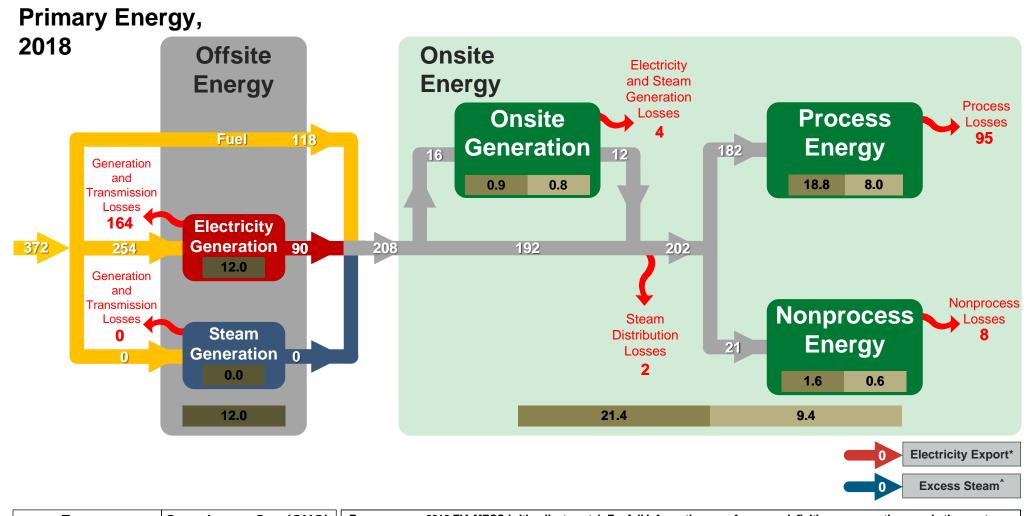
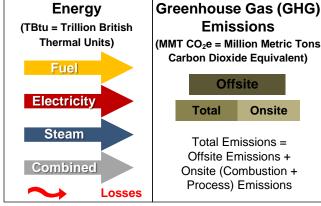
Manufacturing Energy and Carbon Footprint Sector: Alumina and Aluminum (NAICS 3313)

Primary Energy Use: 372 TBtu
Total GHG Emissions: 21 MMT CO₂e





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

Last Revised: December 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 381 TBtu

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

Manufacturing Energy and Carbon Footprint Onsite Energy Use: 208 TBtu Onsite Emissions: 9 MMT CO₂e Sector: Alumina and Aluminum (NAICS 3313) **Onsite Energy**, **Onsite** Nonprocess **Process** 2018 Generation **Energy Energy** 43 **Process Heating Facility HVAC** Conventional **Boilers** 4.8 0.4 0.1 **Process Cooling Facility Lighting** and Refrigeration CHP/ 0.4 0.0 Cogeneration 0.1 0.0 Other Facility 0.7 **Other Process Uses Support** 0.2 0.1 Other 0.3 0.1 34 **Electricity Electro-Chemical Onsite** Generation 7.4 0.0 **Transportation** 0.0 0.1 0.1 % of **Machine Drive Fuel Type** Total Other Natural Gas 98% **Pumps** Distillate Fuel Oil < 1% **Nonprocess** HGL (excl. natural < 1% 0.1 0.0 gasoline) Fans **Fuel Types** 0.9 0.8 1.6 0.6 **Compressed Air Electricity Export*** 118 103 Materials Handling 90 89 208 Excess Steam 13 Materials Processing Energy use data source: 2018 EIA MECS (with adjustments); age for details **Greenhouse Gas (GHG)** Energy Other Systems Last Revised: December 2021 **Emissions** (TBtu = Trillion British Steam Distribution Sector-wide aggregate data for year 2018; Thermal Units) (MMT CO₂e = Million Metric Tons 0.1 energy values and fuel type percentages Losses Carbon Dioxide Equivalent) rounded to nearest whole number Fuel 18.8 8.0 3.1 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

Combined

Losses

Combustion Emissions +

Process Emissions

Page 2 of 3

purging of surplus steam

Feedstock energy excluded

Manufacturing Carbon Footprint Sector: Alumina and Aluminum (NAICS 3313)

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