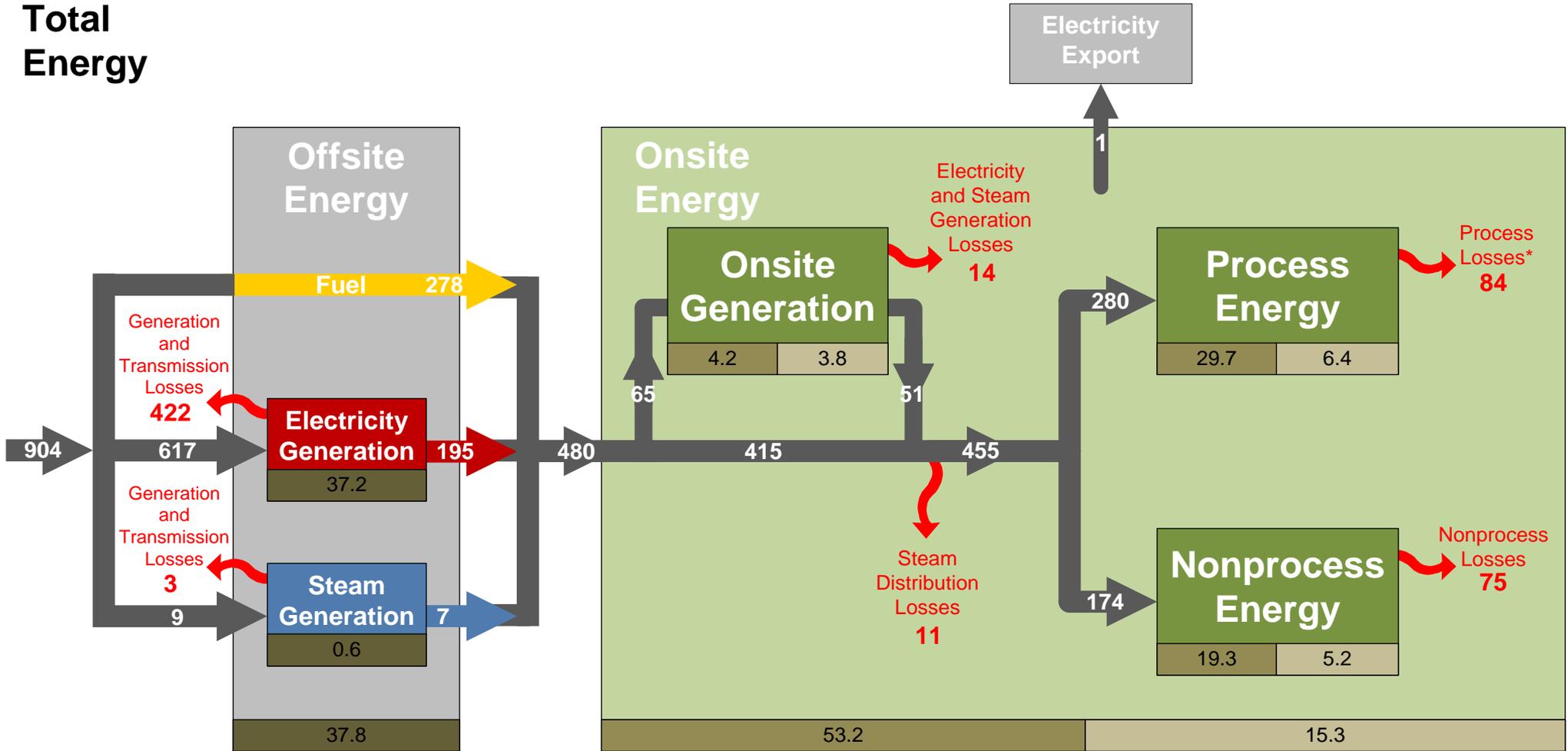


Manufacturing Energy and Carbon Footprint
Sector: Transportation Equipment (NAICS 336)

Total Primary Energy Use: 904 TBtu
Total Combustion Emissions: 53 MMT CO₂e

Total Energy



Energy Use (TBtu)	All Energy
	Fuel
	Electricity
	Steam
	Losses
Combustion Emissions (MMT CO ₂ e)	Offsite
	Onsite
	Total
Total = Onsite + Offsite	

* Exhaust losses from process heating are not estimated

Data source: 2006 MECS

Published: August 2010, revised December 2010

Units: TBtu = Trillion British Thermal Units

MMT CO₂e = Million Metric Tons Carbon Dioxide Equivalent

Notes: Feedstock energy not included

Energy values <0.5 TBtu shown as 0

Manufacturing Energy and Carbon Footprint

Sector: Transportation Equipment (NAICS 336)

Onsite Energy Use: **480 TBtu**
 Onsite Combustion Emissions: **15 MMT CO₂e**

Onsite Energy

Onsite Generation

Conventional Boilers
 3.2 | 2.8

CHP/ Cogeneration
 1.0 | 1.0

Other Electricity Generation**
 0.0 | 0.0

4.2 | 3.8

Steam Generation **14**
 Electricity Generation **1**

11 Steam Distribution

Process Energy

Process Heating
 9.6 | 4.2

Process Cooling and Refrigeration
 2.4 | 0.1

Other Process Uses
 2.8 | 1.8

Electro-Chemical
 0.4 | 0.0

Machine Drive
 14.5 | 0.3

Machine-Driven Systems

Pumps	17
Fans	12
Compressed Air	13
Materials Handling	9
Materials Processing	28
Other Systems	4
Total	29.7

29.7 | 6.4

Exhaust Losses*

Nonprocess Energy

Facility HVAC
 11.8 | 4.7

Facility Lighting
 5.4 | 0.0

Other Facility Support
 1.6 | 0.2

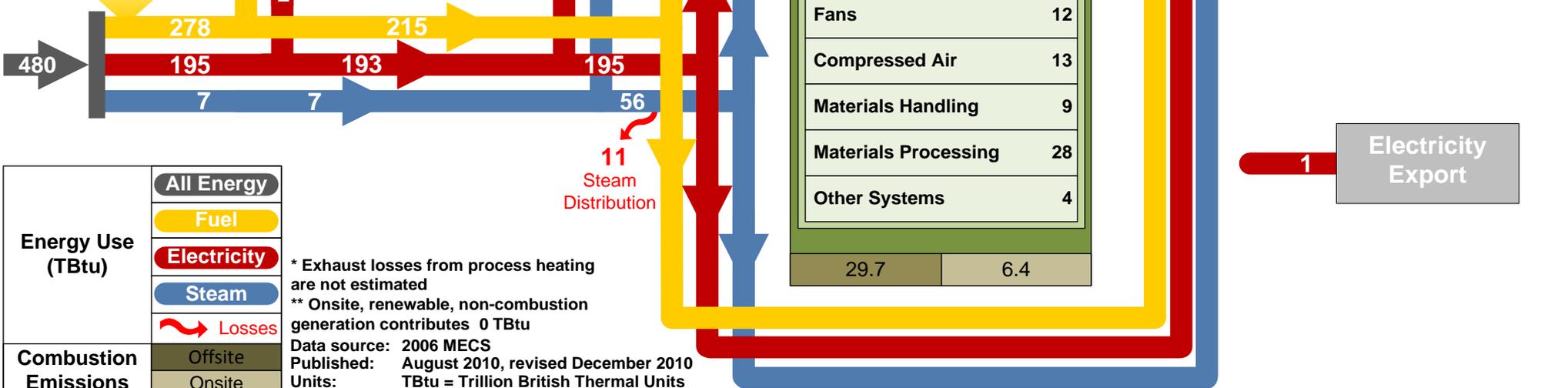
Onsite Transportation
 0.5 | 0.3

Other Nonprocess
 0.2 | 0.0

19.3 | 5.2

Electricity Export

Fuel Type	% of Total
Natural Gas	90%
Distillate and Residual Fuel Oils	4%
Coal	2%
Waste Gas (byproduct fuel)	2%
Waste Oils/Tars and Waste Materials (byproduct fuel)	1%
LPG and NGL	1%
Other Fuels	<0.5%



Energy Use (TBtu)	All Energy
	Fuel
Electricity	
Steam	
Losses	

Combustion Emissions (MMT CO ₂ e)	Offsite
	Onsite
	Total

Total = Onsite + Offsite

* Exhaust losses from process heating are not estimated
 ** Onsite, renewable, non-combustion generation contributes 0 TBtu
 Data source: 2006 MECS
 Published: August 2010, revised December 2010
 Units: TBtu = Trillion British Thermal Units
 MMT CO₂e = Million Metric Tons Carbon Dioxide Equivalent
 Notes: Feedstock energy not included
 Energy values <0.5 TBtu shown as 0