Primary Energy, 2014

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

Primary Energy Use: 20,008 TBtu
Total Combustion Emissions: 1,064 MMT CO\textsubscript{2}e

Offsite Energy
- Fuel: 11,555
- Generation and Transmission Losses: 5,014
- Electricity Generation: 411.0
- Steam Generation: 44.6
- Total: 5,750
- Process Energy: 642.0
- Nonprocess Energy: 113.8
- Process Losses: 4,368
- Nonprocess Losses: 591

Onsite Energy
- Onsite Generation (excludes 5.6 TBtu renewable, non-combustion electricity output): 308.4 / 303.2
- Process Losses: 1,497
- Steam Distribution Losses: 889
- Total: 1,064.2
- Offsite Emissions: 101
- Onsite Emissions: 9,009
- Total Emissions: 12,374
- Losses: 1,552


Last Revised: September 2018

Notes:
- Sector-wide aggregate data for year 2014; 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
- Electrical 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

Energy for All Purposes estimated at 24,084 TBtu
Includes primary energy plus net energy consumed for nonfuel purposes, including feedstock use

Prepared for the U.S. Department of Energy, Advanced Manufacturing Office by Energetics
Onsite Energy, 2014

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

Onsite Energy Use: 14,759 TBoe
Onsite Combustion Emissions: 609 MMT CO₂e

Fuel Types
- Natural Gas: 51%
- Byproduct Fuels: 36%
- Coal: 7%
- Distillate and Residual Fuel Oils: 1%
- HGL (excl. natural gasoline): <1%
- Other Fuels: 4%

Other Electricity Generation
(excludes 5.6 TBoe
renewable, non-combustion electricity output)
- Conventional Boilers: 99.2
- CHP/Cogeneration: 207.2

Energy (TBoe = Trillion British Thermal Units)
- Fuel
- Electricity
- Steam
- Combined

Combustion Emissions
(MMT CO₂e = Million Metric Tons Carbon Dioxide Equivalent)
- Total
- Onsite

Total Emissions = Offsite Emissions + Onsite Emissions

889 Steam Distribution Losses