

Table 8.1. Average Operating Heat Rate for Selected Energy Sources,

2007 through 2017 (Btu per Kilowatthour)

Year	Coal	Petroleum	Natural Gas	Nuclear
2007	10375	10794	8403	10489
2008	10378	11015	8305	10452
2009	10414	10923	8160	10459
2010	10415	10984	8185	10452
2011	10444	10829	8152	10464
2012	10498	10991	8039	10479
2013	10459	10713	7948	10449
2014	10428	10814	7907	10459
2015	10495	10687	7878	10458
2016	10493	10811	7870	10459
2017	10485	10834	7812	10459

Coal includes anthracite, bituminous, subbituminous and lignite coal. Waste coal and synthetic coal are included starting in 2002.

Petroleum includes distillate fuel oil (all diesel and No. 1 and No. 2 fuel oils), residual fuel oil (No. 5 and No. 6 fuel oils and bunker C fuel oil, jet fuel, kerosene, petroleum coke, and waste oil).

Notes:

Included in the calculation for coal, petroleum, and natural gas average operating heat rate are electric power plants in the utility and independent power producer sectors. Combined heat and power plants, and all plants in the commercial and industrial sectors are excluded from the calculations. The nuclear average heat rate is the weighted average tested heat rate for nuclear units as reported on the Form EIA-860.

Sources: U.S. Energy Information Administration, Form EIA-923, "Power Plant Operations Report," and predecessor form(s) including U.S. Energy Information Administration, Form EIA-905, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report," Form EIA-860, "Annual Electric Generator Report."