



Independent Statistics & Analysis

U.S. Energy Information
Administration

Supporting Statement for Electric Power & Renewable Electricity Surveys

Part A: Justification

Form EIA-63B *Photovoltaic Module Shipments Report*

Form EIA-860 *Annual Electric Generator Report*

Form EIA-860M *Monthly Update to the Annual Electric Generator Report*

Form EIA-861 *Annual Electric Power Industry Report*

Form EIA-861S *Annual Electric Power Industry Report (Short Form)*

Form EIA-861M *Monthly Electric Power Industry Report*

Form EIA-923 *Power Plant Operations Report*

Form EIA-930 *Balancing Authority Operations Report*

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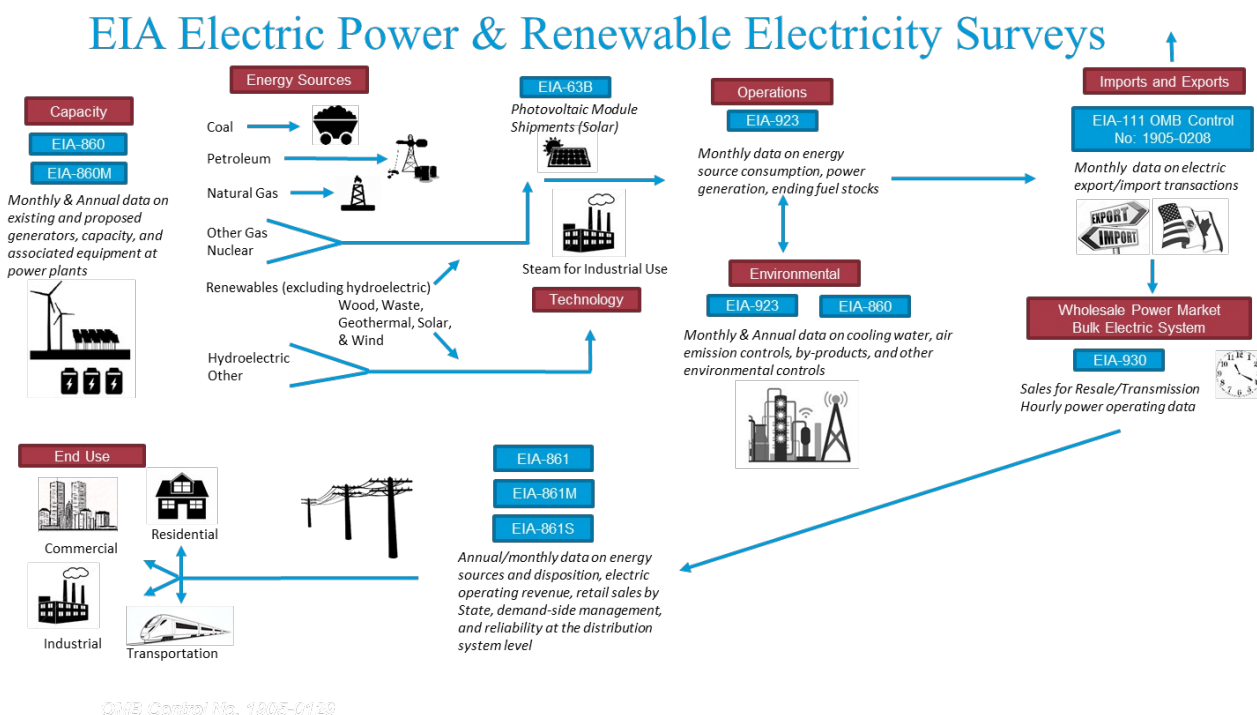
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Introduction

The U.S. Energy Information Administration (EIA) is the statistical and analytical agency within the U.S. Department of Energy (DOE). It collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding regarding energy and its interaction with the economy and the environment.

The electricity surveys collect data from entities involved in the production, transmission, delivery, and sale of electricity, and in maintaining the reliable operation of the power system. The data collected are the primary source of information on the nation's electric power industry.

EIA requests a three-year extension, with changes, to the forms of the Electric Power and Renewable Electricity Program surveys (OMB Number 1905-0129). The only change to this information collection request is that Form EIA-411 is discontinued. EIA's Electric Power and Renewable Electricity Program collects data using annual, monthly, and daily/hourly surveys. Each survey has a different set (or subset) of respondents in order to measure activity in specific sectors of the electric power industry. Namely, EIA-860, 861, 923 have a monthly form while the EIA-861 has a short form (EIA-861S). Below is a diagram that depicts the EPRES surveys within the context of the electric power industry. The eight surveys in the Electric Power and Renewable Electricity Program are explained in detail in the subsequent pages following the diagram.



Form EIA-63B Photovoltaic Module Shipments Report: tracks photovoltaic module manufacture, shipments, technology types, imports and exports, revenue, and related information. The data collected on this

form appear in various EIA publications. The data are used by the U.S. Department of Energy, Congress, other government, and non-government entities, and the public to monitor the current status and trends of the photovoltaic industry and to evaluate the future of the industry. All data on this form, other than the names of the companies included in the survey, are protected from public release in identifiable form. The subset of respondents who report on the monthly Form EIA-63B accounts for about 90% of photovoltaic (PV) activity in the United States, based on data from the previous year's total shipments. The remaining respondents report on the annual Form EIA-63B.

Form EIA-860M Monthly Update to the Annual Electric Generator Report: collects data on the status of proposed new generators scheduled to begin commercial operation within 12-months, existing generators scheduled to retire from service within 12-months, and existing generators that have proposed modifications that are scheduled for completion within one month. The information is needed to ensure an up-to-date and complete inventory of the nation's generating fleet for reliability and environmental analyses.

Form EIA-860 Annual Electric Generator Report: collects data on existing and planned electric generation plants and associated equipment including generators, boilers, cooling systems, and environmental control systems. Data are collected from all existing units and from planned units scheduled for initial commercial operation within five or 10 years of the specified reporting period.

Form EIA-861S Annual Electric Power Industry Report (Short Form): collects a limited set of information annually from approximately 1,100 small companies involved in the retail sale of electricity. A complete set of annual data is collected from approximately 2,300 larger companies on Form EIA-861, and monthly data is collected on Form EIA-861M. The smaller utilities that currently report on Form EIA-861S are also required to complete the long form (Form EIA-861) once every eight years to provide updated information for the statistical estimation of uncollected data.

Form EIA-861M Monthly Electric Power Industry Report: collects monthly information from a sample of electric utilities, energy service providers, and distribution companies that sell or deliver electric power to end users. Data collected on this form includes sales and revenue for all end-use sectors (residential, commercial, industrial, and transportation). This survey is the monthly complement to the annual data collection from the universe of respondents made by Forms EIA-861 Annual and EIA-861S (Short Form).

Form EIA-861 Annual Electric Power Industry Report: collects annual information from approximately 2,300 larger power companies on the sale, distribution, transmission and generation of electric energy in the United States and its territories. The data include related activities such as energy efficiency and demand response programs. In combination with the Form EIA-861S short form (see further below) and the monthly survey Form EIA-861M, this annual survey provides coverage of sales to ultimate customers of electric power and related activities.

Form EIA-923 Power Plant Operations Report: collects monthly and annual information from a sample of electric power plants in the United States. Data collected include electric power generation, energy source consumption, end of reporting period fossil fuel stocks, the quality and cost of selected fossil fuel receipts, water use, and data on the performance of environmental control and related equipment.

Form EIA-930 Balancing Authority Operations Report: collects hourly electric power operating data from the 65 Balancing Authorities (BAs) in the contiguous United States, including demand, forecast demand, net generation, and interchange data

Summary of Changes

Form EIA-411 Coordinated Bulk Power Supply Program Report

Form EIA-411 collected information relating to the reliability of the electric power system in the lower 48 states, including regional electricity supply and demand projections for a 10-year advance period, characteristics and frequency of outages occurring on the Bulk Electric System, and other information on the transmission system and supporting facilities. The data were collected from the regional reliability entities by the North American Electric Reliability Corp. (NERC)¹, which then organizes and edits the information and submits the data to EIA.

Form EIA-411 is discontinued because it is duplicative of information collected by NERC. Data reported on Form EIA-411 were previously collected and submitted to EIA by NERC. NERC publishes an Electricity Supply and Demand (ES&D) database annually. This database includes all of the data that EIA published from Form EIA-411 plus additional detailed data that EIA did not publish. The ES&D is publicly available at no charge. Data files are easily downloaded from <https://www.nerc.com/pa/RAPA/ESD/Pages/default.aspx>. EIA consulted with NERC regarding this change and NERC supports discontinuing Form EIA-411. Discontinuing Form EIA-411 reduces reporting burden with no loss of information available to the public.

There are no changes to the other survey forms in this information collection, aside from a minor eligibility change for EIA-861.

A.1. Legal Justification

The legal justification for EIA information collections follows a standard four-part analysis described in this section. It is called the four-part analysis because four different parts of law(s) are used to establish the justification. In almost all EIA collections, the first three parts are the same and the fourth part may differ based on the specific justifications for a particular survey.

EIA's historical lineage and its preceding legal framework provides the scope and justification for EIA's mandatory collection of data.² In 1973, the Organization of Petroleum Exporting Countries (OPEC) enforced an embargo on nations perceived as assisting Israel during the Yom Kippur War. President Nixon set up the Federal Energy Office (FEO) to coordinate a national response to this embargo. In 1974, the Federal Energy Administration Act (FEA Act) superseded the FEO. Section 13 of the FEA Act set the conditions for mandatory collection of energy information and is codified under 15 U.S.C. §772(b). Section 52 of the FEA Act mandated the establishment of the National Energy Information System to "contain such energy information as is necessary to carry out the Administration's statistical and forecasting activities," now codified as 15 U.S.C. §790a. Section 5 of

¹ NERC is the North American Electric Reliability Corporation (NERC) as designated by the Federal Energy Regulatory Commission (FERC) pursuant to the Energy Policy Act of 2005. EIA has had a long-standing relationship with NERC and its predecessor for the collection of Form EIA-411 data.

² Memorandum: Kenneth Cohen, Office of the Assistant General Counsel for Legal Counsel, U.S. Department of Energy, to Albert Linden, Acting Administrator, U.S. Energy Information Administration, *Enforcement of EIA Mandatory Collection Authority*, June 5th, 1981.

the FEA Act, codified as 15 U.S.C. §764, outlined the scope of the energy information to be collected as well as the scope of the duties assigned to the Administrator of FEAA. Section 301 of the Department of Energy Organization Act of 1977 (DOE Act) codified as 42 U.S.C. §7151, transferred all of the functions of the FEA and its Administrator, including the gathering, analysis, and dissemination of energy information, to the Secretary of Energy. These energy information functions were subsequently delegated to the Administrator of the EIA in Section 205(b) of the DOE Act, codified at 42 U.S.C. §7135.

The authority for this data collection is derived from the following provisions:

1. 15 U.S.C. §772(b) establishes the ability for the Secretary of Energy³ to require reports, records and data as deemed necessary or appropriate under the FEAA. The Secretary of Energy delegated certain authorities to the EIA Administrator on October 1, 1977 under DOE Delegation Order 0204-3. This delegation of authority to the EIA Administrator is what gives EIA the lead in energy information collections for DOE. 15 U.S.C. §772(b) states:
 - A. "All persons owning or operating facilities or business premises who are engaged in any phase of energy supply or major energy consumption shall make available to the Administrator such information and periodic reports, records, documents, and other data, relating to the purposes of this Act, including full identification of all data and projections as to source, time and methodology of development; as the Administrator may prescribe by regulation or order as necessary or appropriate for the proper exercise of functions under this chapter."

2. **15 U.S.C. §764(b)** establishes 12 conditions under which the Secretary has the authority to collect relevant information. 15 U.S.C. §764(b) states that to the extent authorized by subsection (a), the Administrator shall:
 - ii. advise the President and the Congress with respect to the establishment of a comprehensive national energy policy in relation to the energy matters for which the Administration has responsibility, and, in coordination with the Secretary of State, the integration of domestic and foreign policies relating to energy resource management;
 - iii. assess the adequacy of energy resources to meet demands in the immediate and longer range future for all sectors of the economy and for the general public;...
 - iv. [Intentionally deleted]
 - v. [Intentionally deleted]
 - vi. [Intentionally deleted]
 - vii. assure that energy programs are designed and implemented in a fair and efficient manner so as to minimize hardship and inequity while assuring that the priority needs of the Nation are met;
 - viii. develop and oversee the implementation of equitable voluntary and mandatory energy conservation programs and promote efficiencies in the use of energy resources;...
 - ix. [Intentionally deleted]

³ At the time the FEAA was passed, this referred to the Administrator of the Federal Energy Administration, which is why "Secretary" is shown in parentheses in the citations from the law (i.e., because it replaces the word "Administrator" that was in the law).

- x. collect, evaluate, assemble, and analyze energy information on reserves, production, demand, and related economic data;
- xi. work with business, labor, consumer and other interests and obtain their cooperation;...
- xii. [Intentionally deleted]
- xiii. perform such other functions as may be prescribed by law."

As the authority for invoking subsection (b), above, 15 U.S.C. §764(a) provides the authority for collecting the information under one or more of the conditions listed in 15 U.S.C. §764(b).

Additional authority for this information collection is provided by **15 U.S.C. §790(a)** which states;

- i. "It shall be the duty of the Director to establish a National Energy Information System... [which] shall contain such information as is required to provide a description of and facilitate analysis of energy supply and consumption within and affecting the United States on the basis of such geographic areas and economic sectors as may be appropriate... to meet adequately the needs of..."
 - 1. the Department of Energy in carrying out its lawful functions;
 - 2. the Congress;
 - 3. other officers and employees of the United States in whom have been vested, or to whom have been delegated energy-related policy decision-making responsibilities;
 - 4. the States to the extent required by the Natural Gas Act [15 U.S.C. §717 et seq.] and the Federal Power Act [16 U.S.C. §791a et seq.].
- ii. "At a minimum, the System shall contain such energy information as is necessary to carry out the Administration's statistical and forecasting activities, and shall include... such energy information as is required to define and permit analysis of;
 - 1. the institutional structure of the energy supply system including patterns of ownership and control of mineral fuel and non-mineral energy resources and the production, distribution, and marketing of mineral fuels and electricity;
 - 2. the consumption of mineral fuels, non-mineral energy resources, and electricity by such classes, sectors, and regions as may be appropriate for the purposes of this chapter;
 - 3. the sensitivity of energy resource reserves, exploration, development, production, transportation, and consumption to economic factors, environmental constraints, technological improvements, and suitability of alternate energy sources;
 - 4. the comparability of energy information and statistics that are supplied by different sources;
 - 5. industrial, labor, and regional impacts of changes in patterns of energy supply and consumption;
 - 6. international aspects, economic and otherwise, of the evolving energy situation; and
 - 7. long-term relationships between energy supply and consumption in the United States and world communities."

A.2. Needs and Uses of Data

The data collected on the electric power and renewable electricity surveys are primarily used as input to the National Energy Modeling System (NEMS) and in EIA's other forecasting and analytical activities. The data are reported or used in many EIA products, including:

- Electricity Data Browser: <http://www.eia.gov/electricity/data/browser/>
- U.S. Electric System Operating Data: http://www.eia.gov/beta/realtime_grid/
- U.S. Energy Mapping System: <http://www.eia.gov/state/maps.cfm?v=Electricity>
- The data files located at <http://www.eia.gov/electricity/data/detail-data.html>
- Electricity Monthly Update: <http://www.eia.gov/electricity/monthly/update/>
- Electric Power Monthly: <http://www.eia.gov/electricity/monthly/>
- Electric Power Annual: <http://www.eia.gov/electricity/annual/>
- Status of U.S. Nuclear Outages (EIA and NRC data): <http://www.eia.gov/nuclear/outages/>
- Photovoltaic Module Shipments Report: http://www.eia.gov/renewable/annual/solar_photo/
- Monthly Energy Review: <http://www.eia.gov/totalenergy/data/monthly/>
- Annual Energy Outlook: <http://www.eia.gov/forecasts/aeo/er/>
- Short-Term Energy Outlook: <http://www.eia.gov/forecasts/steo/>

The data collected on the electric power and renewable electricity surveys are secondarily used to answer queries from the U.S. Congress, other federal and state agencies (such as EPA, IRS, Bureau of Economic Analysis, U.S. Department of Commerce, and Treasury Department). The electric power industry, policy makers, regulators, energy market analysts, energy industries and the general public are third party users of this data.

Federal agencies which use data from the electric power and renewable electricity surveys include:

- U.S. Environmental Protection Agency (EPA)
- Federal Energy Regulatory Commission (FERC)
- U.S. Department of Energy (DOE)'s Office of Fossil Energy (FE)
- U.S. Department of Energy's Office of Electricity (OE)
- U.S. Department of Energy's Office of Energy Efficiency & Renewable Energy (EERE)
- The White House Council of Economic Advisers (CEA)

U.S. Environmental Protection Agency (EPA)

Form EIA-860, Schedule 7, gives respondents the option to comment in the "other" section to report more specific data, such as fuel sources that are not part of our fuel source code selection within the survey.

This data is often very specific but heavily used by EPA. Similarly, EPA uses the comments collected by respondents on schedule 9 of Form EIA-923. The comments are used by EIA in validating the reported values on the survey forms. EPA's Emissions & Generation Resource Integrated Database ([eGRID](#)) links air emissions data with electricity generation data for United States power plants. It is a comprehensive database containing source data on the environmental characteristics of almost all electric power generated in the United States. The comments reported by EIA survey respondents are useful to the EPA to identify information initially reported in the miscellaneous categories and help develop more accurate emission estimates relating to fuel types, fuel use, generator status, units of measurement, time periods, control devices, firing types, and prime mover types in the electric power industry.

Federal Energy Regulatory Commission (FERC)

FERC uses EIA data to evaluate fuel costs affecting electric power generation and assess power plant efficiency and performance in areas that have experienced changes in the structure of transmission operations and market regulation during the period from 2002 to the present. The information provided includes delivered fuel cost and commodity fuel cost data collected on Form EIA-923, "Power Plant Operations Report". FERC also uses data from the EIA-930 to benchmark and cross-validate their internal and external data sources for balancing authority electricity demand and interchange. They also use the EIA-930's electricity generation by energy source data particularly for areas of the country not served by regional transmission organizations (RTOs) or independent system operators (ISOs) since there are few to no other alternative sources of data about these regions. FERC also uses data from the EIA-930 to track macro-level activity of the electricity industry as well as to assist in their monitoring of electricity market performance.

U.S. Department of Energy's Office of Electricity (OE)

The Office of Electricity uses Form EIA-861M, EIA-861S, and EIA-861 to inform decisions about the reliability and resiliency of the nation's electricity system. More specifically, OE uses electricity data collected on these forms to improve federal and state electricity policies and programs that shape electricity system planning and market operations.

U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE)

The Office of Energy Efficiency and Renewable Energy uses Form EIA-861 for several initiatives and projects such as their grid modernization initiative as well as research on energy efficiency programs and opportunities. Specifically, form EIA-861 (and EIA-861S and EIA-861M) data for advanced meters, net metering, and energy efficiency data collected from utilities about their programs for dynamic pricing, energy savings, and rebate programs

U.S. Department of Energy (DOE)'s Office of Fossil Energy (FE)

The Office of Fossil Energy uses Form EIA-923 for fuel cost data to improve estimates for potential heat rate improvements at existing steam powered generators.

The White House Council of Economic Advisers (CEA)

The Council of Economic Advisers use Form EIA-923 data regarding quantity and cost of fuel to offer the President objective economic advice on the formulation of both domestic and international economic policy.

Form EIA-930 Balancing Authority Operations Report

Data reported on Form EIA-930 allows EIA to measure, on an hourly basis, power demand and generation throughout the U.S. In addition to expanding EIA coverage of electricity markets, the EIA-930 adds a depth of insight to EIA's work not previously available. While the bulk of EIA's data collection covers electricity use and supply on a monthly or annual basis, the EIA-930 offers data on an hourly basis. Electricity is an energy source based more on time and immediate availability rather than solely on volume, such as for oil, gas and coal. The difference between electricity and the other fossil fuels is the price of electricity in the morning is different from the afternoon where as the price of a barrel of oil or ton of coal usually doesn't vary based on time and it rather depends on the availability of the volume. Therefore, visibility of data showing electric power demand and supply every hour becomes essential when measuring trends on system demand and supply for electricity.

Form EIA-930 data was used to measure the impacts to power supply disruptions in California during the second week of October, 2019. Due to concerns about vulnerability to fire risks due to gusty winds and dry conditions, the local power provider, Pacific Gas & Electric (PG&E), shutoff electricity service to more than 700,000 of its customers beginning at midnight October 9th. Using data from Form EIA-930, EIA was able to determine that electricity supply on the PG&E system was curtailed by as much as 13% during the period when power supply has been shutoff. This figure was helpful to users of EIA data and information by allowing them to understand the magnitude and location of the impact.

The importance of hourly electricity data will become even more valuable in the future as the U.S. electric grid integrates more supply from renewable energy sources. Since many renewable sources, such as wind and solar, deliver energy to the grid on an intermittent basis, having access to hourly data is the only way EIA can track when and how much of that power becomes available for customers. Also, it can show the need for back-up capacity when renewable sources periodically falter by showing when other firm sources of supply are called upon to deliver electricity. If EIA had to rely solely on electricity data aggregated monthly, EIA would have insufficient visibility into the manner in which renewable energy is being integrated on the grid, since availability from one hour to the next can swing dramatically. The recent addition of hourly electricity generation by source in the new **Hourly Electric Grid Monitor** is especially important since it can tell EIA by the hour when a resource like wind power may stop supplying the grid, and when another source is called upon to replace it.

With many power generators and states proposing to have renewable energy make-up 50% or more of their future energy supply, up from about 15-20% today, visibility to hourly data will become increasingly important. Data from the EIA-930 will help EIA determine when certain forms of energy, such as wind and solar, are available and when they are not. Having this type of visibility will greatly enhance EIA's ability to estimate whether certain thresholds of renewable energy use can be reached.

Another important feature is that Form EIA-930 provides data on electricity use and supply either on the day it occurs or no more than one day later. As a result, EIA is now able to see and report on what is occurring in electricity markets on an immediate basis. In the past, EIA only could report on electricity-related data with a lag of one or two months. In today's information age, users want data that is as current as possible, in order to

better understand developments in electricity markets. With Form EIA-930, EIA is able to better meet the needs of these users.

A.3. Use of Technology

The EIA Electric Power and Renewable Electricity Program surveys use Internet-based data collection (IDC) systems as the primary means of data collection, except for Form EIA-930. The majority of routine contact with respondents (e.g., notification that a survey has opened for a collection cycle) is performed using email.

Internet data collection will continue to be the primary collection mode for the Electric Power and Renewable Electricity surveys. The Internet-based system allows respondents to enter their data directly into the EIA survey database, which reduces the time needed for data collection and processing. The system also identifies data that fail edits prior to submission, which allows respondents to make necessary corrections or explain unusual events affecting the reported data prior to submission. This data editing process reduces respondent burden by reducing the number of times a respondent must resubmit forms prior to acceptance by EIA. It also improves the timeliness of reporting the information to the public. The respondent only requires an internet connection. Form EIA-930 has a separate technology-based collection system that allows for automatic data upload. On Form EIA-930 data collection, respondents can transmit their data using one of two methods: post files to a folder on a respondent secure server for pickup by EIA or submit the files to a secure folder on an EIA server. EIA's submissions operations team will work with respondents on setting up the necessary arrangements. Additionally, respondents have two file formats to choose from – a standard XML schema or a standard CSV format.

EIA will continue to make all survey forms and instructions available for printing or downloading from the EIA website for respondents who cannot or will not use the Internet-based systems.

Use of Pick-Lists (Including Dynamic Lists)

Pick-lists⁴ are a means of limiting a respondent's answers to a question to a finite set of acceptable choices. The objectives are to reduce respondent burden and to improve data quality, while reducing the time and effort needed by EIA to edit a response.

Pick-lists are used in software-enabled surveys to:

- Avoid typographical errors, such as mistyping the abbreviation for a state or month
- Assure consistent responses to questions asking for standard information, such as entering a state as text or a number
- Assure consistent responses to questions asking for technical information when the same concept has multiple monikers (e.g., “short-term” and “spot” fuel supply contracts)

When the pick-list requests a choice of technical information, the list typically includes an “Other” choice. In some cases, the “Other” choice is accompanied by a request for the respondent to provide additional information in a comment area in the survey. The “Other” choice acts as a mechanism to ensure that the form is capable of collecting all possible categories when a pick-list is variable.

⁴ Pick-lists are sometimes referred to as “drop-down” lists because of the typical appearance of the list in a software application. “Selection lists” is another term for pick-lists.

Three types of pick-lists may be used in software-enabled EIA surveys:

- Static pick-lists include information that does not change, such as a list of the 12 months.
- Variable pick-lists include choices that may be changed by EIA depending on circumstances, e.g. on the Form EIA-923 Schedule 2, there is a pick-list of all known fuel suppliers. However, new list entries crop up frequently and the survey manager has the capability to add them to the pick-list.
- Dynamic pick-lists include a list of choices that varies depending on the respondent's answer to another question. For example, on the Form EIA-923, a respondent selects the type of fuel purchased from a static pick-list. When the respondent proceeds to the question that requests the name of the fuel supplier, only suppliers of that type of fuel are on the pick-list.

A.4. Efforts to Identify Duplication

In addition to EIA, there are other government and private entities that conduct electric power and renewable data collection, estimation, and/or publication programs. These entities include:

- American Public Power Association (APPA)
- Edison Electric Institute (EEI or Edison)
- Rural Utilities Service (RUS), U.S. Department of Agriculture
- Federal Energy Regulatory Commission (FERC)
- North American Electric Reliability Corporation (NERC)
- Nuclear Regulatory Commission (NRC)
- DOE Office of Electricity Delivery and Energy Reliability (DOE/OE)
- California Independent System Operator (CAISO)

EIA compared data available from the NERC Electricity Supply & Demand (ES&D) file with the data collected on Form EIA-411. Form EIA-411 data collection began in (1990) and NERC ES&D data collection began in (1997). The NERC ES&D file has more detailed data, broken out by sub-region, while the EIA data on Form EIA-411 is aggregated to a regional level. The NERC ES&D file is more detailed at breaking out capacity resources, and also includes transformer projects that are not reported on Form EIA-411. Based on this comparison, EIA determined that Form EIA-411 duplicated data publicly available in the NERC ES&D file, and is proposing to discontinue the form as part of this clearance.

Table 1. Comparison of Data from Form EIA-411 and NERC ES&D File

Data Sets Available	Form EIA-411	NERC ES&D File
Net energy for load	Yes, summary by region, back to 1990	Yes, in detail and by sub-region, back to 1997
Non-coincident peak load	Yes, summary by region, back to 1990	Yes, in detail and by sub-region, back to 1997
Monthly peak hour demand	Yes, summary by region, back to 1996	Yes, in detail and by sub-region, back to 1997

Net internal demand, capacity resources and capacity margins	Yes, summary by region, 1990 for summer data, 2001/02 for winter data	Yes, with more detail, by sub-region, back to 1990
Proposed high voltage transmission line additions	Yes	Yes
Proposed transformer projects	No	Yes

EIA has evaluated a selection of forms and collections from other sources of data relating to the electric power and renewables industries and has found no other source that can replace the surveys in this package. In particular, EIA evaluated the electricity forms collected by FERC (See Table 2 below) and found no duplication.

Table 2. FERC Electricity Forms (https://www.ferc.gov/docs-filing/forms.asp)		
Form	Title	Notes
No. 1	Annual Report of Major Electric Utilities, Licensees, and Others	Annual. The Form No. 1 is a comprehensive financial and operating report submitted for Electric Rate regulation and financial audits. Major is defined as having (1) one million Megawatt hours or more; (2) 100 megawatt hours of annual sales for resale; (3) 500 megawatt hours of annual power exchange delivered; or (4) 500 megawatt hours of annual wheeling for others (deliveries plus losses).
No. 1-F	Annual Report of Non-major Public Utilities and Licensees	Annual. The Form No. 1-F is a comprehensive financial and operating Report submitted by Non-major Electric Utilities and Licensees. Non-major is defined as having total annual sales of 10,000 megawatt-hours or more in the previous calendar year and not classified as Major.
No. 3-Q	Quarterly Financial Report of Electric Utilities, Licensees, and Natural Gas Companies	The Form No. 3-Q is a comprehensive quarterly financial and operating report which supplements Form 1 and is submitted for all Major and Non-Major Electric Utilities; Licensees; and Natural Gas Companies who engage in Generation, Transmission, Distribution, or Sale of electric energy.
Nos. 520 and 561	Interlocking Directorates	FERC-520 is an application and information collection requesting FERC authorization for board members of regulated electric utilities that plan to simultaneously hold positions on the corporate boards of related or similar businesses. The FERC- 561 is an annual report of information detailing electric public utility officer and board of director positions that officers and directors held within and outside their affiliated public utility at any point during the preceding year. The reports on last year's information are filed on April 30th.
No. 523	Application for Authorization of the Issuance of Securities or the Assumption of Liabilities	The information filed with the Commission through Form 523 is used to make a determination to grant or deny authorization to issue securities or to assume a liability

Table 2. FERC Electricity Forms (https://https://www.ferc.gov/docs-filing/forms.asp)		
Form	Title	Notes
No. 556	Certification of QF Status for Small Power Production and Cogeneration Facilities	Filing requirement to be included with any application for Commission certification/recertification or notice of self-certification/self-recertification.
No. 566	Twenty Largest Purchasers	Annual. Lists customers and their business addresses if they were one of the top twenty largest purchasers of electric energy, measured in kilowatt hours sold, for purposes other than resale, during any of three preceding calendar years.
No. 580	Interrogatory on Fuel and Energy Purchase Practices	This biennial data collection gathers information (under Docket IN79-6) on utility fuel supply contracts and other costs recovered through wholesale automatic adjustment clauses.
No. 714	Annual Electric Balancing Authority Area and Planning Area Report	Electric transmitting utilities operating Balancing Authority areas and planning areas (with annual peak demand over 200MW) are required to electronically file Form 714, reporting among other things, Balancing Authority area generation, actual and scheduled inter-Balancing Authority area power transfers, and net energy for load, summer-winter generation peaks and system lambda.
No. 715	Annual Transmission Planning and Evaluation Report.	Annual report by transmitting utilities on transmission planning, constraints and available transmission capacity.
No. 730	Report of Transmission Investment Activity	This annual report includes projections, information that details the level and status of transmission investment, and the reason for delay, if any. Public utilities that have been granted incentive based rate treatment for specific transmission projects under provisions of 18 CFR 35.35 must file FERC-730.
No. 920	Electric Quarterly Report	Quarterly. All public utilities are required to electronically file Electric Quarterly Reports summarizing the contractual terms and conditions in their agreements for all jurisdictional services (including market-based power sales, cost-based power sales, and transmission service) and transaction information for short-term and long-term market-based power sales and cost-based power sales during the most recent calendar quarter.

EIA was unable to find any other sources of data similar to the data collected by the Electric Power & Renewable Electricity surveys covered by this clearance. This is because of differences in classification, consistency, completeness, availability, public availability, or lack of universal coverage.

A.5. Provisions for Reducing Burden on Small Businesses

EIA takes a number of steps across the Electric Power & Renewable Electricity surveys to reduce the burden on smaller entities, including:

1. the use of cutoff sampling for monthly surveys;
2. the utilization of Form EIA-861S (short-form);

3. the reporting requirements for Form EIA-63B surveys (survey a sample of respondents monthly and the universe annually requiring only Schedule 4); and
4. the use of EIA's Internet data collection system.

Cutoff sampling on the monthly Forms EIA-923 and EIA-861M removes the need for many small entities to fill out monthly surveys; they need only submit one annual form. The annual Form EIA-861S was developed for the use of smaller respondents that represent approximately one-third of the original frame of Form EIA-861 but only 1 percent of national retail sales. Form EIA-861S is shorter than Form EIA-861 and provides a significant reduction in burden on smaller respondents, 0.75 vs 12.75 hours per response. EIA changed the eligibility for reporting on Form EIA-861M. This results in the transfer of approximately 620 respondents from the Form EIA-861M reporting frame to the reporting frame for Form EIA-861S. Form EIA-861S respondents must file a long Form-861 every eight years. 2019 data that will be collected in 2020 will require respondents of Form EIA-861S to complete the long Form EIA-861. EIA conducted a study on the past seven years of Form EIA-861 data and found that for the next seven years, approximately 620 more respondents can be included on Form EIA-861S, rather than the long Form EIA-861 without compromising the quality of the data.

EIA employs similar burden reductions methods on Form EIA-63B, where 10 firms, that comprise approximately 90 percent of total PV module shipments report on the monthly form, and 60 firms, that comprise only about 10 percent of total PV shipments, are required to submit only the shorter, annual form.

Through its Internet data collection (IDC) system, EIA pre-populates many data elements for items that do not frequently change. This allows respondents (both large and small) to verify that the information has not changed, as opposed to entering the same information for each survey cycle. In addition, the IDC system with its built-in edits has reduced the burden on businesses by reducing the call-backs to verify or correct questionable data.

A.6. Consequences of Less-Frequent Reporting

The hourly, daily, monthly, and annual data collected on the Electric Power and Renewable Electricity survey forms are used to provide critical electric power industry statistics on items such as net generation; sales and revenues of electric power; fuel receipts, costs, consumption, and stocks; photovoltaic modules; regional electricity supply and demand projections; transmission system characteristics and outages; existing and planned generating equipment; and energy efficiency and demand response programs. The surveys vary in periodicity depending on the requirements and uses of the survey data.

Forms filed on an annual basis include Form EIA-63B Annual, 860, 861, 861S, and 923. Collecting data less frequently would severely handicap DOE's modeling for use in energy policy development and its energy forecasting programs.

Forms filed on a monthly basis include Forms EIA-63B Monthly, 860M, 861M, and 923M. These forms have annual counterparts to reduce burden on small businesses when possible. However, monthly reporting by these plants provides important seasonal and geographical information and is necessary for EIA to provide monthly estimates of fuel consumption and generation that are representative of industry activity and that meet minimum statistical requirements.

Form EIA-930 is an hourly survey form completed by automatic data upload. There is no other hourly data source with similar coverage or timeliness. The data is used by FERC to benchmark and cross-validate their internal and external data sources for balancing authority electricity demand and interchange, an activity which requires hourly data. The importance of hourly electricity data will only become more valuable in the future as the U.S. electric grid continues to integrate more supply from renewable energy sources. Since electricity generation from many renewable sources, including wind and solar, varies from hour to hour, day to day, and season to season, having access to hourly data provides highly valuable insight to the industry on the regional patterns and impacts of renewable electricity generation on the grid. If EIA had to rely solely on electricity data aggregated monthly, EIA would have insufficient visibility into the manner in which renewable energy is being integrated on the grid.

A.7. Compliance with 5 CFR 1320.5

The data for the collection instruments in this proposal are being collected consistent with the guidelines in 5 C.F.R. 1320.5 (Controlling Paperwork Burdens On the Public – General Requirements).

A.8. Summary of Consultations Outside of the Agency

EIA staff conducted internal research as part of this electricity clearance to increase their understanding of the current state of the electric power industry. EIA contacted industry experts on topics relating to microgrids, battery storage, distribution systems, new technologies, demand response, reliability, and environmental data.

EIA also reached out to the North American Electric Reliability Corporation (NERC) regarding its proposal to discontinue Form EIA-411. EIA confirmed that data collected on the Form EIA-411 will continue to be posted for the general public to download freely and that discontinuation of the form will not impact NERC. A side-by-side comparison of both NERC ES&D and Form EIA-411 datasets was completed in September 2018 and confirmed that NERC not only publishes everything that EIA does, but in much more detail and with an additional Proposed Transformer Projects dataset that EIA does not produce. This discussion with NERC has gone on informally for many years. EIA staff discussed with John Moura, Director of Reliability Assessment at NERC, about the possibly duplicative Form EIA-411 and whether a significant respondent burden reduction could be accomplished by eliminating the 411. In December 2018 ERUS formally received notice from NERC that after internal discussions they have no objections to the discontinuation of Form EIA-411 and are hopeful that it will reduce burden on respondents. NERC's approval was crucial and necessary in this decision as NERC Regional Entities compile and submit this data every year to EIA staff.

EIA Responses to Comments on 60 Day Federal Register Notice

In response to the 60 day FRN, several organizations asked whether they could be absolved from certain reporting requirements by changing reporting thresholds. EIA explained how relatively small plants provide important geographical information and EIA's obligation to provide monthly estimates of fuel consumption and generation that are representative of industry activity and that meet minimum statistical requirements.

Several organizations also suggested that EIA update its data entry system. EIA explained that it is currently undergoing comprehensive information technology (IT) modernization upgrades that should reflect an updated data entry system in the future.

Carnegie Mellon made three recommendations for changes to existing surveys, namely: adding refined coal elements, adding bromine content in delivered coal, and expanding compliance codes. EIA explained that it will not modify any survey forms during this clearance cycle. Further, EIA explained that power plans are not able to provide the requested data, but that EIA will consider the addition of bromine content for future clearance cycles.

Several respondents raised concerns as to how EIA collects irrigation usage data; namely requiring respondents to add irrigation usage into the industrial category, thus potentially skewing electricity cost numbers reported. EIA explained that EIA incorporates all agricultural loads, including irrigation, into industrial sector reporting on the annual Form EIA-861 and its monthly equivalent. EIA believes that including agricultural load in the industrial sector is not causing a material “distortion” in the state average industrial prices reported by EIA.

The Bureau of Economic Analysis (BEA) provided positive comments about EIA’s continued collection for the electric power sector and outlined BEA’s usage of specific data.

EIA received a request to collect Power Purchase Agreements (PPAs) data. EIA explained that during this clearance cycles no modifications to any of the survey forms will be made. EIA will consider the burden of collecting this additional information and the degree to which it duplicates possible current reporting requirements with the Federal Energy Regulatory Commission.

A.9. Payments or Gifts to Respondents

Respondents to this information collection will not receive any payments or gifts from EIA to participate in this information collection.

A.10. Provisions for Protection of Information

Several data elements are protected from public disclosure in identifiable form on EIA’s electric power and renewable electricity surveys. Table 3 shown below, lists those data elements, by survey form that are protected.

Each element in Table 3 will be protected and not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. §552, the Department of Energy (DOE) regulations, 10 C.F.R. §1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905. Only one survey, Form EIA-63B, protects all reported information from public release in identifiable form. Additionally, the information reported in Schedule 2, PARTS B, C and D, and Schedule 3 for power marketers on Form EIA-861M will be protected and not disclosed for nine months after the end of the reporting year. Information reported under Part A is for bundled service and is public information that is reported to state public utility commissions. Data reported in Parts B, C, and D are considered business sensitive during the calendar year reported. The EIA-861 data are published in the *Electric Power Annual* which is released approximately 9 months after December data is reported from the prior year. The EIA-861 Annual data is an annual summary of the prior 12 calendar months. The prior 12 month history of company level information in the EPA is not protected because that information, after the passage of nine months, would not cause competitive harm to a respondent. After nine months, this information will be considered non-sensitive and may be publicly released in identifiable form.

Table 3. Data Elements Protected from Public Release in Identifiable Form

EIA Form Number	Data Element
EIA-63B	All collected data elements, other than the names of the companies included in the survey, are protected.
EIA-860	<ul style="list-style-type: none"> • All information associated with the “Survey Contact” and the “Supervisor of Contact Person for Survey” on Schedule 1. • Information reported for the data element “Tested Heat Rate” on Schedule 3, PART B, Generator Information – Existing Generators. • All data reported on Parts A and B of Schedule 5, Generator Cost Information.
EIA-860M	All information associated with the “Survey Contact” and the “Supervisor of Contact Person for Survey” on Schedule 1.
EIA-861 and EIA-861S	All information associated with the “Survey Contact” and the “Supervisor of Contact Person for Survey” on Schedule 1.
EIA-861M	<ul style="list-style-type: none"> • All information associated with the “Survey Contact” and the “Supervisor of Contact Person for Survey” on Schedule 1. • The information reported on Schedule 2, PARTS B and D, and Schedule 3 for power marketers (This information will be protected and not disclosed for nine months after the end of the of the reporting year. After nine months from the end of the reporting year, this information is considered non-sensitive and may be publicly released in identifiable form.)
EIA-923, EIA-923 Monthly, and EIA-923 Supplemental	<ul style="list-style-type: none"> • All information associated with the “Survey Contact” and the “Supervisor of Contact Person for Survey” on Schedule 1. • The “Total Delivered Cost” of coal, natural gas, and petroleum received at nonutility power plants and “Commodity Cost” information for all plants in Schedule 2. • “Previous Month’s Ending Stocks,” “Stocks at End of Reporting Period,” and any adjustment or comments related to the above stocks fields reported on Schedule 4 for fuel oil are a protected data element until a year after the end of the prior calendar year.
EIA-930	No information is protected.

The Federal Energy Administration Act also requires EIA to provide company-specific data to other Federal agencies when requested for official use. The information reported on these forms may also be made available, upon request, to another component of DOE; to any Committee of Congress; the Government Accountability Office; or other federal agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order. The information may be used for non-statistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes.

With the exception of power plant construction costs reported on Form EIA-860, and all data reported on Form EIA-63B, data protection methods are not applied to the aggregate statistical data published from this information collection. Thus, some statistics may be based on data from fewer than three respondents, or may be dominated by data from one or two large respondents. In these cases, it may be possible for a knowledgeable person to estimate the information reported by a respondent.

A.11. Justification for Sensitive Questions

This information collection does not include any questions of a sensitive nature.

A.12. Estimate of Respondent Burden Hours and Cost

The overall annual burden for this package is estimated to be 170,041 burden hours (see Table 4 below).

The burden has increased from the previous clearance from 153,068 hours. This increase is primarily the result of an increase in the number of respondents on Forms EIA-860, and 923M, 923A, and 923S, which is only partially offset by the decrease in annual burden hours from discontinuing Form EIA-411

The annual labor cost of burden hours to the respondents is estimated to be \$13,627,085 (170,041 burden hours times \$80.14 per hour). Table 4 below shows how EIA calculates the fully burdened wage rate for 2020. The fully burdened hourly wage rate is calculated based on a weighted average of EIA management and staff full benefit salary.

In addition, burden hour values were rounded from the 2017 clearance to show one digit after the decimal point, unless the value was already a multiple of 0.25 in which case it was not changed. For Form EIA-930, the burden of 0.16 hours was also not changed since rounding would have a significant effect on a percent basis.

EIA anticipates no additional respondent costs for generating, maintaining, and providing the information required in the already-existing nine survey forms in this package.

Table 4: Average Hourly Loaded Cost of an EIA Employee, Fiscal year 2020

As of 1/21/2020	Number of Employees	Average Annual Salary	Average Benefit Percentage	Average Benefit Costs	Total Average Salary and Benefits	Average Hourly Loaded Cost
Administrative/ Professional (GS)	305	\$128,221	26.33%	\$33,761	\$161,982	\$77.88
Executive (EJ,ES,EX,SL)	22	\$183,610	26.33%	\$48,344	\$231,954	\$111.52
All EIA Employees	327	\$131,947	26.33%	\$34,742	\$166,689	\$80.14

Table 5. Estimated Respondent Burden

EIA Form Number/Title	Annual Reporting Frequency	Number of Respondents	Annual Number of Responses	Burden Hours Per Response	Annual Burden Hours
EIA-63B "Photovoltaic Module Shipments Report" - Monthly	12	10	120	2.6	312
EIA-63B "Photovoltaic Module Shipments Report" - Annual	1	45	45	1.8	81
EIA-411 "Coordinated Bulk Power Supply and Demand Report"	1	0	0	0.0	0
EIA-860 -"Annual Electric Generator Report" Respondents Completing Environmental Questions	1	944	944	16.0	15,104
EIA-860 -"Annual Electric Generator Report" Respondents Not Completing Environmental Questions	1	3,813	3,813	7.6	28,979
EIA-860M "Monthly Update to the Annual Electric Generator Report"	12	312	3,744	0.3	1,123
EIA-861 "Annual Electric Power Industry Report"	1	1,675	1,675	12.75	23,991
EIA-861S "Annual Electric Power Industry Report (Short Form)"	1	1,730	1,730	12.75	5,583
EIA-861M "Monthly Electric Power Industry Report"	12	620	7,440	2.0	14,880
EIA-923 "Power Plant Operations Report" - Monthly	12	1,945	23,340	2.0	46,680
EIA-923 "Power Plant Operations Report" - Annual	1	7,050	7,050	3.2	22,560
EIA-923 "Power Plant Operations Report" - Supplemental (Annual Respondents Completing Environmental Questions)	1	1,580	1,580	4.4	6,952

A.13. Estimate of Other Additional Costs

EIA does not anticipate any non-hour costs associated with this collection.

A.14. Annual Cost to the Federal Government

The annual cost of operating these surveys is estimated at \$6,000,883 and includes contractor costs and federal staff time for survey related activities. The survey related activities include frame maintenance, collection, processing, dissemination, and data systems maintenance. EIA anticipates no additional respondent costs for generating, maintaining, and providing the information required in this Information Collection Request.

Table A6. Annual Cost to the Federal Government

Activity	Labor hours	x Rate	= Cost
Survey frame and maintenance	13,260	\$ 80.14	\$ 1,062,656
Data collection and processing	43,784	\$ 80.14	\$ 3,508,850
Data dissemination	9,776	\$ 80.14	\$ 783,449
Data systems maintenance and enhancements	8,060	\$ 80.14	\$ 645,928
Total Annual Cost			\$ 6,000,883

A.15. Changes in Burden

Burden increased by 16,972 hours from 153,068 to 170,041 as shown in table A7 below.

Table A7. Changes in Burden

EIA Form Number/Title	Annual Reporting Frequency	Number of Respondents (Previously Approved)	Number of Respondents (Requested)	Annual Number of Responses (Previously Approved)	Annual Number of Responses (Requested)	Burden Hours Per Response (Previously Approved)	Burden Hours Per Response (Requested)	Annual Burden Hours (Previously Approved)	Annual Burden Hours (Requested)	Annual Number of Responses			Annual Burden Hours		
										Change Due to Agency Discretion	Change Due to Adjustment in Agency Estimate	Adjustment	Change Due to Agency Discretion	Change Due to Adjustment in Agency Estimate	Adjustment
EIA 63B "Photovoltaic Module Shipments Report" Monthly	12	16	10	192	120	2.62	2.6	503	312	0	-72	-72	0	-191	-191
EIA 63B "Photovoltaic Module Shipments Report" Annual	1	60	45	60	45	1.84	1.8	110	81	0	-15	-15	0	-29	-29
EIA 411 "Coordinated Bulk Power Supply and Demand Report"	1	9	0	9	0	122.0	0.0	1,098	0	-9	0	-9	-1,098	0	-1,098
EIA 860 "Annual Electric Generator Report " Respondents Completing Environmental Questions	1	4763	944	4,763	944	9.42	16.0	44,856	15104	0	-3,819	-3,819	0	-29,752	-29,752
EIA 860 "Annual Electric Generator Report " Respondents Not Completing Environmental Questions	1	0	3,813	0	3,813	7.55	7.6	0	28979	0	3,813	3,813	0	28,979	28,979
EIA 860M "Monthly Update to the Annual Electric Generator Report"	12	478	312	5,736	3,744	0.31	0.3	1,778	1123	0	-1,992	-1,992	0	-655	-655
EIA-861 "Annual Electric Power Industry Report"	1	2295	1,675	2,295	1,675	12.75	12.75	29,261	23991	-620	0	-620	-5,270	0	-5,270
EIA-861S "Annual Electric Power Industry Report (Short Form)"	1	1110	1,730	1,110	1,730	0.75	12.75	833	5583	620	0	620	4,750	0	4,750
EIA-861M "Monthly Electric Power Industry Report"	12	620	620	7,440	7,440	2.04	2.0	15,178	14880	0	0.00	0	0	-298	-298
EIA-923 "Power Plant Operations Report" - Monthly	12	1333	1,945	15,996	23,340	1.99	2.0	31,832	46680	0	7,344	7,344	0	14,848	14,848
EIA-923 "Power Plant Operations Report" - Annual	1	6020	7,050	6,020	7,050	3.17	3.2	19,083	22560	0	1,030	1,030	0	3,477	3,477
EIA-923 "Power Plant Operations Report" - Supplemental (Annual Respondents Completing Environmental Questions)	1	1064	1,580	1,064	1,580	4.40	4.4	4,682	6952	516		516	2,270		2,270
EIA-930 "Balancing Authority Operations Report"	365	66	65	24,090	23,725	0.16	0.16	3,854	3796	0	-365	-365	0	-58	-58
TOTAL		17,834	19,789	68,775	75,206			153,068	170,041	507	5,924	6,431	651	16,321	16,972

[1] In the previous clearance cycle, there were 1,046 respondents requested for Form EIA-860 w/ Environmental and 3,717 respondents requested on Form EIA-860 w/o Environmental which equals 4,763 respondents. This was reported as a single row in this table during the last clearance. Table A4 above shows the respondents separately for the respondents that need to submit with and without the environmental schedule. The method employed in this table allows for greater transparency in tracking changes due

to agency estimate versus agency discretion. [2] The “Burden Hours per Response” for the EIA-930 represents the total daily response time for the one Daily File and 24 Hourly Files submitted in a single day.

Most of the change in total time burden is driven by an increase in survey respondents for Form EIA-923M, A, and S due to the rapid expansion in the number of operating utility-scale power plants. Although industry capacity slightly grew between 2016 and July 2019 ($\approx 2\%$), large base-load, high-capacity electric power plants that use coal as their fuel source have ceased operations and were replaced by a large number of smaller capacity solar and wind powered plants. Specifically, this results in a net increase of 1030 respondents eligible to complete the Annual Form EIA-923, 516 respondents eligible to complete the Annual Form EIA-923 Supplemental, and 612 respondents eligible to complete the Monthly Form EIA-923.

Form EIA-411 was deleted from this ICR which results in a reduction of 1,098 burden hours. Form EIA-930's frame decreased by one respondent as two balancing authorities merged. The decrease in respondents for Form EIA-63B from 16 to 10 on the monthly form, and from 60 to 45 on the annual form is due to changes in the solar Photovoltaic manufacturing industry, with smaller companies either being acquired by larger companies or ceasing operations.

2020 is a unique data collection cycle for Form EIA-861. Respondents on Form EIA-861S must file the longer version of Form EIA-861 Annual once every eight years. In years 1 through 7 respondents file the short Form EIA-861S. Since 2020 is the 8th year in the Form EIA-861S collection cycle, respondents to Form EIA-861S need to complete the longer version, Form EIA-861 Annual. Form EIA-861 Annual has a burden of 12.75 hours and the short Form EIA-861S has a burden per response of 0.75. Table 6 shows the higher burden per response of 12.75 hours because that is the burden per response for the first year of this clearance, however, in years 2 and 3, those same respondents will return to filing the short Form EIA-861S, with a burden per response of 0.75. The burden hours requested for Form EIA-861S shown in Table 6 was calculated as follows $(1110 * 12.75) + 2 * (1730 * 0.75) = 5,583$ annual burden hours. The sample reporting on the Form EIA-861 Annual decreases in years 2 and 3 of this clearance. The eligibility requirements to report on Form EIA-861 Annual increase in years 2 and 3 and this reduces the reporting sample by approximately 620 respondents beginning in the year 2. Those 620 respondents are required to file the long version, annual Form EIA-861 in year one of this clearance and then are moved to the frame file for Form EIA-861S for years 2 and 3 of this clearance. The burden hours requested for Form EIA-861S shown in Table 6 was calculated as follows $(2295 * 12.75) + 2 * (1675 * 12.75) = 23,991$ annual burden hours.

The frame files for Forms EIA-860 and EIA-860M are determined by the generating capacity values of existing and planned facilities. Changes in these frames are the direct result of a shifting industry generation portfolio. Due to several economic and environmental factors, there is growth in the number of solar, wind, battery storage, natural gas-fired combined cycle, and natural gas-fired combustion turbine facilities and there is loss in the number of coal and natural gas-fired thermoelectric facilities. This resulted in less respondents being eligible to report on Form EIA-860 with environmental questions, but more respondents being eligible to report on Form EIA-860 without environmental questions.

Table 8. ICR Summary of Burden

	Requested	Program Change Due to Agency Discretion	Change Due to Adjustment in Agency Estimate	Previously Approved
Total Number of Responses	75,206	507	5,924	68,775
Total Time Burden (Hr)	170,041	651	16,321	153,068

A.16. Collection, Tabulation, and Publication Plans

The data collected on the surveys in this package are released in EIA reports and are available on the EIA website. Detailed information on the data elements collected on each form and their associated collection, tabulation, and publication time schedules are contained in Tables 9 and 10.

Non-sensitive data are provided to the public at the reporting level of detail in the form of downloadable electronic files located at <http://www.eia.gov/electricity/data/detail-data.html>. This includes the vast majority of the data collected on the electric Power surveys.

In addition, EIA recently created for its website an Electricity Data Browser (EDB) to show generation, consumption, fossil fuel receipts, stockpiles, retail sales, and electricity prices. The data appear on an interactive web page and are updated each month. This EDB includes most datasets collected and published in EIA's Electric Power Monthly and allows users to perform dynamic charting of data sets as well as map the data by state. Some reports include plant-level statistics. All images and datasets are available for download. The EDB is available at:

<http://www.eia.gov/electricity/data/browser/>.

The data reported on Form EIA-930 hourly survey is reported in near real-time as part of EIA's U.S. Energy Mapping System (see: http://www.eia.gov/beta/realtime_grid). A combination of EIA and Nuclear Regulatory Commission data is used to create EIA's Status of U.S. Nuclear Outages at <http://www.eia.gov/nuclear/outages/>.

Users can also link to the data series in EIA's Application Programming Interface (API). An API makes EIA data machine-readable and more accessible to users. Links to analytic reports such as the Electricity Monthly Update, projections such as the Short-Term Energy Outlook and Annual Energy Outlook, and pertinent Today in Energy articles are also available from the page. For more information, see the API webpage at: <http://www.eia.gov/beta/api/>.

Table 9. Electricity and Solar Photovoltaic Data Collection

Form	Elements Collected	Level of Detail
EIA-63B	Photovoltaic modules manufacture, inventories, revenues, imports, exports, and shipments.	Manufacturing, revenues, and inventories by company; imports and exports by country; domestic shipments by state, market sector, and end use.
EIA-860	Existing and planned capacity and retirements and related data, such as characteristics of environmental control equipment.	Boiler/Generator/Plant/Company
EIA-860M	Generator plant additions, retirements, or other capacity changes in next 12 months	Generator/Plant/Company
EIA-861 and EIA-861S	Annual energy sources, disposition, peak load, sales, revenue, number of customers, demand-side management information, net metering, advanced metering, and distribution system reliability.	Company/State/Balancing Authority
EIA-861M	Monthly revenue, electricity sales, and related data (e.g., number of customers, number of advanced meters) by sector.	Company/State
EIA-923A & EIA-923M	Electric power generation, fuel consumption, fossil fuel stocks, delivered fossil fuel cost, combustion byproducts, operational cooling water data, and operational data for NO _x , SO ₂ , and particulate matter control equipment.	Boiler/Generator/Prime Mover/Plant
EIA-923S	Operational environmental information (The other data elements on Form EIA-923 mentioned above will have already been submitted on the monthly survey.)	Boiler/Generator/Prime Mover/Plant
EIA-930	Hourly net generation, day-ahead demand forecast, demand (net energy for load) and actual interchange with each directly connected Balancing Authority.	Balancing Authority

Table 10. Collection, Tabulation, and Publication Plans

Survey Form	Data Collection Frequency	Survey Opening Date	Response Due Date	Date Final Data are Ready	Publications*	Publication and Data File Release Date
EIA-63B	Annual	First business day in January	February 28	August 31	Solar Photovoltaic Module Shipments Annual Summary Report	November
EIA-63B	Monthly	First day of the month following the reporting period.	Last day of the month following the reporting period.	August 31	Solar Photovoltaic Module Shipments Monthly Summary Report	Approx. the 28th of each month
EIA-860	Annual	First business day in January	Last business day of February	August 31	EPM	Approx. the 28th of each month
					EPA	November
EIA-860M**	Monthly	First business day in each month	15 calendar days after the close of the reporting month	August 31	EPM	Approx. the 28th of each month
					EPA	November
EIA-861 and EIA-861S	Annual	First business day in January	April 30	August 31	EPA	November
					ESR	November
					SEP	December
EIA-861M	Monthly	First day of the month following the reporting period.	Last day of the month following the reporting period	August 31	EPM and EMU	Approx. the 28th of each month
					MER	Approx. the 28 th of each month
EIA-923A and EIA-923M	Monthly and Annual	Annual: First business day in January; Monthly: First day of the month following the reporting period.	Annual: April 30; Monthly: Last day of the month following the reporting period.	August 31	EPM	Approx. the 28th of each month
					EPA	November
					MER	Approx. the 28th of each month
					EMU	Approx. the 28th of each month
EIA-923S	Annual	First business day in January	Last business day of February	August 31	EPA	November
EIA-930	Daily/ Hourly	N/A	N/A	N/A	EIA Website	Daily

*EPM (Electric Power Monthly); EPA (Electric Power Annual); EMU (Electricity Monthly Update), MER (Monthly Energy Review), QCR (Quarterly Coal Report), ACR (Annual Coal Report), NGM (Natural Gas Monthly), NGA (Natural Gas Annual), ESR (Electric Sales and Revenue Report), SEP (State Electricity Profiles).

**An EIA-860M must be filed by EIA-860A respondents who have indicated in a previous filing that they have any one of the following: (1) a proposed new generator scheduled to start commercial operation within the subsequent 12 months, (2) an existing generator scheduled to retire from service within the subsequent 12 months, or (3) an existing generator with a proposed modification scheduled for completion within one month of the reporting period (month).

Note: All EIA publications can be accessed at <http://www.eia.gov/reports/>.

A.17. OMB Number and Expiration Date

The OMB number (1905-0129) and expiration date are displayed on each form.

A.18. Certification Statement

This submission meets all certification requirements of the "Certification for Paperwork Reduction Act Submissions," for OMB Form 83-I.