Total Primary Energy, 2010

Total Energy Use: 557 TBtu
Total Combustion Emissions: 32 MMT CO₂e

- Offsite Energy
  - Fuel 174
  - Generation and Transmission Losses 255
  - Electricity Generation 22.2
  - Steam Generation 0
- Onsite Energy
  - Generation and Steam Generation Losses 6
  - Electricity and Steam Generation Losses 26
  - Offsite Emissions + Onsite Emissions 301
- Process Energy
  - Process Losses 90
  - Nonprocess Energy
  - Nonprocess Losses 35
  - Total Emissions = Offsite Emissions + Onsite Emissions 31.5

Energy use data source: 2010 EIA MECS (with adjustments)
Last Revised: February 2014
Notes:
- Sector-wide aggregate data for year 2010
- Energy values rounded to nearest whole number
- Feedstock energy not included
- Offsite generation shown on net basis (purchases, sales, and transfers accounted for)

Prepared for the U.S. Department of Energy, Advanced Manufacturing Office by Energetics Incorporated
## Manufacturing Energy and Carbon Footprint

**Sector: Fabricated Metals (NAICS 332)**

### Onsite Energy Use: 301 TBtu
### Onsite Combustion Emissions: 9 MMT CO$_2$e

#### Onsite Energy, 2010

<table>
<thead>
<tr>
<th>Energy Type</th>
<th>Total</th>
<th>Onsite</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fuel</strong></td>
<td>174</td>
<td>127</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>151</td>
<td>124</td>
</tr>
<tr>
<td>LPG and NGL</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Distillate and Residual Fuel Oils</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Waste Gas (byproduct fuel)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other Fuels</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Electricity</strong></td>
<td>148</td>
<td>127</td>
</tr>
<tr>
<td><strong>Steam</strong></td>
<td>127</td>
<td>127</td>
</tr>
<tr>
<td><strong>Combined</strong></td>
<td>200</td>
<td>127</td>
</tr>
</tbody>
</table>

#### Combustion Emissions (MMT CO$_2$e = Million Metric Tons Carbon Dioxide Equivalent)

- **Total**: 22.4
- **Onsite**: 5.6

#### Energy Use Data Source
- 2010 EIA MECS (with adjustments)
- Last Revised: February 2014

### Notes
- Sector-wide aggregate data for year 2010
- Energy values rounded to nearest whole number
- Feedstock energy not included
- Offsite generation shown on net basis (purchases, sales, and transfers accounted for)

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