

Instructions for Completing Form EIA-846

General Instructions:

1. Individuals most familiar with the plant energy systems and operations, such as engineers, should complete the questionnaire especially for the end use and fuel switching sections.
2. Use the units specified on the questionnaire for reporting all quantities. See the Btu conversion factors PDF on the Census Bureau's Business Help Site for a comprehensive list of various energy conversion factors. If your establishment uses more precise conversion values for your operations, use them, and indicate in the "Remarks" at the end of each section, the conversion factor(s) used.
3. Do **not** consolidate establishments. The reporting boundaries for your establishment should correspond to those used in the Economic Census – Manufacturing (EC-M).
 - To resolve any consolidation problems, match the 10-digit identification number, which is located on the Manufacturing Energy Consumption Survey (MECS) questionnaire mailing label, with the first 10-digits of the identification number appearing on the EC-M mailing label.
 - Responses to the MECS questions should be the same activities as those considered when responding to the matching EC-M.
4. Report dollar amounts rounded to the nearest dollar,- (e.g., report \$1,257.59 as \$1,258).
5. If you do not maintain book records for particular items, please use carefully prepared estimates.
6. Enter zeros in the data columns if the value is zero or none.
7. Complete all applicable sections of the questionnaire.
8. The sections of this questionnaire are designed so all questions associated with the particular energy source should be completed before going on to the next energy source. Therefore, within each section, the questionnaire should be answered from the top to the bottom of the same column, before moving on to the next energy source (column).
9. The energy sources that are preprinted on the questionnaire are considered the most frequently consumed, but they do not represent a complete list of applicable energy sources. If your establishment has energy sources that meet the criteria for reporting, but are not preprinted on the questionnaire, please specify those energy sources in the "Other Energy Sources" section and enter the data there.

Section-Specific Instructions:

Company Information

In this section, indicate any changes in the company name, address, or zip code.

Contact Information

Enter address and other contact information for the person most knowledgeable about completing this questionnaire, and the person whom we should contact if we have any questions concerning this filing.

Establishment Information

In this section, indicate any changes in the establishment ownership during 2006 and indicate the period covered by this filing, whether the calendar year or other period.

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Establishment Size

This section asks for the number of buildings and total square footage associated with this establishment. See specific instructions in this section for the definition of what should be counted as a building.

Fuels Used

In this section, indicate which energy sources (fuels) are used at the establishment for:

- heat, power, electricity generation, and on-site transportation;
- material inputs, feedstock, and “nonfuel” use; and
- shipments offsite from this establishment when required.

If you are using PDF's to complete this questionnaire, this section will help you to determine which energy source PDF's need to be printed off from the Business Help Site and completed. However, if you are using Census Taker to complete this questionnaire, the programming will automatically take you to the energy sources which you have checked in this section.

Energy Sources (Fuels)

Reporting Criteria

An energy source (fuel) should be reported on this questionnaire if:

- the energy source was consumed as a fuel, (that is, for heat, power, or electricity generation); **or**
- the energy source was consumed as a nonfuel (feedstock, raw material input); **or**
- for selected energy sources, the energy source was shipped offsite from this establishment. The energy sources for which you will be asked to supply shipments data are:
 - LPG
 - Coal coke
 - Petroleum coke
 - Breeze
 - Coke oven gas
 - Blast furnace gas
 - Acetylene
 - Hydrogen
 - Distillate fuel oil; and
 - Residual fuel oil.

If your only means of an energy source during 2006 was a byproduct (or product) of an energy source used as a feedstock (or raw material input) that byproduct energy source should be reported only if it was at least partially consumed onsite as a fuel or shipped offsite. If the byproduct (or product) energy source was only itself consumed as a nonfuel (feedstock), it should be excluded.

Estimated end-use percent consumption is also collected for selected energy sources. These questions are intended to provide information on the purposes for which the energy are used in the manufacturing sector. More specific instructions for completing these parts are included in the questionnaire.

Data are collected for the following energy sources (fuels):

- Electricity
- Natural Gas
- Diesel Fuel Oil (excluding off-site highway use)
- Distillate Fuel Oil (e.g., Numbers 1, 2, 4)
- Residual Fuel Oil (e.g., Numbers 5, 6, Navy Special, Bunker C)
- Propane and Liquefied Petroleum Gases (LPG) and Natural Gas Liquids (NGL)
- Butane

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- Ethane
 - Propane
 - Mixtures of Butane, Ethane, and Propane
 - Other LPG and NGL which includes butylenes, ethylene, and propylene
- Coal
Breeze
Coal Coke
Petroleum Coke
Motor Gasoline (excluding off-site highway use)
Acetylene
Hydrogen
Kerosene
Wood Harvested directly from trees (e.g., roundwood, wood chips)
Byproduct Energy Source
- Blast Furnace Gas
 - Coke Oven Gas
 - Waste Oils and Tars (excluding Coal Tar)
 - Waste and Byproduct Gases (e.g., flue gas, off gas, plant gas, refinery gas, still gas, vent gas)
 - Agricultural Waste (e.g., bagasse, nut shells, orchard prunings, rice hulls)
 - Pulping and Black Liquor
 - Wood Residues and Byproducts from mill processing (e.g., sawdust, shaving, slabs, bark)
 - Wood/Paper-related Refuse (e.g., scrap, wastepaper, wood pallets, packing materials)
- Steam (excluding steam generated in an onsite boiler from CHP or other fossil fuel, wood, or combustible source)
Industrial Hot Water
Other Energy Source

Energy Sources Reporting Examples

Example 1 – Your establishment depended entirely on electricity for heat and power, and no combustible energy sources were consumed. In this instance, complete the “Electricity” section. No data should be entered in any other energy source (fuel) section. Go to the “Fuel-Switching Capability” section and complete the remainder of the questionnaire.

Example 2 - Butane is used as a feedstock to produce butylenes onsite. The butylene is then used as a feedstock to produce butadiene which is shipped offsite. Report the butane used as a feedstock because it is not used as a fuel or shipped offsite. Butylene would not be reported because its only means of supply was as a byproduct and it was only used as a feedstock. Butadiene would not be reported as a shipment because it is not an identified energy source.

Fuel-Switching Capability

These questions are intended to measure the short-term capability of your establishment to use substitute energy sources in place of those actually consumed in 2006. These substitutions are limited to those that could actually have been introduced within 30 days without extensive modifications. More specific instructions for completing this section are included in the questionnaire.

Energy-Management Activities

In this section, indicate whether your establishment participated in the listed energy-management activities during 2006 and the source(s) of the financial support to implement the energy-management activity.

Technologies

Indicate any of the general technologies and technologies related to cogeneration present in this establishment.

Remarks

Please provide any explanations that may be helpful to us in understanding your reported data, including any Btu conversion factors used, if different from those provided in the enclosed table.

If you are filing this questionnaire using the PDF's on the Business Help Site and additional space is needed, attach a separate sheet, including the 10-digit identification number located on the mailing label on the front page of this questionnaire.