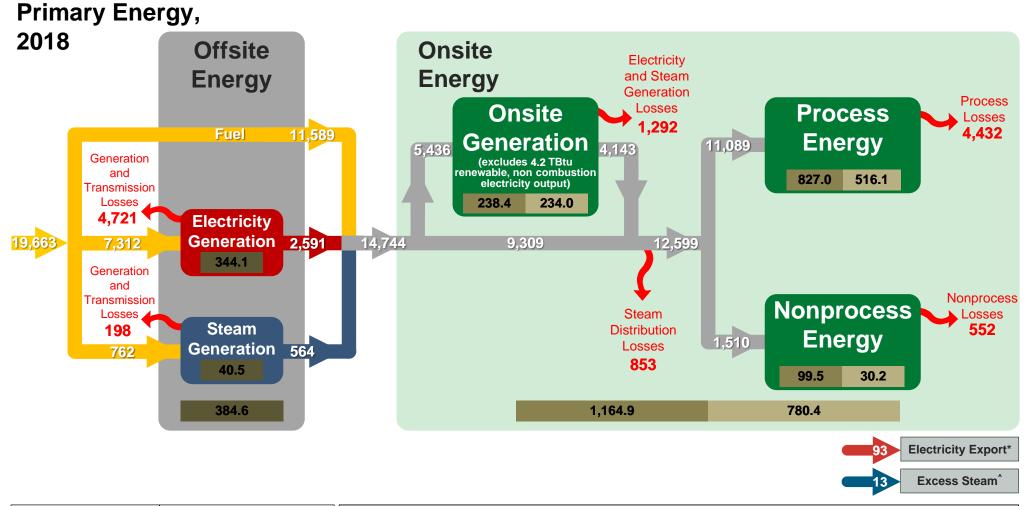
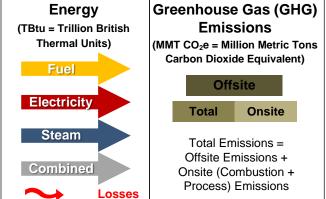
## **Manufacturing Energy and Carbon Footprint** Sector: All Manufacturing (NAICS 31-33)

Primary Energy Use: 19,663 TBtu
Total GHG Emissions: 1,165 MMT CO<sub>2</sub>e





Energy use 2018 EIA MECS (with adjustments). For full information on references, definitions, assumptions, and other sectors, data source: visit this webpage

Last Revised: December 2021

Lust Nevisca. Describer 2021

Notes: Sector-wide aggregate data for year 2018; energy values rounded to nearest whole number

Offsite generation shown on net basis (purchases, sales, and transfers accounted for) and includes onsite non-

combustion renewable output

\* Electricity export refers to sales and transfers offsite of electricity to utilities and other entities

Feedstock energy excluded from primary, offsite, and onsite energy values and included in Energy for All Purposes

^ Excess steam refers to the sales and transfer offsite or purging of surplus steam

## Energy for All Purposes estimated at 24,355 TBtu

Includes primary energy plus net energy consumed for nonfuel purposes, including feedstock use

## **Manufacturing Energy and Carbon Footprint Onsite Energy Use: 14,744 TBtu Onsite Emissions:** 780 MMT CO<sub>2</sub>e Sector: All Manufacturing (NAICS 31-33) **Onsite Energy**, **Onsite Process** Nonprocess 2018 Generation **Energy Energy** 2,497 353 321 **Facility HVAC Process Heating Conventional** 5.003 **Boilers** 1,412 360.4 297.3 58.4 22.5 328 86.6 128 **Process Cooling Facility Lighting** 122 910 CHP/ and Refrigeration 21.9 0.0 <u>441</u> Cogeneration 32.4 1.7 2.288 Other Facility 371 145.2 145.2 **Other Process Uses Support** 30 23.5 Other 9.6 2.9 **Electricity** % of **Electro-Chemical Fuel Type** Onsite Total 15 Generation 55% Natural Gas 21.4 0.0 **Transportation** (excludes 4.2 TBtu Byproduct Fuels 36% renewable. 5.7 3.8 Coal 4% non-combustion **Machine Drive** 296 electricity output) Distillate and < 1% Other Residual Fuel Oils 2.2 2.2 643 **Pumps** HGL (excl. natural **Nonprocess** < 1% gasoline) Other Fuels 4% 12 4.0 1.0 369 Fans **Fuel Types** 228 238.4 234.0 99.5 30.2 263 **Compressed Air** 50 **Electricity Export\*** 11.589 6.187 175 Materials Handling 2.591 2,558 3.001 Excess Steam 517 564 614 Materials Processing Energy use data source: 2018 EIA MECS (with adjustments); 61 age for details **Greenhouse Gas (GHG)** Energy 853 Other Systems Last Revised: December 2021 **Emissions** Steam (TBtu = Trillion British Distribution Sector-wide aggregate data for year 2018; Thermal Units) (MMT CO<sub>2</sub>e = Million Metric Tons 13.9 energy values and fuel type percentages Losses Carbon Dioxide Equivalent) rounded to nearest whole number Fuel 827.0 516.1 179.8 Total Onsite Process Offsite generation shown on net basis (purchases, sales, and transfers **Electricity** accounted for) and includes onsite non-Total Emissions = combustion renewable output Offsite Combustion Emissions + Refers to sales and transfers offsite of Steam Onsite Combustion Emissions + electricity to utilities and other entities Process Emissions Refers to sales and transfers offsite or

Onsite Emissions = Onsite

Combustion Emissions +

Process Emissions

Combined

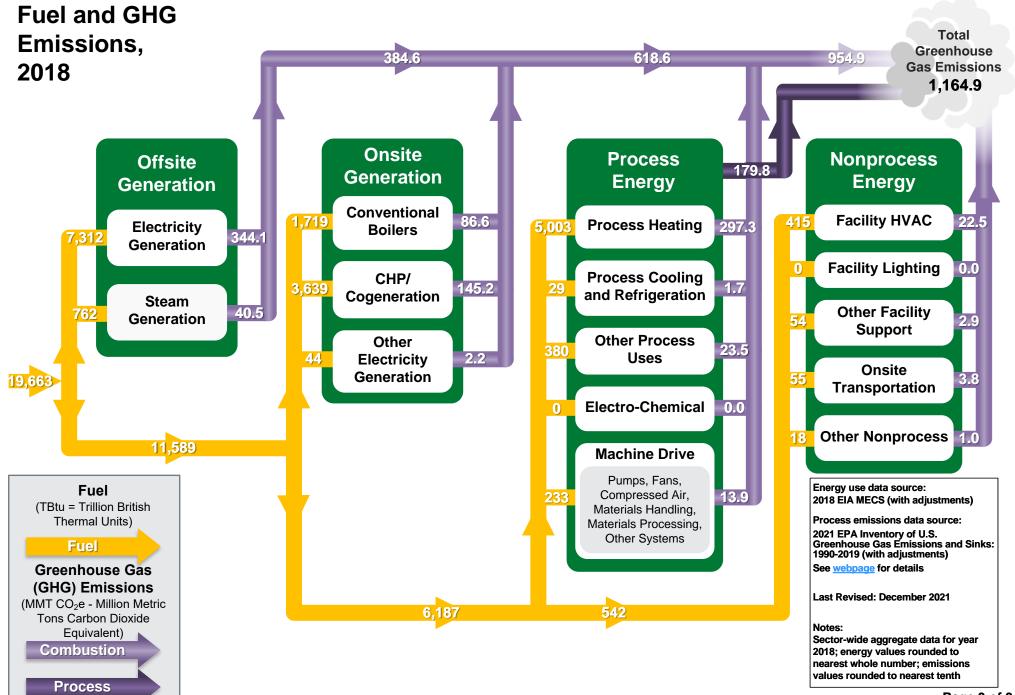
Losses

purging of surplus steam

Feedstock energy excluded

## Manufacturing Carbon Footprint Sector: All Manufacturing (NAICS 31-33)

Primary Energy Use: 19,663 TBtu
Total GHG Emissions: 1,165 MMT CO₂e



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