
EIA Reporting Requirements for Industrial CHP and Boilers



For

Council of Industrial Boiler Owners

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By

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U.S. Energy Information Administration

Independent Statistics & Analysis | www.eia.gov

The Energy Information Administration

Mission

Collect, analyze, and disseminate independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and the environment.

Overview of EIA

- The U.S. Energy Information Administration (EIA) is the statistical and analytical agency within the U.S. Department of Energy (DOE).
- EIA conducts a wide range of data collection, analysis, forecasting, and dissemination activities to ensure that its customers, including Congress, federal and state government, the private sector, the broader public, and the media, have ready access to timely, reliable, and relevant energy information.
- EIA is the nation's premier source of energy information and, by law, its data, analyses, and forecasts are independent of approval by any other officer or employee of the United States Government.

The Office of Energy Statistics

- The Office of Energy Statistics conducts a wide range of survey, statistical methods, and integration activities related to: energy consumption and efficiency; electricity; nuclear and renewable energy; oil, gas and coal supply; and petroleum and biofuels.
- This Office also manages the EIA data collection program and the quality control for weekly, monthly, quarterly, annual and quadrennial statistical reports.

CHP plants and industrial boilers reporting requirements

- Survey reporting is mandatory by law for the Forms EIA-923, EIA-860 and EIA-3.
- Provisions are in place to reduce reporting burden on small companies.
- Electricity: Form EIA-923, Power Plant Operations Report and Form EIA-860, Annual Electric Generator Report.
- Coal: Form EIA-3, Quarterly Survey of Industrial, Commercial & Institutional Coal Users.
- Energy Consumption: Manufacturing Energy Consumption Survey (MECS) and Commercial Buildings Energy Consumption Survey (CBECS).

Form EIA-923, Power Plant Operations Report

- Collects information from regulated and unregulated electric power plants in the United States.
- Includes electric power sector, commercial and industrial sector plants.
- Data collected include electric power generation, energy source consumption, end of reporting period fossil fuel stocks, as well as the quality and cost of fossil fuel receipts.
- Data are published for use by public and private analysts.

Form EIA-860, Annual Electric Generator Report

- Collects data on the status of existing electric generating plants and associated equipment in the United States.
- Units scheduled for initial commercial operation within 10 years of the filing of the report.
- Required by plants with total capacity of at least 1 megawatt and connected to the electric power grid.

Electric power data for CHP plants

- Combined Heat and Power plants with at least 1 megawatt of installed electric capacity and have a connection to the power grid.
- Regardless of whether power is used onsite and/or sold offsite.
- Capacity and characteristics of plant collected annually on F860.
- Electric power generation and fuel consumed on F923. Monthly sample of plants and annually for the rest.
- If applicable, emissions control equipment characteristics and operations.

EIA Estimates the Allocation of Fuel Between Useful Thermal Output and Electric Power Output

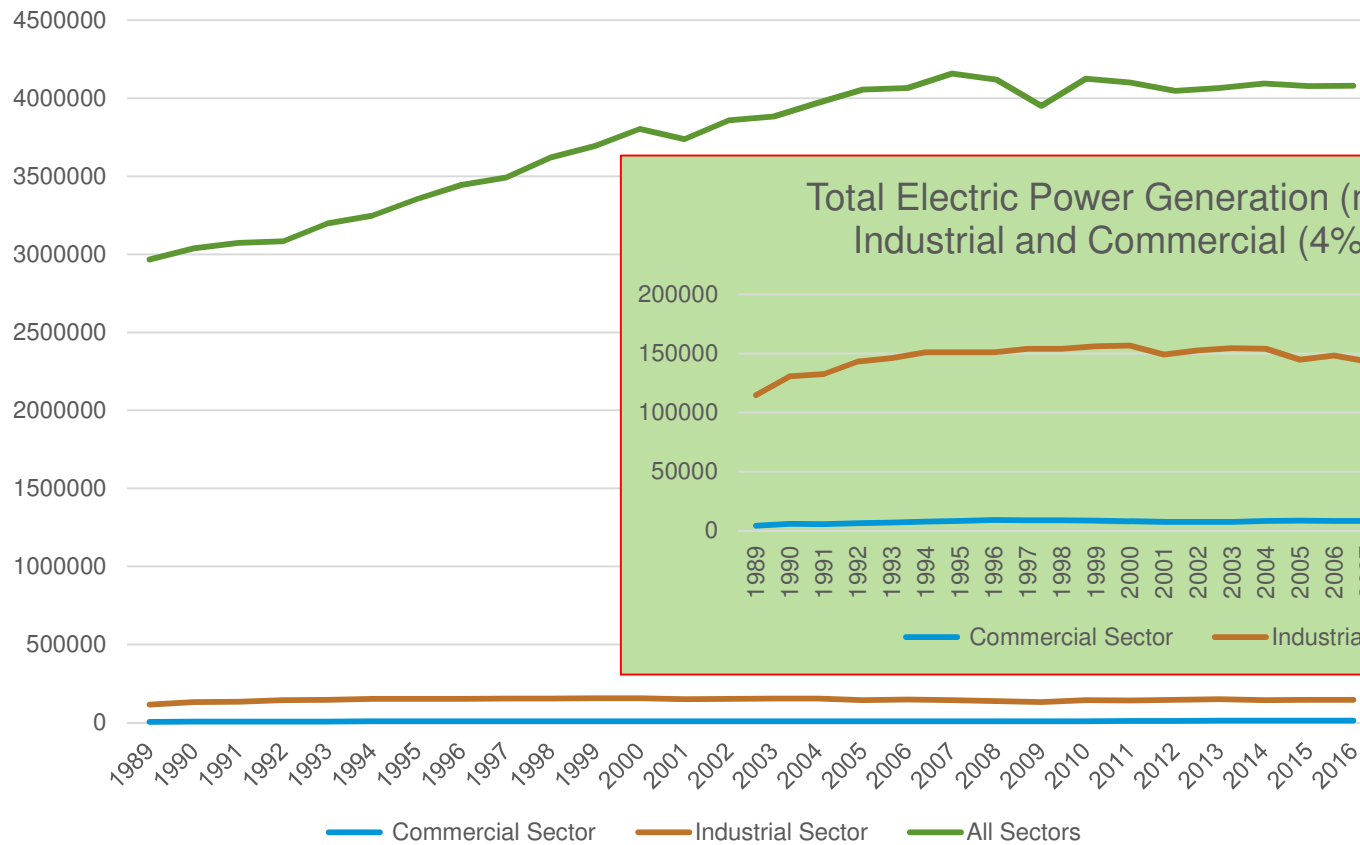
CHP plants report total fuel consumed and electric power generated at their facilities on Form EIA-923.

Past experience with asking CHP plants for an allocation of fuel between electric power and UTO proved problematic.

In 2007, EIA decided to use a uniform allocation methodology to estimate the fuel for power and the fuel for UTO at CHP plants.

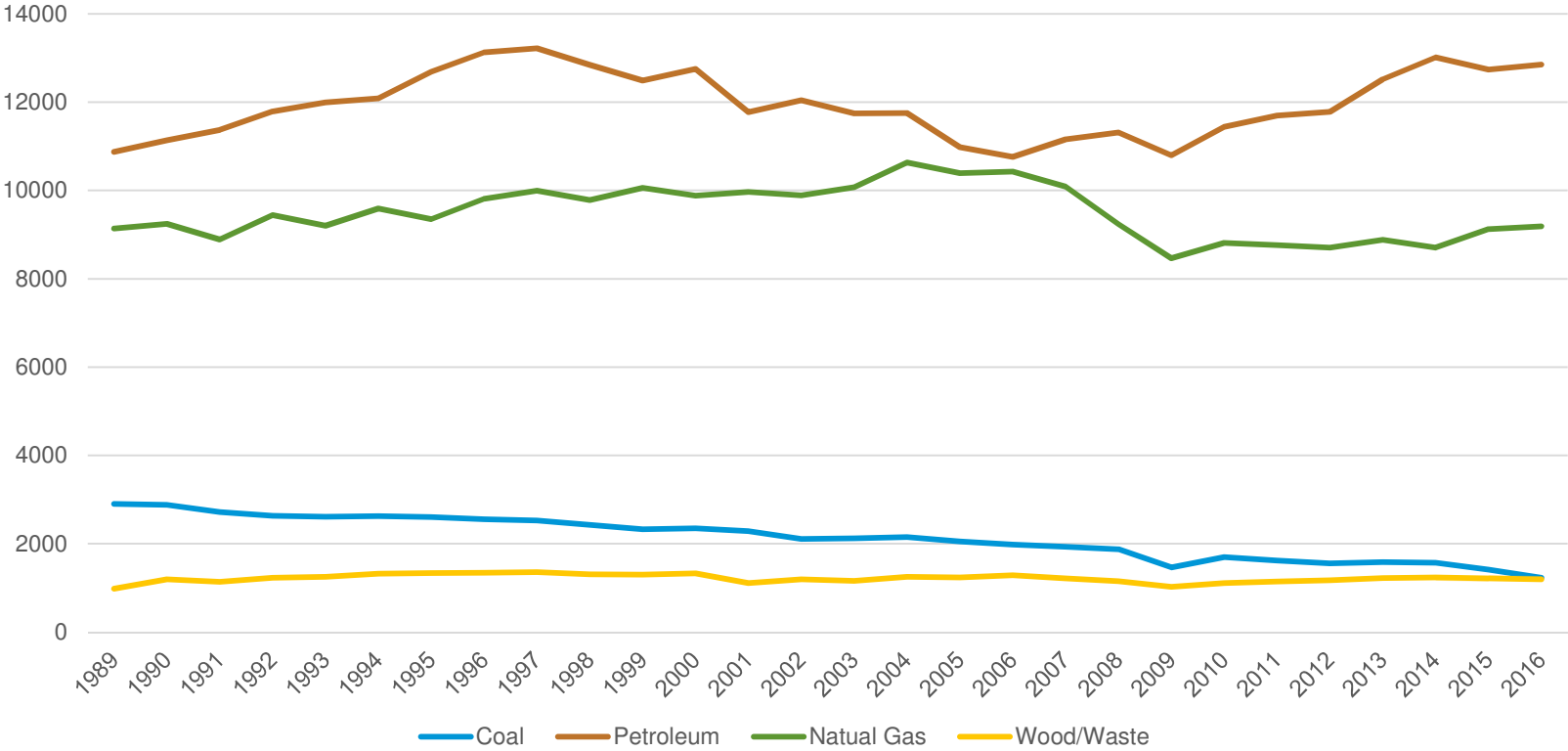
The F923 asks for the total efficiency of the CHP plant, defined as total energy output divided by total energy input (in terms of million Btu). The efficiency value is a key variable in the allocation methodology.

Total Electric Power Generation (million kilowatthours)



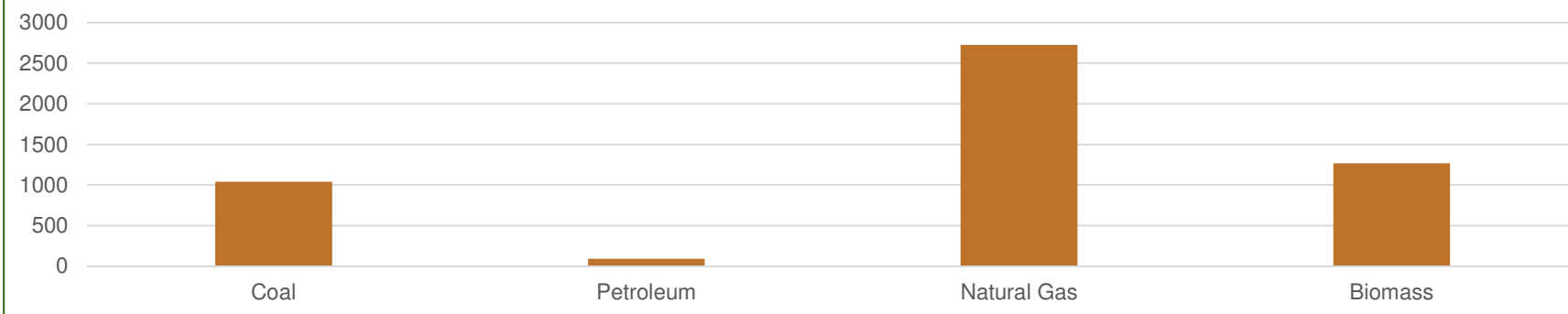
Source: Monthly Energy Review

Total Fuel Consumption (trillion Btu) Commercial and Industrial Sectors

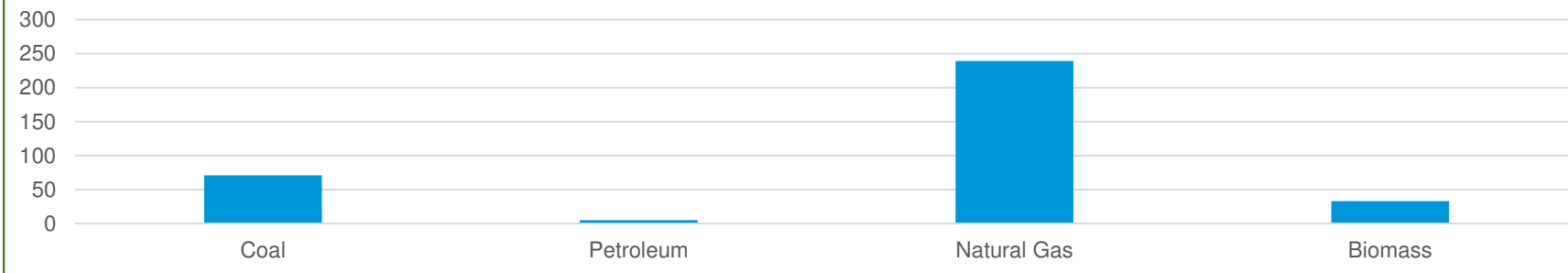


Source: Monthly Energy Review

Fuel Consumption (trillion Btu)
Combined Heat and Power plants, 2016



Net Generation (TWh)
Combined Heat and Power plants, 2016



Source: Form EIA-923, Combined Heat and Power plants

EIA-3, Quarterly Survey of Industrial, Commercial, & Institutional Coal Users

- Collects from U.S. manufacturers, coal transformation and processing plants, and commercial and institutional users.
 - Collects data on coal consumption, stocks, and receipts, including cost and coal characteristics.
 - Due 30 days after the end of the reporting quarter.
 - All coke plants must report.
 - All other sites that use more than 1,000 short tons of anthracite, bituminous, subbituminous, lignite, or refined coal during the sum of the current reporting quarter and the previous three reporting quarters must report.

MECS and CBECS – Energy Consumption Surveys

- The Commercial Buildings Energy Consumption Survey (CBECS) is a national sample survey that collects information on the stock of U.S. commercial buildings, including their energy-related building characteristics and energy usage data (consumption and expenditures).
- The Manufacturing Energy Consumption Survey (MECS) is a national sample survey that collects information on the stock of U.S. manufacturing establishment, their energy-related building characteristics, and their energy consumption and expenditures.
- Both are conducted periodically, usually every four years.
- Energy consumption by the industrial and commercial sectors is estimated based on these sample surveys.

EIA data and web site

- <https://www.eia.gov/>
- Today in Energy
- Forecasts (AEO/STEO)
- Analysis
- Data
- Listserve for Products



The screenshot shows the EIA website interface. At the top, there is a navigation bar with the EIA logo, the text "Independent Statistics & Analysis U.S. Energy Information Administration", and menus for "Sources & Uses", "Topics", and "Geography". A search bar is located on the right. Below the navigation bar is a large banner image of several white plug-in electric vehicles (PEVs) parked at charging stations. Overlaid on the right side of the banner is a dark blue box with white text that reads: "Plug-in electric vehicles: future market conditions and adoption rates" and "International Energy Outlook >".

What's New

- [Brazil Country Analysis Brief >](#)
November 21
- [More results from the 2014 Manufacturing Energy Consumption Survey >](#)
November 21
- [EIA webinar: Forecasting U.S. crude oil production >](#)
November 16

[More >](#)

Coming Up

- [State-Level Energy-Related Carbon Dioxide Emissions >](#)
- [Iraq Country Analysis Brief >](#)
- [Electric Power Annual >](#)

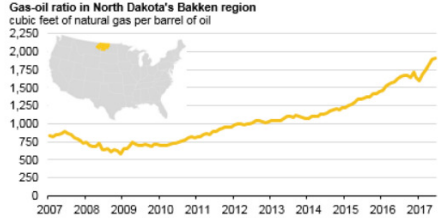
[More >](#)

Today in Energy Posted November 28, 2017

Natural gas production in Bakken region increases at a faster rate than oil production >

In North Dakota's Bakken region, the ratio of natural gas production relative to crude oil, known as the gas-oil ratio, has been gradually increasing since 2008 and has increased at a faster rate since 2014. More than 90% of North Dakota's crude oil and natural gas production comes from the Bakken region, which includes the Bakken and Three Forks formations. [More >](#)

Gas-oil ratio in North Dakota's Bakken region
cubic feet of natural gas per barrel of oil



Year	Gas-oil ratio (cubic feet of natural gas per barrel of oil)
2007	750
2008	750
2009	750
2010	750
2011	750
2012	750
2013	750
2014	750
2015	750
2016	750
2017	750

Source: EIA, based on well data from the North Dakota Industrial Commission

Data Highlights

- WTI crude oil futures price**
11/27/2017: **\$58.11/barrel**
↑ \$2.02 from week earlier
↑ \$12.05 from year earlier
- Natural gas futures price**
11/27/2017: **\$2.928/MMBtu**
↓ \$0.119 from week earlier
↓ \$0.157 from year earlier
- Retail gasoline price**
11/27/2017: **\$2.533/gal**
↓ \$0.035 from week earlier
↑ \$0.379 from year earlier
- Retail diesel price**
11/27/2017: **\$2.926/gal**
↑ \$0.014 from week earlier
↑ \$0.506 from year earlier
- Weekly coal production**
11/18/2017: **14,906 million tons**
↑ 0.140 million tons from week earlier
↓ 0.988 million tons from year earlier

Questions?

Form EIA-923 -- Chris Cassar at Christopher.Cassar@eia.gov

Form EIA-860 -- Suparna Ray at Suparna.Ray@eia.gov

Form EIA-3 -- Kimberly Palacios at Kimberly.Palacios@eia.gov

THANK YOU!