9	5.2	0.0	0.0	2.3	1.3	0.0
3149. Other Textile Product Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	117.3	239.3	65.1	0.0	0.0	29.5	0.0	0.0
3231. Printing and Related Support Activities	13.6	19.4	1.1	0.0	0.0	0.5	0.3	0.0
3261. Plastics Product Manufacturing	67.5	135.6	3.3	0.0	9.2	14.9	0.0	0.0
3262. Rubber Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3271. Clay Product and Refractory Manufacturing	415.5	74.2	32.3	0.0	0.0	14.6	0.0	0.0
3272. Glass and Glass Product Manufacturing	14,707.3	4,057.7	330.5	0.0	0.0	43.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	711.5	498.4	27.2	0.0	0.0	32.0	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	1,494.4	904.0	81.2	0.0	0.0	88.2	0.0	0.0
3353. Electrical Equipment Manufacturing	344.9	344.7	8.7	0.0	0.0	5.3	0.0	0.4
3359. Other Electrical Equipment and Component Manufacturing	303.3	295.1	6.0	0.0	0.0	4.1	0.0	0.3
3363. Motor Vehicle Parts Manufacturing	85,093.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	2,165.1	1,474.7	214.8	0.0	0.0	19.2	0.0	0.0
3399. Other Miscellaneous Manufacturing	15.4	13.8	1.0	0.0	0.0	0.5	0.2	0.0
<b>Suffolk</b>								
1111. Oilseed and Grain Farming	0.0	59.3	74.2	0.0	0.0	28.0	21.0	0.0
1112. Vegetable and Melon Farming	0.0	2,759.4	1,666.0	0.0	0.0	629.0	471.4	0.0
1113. Fruit and Tree Nut Farming	0.0	1,640.2	803.7	0.0	0.0	303.5	227.4	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	6,256.2	4,584.5	0.0	0.0	1,730.9	1,297.1	0.0
1121. Cattle Ranching and Farming	0.0	232.7	144.8	0.0	0.0	54.7	41.0	0.0
1122. Hog and Pig Farming	0.0	28.8	15.5	0.0	0.0	5.9	4.4	0.0
1123. Poultry and Egg Production	0.0	1,245.0	397.8	0.0	0.0	150.2	112.5	0.0
1124. Sheep and Goat Farming	0.0	60.2	26.9	0.0	0.0	10.2	7.6	0.0
2111. Oil and Gas Extraction	3,856.3	4,978.6	103.3	0.0	0.0	0.0	15.5	0.0
2123. Nonmetallic Mineral Mining and Quarrying	3,882.4	7,615.1	3,536.7	0.0	5,955.1	0.0	1,494.0	0.0
2131. Support Activities for Mining	199.6	145.7	369.2	0.0	14.5	0.0	324.4	0.0
2369. Building Construction (unclassified)	9,074.0	57,440.7	46,834.7	0.0	0.0	1,446.7	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
2378. Heavy and Civil Engineering Construction (unclassified)	2,886.8	21,644.7	68,059.1	0.0	0.0	8,856.3	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	51,571.2	122,848.7	250,252.9	0.0	0.0	8,682.2	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	1,450.3	2,626.6	71.4	0.0	11.2	32.3	17.4	0.0
3115. Dairy Product Manufacturing	713.7	1,276.3	277.4	0.0	0.0	12.6	67.8	0.0
3116. Animal Slaughtering and Processing	1,828.4	4,980.3	546.7	0.0	170.8	24.8	133.6	0.0
3121. Beverage Manufacturing	3,579.4	9,954.7	144.0	0.0	0.0	70.9	232.3	0.0
3132. Fabric Mills	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	1,792.4	4,865.1	25.8	0.0	0.0	11.7	6.3	0.0
3141. Textile Furnishings Mills	433.2	420.6	769.9	0.0	3.8	21.8	0.0	0.0
3149. Other Textile Product Mills	6,280.8	6,066.5	4,014.1	0.0	176.4	192.7	0.0	0.0
3151. Apparel Knitting Mills	1.6	5.9	6.4	0.0	0.0	2.9	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	9.5	33.8	36.7	0.0	0.0	16.6	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	0.8	2.9	3.2	0.0	0.0	1.4	0.0	0.0
3161. Leather and Hide Tanning and Finishing	51.0	547.1	9.9	0.0	0.0	4.5	2.4	0.0
3162. Footwear Manufacturing	51.0	547.1	9.9	0.0	0.0	4.5	2.4	0.0
3169. Other Leather and Allied Product Manufacturing	5,321.9	56,732.3	185.7	0.0	0.0	234.3	369.5	0.0
3211. Sawmills and Wood Preservation	290.3	889.9	161.2	0.0	2.5	7.3	3.9	0.0
3212. Veneer, Plywood, and Engineered Wood Product Manufacturing	1,091.7	3,770.0	146.3	0.0	0.0	66.3	0.0	0.0
3219. Other Wood Product Manufacturing	8,450.8	67,620.2	1,506.9	0.0	0.0	1,223.5	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	23,188.3	18,487.3	82.9	0.0	15,547.3	56.3	0.0	0.0
3231. Printing and Related Support Activities	5,408.8	29,696.2	164.0	0.0	0.0	115.0	109.1	0.0
3241. Petroleum and Coal Products Manufacturing	774.6	395.8	860.3	0.0	0.0	19.5	10.5	0.0
3251. Basic Chemical Manufacturing	5,889.1	13,819.1	246.0	0.0	0.0	119.2	0.0	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	3,413.5	5,744.4	245.5	0.0	0.0	115.4	25.0	0.0
3253. Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	26.7	95.4	103.7	0.0	0.0	46.9	25.3	0.0
3254. Pharmaceutical and Medicine Manufacturing	56,083.4	91,979.8	10,948.2	0.0	0.0	660.8	0.0	0.0
3261. Plastics Product Manufacturing	5,592.1	36,479.6	106.2	0.0	1,943.1	664.2	0.0	0.0
3262. Rubber Product Manufacturing	337.5	2,715.9	16.4	0.0	46.1	74.3	0.0	0.0
3271. Clay Product and Refractory Manufacturing	1,246.6	891.8	96.9	0.0	0.0	43.9	0.0	0.0
3272. Glass and Glass Product Manufacturing	15,039.2	12,328.6	762.9	0.0	181.7	385.1	0.0	0.0
3273. Cement and Concrete Product Manufacturing	1,919.8	6,866.7	248.8	0.0	4,664.2	112.7	60.8	4.4

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3274. Lime and Gypsum Product Manufacturing	9,142.0	654.0	710.7	0.0	0.0	321.9	0.0	0.0
3279. Other Nonmetallic Mineral Product Manufacturing	1,129.3	2,019.6	219.5	0.0	0.0	99.4	0.0	0.0
3313. Alumina and Aluminum Production and Processing	1,599.8	3,814.8	207.3	0.0	0.0	93.9	50.6	0.0
3314. Nonferrous Metal (except Aluminum) Production and Processing	15.6	558.3	60.7	0.0	0.0	27.5	0.0	0.0
3321. Forging and Stamping	420.0	1,079.4	53.7	0.0	0.0	27.1	0.0	0.0
3322. Cutlery and Handtool Manufacturing	249.1	596.9	20.5	0.0	0.0	12.0	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	4,056.7	10,377.8	398.1	0.0	0.0	227.5	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	57.0	160.9	11.1	0.0	0.0	5.0	0.0	0.0
3325. Hardware Manufacturing	263.3	637.1	23.2	0.0	0.0	13.3	0.0	0.0
3326. Spring and Wire Product Manufacturing	85.4	241.3	16.6	0.0	0.0	7.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	4,285.1	11,448.6	554.2	0.0	0.0	287.2	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	548.1	1,441.3	78.6	0.0	0.0	38.4	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	2,028.1	5,594.9	144.2	0.0	0.0	107.4	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	46.8	209.4	21.6	0.0	0.0	9.8	0.0	0.0
3332. Industrial Machinery Manufacturing	1,004.3	4,345.1	224.7	0.0	0.0	140.0	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	1,302.5	5,664.2	174.9	0.0	0.0	150.7	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	563.6	2,505.4	72.7	0.0	0.0	66.1	0.0	0.0
3335. Metalworking Machinery Manufacturing	627.9	2,677.1	238.5	0.0	0.0	113.1	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	62.4	279.1	28.8	0.0	0.0	13.1	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	1,871.7	7,947.9	335.0	0.0	0.0	233.3	0.0	0.0
3344. Semiconductor and Other Electronic Component Manufacturing	12,322.3	61,196.6	291.6	0.0	0.0	245.7	203.4	0.0
3351. Electric Lighting Equipment Manufacturing	1,387.3	6,331.9	42.2	0.0	0.0	26.5	0.0	1.2
3352. Household Appliance Manufacturing	626.4	2,967.4	6.6	0.0	0.0	9.0	0.0	0.3
3353. Electrical Equipment Manufacturing	1,189.0	5,141.9	49.7	0.0	0.0	25.2	0.0	1.3
3359. Other Electrical Equipment and Component Manufacturing	1,732.2	7,712.5	50.9	0.0	0.0	31.8	0.0	1.5
3361. Motor Vehicle Manufacturing	0.0	2,054.1	0.0	0.0	0.0	0.0	0.0	0.0
3364. Aerospace Product and Parts Manufacturing	492.3	1,760.7	191.4	0.0	0.0	86.7	46.7	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	289.1	992.7	95.2	0.0	0.0	44.8	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	583.6	1,915.9	76.7	0.0	0.0	55.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	3,939.1	11,972.0	70.4	0.0	0.0	57.1	51.7	0.0
3399. Other Miscellaneous Manufacturing	8,175.6	24,290.7	150.5	0.0	0.0	80.1	298.3	0.0
<b>Sullivan</b>								
1111. Oilseed and Grain Farming	0.0	14.8	74.2	0.0	0.0	28.0	21.0	0.0
1112. Vegetable and Melon Farming	0.0	113.9	275.4	0.0	0.0	104.0	77.9	0.0
1113. Fruit and Tree Nut Farming	0.0	78.3	153.7	0.0	0.0	58.0	43.5	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	152.4	447.3	0.0	0.0	168.9	126.5	0.0
1121. Cattle Ranching and Farming	0.0	347.4	898.8	0.0	0.0	339.4	254.3	0.0
1122. Hog and Pig Farming	0.0	8.6	18.6	0.0	0.0	7.0	5.3	0.0
1123. Poultry and Egg Production	0.0	162.2	207.5	0.0	0.0	78.4	58.7	0.0
1124. Sheep and Goat Farming	0.0	22.0	39.5	0.0	0.0	14.9	11.2	0.0
2123. Nonmetallic Mineral Mining and Quarrying	507.9	391.4	971.8	0.0	1,027.7	0.0	312.7	0.0
2131. Support Activities for Mining	326.8	38.3	455.6	0.0	7.2	0.0	230.0	0.0
2369. Building Construction (unclassified)	344.2	544.0	1,776.7	0.0	0.0	54.9	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	143.7	269.0	3,388.8	0.0	0.0	441.0	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,582.9	941.3	7,681.0	0.0	0.0	266.5	0.0	0.0
3115. Dairy Product Manufacturing	2,747.5	1,219.1	251.9	0.0	0.0	25.9	373.2	0.0
3116. Animal Slaughtering and Processing	457.1	310.8	136.7	0.0	42.7	6.2	33.4	0.0
3121. Beverage Manufacturing	158.3	118.8	8.9	0.0	0.0	4.0	17.4	0.0
3149. Other Textile Product Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0
3212. Veneer, Plywood, and Engineered Wood Product Manufacturing	1,091.7	941.1	146.3	0.0	0.0	66.3	0.0	0.0
3219. Other Wood Product Manufacturing	146.6	299.2	81.4	0.0	0.0	36.9	0.0	0.0
3231. Printing and Related Support Activities	20.3	29.1	1.6	0.0	0.0	0.7	0.4	0.0
3241. Petroleum and Coal Products Manufacturing	291.9	63.0	417.7	0.0	20.5	65.8	3.5	0.0
3322. Cutlery and Handtool Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	57.0	40.2	11.1	0.0	0.0	5.0	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3353. Electrical Equipment Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3359. Other Electrical Equipment and Component Manufacturing	83.2	99.0	5.4	0.0	0.0	2.4	0.0	0.1
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3372. Office Furniture (including Fixtures) Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3379. Other Furniture Related Product Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0
<b>Tioga</b>								
1111. Oilseed and Grain Farming	0.0	98.6	494.6	0.0	0.0	186.7	139.9	0.0
1112. Vegetable and Melon Farming	0.0	130.9	316.7	0.0	0.0	119.6	89.6	0.0
1113. Fruit and Tree Nut Farming	0.0	120.4	236.4	0.0	0.0	89.3	66.9	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	219.0	642.9	0.0	0.0	242.7	181.9	0.0
1121. Cattle Ranching and Farming	0.0	1,208.4	3,067.3	0.0	0.0	1,158.1	867.8	0.0
1122. Hog and Pig Farming	0.0	4.3	9.3	0.0	0.0	3.5	2.6	0.0
1123. Poultry and Egg Production	0.0	175.7	224.8	0.0	0.0	84.9	63.6	0.0
1124. Sheep and Goat Farming	0.0	21.0	37.7	0.0	0.0	14.2	10.7	0.0
2123. Nonmetallic Mineral Mining and Quarrying	245.0	514.3	1,144.9	0.0	1,045.7	0.0	333.8	0.0
2131. Support Activities for Mining	426.6	56.5	640.2	0.0	14.5	0.0	392.2	0.0
2369. Building Construction (unclassified)	188.2	297.4	971.3	0.0	0.0	30.0	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	71.9	134.5	1,694.4	0.0	0.0	220.5	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	733.2	436.0	3,558.1	0.0	0.0	123.4	0.0	0.0
3115. Dairy Product Manufacturing	2,509.6	1,112.9	159.5	0.0	0.0	21.7	350.6	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3211. Sawmills and Wood Preservation	9,987.8	7,379.7	1,075.0	0.0	308.6	123.0	167.0	0.0
3219. Other Wood Product Manufacturing	117.3	239.3	65.1	0.0	0.0	29.5	0.0	0.0
3231. Printing and Related Support Activities	13.6	19.4	1.1	0.0	0.0	0.5	0.3	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	350.7	156.5	17.0	0.0	0.0	7.7	4.2	0.0
3261. Plastics Product Manufacturing	67.5	135.6	3.3	0.0	9.2	14.9	0.0	0.0
3322. Cutlery and Handtool Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	57.0	40.2	11.1	0.0	0.0	5.0	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3391. Medical Equipment and Supplies Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0
<b>Tompkins</b>								
1111. Oilseed and Grain Farming	0.0	148.0	741.9	0.0	0.0	280.1	209.9	0.0
1112. Vegetable and Melon Farming	0.0	159.4	385.5	0.0	0.0	145.6	109.1	0.0
1113. Fruit and Tree Nut Farming	0.0	277.0	543.7	0.0	0.0	205.3	153.8	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	523.8	1,537.5	0.0	0.0	580.5	435.0	0.0
1121. Cattle Ranching and Farming	0.0	1,174.7	2,965.2	0.0	0.0	1,119.5	838.9	0.0
1122. Hog and Pig Farming	0.0	15.8	34.2	0.0	0.0	12.9	9.7	0.0
1123. Poultry and Egg Production	0.0	94.6	121.1	0.0	0.0	45.7	34.3	0.0
1124. Sheep and Goat Farming	0.0	18.0	32.3	0.0	0.0	12.2	9.1	0.0
2111. Oil and Gas Extraction	7,370.7	708.7	295.8	0.0	470.2	0.0	51.0	0.0
2123. Nonmetallic Mineral Mining and Quarrying	202.1	431.0	915.4	0.0	948.4	0.0	281.9	0.0
2131. Support Activities for Mining	29.4	16.9	341.1	0.0	131.1	0.0	212.3	0.0
2369. Building Construction (unclassified)	362.6	573.0	1,871.5	0.0	0.0	57.8	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	71.9	134.5	1,694.4	0.0	0.0	220.5	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,233.7	733.6	5,986.6	0.0	0.0	207.7	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	621.6	281.0	30.6	0.0	4.8	13.9	7.5	0.0
3115. Dairy Product Manufacturing	475.8	212.4	185.0	0.0	0.0	8.4	45.2	0.0
3121. Beverage Manufacturing	1,785.8	1,138.8	43.0	0.0	0.0	25.1	34.8	0.0
3149. Other Textile Product Mills	86.6	21.0	154.0	0.0	0.8	4.4	0.0	0.0
3211. Sawmills and Wood Preservation	193.5	148.1	107.5	0.0	1.7	4.9	2.6	0.0
3231. Printing and Related Support Activities	526.1	746.8	8.0	0.0	0.0	9.4	14.5	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	350.7	156.5	17.0	0.0	0.0	7.7	4.2	0.0
3261. Plastics Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3272. Glass and Glass Product Manufacturing	177.8	79.4	34.6	0.0	5.4	15.6	0.0	0.0
3321. Forging and Stamping	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	28.5	20.1	5.5	0.0	0.0	2.5	0.0	0.0
3332. Industrial Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	501.2	555.8	43.8	0.0	0.0	53.0	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	485.6	538.3	36.6	0.0	0.0	49.8	0.0	0.0



**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3344. Semiconductor and Other Electronic Component Manufacturing	433.9	677.9	42.2	0.0	0.0	19.1	10.3	0.0
3351. Electric Lighting Equipment Manufacturing	83.2	99.0	5.4	0.0	0.0	2.4	0.0	0.1
3359. Other Electrical Equipment and Component Manufacturing	124.8	148.6	8.1	0.0	0.0	3.7	0.0	0.1
3372. Office Furniture (including Fixtures) Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	38.6	34.5	2.5	0.0	0.0	1.1	0.6	0.0
3399. Other Miscellaneous Manufacturing	77.2	68.9	5.0	0.0	0.0	2.3	1.2	0.0
<b>Ulster</b>								
1111. Oilseed and Grain Farming	0.0	39.5	197.8	0.0	0.0	74.7	56.0	0.0
1112. Vegetable and Melon Farming	0.0	318.8	771.1	0.0	0.0	291.1	218.2	0.0
1113. Fruit and Tree Nut Farming	0.0	421.5	827.4	0.0	0.0	312.4	234.1	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	457.1	1,341.8	0.0	0.0	506.6	379.6	0.0
1121. Cattle Ranching and Farming	0.0	218.3	565.7	0.0	0.0	213.6	160.0	0.0
1122. Hog and Pig Farming	0.0	11.5	24.8	0.0	0.0	9.4	7.0	0.0
1123. Poultry and Egg Production	0.0	94.6	121.1	0.0	0.0	45.7	34.3	0.0
1124. Sheep and Goat Farming	0.0	24.0	43.0	0.0	0.0	16.2	12.2	0.0
2123. Nonmetallic Mineral Mining and Quarrying	3,057.9	932.3	1,227.0	0.0	3,687.1	0.0	903.0	0.0
2131. Support Activities for Mining	227.0	20.1	270.9	0.0	0.0	0.0	67.8	0.0
2369. Building Construction (unclassified)	872.1	1,378.1	4,501.1	0.0	0.0	139.0	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	203.6	381.1	4,800.8	0.0	0.0	624.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	3,992.1	2,373.9	19,371.9	0.0	0.0	672.1	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	414.4	187.3	20.4	0.0	3.2	9.2	5.0	0.0
3115. Dairy Product Manufacturing	713.7	318.6	277.4	0.0	0.0	12.6	67.8	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	3,413.3	2,158.9	77.0	0.0	0.0	46.3	52.3	0.0
3132. Fabric Mills	358.5	242.9	5.2	0.0	0.0	2.3	1.3	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	358.5	242.9	5.2	0.0	0.0	2.3	1.3	0.0
3141. Textile Furnishings Mills	2,385.6	474.4	1,340.5	0.0	37.4	55.8	0.0	0.0
3149. Other Textile Product Mills	86.6	21.0	154.0	0.0	0.8	4.4	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	1.2	1.1	4.8	0.0	0.0	2.2	0.0	0.0
3169. Other Leather and Allied Product Manufacturing	51.0	136.6	9.9	0.0	0.0	4.5	2.4	0.0
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	263.8	538.5	146.5	0.0	0.0	66.4	0.0	0.0
3231. Printing and Related Support Activities	243.1	299.7	9.0	0.0	0.0	5.1	1.2	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3254. Pharmaceutical and Medicine Manufacturing	1,110.4	501.9	349.1	0.0	0.0	20.9	0.0	0.0



**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3261. Plastics Product Manufacturing	67.5	135.6	3.3	0.0	9.2	14.9	0.0	0.0
3279. Other Nonmetallic Mineral Product Manufacturing	0.0	0.0	296.1	0.0	67,509.7	0.0	0.0	0.0
3312. Steel Product Manufacturing from Purchased Steel	421.0	150.4	32.7	0.0	0.0	14.8	0.0	0.0
3321. Forging and Stamping	57.0	40.2	11.1	0.0	0.0	5.0	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	142.4	100.4	27.7	0.0	0.0	12.5	0.0	0.0
3325. Hardware Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3326. Spring and Wire Product Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	99.7	70.3	19.4	0.0	0.0	8.8	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3332. Industrial Machinery Manufacturing	1,193.3	1,292.0	124.5	0.0	0.0	127.8	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	516.8	573.2	51.0	0.0	0.0	56.3	0.0	0.0
3335. Metalworking Machinery Manufacturing	46.8	52.3	21.6	0.0	0.0	9.8	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	190.9	180.5	36.8	0.0	0.0	21.7	0.0	0.0
3344. Semiconductor and Other Electronic Component Manufacturing	1,696.2	2,228.2	64.7	0.0	0.0	39.2	5.1	0.0
3351. Electric Lighting Equipment Manufacturing	1,252.8	1,481.5	13.3	0.0	0.0	18.0	0.0	0.7
3352. Household Appliance Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3353. Electrical Equipment Manufacturing	83.2	99.0	5.4	0.0	0.0	2.4	0.0	0.1
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	22.3	19.9	8.7	0.0	0.0	3.9	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	78.2	59.5	13.3	0.0	0.0	7.7	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	69.5	62.0	4.5	0.0	0.0	2.0	1.1	0.0
3399. Other Miscellaneous Manufacturing	704.3	625.3	12.5	0.0	0.0	11.5	15.7	0.0
<b>Warren</b>								
1111. Oilseed and Grain Farming	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1112. Vegetable and Melon Farming	0.0	28.5	68.8	0.0	0.0	26.0	19.5	0.0
1113. Fruit and Tree Nut Farming	0.0	18.1	35.5	0.0	0.0	13.4	10.0	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	133.3	391.4	0.0	0.0	147.8	110.7	0.0
1121. Cattle Ranching and Farming	0.0	10.3	29.1	0.0	0.0	11.0	8.2	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
1123. Poultry and Egg Production	0.0	40.5	51.9	0.0	0.0	19.6	14.7	0.0
1124. Sheep and Goat Farming	0.0	5.0	9.0	0.0	0.0	3.4	2.5	0.0
2123. Nonmetallic Mineral Mining and Quarrying	125.7	333.5	633.7	0.0	753.8	0.0	284.3	0.0
2369. Building Construction (unclassified)	339.6	536.7	1,753.0	0.0	0.0	54.1	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	47.9	89.7	1,129.6	0.0	0.0	147.0	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,676.0	996.6	8,132.8	0.0	0.0	282.2	0.0	0.0
3121. Beverage Manufacturing	263.8	198.0	14.9	0.0	0.0	6.7	29.0	0.0
3141. Textile Furnishings Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0
3149. Other Textile Product Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	0.4	0.4	1.6	0.0	0.0	0.7	0.0	0.0
3211. Sawmills and Wood Preservation	290.3	222.1	161.2	0.0	2.5	7.3	3.9	0.0
3219. Other Wood Product Manufacturing	932.6	1,621.2	225.3	0.0	0.0	130.9	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	146,533.4	6,667.8	0.0	0.0	0.0	0.0	0.0	0.0
3231. Printing and Related Support Activities	33.9	48.4	2.6	0.0	0.0	1.2	0.6	0.0
3241. Petroleum and Coal Products Manufacturing	129.1	16.5	143.4	0.0	0.0	3.2	1.8	0.0
3251. Basic Chemical Manufacturing	1,873.8	3,076.7	55.3	0.0	0.0	37.6	0.0	0.0
3261. Plastics Product Manufacturing	261.3	453.9	6.1	0.0	57.5	34.3	0.0	0.0
3272. Glass and Glass Product Manufacturing	347.8	124.2	27.0	0.0	0.0	12.2	0.0	0.0
3273. Cement and Concrete Product Manufacturing	12,608.9	9,633.0	416.5	0.0	85,510.4	328.6	303.8	18.1
3323. Architectural and Structural Metals Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	71.2	50.2	13.8	0.0	0.0	6.3	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3332. Industrial Machinery Manufacturing	46.8	52.3	21.6	0.0	0.0	9.8	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3359. Other Electrical Equipment and Component Manufacturing	41.6	49.5	2.7	0.0	0.0	1.2	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	7.4	6.6	2.9	0.0	0.0	1.3	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	6,940.1	4,848.6	111.6	0.0	0.0	16.5	470.4	0.0
3399. Other Miscellaneous Manufacturing	30.9	27.6	2.0	0.0	0.0	0.9	0.5	0.0
<b>Washington</b>								
1111. Oilseed and Grain Farming	0.0	103.6	519.3	0.0	0.0	196.1	146.9	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
1112. Vegetable and Melon Farming	0.0	182.2	440.6	0.0	0.0	166.4	124.7	0.0
1113. Fruit and Tree Nut Farming	0.0	264.9	520.1	0.0	0.0	196.4	147.1	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	361.9	1,062.3	0.0	0.0	401.1	300.5	0.0
1121. Cattle Ranching and Farming	0.0	2,290.6	5,814.1	0.0	0.0	2,195.1	1,645.0	0.0
1122. Hog and Pig Farming	0.0	11.5	24.8	0.0	0.0	9.4	7.0	0.0
1123. Poultry and Egg Production	0.0	148.6	190.2	0.0	0.0	71.8	53.8	0.0
1124. Sheep and Goat Farming	0.0	66.1	118.4	0.0	0.0	44.7	33.5	0.0
2123. Nonmetallic Mineral Mining and Quarrying	173.5	451.3	951.8	0.0	851.1	0.0	389.2	0.0
2369. Building Construction (unclassified)	243.3	384.4	1,255.6	0.0	0.0	38.8	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	47.9	89.7	1,129.6	0.0	0.0	147.0	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	1,129.0	671.3	5,478.3	0.0	0.0	190.1	0.0	0.0
3115. Dairy Product Manufacturing	237.9	106.2	92.5	0.0	0.0	4.2	22.6	0.0
3116. Animal Slaughtering and Processing	457.1	310.8	136.7	0.0	42.7	6.2	33.4	0.0
3121. Beverage Manufacturing	263.8	198.0	14.9	0.0	0.0	6.7	29.0	0.0
3131. Fiber, Yarn, and Thread Mills	716.9	485.8	10.3	0.0	0.0	4.7	2.5	0.0
3141. Textile Furnishings Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0
3149. Other Textile Product Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0
3161. Leather and Hide Tanning and Finishing	51.0	136.6	9.9	0.0	0.0	4.5	2.4	0.0
3219. Other Wood Product Manufacturing	87.9	179.5	48.8	0.0	0.0	22.1	0.0	0.0
3221. Pulp, Paper, and Paperboard Mills	98,812.0	20,248.3	269.3	0.0	70,905.3	201.4	12,568.2	0.0
3231. Printing and Related Support Activities	27.1	38.8	2.1	0.0	0.0	1.0	0.5	0.0
3241. Petroleum and Coal Products Manufacturing	258.2	32.9	286.8	0.0	0.0	6.5	3.5	0.0
3254. Pharmaceutical and Medicine Manufacturing	160.8	86.1	125.0	0.0	0.0	5.7	0.0	0.0
3261. Plastics Product Manufacturing	497.7	993.7	5.3	0.0	253.4	57.5	0.0	0.0
3272. Glass and Glass Product Manufacturing	59.3	26.5	11.5	0.0	1.8	5.2	0.0	0.0
3315. Foundries	13.1	11.7	50.8	0.0	0.0	23.0	12.4	0.0
3323. Architectural and Structural Metals Manufacturing	57.0	40.2	11.1	0.0	0.0	5.0	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	363.0	229.3	42.6	0.0	0.0	22.1	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3331. Agriculture, Construction, and Mining Machinery Manufacturing	159.7	145.7	22.4	0.0	0.0	15.2	0.0	0.0
3332. Industrial Machinery Manufacturing	190.9	180.5	36.8	0.0	0.0	21.7	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	159.7	145.7	22.4	0.0	0.0	15.2	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	31.2	34.8	14.4	0.0	0.0	6.5	0.0	0.0
3359. Other Electrical Equipment and Component Manufacturing	626.4	740.8	6.6	0.0	0.0	9.0	0.0	0.3

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	988.5	472.8	40.6	0.0	0.0	47.4	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3399. Other Miscellaneous Manufacturing	634.9	563.2	8.0	0.0	0.0	9.5	14.6	0.0
<b>Wayne</b>								
1111. Oilseed and Grain Farming	0.0	660.9	3,313.8	0.0	0.0	1,251.1	937.6	0.0
1112. Vegetable and Melon Farming	0.0	284.6	688.4	0.0	0.0	259.9	194.8	0.0
1113. Fruit and Tree Nut Farming	0.0	1,035.7	2,033.0	0.0	0.0	767.6	575.2	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	428.5	1,257.9	0.0	0.0	474.9	355.9	0.0
1121. Cattle Ranching and Farming	0.0	1,227.4	3,113.9	0.0	0.0	1,175.7	881.0	0.0
1122. Hog and Pig Farming	0.0	20.1	43.5	0.0	0.0	16.4	12.3	0.0
1123. Poultry and Egg Production	0.0	229.7	294.0	0.0	0.0	111.0	83.2	0.0
1124. Sheep and Goat Farming	0.0	29.0	52.0	0.0	0.0	19.6	14.7	0.0
2123. Nonmetallic Mineral Mining and Quarrying	445.4	636.6	1,175.9	0.0	2,032.5	0.0	360.7	0.0
2369. Building Construction (unclassified)	330.5	522.2	1,705.7	0.0	0.0	52.7	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	107.8	201.8	2,541.6	0.0	0.0	330.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	2,106.6	1,252.7	10,222.5	0.0	0.0	354.7	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	8,041.1	2,500.3	47.7	0.0	239.7	61.3	51.8	0.0
3121. Beverage Manufacturing	105.5	79.2	5.9	0.0	0.0	2.7	11.6	0.0
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	874.0	1,501.6	192.7	0.0	0.0	116.2	0.0	0.0
3231. Printing and Related Support Activities	20.3	29.1	1.6	0.0	0.0	0.7	0.4	0.0
3241. Petroleum and Coal Products Manufacturing	387.3	49.4	430.1	0.0	0.0	9.7	5.3	0.0
3251. Basic Chemical Manufacturing	328.2	659.3	31.9	0.0	0.0	14.4	0.0	0.0
3261. Plastics Product Manufacturing	2,067.4	2,671.9	12.9	0.0	1,080.2	149.7	0.0	0.0
3262. Rubber Product Manufacturing	101.2	203.4	4.9	0.0	13.8	22.3	0.0	0.0
3272. Glass and Glass Product Manufacturing	7,371.8	1,788.6	172.8	0.0	847.5	184.6	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	334.5	209.2	37.1	0.0	0.0	19.6	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	889.4	597.2	33.9	0.0	0.0	37.8	0.0	0.0
3325. Hardware Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	427.2	301.2	83.0	0.0	0.0	37.6	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	57.0	40.2	11.1	0.0	0.0	5.0	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3331. Agriculture, Construction, and Mining Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3332. Industrial Machinery Manufacturing	190.9	180.5	36.8	0.0	0.0	21.7	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	159.7	145.7	22.4	0.0	0.0	15.2	0.0	0.0
3335. Metalworking Machinery Manufacturing	62.4	69.7	28.8	0.0	0.0	13.1	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	222.1	215.4	51.2	0.0	0.0	28.3	0.0	0.0
3359. Other Electrical Equipment and Component Manufacturing	929.7	1,035.9	12.6	0.0	0.0	13.1	0.0	0.7
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	63.3	46.2	7.5	0.0	0.0	5.1	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	7.4	6.6	2.9	0.0	0.0	1.3	0.0	0.0
3399. Other Miscellaneous Manufacturing	4,191.5	3,003.3	68.4	0.0	0.0	18.6	242.7	0.0
<b>Westchester</b>								
1111. Oilseed and Grain Farming	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1112. Vegetable and Melon Farming	0.0	134.8	151.5	0.0	0.0	57.2	42.9	0.0
1113. Fruit and Tree Nut Farming	0.0	90.7	82.7	0.0	0.0	31.2	23.4	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	389.4	531.1	0.0	0.0	200.5	150.3	0.0
1121. Cattle Ranching and Farming	0.0	108.4	128.8	0.0	0.0	48.6	36.4	0.0
1123. Poultry and Egg Production	0.0	58.2	34.6	0.0	0.0	13.1	9.8	0.0
1124. Sheep and Goat Farming	0.0	6.5	5.4	0.0	0.0	2.0	1.5	0.0
2111. Oil and Gas Extraction	29,482.9	6,100.7	1,183.2	0.0	1,880.7	0.0	203.9	0.0
2122. Metal Ore Mining	4,541.3	11,771.7	4,771.7	0.0	5,017.6	0.0	2,796.0	0.0
2123. Nonmetallic Mineral Mining and Quarrying	43.0	179.3	229.5	0.0	97.3	0.0	51.9	0.0
2131. Support Activities for Mining	227.0	43.2	270.9	0.0	0.0	0.0	67.8	0.0
2369. Building Construction (unclassified)	4,901.9	16,669.6	25,300.7	0.0	0.0	781.5	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	1,341.6	5,403.7	31,629.1	0.0	0.0	4,115.8	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	24,534.4	31,396.5	119,055.1	0.0	0.0	4,130.5	0.0	0.0
3113. Sugar and Confectionery Product Manufacturing	81,388.0	11,035.0	4,989.7	0.0	0.0	0.0	0.0	0.0
3114. Fruit and Vegetable Preserving and Specialty Food Manufacturing	207.2	201.6	10.2	0.0	1.6	4.6	2.5	0.0
3115. Dairy Product Manufacturing	237.9	228.6	92.5	0.0	0.0	4.2	22.6	0.0
3116. Animal Slaughtering and Processing	3,142.2	4,002.3	475.6	0.0	464.6	26.1	66.8	0.0
3121. Beverage Manufacturing	2,686.8	4,318.0	57.1	0.0	0.0	42.5	399.6	0.0
3132. Fabric Mills	358.5	522.7	5.2	0.0	0.0	2.3	1.3	0.0
3133. Textile and Fabric Finishing and Fabric Coating Mills	1,792.4	2,613.6	25.8	0.0	0.0	11.7	6.3	0.0
3141. Textile Furnishings Mills	303.3	158.2	538.9	0.0	2.6	15.3	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3149. Other Textile Product Mills	433.2	225.9	769.9	0.0	3.8	21.8	0.0	0.0
3152. Cut and Sew Apparel Manufacturing	4.1	7.9	16.0	0.0	0.0	7.2	0.0	0.0
3159. Apparel Accessories and Other Apparel Manufacturing	0.4	0.8	1.6	0.0	0.0	0.7	0.0	0.0
3162. Footwear Manufacturing	51.0	293.9	9.9	0.0	0.0	4.5	2.4	0.0
3211. Sawmills and Wood Preservation	193.5	318.7	107.5	0.0	1.7	4.9	2.6	0.0
3219. Other Wood Product Manufacturing	175.9	772.5	97.7	0.0	0.0	44.2	0.0	0.0
3231. Printing and Related Support Activities	1,276.8	3,710.5	46.7	0.0	0.0	28.9	21.9	0.0
3241. Petroleum and Coal Products Manufacturing	774.6	212.6	860.3	0.0	0.0	19.5	10.5	0.0
3252. Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing	350.7	336.9	17.0	0.0	0.0	7.7	4.2	0.0
3254. Pharmaceutical and Medicine Manufacturing	321.6	370.7	250.0	0.0	0.0	11.3	0.0	0.0
3261. Plastics Product Manufacturing	598.8	2,435.7	22.5	0.0	103.6	108.5	0.0	0.0
3262. Rubber Product Manufacturing	497.7	2,138.5	5.3	0.0	253.4	57.5	0.0	0.0
3271. Clay Product and Refractory Manufacturing	415.5	159.7	32.3	0.0	0.0	14.6	0.0	0.0
3272. Glass and Glass Product Manufacturing	1,111.1	897.9	96.1	0.0	37.8	51.4	0.0	0.0
3274. Lime and Gypsum Product Manufacturing	72,178.0	1,333.2	203.6	0.0	0.0	80.5	0.0	0.0
3311. Iron and Steel Mills and Ferroalloy Manufacturing	6,121.1	6,148.1	54.1	0.0	84.5	24.5	0.0	245.9
3312. Steel Product Manufacturing from Purchased Steel	421.0	323.6	32.7	0.0	0.0	14.8	0.0	0.0
3314. Nonferrous Metal (except Aluminum) Production and Processing	31.2	599.8	121.3	0.0	0.0	55.0	0.0	0.0
3315. Foundries	897.1	145.0	0.0	0.0	0.0	83.1	0.0	0.0
3321. Forging and Stamping	441.2	554.9	29.9	0.0	0.0	19.0	0.0	0.0
3322. Cutlery and Handtool Manufacturing	28.5	43.2	5.5	0.0	0.0	2.5	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	676.3	968.7	103.5	0.0	0.0	49.6	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	14.2	21.6	2.8	0.0	0.0	1.3	0.0	0.0
3325. Hardware Manufacturing	14.2	21.6	2.8	0.0	0.0	1.3	0.0	0.0
3326. Spring and Wire Product Manufacturing	28.5	43.2	5.5	0.0	0.0	2.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	270.6	410.4	52.6	0.0	0.0	23.8	0.0	0.0
3328. Coating, Engraving, Heat Treating, and Allied Activities	14.2	21.6	2.8	0.0	0.0	1.3	0.0	0.0
3329. Other Fabricated Metal Product Manufacturing	9,182.1	10,914.2	459.3	0.0	0.0	81.6	0.0	0.0
3332. Industrial Machinery Manufacturing	15.6	37.5	7.2	0.0	0.0	3.3	0.0	0.0
3333. Commercial and Service Industry Machinery Manufacturing	62.4	150.0	28.8	0.0	0.0	13.1	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (continued)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3334. Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	31.2	75.0	14.4	0.0	0.0	6.5	0.0	0.0
3335. Metalworking Machinery Manufacturing	237.7	500.9	58.4	0.0	0.0	31.5	0.0	0.0
3336. Engine, Turbine, and Power Transmission Equipment Manufacturing	46.8	112.5	21.6	0.0	0.0	9.8	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	15.6	37.5	7.2	0.0	0.0	3.3	0.0	0.0
3344. Semiconductor and Other Electronic Component Manufacturing	433.9	1,458.9	42.2	0.0	0.0	19.1	10.3	0.0
3351. Electric Lighting Equipment Manufacturing	428.1	954.8	14.1	0.0	0.0	7.7	0.0	0.5
3353. Electrical Equipment Manufacturing	1,076.3	2,331.6	28.7	0.0	0.0	17.0	0.0	1.1
3359. Other Electrical Equipment and Component Manufacturing	751.2	1,913.8	14.7	0.0	0.0	12.7	0.0	0.5
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	117.9	204.3	28.7	0.0	0.0	14.7	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	24.8	47.7	9.6	0.0	0.0	4.4	0.0	0.0
3379. Other Furniture Related Product Manufacturing	7.4	14.3	2.9	0.0	0.0	1.3	0.0	0.0
3391. Medical Equipment and Supplies Manufacturing	441.3	779.8	19.8	0.0	0.0	9.8	3.9	0.0
3399. Other Miscellaneous Manufacturing	5,469.7	8,774.7	100.6	0.0	0.0	40.8	261.4	0.0
<b>Wyoming</b>								
1111. Oilseed and Grain Farming	0.0	276.2	1,384.9	0.0	0.0	522.9	391.8	0.0
1112. Vegetable and Melon Farming	0.0	108.2	261.6	0.0	0.0	98.8	74.0	0.0
1113. Fruit and Tree Nut Farming	0.0	54.2	106.4	0.0	0.0	40.2	30.1	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	209.5	615.0	0.0	0.0	232.2	174.0	0.0
1121. Cattle Ranching and Farming	0.0	2,727.6	6,904.8	0.0	0.0	2,606.9	1,953.6	0.0
1122. Hog and Pig Farming	0.0	15.8	34.2	0.0	0.0	12.9	9.7	0.0
1123. Poultry and Egg Production	0.0	81.1	103.8	0.0	0.0	39.2	29.4	0.0
1124. Sheep and Goat Farming	0.0	36.1	64.6	0.0	0.0	24.4	18.3	0.0
2123. Nonmetallic Mineral Mining and Quarrying	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2369. Building Construction (unclassified)	165.2	261.1	852.8	0.0	0.0	26.3	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	47.9	89.7	1,129.6	0.0	0.0	147.0	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	651.8	387.6	3,162.8	0.0	0.0	109.7	0.0	0.0
3115. Dairy Product Manufacturing	237.9	106.2	92.5	0.0	0.0	4.2	22.6	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3119. Other Food Manufacturing	51,308.4	0.0	0.0	0.0	7,943.4	0.0	0.0	0.0
3211. Sawmills and Wood Preservation	96.8	74.0	53.7	0.0	0.8	2.4	1.3	0.0
3219. Other Wood Product Manufacturing	932.6	1,621.2	225.3	0.0	0.0	130.9	0.0	0.0

**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3231. Printing and Related Support Activities	209.2	251.3	6.4	0.0	0.0	3.9	0.5	0.0
3262. Rubber Product Manufacturing	33.7	67.8	1.6	0.0	4.6	7.4	0.0	0.0
3312. Steel Product Manufacturing from Purchased Steel	4,349.9	1,543.2	55.3	0.0	0.0	75.1	0.0	0.0
3315. Foundries	63.9	46.6	75.4	0.0	0.0	51.2	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0
3324. Boiler, Tank, and Shipping Container Manufacturing	683.0	478.3	21.7	0.0	0.0	29.5	0.0	0.0
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	306.0	189.2	31.6	0.0	0.0	17.0	0.0	0.0
3335. Metalworking Machinery Manufacturing	15.6	17.4	7.2	0.0	0.0	3.3	0.0	0.0
3339. Other General Purpose Machinery Manufacturing	485.6	538.3	36.6	0.0	0.0	49.8	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2.5	2.2	1.0	0.0	0.0	0.4	0.0	0.0
3372. Office Furniture (including Fixtures) Manufacturing	5.0	4.4	1.9	0.0	0.0	0.9	0.0	0.0
3399. Other Miscellaneous Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0
<b>Yates</b>								
1111. Oilseed and Grain Farming	0.0	409.3	2,052.6	0.0	0.0	775.0	580.7	0.0
1112. Vegetable and Melon Farming	0.0	244.8	592.1	0.0	0.0	223.5	167.5	0.0
1113. Fruit and Tree Nut Farming	0.0	921.3	1,808.4	0.0	0.0	682.8	511.7	0.0
1114. Greenhouse, Nursery, and Floriculture Production	0.0	323.8	950.4	0.0	0.0	358.8	268.9	0.0
1121. Cattle Ranching and Farming	0.0	5,488.8	13,731.7	0.0	0.0	5,184.4	3,885.1	0.0
1122. Hog and Pig Farming	0.0	17.3	37.3	0.0	0.0	14.1	10.5	0.0
1123. Poultry and Egg Production	0.0	351.3	449.6	0.0	0.0	169.8	127.2	0.0
1124. Sheep and Goat Farming	0.0	23.0	41.2	0.0	0.0	15.6	11.7	0.0
2369. Building Construction (unclassified)	156.1	246.6	805.5	0.0	0.0	24.9	0.0	0.0
2378. Heavy and Civil Engineering Construction (unclassified)	12.0	22.4	282.4	0.0	0.0	36.7	0.0	0.0
2388. Specialty Trade Contractors (unclassified)	593.6	353.0	2,880.4	0.0	0.0	99.9	0.0	0.0
3116. Animal Slaughtering and Processing	228.5	155.4	68.3	0.0	21.4	3.1	16.7	0.0
3121. Beverage Manufacturing	2,366.1	1,574.4	75.7	0.0	0.0	40.0	98.7	0.0
3141. Textile Furnishings Mills	43.3	10.5	77.0	0.0	0.4	2.2	0.0	0.0
3211. Sawmills and Wood Preservation	193.5	148.1	107.5	0.0	1.7	4.9	2.6	0.0
3219. Other Wood Product Manufacturing	756.7	1,262.2	127.6	0.0	0.0	86.7	0.0	0.0
3231. Printing and Related Support Activities	13.6	19.4	1.1	0.0	0.0	0.5	0.3	0.0
3251. Basic Chemical Manufacturing	4,349.9	8,680.7	69.1	0.0	0.0	93.9	0.0	0.0
3261. Plastics Product Manufacturing	464.0	925.9	3.7	0.0	248.8	50.1	0.0	0.0
3323. Architectural and Structural Metals Manufacturing	14.2	10.0	2.8	0.0	0.0	1.3	0.0	0.0



**Table B.1:** 2016 CO<sub>2</sub>-equivalent greenhouse gas emission by county and industry sector, metric tons CO<sub>2</sub>e (*continued*)

County / Sector (NAICS)	Fuel types							
	Natural gas	Net electricity	Diesel	Other	Coal	LPG-NGL	Residual fuel oil	Coke and breeze
3327. Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	42.7	30.1	8.3	0.0	0.0	3.8	0.0	0.0
3371. Household and Institutional Furniture and Kitchen Cabinet Manufacturing	7.4	6.6	2.9	0.0	0.0	1.3	0.0	0.0
3399. Other Miscellaneous Manufacturing	7.7	6.9	0.5	0.0	0.0	0.2	0.1	0.0

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