



*Independent Statistics & Analysis*

U.S. Energy Information  
Administration

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*Assistant Administrator for Energy Statistics | Office of Electricity, Renewables & Uranium Statistics*

# Supporting Statement for Survey Clearance: Electric Power & Renewable Electricity Surveys

## *Part A: Justification*

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## OMB Number 1905-0129

FORM EIA-63B, Photovoltaic Module Shipments Report

FORM EIA-861, Annual Electric Power Industry Report

FORM EIA-411, Coordinated Bulk Power Supply Program Report

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

FORM EIA-826, Monthly Electric Utility Sales and Revenue Report with State Distributions (discontinued form to be replaced by Form EIA-861M)

FORM EIA-861M, Monthly Electric Power Industry Report (replaces Form EIA-826)

FORM EIA-860, Annual Electric Generator Report

FORM EIA-923, Power Plant Operations Report

FORM EIA-860M, Monthly Update to the Annual Electric Generator Report

FORM EIA-930, Balancing Authority Operations Report

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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 Electric Power and Renewable Electricity Program surveys discussed below are part of this comprehensive energy data program.

The current OMB approval of these surveys is due to expire on May 31, 2017. However, EIA is seeking approval so it can begin using the re-cleared surveys in January 2017. This synchronizes the survey clearance with the calendar year cycle for collecting annual data.

The information collection in this supporting statement has been reviewed in light of applicable EIA information quality guidelines. EIA determined that the information would be collected, maintained, and used in a manner consistent with Office of Management and Budget (OMB), DOE, and EIA information quality guidelines.

On May 19, 2016, a Federal Register Notice (81 FR 31623) was published for EIA to receive comments regarding a three-year extension and/or proposed changes, additions, and deletions to the following survey forms included in this information collection:

- Form EIA-63B, "Photovoltaic Module Shipments Report"
- Form EIA-411, "Coordinated Bulk Power Supply Program Report"
- Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions" (discontinued form to be replaced by Form EIA-861M)
- 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, "Hourly and Daily Balancing Authority Operations Report"

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. The Form EIA-63B renewable survey collects information on the manufacture, shipment, imports and exports of photovoltaic cells and modules, and is the primary national source of information on these topics.

This information collection request includes a three-year extension of the Electric Power and Renewable Electricity Program surveys (OMB Number 1905-0129) with changes to the existing electric power surveys to meet the dual objectives of minimizing burden to the survey respondents and to provide objective, accurate, and timely information that is relevant to the public and issues of public policy.

Burden reduction will be accomplished through:

- A. Elimination of data elements no longer needed
- B. Elimination of data elements that are not being reported correctly and therefore cannot be used to provide sound analyses
- C. To the extent possible, limiting monthly reporting to the largest respondents while having the smaller ones (usually the vast majority) report annually
- D. Providing the ability to report via an alternate means that may be more efficient and less time consuming for the large companies that have to report for a multitude of facilities
- E. Clarification of the instructions and the way questions are worded on the survey

Enhanced coverage will be accomplished through:

- A. Addition of questions to address new developments in the industry, such as rapid growth in electricity storage
- B. Addition/clarification of questions to address areas that have become confusing or burdensome
- C. Addition of questions regarding planned capacity additions which is an important measure of the entity's capability to meet growing demand, e.g., planned maximum annual production capacity to manufacture photovoltaic modules
- D. Additions of questions that will enhance EIA's ability to estimate distributed solar generation
- E. Addition of requirement for all power plants in Puerto Rico to begin filing Forms EIA-860 and EIA-923.

Additionally, there is a change to the confidentiality protection for coal and petroleum stocks held at power plants and related facilities reported on Form EIA-923, Schedule 4, Part A. In the case of coal and petroleum coke stocks, EIA will release plant-specific monthly stock data a year after the end of the prior calendar year. For example, monthly and annual data by plant for 2017 would be released no earlier than the last business day of December 2018.

Additionally, EIA will publicly release, no earlier than the last business day of December 2017, monthly and annual stocks data by plant for the period 2002 to 2016.

In the case of fuel oil, stocks data will be released (as is other plant-specific data, such as generation) about seven weeks after the end of the reporting month. After this interval, the data will pose no risk of commercial harm, but will still have value to government and private sector decision makers if there has been a disruption in the supply of natural gas to power plants that use fuel oil as a backup fuel.

## **A. JUSTIFICATION**

### **A.1 Legal Justification**

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

Section 13(b), 15 U.S.C. §772(b), of the Federal Energy Administration Act (FEA Act), Public Law 93-275, outlines the types of individuals subject to the data collection authority delegated to the Administrator and the general parameters of the type of data which can be required. Section 13(b) states:

“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 [Secretary] 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 [Secretary] may prescribe by regulation or order as necessary or appropriate for the proper exercise of functions under this Act.”

The objectives of the FEA Act are set forth in Section 5(b), 15 U.S.C. §764(b), of the FEA Act, which states that the Secretary shall, to the extent (s)he is authorized by Section 5(a) of the FEA Act,

“(2) 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;...

(9) Collect, evaluate, assemble, and analyze energy information on reserves, production, demand, and related economic data;...

(12) Perform such other functions as may be prescribed by law.”

As the authority for invoking Section 5(b) above, Section 5(a), and 15 U.S.C. §764(a), of the FEA Act in turn states:

“Subject to the provisions and procedures set forth in this Act, the [Secretary] shall be responsible for such actions as are taken to assure that adequate provision is made to meet the energy needs of the Nation. To that end, he shall make such plans and direct and conduct such programs related to the production, conservation, use, control, distribution, rationing, and allocation of all forms of energy as are appropriate in connection with only those authorities or functions:

(1) Specifically transferred to or vested in him by or pursuant to this Act;...

(3) Otherwise specifically vested in the [Secretary] by the Congress.”

Authority for invoking Section 5(a) of the FEA Act is provided by Section 52, 15 U.S.C. §790(a) and (b), of the FEA Act, which states that the Administrator of the EIA:

“(a) . . . [Shall] 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...

(b) . . . the System shall contain such energy information as is necessary to carry out the Administration's statistical and forecasting activities..., and 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 Act;

(3) the sensitivity of energy resource reserves, exploration, development, production, transportation, and consumption to economic factors, environmental constraints, technological improvements, and substitutability of alternate energy sources; . . .

(5) . . . industrial, labor, and regional impacts of changes and patterns of energy supply and consumption . . .”

The DOE Organization Act (US Code, Title 42, Chapter 84, Subchapter II, Section 7135) states:

“The Administrator shall be responsible for carrying out a central, comprehensive, and unified energy data and information program which will collect, evaluate, assemble, analyze, and disseminate data and information which is relevant to energy resource reserves, energy production, demand, and technology, and related economic and statistical information, or which is relevant to the adequacy of energy resources to meet demands in the near and longer term future for the Nation’s economic and social needs.

Information collected by the Energy Information Administration shall be cataloged and, upon request, any such information shall be promptly made available to the public in a form and manner easily adaptable for public use, except that this subsection shall not require disclosure of matters exempted from mandatory disclosure...”

## **A.2 Needs and Uses of Data**

### **A.2.1 Overview of Needs and Uses of Data**

EIA uses the data collected on the electric power and renewable electricity surveys to answer queries from the U.S. Congress, other federal and state agencies, the electric power industry, and the general public; and as input to the National Energy Modeling System (NEMS) and to EIA’s other forecasting and analytical activities. Other users of the data include policy makers, regulators, energy market analysts, and the energy industries.

In some cases, states have reduced their own data collection efforts with the intention of relying on EIA for many of their information needs. In the absence of the centralized and public data collection by EIA, each state will have to undertake its own data collection effort, in many cases requesting duplicative information from firms with operations that cross state lines. The EIA data collection ensures consistent data at minimum cost to the public and respondents.

The data collected on these surveys are reported in Internet-based data files and 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/](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/](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/>

Specific applications of the data collected by the surveys are discussed below in Section A.2.3.

## **A.2.2 Overview of Data Collections**

The EIA Electric Power and Renewable Electricity data forms collect a wide range of information about the industry while seeking to minimize respondent burden and ensuring that duplicative data collection is avoided. Data are collected using annual, monthly, and daily/hourly surveys. Each survey has a different set (or subset) of respondents in order to focus on each sector of the electric power industry. The monthly forms collect information only from a sample of the overall universe in order to minimize the burden on the industry.

## **A.2.3 Individual Form Data Uses and Modifications**

Note that all of the forms in this clearance package are mandatory. Copies of the forms and their instructions are part of this Information Collection Request.

### **Form EIA-63B, “Photovoltaic Module Shipments Report”**

The mandatory Form EIA-63B 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 following changes apply to Form EIA-63B:

- (1) Change the title of the survey from “Annual Photovoltaic Cell/Module Shipments Report” to “Photovoltaic Module Shipments Report.”
- (2) Change the reporting period from annual to monthly. As the photovoltaic solar industry continues to expand in the United States, gathering data on a more frequent (monthly) basis will provide users with timely and relevant information.
- (3) Restrict the monthly frame to the largest manufacturers defined by total shipments of modules measured in peak kilowatts as reported in the previous year. This will represent those whose aggregate total shipments reported in the previous year are at least 90 percent of the prior year total photovoltaic module shipments, measured in peak kilowatts.
- (4) Survey the respondents not included in the monthly sample annually, requiring only data on Schedule 4, Photovoltaic Module Source and Disposition.



(5) In Schedule 3, Industry Status, add Part E, Production Capacity for U.S. Manufacturing Photovoltaic Modules, in order to collect current and planned maximum annual production capacity to manufacture photovoltaic modules in peak kilowatts.

(6) In Schedule 3, delete the words “system” and “cells” throughout the schedule and only collect data relating to “modules.” For example, on Schedule 3, Part A, change “cell and/or module manufacturing” to “module manufacturing”; on Schedule 3, Part B, change “module and/or system design” to “module design.” It is only necessary to collect modules because cells are manufactured into modules.

(7) Change the name of Schedule 4 from “Photovoltaic Shipments Status” to “Photovoltaic Modules Source and Disposition.” Collect the inventory of photovoltaic modules at the beginning of the reporting period (monthly or annually, depending on if the respondent is a monthly or annual respondent) instead of collecting the inventory carried forward from the previous year.

(8) Delete Schedule 4, Part A, Photovoltaic Cell Data, which collected cell data pertaining to inventory, shipments, and revenue. It is only necessary to collect modules because cells are manufactured into modules.

(9) Delete Schedule 4, Part B, question (e), Energy Conversion Efficiency, which collected the percent of power converted per peak kilowatt. These data have been inconsistent and of little value.

(10) Delete the portion of Schedule 6, Part B, U.S. Shipments (sales within the United States excluding sales for resale) by State, Sector and End Use, which collected data on photovoltaic module shipments by sector and by end use. Many respondents have commented that the data are unavailable and that they have been reporting estimates; thus the data are of little value.

### **Form EIA-411, “Coordinated Bulk Power Supply Program Report”**

The mandatory Form EIA-411 collects a) 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, b) the characteristics and frequency of outages occurring on the Bulk Electric System, and c) other information on the transmission system and supporting facilities. The data are collected from the regional reliability entities by the North American Electric Reliability Corp. (NERC)<sup>1</sup>, which then organizes and edits the information and submits the data to EIA.

The following changes apply to Form EIA-411:

(1) Discontinue the collection of historical information associated with demand, capacity, transactions, and reserve margins in Schedule 3. One of the goals of collecting this historical information was to provide a context to evaluate the adequacy of planned reserve margins from prior survey submissions. However, significant differences between operational reserve margins and planned reserve margins has rendered this historical information less meaningful than originally

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<sup>1</sup> NERC is the official national Electric Reliability Organization as designated by 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 the Form EIA-411 data.

intended. Until a more comprehensive framework for making such comparisons is identified, EIA is proposing not to collect this historical information. More specifically, the following data elements will be deleted from Form EIA-411:

- a) delete Line Numbers 2a through 2d in Schedule 3 Part A, Projected Demand and Capacity - Summer, and Part B, Projected Demand and Capacity - Winter, relating to direct control load management, interruptible load, critical peak pricing with control, and load as a capacity resource
- b) delete Line Number 4 in Part A and Part B that collects information on Total Demand Response
- c) delete Line Number 7 in Part A and Part B that collects information on the peak hour demand plus available reserves
- d) delete Line Numbers 10a through 10c that collect information on capacity transfers relating to imports
- e) delete Line Numbers 11a through 11c that collect information on capacity transfers relating to exports in both Part A and Part B
- f) delete Line Number 16 that collects information on "Target Reserve Margin."

(2) EIA currently collects the names of planned transmission line terminal locations in Schedule 6, Part B, Characteristics of Projected Transmission Line Additions. The instructions for Line 5, Terminal Location (From) and Line 6, Terminal Location (To) will now ask the respondent to report the state and county, in addition to the name of the terminal. This is a more standard way of reporting locations.

### **Form EIA-826, "Monthly Electric Sales and Revenue with State Distributions Report"**

EIA will discontinue Form EIA-826 and replace it with the Form EIA-861M, Monthly Electric Power Industry Report. This change is being made to make consistent the numbering of all surveys related to power industry retail operations. For more information, see the EIA-861M discussion further below.

### **Form EIA-860, "Annual Electric Generator Report"**

The mandatory Form EIA-860 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 (depending on the type of plant).

The following changes apply to Form EIA-860:

(1) Collect additional information on utility-scale electricity storage (primarily batteries). Specifically, Question 15 is added to Schedule 2, Power Plant Data. This question asks if the facility has energy storage capabilities. Currently, EIA collects the same design and operational data from energy storage applications as it does from conventional generators, despite the fundamental differences between them. The rapid growth in the number and capacity of energy storage applications along with their unique operational characteristics is an important consideration for collecting information that is relevant to the electric power markets.

(2) In Schedule 3, Part B, Generator Information – Operable Generators, Question 23 is deleted. This question asked respondents to report the minimum amount of time needed to bring a generator from a non-spinning reserve status to full load. It has not been possible to efficiently collect consistent information on this data element.

(3) In Schedule 3, Part B, remove question 29, which asks for the Federal Aviation Administration (FAA) Obstacle Number assigned to wind turbines. Many respondents do not have this information.

(4) In Schedule 3, Part B, Questions 30a and 30b are added. These questions ask respondents with solar photovoltaic (PV) generators having fixed tilt technologies or single-axis technologies for their fixed azimuth angles and fixed tilt angles. This will allow hourly timing of electric supply to be better understood.

(5) In Schedule 3, Part B, new Questions 32 and 33 are added. These questions ask all solar facilities if they have net metering agreements or known virtual net metering agreements in place associated with their solar generation. These questions also ask facilities with net metering or known virtual net metering agreements the capacity associated with these agreements. This information will enhance EIA's estimation of distributed solar generation in the United States.

(6) In Schedule 3, Part B, Questions 34 – 39 are added. These questions ask for the design attributes of energy storage applications such as batteries and flywheels. Question 40 was also added to collect data on the services that the energy storage device provided during the reporting year. Based on analysis from the Sandia National Laboratory, EIA developed these questions, then performed cognitive testing to verify the ability of the industry to report this information.

(7) In Schedule 6, Part B, Boiler Information – Air Emission Standards and Control Strategies, plants with a total steam-electric nameplate capacity of at least 10 MW report their applicable nitrogen oxides (NOx) and mercury regulations and their existing and proposed strategies for meeting these regulations; plants with a total steam-electric nameplate capacity of at least 100 MW report their applicable sulfur dioxide (SO<sub>2</sub>) regulations and their existing and proposed strategies for meeting these regulations. EIA seeks to standardize reporting by having plants with a total steam-electric nameplate capacity between 10 and 100 MW also report their applicable SO<sub>2</sub> regulations and their existing and proposed strategies for meeting these regulations. This expansion will enhance EIA's estimation of SO<sub>2</sub> emissions by electrical power plants.

(8) In Schedule 6, Part A, Boiler Information – Plant Configuration and Equipment Information, question 2 will collect the actual and planned retirement dates of environmental equipment at electrical power plants. This expansion will allow EIA to provide a more comprehensive inventory of environmental equipment.

(9) At the request of the Puerto Rico Institute of Statistics (on behalf of the Government of the Commonwealth of Puerto Rico), EIA will begin collecting the required Form EIA-860 data from power plants located in Puerto Rico.

### **Form EIA-860M, “Monthly Update to the Annual Electric Generator Report”**

The mandatory Form EIA-860M collects data on the status of proposed new generators scheduled to begin commercial operation within the forward 12-month period, existing generators scheduled to

retire from service within the forward 12-month period, 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 such purposes as reliability and environmental analyses.

Questions 3a through 3d are added to the end of Schedule 2, Updates to Proposed New Generators:

- a) Questions 3a and 3b ask for each newly operational solar generator if the output from the generator is part of a net metering agreement and, if so, how much direct current (DC) capacity (in MW) is part of the net metering agreement.
- b) Questions 3c and 3d ask for each newly operational solar generator if the output from the generator is part of a virtual net metering agreement and, if so, how much DC capacity (in MW) is part of the virtual net metering agreement.

The distinction between net metering and virtual net metering is specified in the instructions to the form. These new questions are designed to collection information that improves the accuracy of EIA's estimation of distributed solar power generation in the United States.

### **Form EIA-861, "Annual Electric Power Industry Report"**

The mandatory Form EIA-861 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 (formerly the EIA-826, now renumbered as the EIA-861M), this annual survey provides coverage of sales to ultimate customers of electric power and related activities.

The following changes apply to Form EIA-861:

- (1) Collect the capacity of small-scale storage associated with net metered and non-net metered distributed capacity. We are receiving requests to collect these data.
- (2) Add virtual net metered capacity and customer counts to the net metering schedule, both from resources less than 1 MW and resources 1 MW or greater. Emerging developments in the solar PV market place are community solar projects combined with virtual net metering agreements utilities have with the customers. These billing arrangements allow generation from remotely sited generators to offset customers' monthly consumption and results in a net bill to the customer. In order an accurately account for this generation, we need to expand the net metering data collection to include these situations.
- (3) Add a question to the Energy Efficiency Schedule (6A) to collect a list of utilities that use a Demand Side Management (DSM) administrator. DSM administrators are responsible for programs that reduce the demand for energy and increase efficiency. There are approximately a dozen and they fall under ownership code D. A dropdown menu of the Ds will be included so the rest of the utilities can pick them if they are using them. We also want to move (from the Footnote Schedule to

the Energy Efficiency Schedule) where the DSM administrators identify the utilities for which they provide services.

(4) Add sectors to the Distributed schedule (7B) instead of an aggregated total. Also add an additional technology (fuel cells) to the schedule.

(5) Eliminate questions in Schedule 7B regarding dispersed generation. The amount of capacity reported is small and the ability of utilities to accurately report this information is unclear, since this capacity is not connected to their grids. In addition, the terms distributed and dispersed generation have been a source of confusion.

### **Form EIA-861S, “Annual Electric Power Industry Report (Short Form)”**

The mandatory Form EIA-861S 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 the Form EIA-861, and monthly data will now be collected on the aforementioned Form EIA-861M. The smaller utilities that currently report on Form EIA-861S are required to complete the long form (EIA-861) once every five years to provide updated information for the statistical estimation of uncollected data.

EIA is proposing a change to the frequency that the EIA-861S respondents need to complete Form EIA-861 in lieu of Form EIA-861S. EIA is proposing to extend the time frame for EIA-861S respondents to complete Form EIA-861 in lieu of Form EIA-861S from once every 5 years to once every 8 years. EIA statisticians completed a study and the results indicate that the reporting interval can be extended to 8 years without adversely affecting the quality of the model based statistical estimates of the uncollected data elements on Form EIA-861.

### **Form EIA-861M, “Monthly Electric Power Industry Report”**

As previously stated, the mandatory Form EIA-861M will replace the Form EIA-826. It will collect 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 the Forms EIA-861 Annual and EIA-861S (Short Form) (see further below).

Data collected on the discontinued Form EIA-826 will be collected on the EIA-861M with the following changes:

(1) Add capacity and number of installations (by technology and sector) for non-net metered distributed capacity to the EIA-826 monthly collections. The addition of these data will improve EIA's ability to make monthly estimates of generation from solar PV resources.

(2) Delete questions regarding advanced meters. These data were changing rapidly in previous years as utilities were participating in American Reinvestment and Recovery Act (ARRA) projects. Currently the data are not moving rapidly year over year and we expect a further year over year decline in future

years. This eliminates the need to look at it monthly. These data are collected annually on the Form EIA-861.

(3) Add virtual net metered capacity and customer counts to the net metering schedule, both from resources less than 1 MW and resources 1 MW or greater. Emerging developments in the solar PV market place are community solar projects combined with virtual net metering agreements utilities have with the customers. These billing arrangements allow generation from remotely sited generators to offset customers monthly consumption and results in a net bill to the customer. In order to accurately account for this generation, we need to expand the net metering data collection to include these situations.

(4) Collect the capacity of small-scale storage associated with net metered and non-net metered distributed capacity. We are receiving requests to collect these data.

### **Form EIA-923, "Power Plant Operations Report"**

The mandatory Form EIA-923 collects monthly and annual information from 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.

The following changes apply to Form EIA-923:

(1) EIA plans to reduce the current monthly sample via a more efficient model-based cutoff design. It will significantly reduce the number of monthly respondents (from 2,108 respondents to 1,333) while maintaining the ability to effectively estimate data for out-of-sample power plants, i.e. power plants that only report data on an annual basis. This will also reduce the number of respondents making an annual supplemental filing of environmental data from 1,632 to 1,064. The new sample design is expected to lower the overall burden and still produce aggregate statistics that meet EIA publication standards.

(2) On Schedule 4, Part A, Fossil Fuel Stocks at the End of the Reporting Period for Coal, Petroleum Coke, Distillate Fuel Oil, and Residual Fuel Oil, remove the data protection for coal and petroleum stocks held at power plants and related facilities as follows:

- In the case of coal and petroleum coke stocks, EIA will release plant-specific stocks data a year after the end of the prior calendar year. For example, monthly and annual data by plant for 2017 would be released no earlier than the last business day of December 2018.

Additionally, EIA will publicly release, no earlier than the last business day of December 2017, monthly and annual stocks data by plant for the period 2002 to 2016.

EIA typically releases electric power data about seven weeks after the reporting month. We are proposing a minimum 12 month delay in the release of coal stocks due to concerns raised by commenters on the competitive harm that could result from earlier release. Commenters argued that because of concentration in the rail industry and in the production of widely-used Powder River Basin coal, release of the data would allow coal suppliers and railroads to vary coal and transportation prices and service levels to their advantage. Commenters also noted other possible competitive harm to power generators if the plant-specific coal stocks data are

released, such as exposing the ability of coal generators to make wholesale power sales. A minimum 12- month delay in release should negate these risks.

- In the case of fuel oil stocks data will be released (as is other plant-specific data, such as generation) about seven weeks after the end of the reporting month. No commenters objected to this proposal. This is likely because of the fundamentally different natures of the fuel oil and coal markets. Unlike coal, fuel oil is a standardized product available from many suppliers and transporters. The market for fuel oil is highly competitive.

The most important use of fuel oil in the electric power industry is as a backup fuel for natural gas-fired generators. Natural gas delivery or supply issues tend to happen abruptly, such as due to intense cold spells. In the event of natural gas supply disruptions, it will be important for public and private decision-makers to have information on the availability of back-up supplies of fuel oil at power plants. EIA has for many years collected information on the technical capability of power plants to switch from natural gas to fuel oil. The release of fuel oil stock data will provide the complementary information on the actual availability of fuel oil at these plants.<sup>2</sup>

For coal plants the availability of fuel oil is not a competitive issue. Some plants hold and use very limited amounts of fuel oil for startup and flame stabilization. Coal plants do not stock or use fuel oil as an operating fuel or as a backup fuel.

(3) On Schedule 4, Part A, Fossil Fuel Stocks at the End of the Reporting Period for Coal, Petroleum Coke, Distillate Fuel Oil, and Residual Fuel Oil, institute the same reporting thresholds, generator nameplate capacity with a primary fuel of coal greater than 50 MW or total generator nameplate capacity with a primary fuel of any combination of natural gas, residual fuel oil, distillate fuel oil, or petroleum coke greater than 200 MW, as on Schedule 2, Costs and Quality of Fuel Purchases – Plant Level. This change will make the fuel receipts data (Schedule 2) and stock data (Schedule 4) consistent with each other and create a single respondent pool for the two schedules. The number of plants reporting on Schedule 4, Part A will be reduced. The change will also increase the quality of fuel stocks data collected on Schedule 4, Part A because the fuel stocks data that are reported by plants falling under the Schedule 2 threshold tends to be difficult to quality check. Also to achieve consistency across schedules, kerosene and jet fuel stocks will no longer be collected on Schedule 4.

(4) Add a field on Schedule 8C to collect the mercury removal rate for environmental equipment. The survey already collects the mercury removal efficiency (as a percentage of weight), but some power plants do not have these data and/or are providing a poor estimate. If a power plant cannot report the mercury removal efficiency, they could provide the removal rate. This issue has arisen because of the new EPA regulations that place emphasis on mercury emissions. Most power plants will be required to report more stringent mercury emissions data this year, if not in the very near future.

(5) EIA will collect data from plants whose operating status is TS, “operating under test conditions (not in commercial service)” only if those plants are in fact collecting revenues from the sale of electricity. This change would allow EIA to get more complete data on U.S. generation and sales.

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<sup>2</sup> For additional information on the importance of fuel oil as a backup fuel, particularly in New England and New York, see the 2015 NERC Long Term Reliability Assessment at <https://goo.gl/iaCvDi>, pages 12-13, 31, 50-53, and 58.)

(6) At the request of the Puerto Rico Institute of Statistics (on behalf of the Government of the Commonwealth of Puerto Rico), begin collecting the required EIA-923 operating data from power plants located in Puerto Rico.

## **Form EIA-930, “Balancing Authority Operations Report”**

The mandatory Form EIA-930 collects hourly electric power operating data from the 66 Balancing Authorities (BAs) in the contiguous United States. The survey has modernized EIA’s collection of electric power operating data for the current environment.

The following changes apply to Form EIA-930:

- (1) EIA is maintaining the current requirement that respondents must submit their data within 60 minutes of the end of the operating hour. One goal of the EIA-930 collection is to provide actual demand in near real-time with as little delay as practicable. Respondents may voluntarily submit the hourly data within 30 minutes after the end of the operating hour, but this is not required.
- (2) Require BAs to report hourly sub-regional actual demand when these values are produced in the normal course of business, within a month of the operating day. This applies only to BAs that report actual demand. In particular, the change will provide more granular data for BAs that cover large geographic areas, such as the Midcontinent Independent System Operator (MISO).
- (3) Require respondents to report hourly net generation by standard fuel type categories. The objective is to provide current information on the rapidly evolving generation mix.
- (4) Drop the current policy of limited withholding of small BA data for two days. There is no evidence that releasing these data on a normal schedule will cause commercial harm.
- (5) Require that all entities in the contiguous United States that are listed in the North American Electric Reliability Corporation’s (NERC’s) Compliance Registry as a BA must submit information as required by this data collection, including those registered BAs that are parties to the coordinated functional registration agreement JRO00001. This removes the current exemption for Local Balancing Authorities (LBAs) under the Midcontinent Independent System Operator (MISO). MISO and its 37 LBAs are jointly required to submit for MISO.

## **A.3 Use of Technology**

### **A.3.1 General Use of Technology**

All EIA Electric Power and Renewable Electricity Program surveys use Internet-based data collection (IDC) systems as the primary means of data collection. Over 95 percent of these surveys are currently filed with EIA using the IDC systems. 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 impacting 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 only equipment and software the respondent requires is a connection to the Internet and a standard industry web browser.

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.

### **A.3.2 Use of Pick-Lists (Including Dynamic Lists)**

Pick-lists<sup>3</sup> 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.

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.3.3 Data Upload**

Large companies may spend significant resources to manually key their forms each month, sometimes for up to 50 plants per company. These data may be generated by a company's accounting systems, put in spreadsheet or other intermediate format, and then manually read and keyed into EIA's Internet Data

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<sup>3</sup> 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.

Collection system. As a pilot program EIA began working with Southern Company in 2013 (a large utility) to create a means of directly uploading data into EIA's data systems, eliminating the keying step. This process involves, among other things, an automated portal that can process XML (extensible markup language) data files and an XML schema for the data files that both EIA and the respondent can follow. Currently 36 plants owned by Southern Company submit their Form EIA-923 power plant data via the XML file upload process.

Additionally, another data upload process is utilized by some respondents, whereby respondents submit their data in a pre-specified Excel format and those Excel files are uploaded to SAS software to populate EIA survey-specific databases. This method is used by Tennessee Valley Authority (TVA) to submit end-use sales data for 26 regional utilities on its monthly Form EIA-826 and for 163 regional utilities on its annual Form EIA-861. WPPI energy uses the same process to submit data for 52 regional utilities on Form EIA-861. American Electric Power also uses this method for 34 plants on the monthly EIA-923.

On the 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.

#### **A.4 Efforts to Reduce Duplication**

In addition to EIA, several other government and private entities 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)

EIA evaluated 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 (see Table 1). This is because of differences in classification, inconsistency, incompleteness, unavailability, or lack of universal coverage.

**Table 1. Non-EIA Electric Power Data Collection Programs and Forms**

Responsible Group	Form or Collection No.	Title	Notes
American Public Power Association	N/A	Facilities Performance Indicators Report (FPI)	<p>The FPI is a report on the costs and practices of facilities operations at educational institutions. The frame for this survey is based on the frame and data reported from the EIA-861 survey. Data from this survey are used to calculate performance indicators published in summary form in the APPA report "Selected Financial and Operating Ratios of Public Power Systems." The report is available for a fee of \$895 - \$1000 to non-members of APPA.</p> <p><a href="http://www.appa.org/Research/FPI/index.cfm">http://www.appa.org/Research/FPI/index.cfm</a></p>
Edison Electric Institute	N/A	Property & Plant Capital Investment Survey	<p>Annual. Collects actual transmission and distribution capital expenditures for all major investor-owned electric utilities. National totals available, individual company data are considered confidential.</p> <p><a href="http://www.eei.org/resourcesandmedia/newsroom/Pages/Press%20Releases/EEI%20Survey%20Shows%20Transmission%20and%20Distribution%20Investment.aspx">http://www.eei.org/resourcesandmedia/newsroom/Pages/Press%20Releases/EEI%20Survey%20Shows%20Transmission%20and%20Distribution%20Investment.aspx</a></p>
	N/A	Typical Electric Bills	<p>Semi-Annual. Collects typical monthly electric bills and average kilowatt-hour cost to the customer as charged by investor-owned utilities. Available for a fee to EEI members.<a href="http://www.eei.org/resourcesandmedia/products/Pages/products.aspx">http://www.eei.org/resourcesandmedia/products/Pages/products.aspx</a></p>
	N/A	Transmission Capital Budget & Forecast Survey	<p>Annual. Collects five year forecast of transmission capital expenditures for all major investor-owned electric utilities. National totals available, individual company data are considered confidential.</p> <p><a href="http://www.eei.org/resourcesandmedia/newsroom/Pages/Press%20Releases/EEI%20Survey%20Shows%20Transmission%20and%20Distribution%20Investment.aspx">http://www.eei.org/resourcesandmedia/newsroom/Pages/Press%20Releases/EEI%20Survey%20Shows%20Transmission%20and%20Distribution%20Investment.aspx</a></p>
	N/A	Distribution Capital Budget & Forecast Survey	<p>Annual. Collects five year forecast of distribution capital expenditures for all major investor-owned electric utilities. Survey to be combined with Transmission Capital Budget &amp; Forecast Survey in 2014. National totals available, individual company data are considered confidential.</p> <p><a href="http://www.eei.org/resourcesandmedia/newsroom/Pages/Press%20Releases/EEI%20Survey%20Shows%20Transmission%20and%20Distribution%20Investment.aspx">http://www.eei.org/resourcesandmedia/newsroom/Pages/Press%20Releases/EEI%20Survey%20Shows%20Transmission%20and%20Distribution%20Investment.aspx</a></p>
	N/A	Weekly Electric Output	<p>Weekly. Reports electricity generation made available for consumption for nine geographic areas and the total United States; cost is \$500/year.</p> <p><a href="http://www.eei.org/resourcesandmedia/products/Pages/default.aspx">http://www.eei.org/resourcesandmedia/products/Pages/default.aspx</a></p>

**Table 1. Non-EIA Electric Power Data Collection Programs and Forms**

Responsible Group	Form or Collection No.	Title	Notes
Office of Electricity Delivery and Energy Reliability (U.S. Department of Energy)	OE-417	Electric Incident and Disturbance Report	Mandatory filing by electric utilities to report major power system disturbances. <a href="http://www.oe.netl.doe.gov/oe417.aspx">http://www.oe.netl.doe.gov/oe417.aspx</a>
Federal Energy Regulatory Commission	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). There is also a quarterly form, the Form No. 3-Q. <a href="http://www.ferc.gov/docs-filing/forms.asp">http://www.ferc.gov/docs-filing/forms.asp</a>
	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. <a href="http://www.ferc.gov/docs-filing/forms.asp">http://www.ferc.gov/docs-filing/forms.asp</a>
	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. <a href="http://www.ferc.gov/docs-filing/forms.asp">http://www.ferc.gov/docs-filing/forms.asp</a>
	FERC- 519	Corporate Applications	Authorizes FERC to collect information on proposed mergers, acquisitions, and dispositions. There is no survey form. See the supporting statement at: <a href="http://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201109-1902-005">http://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201109-1902-005</a>

**Table 1. Non-EIA Electric Power Data Collection Programs and Forms**

Responsible Group	Form or Collection No.	Title	Notes
	Nos. 520 and 561	Interlocking Directorates	<p>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. See the supporting statement:  <a href="http://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201105-1902-001">http://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201105-1902-001</a></p> <p>The Form 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.  <a href="http://www.ferc.gov/docs-filing/forms.asp">http://www.ferc.gov/docs-filing/forms.asp</a></p>
	No. 556	Certification of QF Status for Small Power Production and Cogeneration Facilities	<p>In February 1995, the Commission instituted the FERC Form No. 556 filing requirement, which should be included with any application for Commission certification/recertification or notice of self-certification/self-recertification. On June 1, 2010, the Commission instituted the electronic fillable Form No. 556. Electronic filing of this form is mandatory.  <a href="http://www.ferc.gov/docs-filing/forms.asp">http://www.ferc.gov/docs-filing/forms.asp</a></p>
	No. 566	Twenty Largest Purchasers	<p>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.  <a href="http://www.ferc.gov/docs-filing/forms.asp">http://www.ferc.gov/docs-filing/forms.asp</a></p>
	No. 580	Interrogatory on Fuel and Energy Purchase Practices	<p>This biennial data collection gathers information (under Docket IN79-6) on utility fuel supply contracts and other costs recovered through wholesale automatic adjustment clauses.  <a href="http://www.ferc.gov/docs-filing/forms.asp">http://www.ferc.gov/docs-filing/forms.asp</a></p>
	FERC-585	Reports on Electric Energy Shortages and Contingency Plans under PURPA 206	<p>Used to establish procedures for reporting shortages of Electric Energy and Capacity and Contingency Plans for such Shortages. Due immediately upon any anticipated shortage. There is no survey form; the Commission provides a list of the required information. Filing is electronic.  <a href="http://www.gpo.gov/fdsys/pkg/CFR-2010-title18-vol1/xml/CFR-2010-title18-vol1-sec294-101.xml">http://www.gpo.gov/fdsys/pkg/CFR-2010-title18-vol1/xml/CFR-2010-title18-vol1-sec294-101.xml</a></p> <p>* OMB Control No. 1902-0138*</p>

**Table 1. Non-EIA Electric Power Data Collection Programs and Forms**

Responsible Group	Form or Collection No.	Title	Notes
	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. <a href="http://www.ferc.gov/docs-filing/forms.asp">http://www.ferc.gov/docs-filing/forms.asp</a>
	No. 715	Annual Transmission Planning and Evaluation Report.	Annual report by transmitting utilities on transmission planning, constraints and available transmission capacity. (Not accessible to the public. <a href="http://www.ferc.gov/docs-filing/forms.asp">http://www.ferc.gov/docs-filing/forms.asp</a>
	FERC-717	Open Access Same-Time Information System	This is not a survey form but a system used by utilities to facilitate the procurement of transmission services. <a href="http://www.ferc.gov/legal/maj-ord-reg/land-docs/order889.asp">http://www.ferc.gov/legal/maj-ord-reg/land-docs/order889.asp</a>  *OMB Control No. 1902-0173*
	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. <a href="http://www.ferc.gov/docs-filing/forms.asp">http://www.ferc.gov/docs-filing/forms.asp</a>
	No. 731	Survey on Demand Response/Time-Based Rate Programs and Advanced Metering	Annual voluntary survey required by the Energy Policy Act of 2005. The questions overlap in part with the Form EIA-861 but coverage is limited due to the survey being voluntary (recent response rate of 52%). The frame for this survey is based on the Form EIA-861 frame. FERC's annual demand response and advanced metering reports (also required by EPACT 2005) rely on Form EIA-861 data. <a href="http://www.ferc.gov/industries/electric/indus-act/demand-response/2012/survey.asp">http://www.ferc.gov/industries/electric/indus-act/demand-response/2012/survey.asp</a>
	FERC-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. <a href="http://www.ferc.gov/docs-filing/eqr.asp">http://www.ferc.gov/docs-filing/eqr.asp</a>

**Table 1. Non-EIA Electric Power Data Collection Programs and Forms**

Responsible Group	Form or Collection No.	Title	Notes
North American Electric Reliability Corporation	N/A	Generating Availability Data System (GADS)	GADS data (concerning the reliability of generating units) are collected from all generator owners on the NERC Compliance Registry under NERC's Rules of Procedure Section 1600, Requests for Data or Information. Generating units less than 20 MW nameplate are invited to report to GADS on a voluntary basis. <a href="http://www.nerc.com/pa/RAPA/gads/Pages/default.aspx">http://www.nerc.com/pa/RAPA/gads/Pages/default.aspx</a>
	N/A	Transmission Availability Data System (TADS)	TADS collects transmission outage data which is used to quantify certain performance aspects. It collects detailed information about individual outage events that, when analyzed at the regional and NERC levels, will provide data that may be used to improve reliability. <a href="http://www.nerc.com/pa/RAPA/tads/Pages/default.aspx">http://www.nerc.com/pa/RAPA/tads/Pages/default.aspx</a>
	N/A	Electricity Supply & Demand	NERC collects, maintains, and annually publishes the Electricity Supply and Demand Database (ES&D), which includes 10-year projections for the interconnected North American bulk power system. The information is collected from the eight NERC Regional Entities on an assessment area basis and validated through the Reliability Assessment Subcommittee during NERC's annual development of the long-term reliability assessment. <a href="http://www.nerc.com/pa/RAPA/ESD/Pages/default.aspx">http://www.nerc.com/pa/RAPA/ESD/Pages/default.aspx</a>
	EOP-004-2	Event Reporting	Requires the reporting to NERC of certain events relating to the reliability of the transmission system. Reporting is due within 24 hours of recognition of the event or the next business day if the event occurs on a weekend. <a href="http://www.nerc.com/files/EOP-004-2.pdf">http://www.nerc.com/files/EOP-004-2.pdf</a>
Nuclear Regulatory Commission	N/A	Current Power Reactor Status Report	Daily report on percentage of available capacity from commercial nuclear generating units. <a href="http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/">http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/</a>
U. S. Census Bureau	The ACE System	Automated Commercial Environment Secure Data Portal System	Along with other data reported through ACE, Census collects data on imports and exports of solar PV modules, but the data are in aggregate form and do not identify where the imports are from or where they are going, or use the same unit measure. The 63B collects the peak kilowatts of the PV panels imported/exported as well as the specific origin and destination (state or country).
Rural Electric Utilities Service (Department of Agriculture)	N/A	Financial and Operating Report Electric Distribution	Collects financial data on electricity distribution by rural utilities, which are analyzed and used to determine the submitter's financial situation and feasibility for loans and guarantees. <a href="http://www.rurdev.usda.gov/UEP_Support_DCS.html">http://www.rurdev.usda.gov/UEP_Support_DCS.html</a>

Table 1. Non-EIA Electric Power Data Collection Programs and Forms			
Responsible Group	Form or Collection No.	Title	Notes
	N/A	Financial and Operating Report Electric Power Supply	Collects financial data on electric power supply by rural utilities which are analyzed and used to determine the submitter's financial situation and feasibility for loans and guarantees. <a href="http://www.rurdev.usda.gov/UEP_Support_DCS.html">http://www.rurdev.usda.gov/UEP_Support_DCS.html</a>

**A.5 Provisions for Reducing Burden on Small Businesses**

The burden on smaller entities is reduced through a number of means including the use of cutoff sampling for monthly surveys, the employment of the Form EIA-861S (short-form) and changes to the reporting requirements for Form EIA-63B surveys (survey a sample of respondents monthly and the universe annually requiring only Schedule 4), and the use of EIA’s Internet data collection system. Cutoff sampling on the monthly Forms EIA-923 and EIA-826 (which will be discontinued and replaced by the new EIA-861M) obviates the need for many small entities to fill out monthly surveys; they need only submit one annual form.

Additionally, the annual Form EIA-861S (short form) was developed for the use of smaller respondents that represent approximately one-third of the original frame of the Form EIA-861 but only 1 percent of national retail sales. The Form EIA-861S is a much shorter form than the Form EIA-861 and provides a significant reduction in burden on smaller respondents. Similar burden reductions methods are employed on the Form EIA-63B, where 16 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.

Also, EIA plans to reduce the current monthly sample for Form EIA-923 from 2,108 respondents to 1,333 respondents. This will also reduce the number of supplemental respondents from 1,632 to 1,064 respondents. This reduction in the monthly sample is expected to reduce overall burden and still produce monthly aggregate statistics that meet EIA publication standards. This is another means of reducing burden on smaller businesses.

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 simply 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 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.

EIA strives to strike a balance between the positive consequences (i.e., decreasing respondent burden) and negative consequences (i.e., decreasing the integrity of our data) of less-frequent reporting. Before any proposal is made to reduce the frame of a survey, a thorough statistical study is conducted. It will determine if the proposal is feasible and where the cut-off between monthly and annual reporting should be. EIA must be sure that less frequent reporting will not compromise the value of its data or EIA's reputation for its standard of excellence.

### **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**

An important part of the survey clearance process is getting input from our stakeholders<sup>4</sup> who represent a wide array of interests with one thing in common, i.e. they are involved in either providing or using EIA's electric and solar PV data. In clearance after clearance our stakeholders have proved invaluable. They have been instrumental in helping to ensure that 1) any new data we propose to collect is readily available to our respondents, 2) no undue burden is being placed upon our respondents, and 3) our data collection program is keeping up with changes in the rapidly evolving electric power industry. Table 2 includes the names of the organizations that took part in the consultations that were scheduled at the beginning of this clearance process.

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<sup>4</sup> EIA's electricity and solar photovoltaic stakeholder list is made up of key representatives from groups such as trade associations, academia, the national labs, large utilities, balancing authorities, and other DOE program offices, to name a few. EIA has closely maintained this list for many years and is constantly adding the names of other individuals who have showed an interest in being involved.

<b>Table 2. Organizations Represented at Consultations</b>	
ABB Group	Links Technology
American Council for an Energy-Efficient Economy	National Renewable Energy Laboratory
American Electric Power	National Rural Electric Cooperative Association
American Public Power Association	Natural Resources Defense Council
Avista Corporation	New York ISO
Calpine Corporation	Northwestern
Consolidated Edison	Pace Global Energy Services, LLC
Constellation NewEnergy Inc.	Portland General Electric Company
DOE Office of Energy Efficiency and Renewable Energy	Public Service Enterprise Group, Inc.
Edison Electric Institute	Seminole Electric Cooperative, Inc.
El Paso Electric	Solar Energy Industries Association
Empowered Energy Solutions, Inc.	Southern California Edison
Entergy	Southern Company
Federal Energy Regulatory Commission	Southwest Gas Corporation
FERC Solutions	Teco Energy, Inc.
Florida Power & Light Co	Wisconsin Electric Power Company
Institute of Electrical and Electronics Engineers	Xcel Energy
ISO-New England	

In early December 2015, two stakeholder meetings were held to gather feedback on the changes that EIA was considering making to its electricity and renewable data collection forms as part of its 2017 clearance process. Prior to these meetings, invitations were e-mailed to approximately 250 stakeholders. The invitation contained a link to EIA's 2017 Electricity and Solar Photovoltaic Survey Forms Clearance webpage (<http://www.eia.gov/survey/changes/electricity/solar/>), which contained background information on the draft proposed changes. This ensured that our stakeholders could be fully prepared before attending the stakeholder meetings.

The first consultation was held on December 1, 2015 and concentrated on the eight electricity related surveys. The second consultation was held on December 3, 2015 and concentrated solely on the solar photovoltaic survey. Both meetings allowed stakeholders to attend the meeting in person at the U.S. Department of Energy (DOE) headquarters in Washington, DC, or via a webinar in the event that they could not attend in person. Table 3 gives details about stakeholder attendance at both meetings.

**Table 3. Initial Stakeholder Consultations Regarding Electric and Solar PV Data Collection**

Industry Participant	Electric Forms Proposals Meeting December 1, 2015		Solar PV Form Proposals Meeting December 3, 2015	
	<u>In Person</u>	<u>Via WebEx</u>	<u>In Person</u>	<u>Via WebEx</u>
ABB Group		X		
American Council for an Energy-Efficient Economy		X		
American Electric Power		X		
American Public Power Association	X			
Avista Corporation		X		
DOE Office of Energy Efficiency and Renewable Energy	X			
Edison Electric Institute		X		X
El Paso Electric				X
Empowered Energy Solutions, Inc.		X		
Entergy		X		
Federal Energy Regulatory Commission		X		
FERC Solutions				X
Florida Power & Light Co		X		
Institute of Electrical and Electronics Engineers		X		
Links Technology		X		X
National Renewable Energy Laboratory	X		X	
National Rural Electric Cooperative Association	X			
Natural Resources Defense Council	X			
Northwestern		X		
Portland General Electric Company		X		
Public Service Enterprise Group, Inc.		X		
Seminole Electric Cooperative, Inc.		X		
Solar Energy Industries Association	X	X	X	X
Southern California Edison		X		
Southern Company		X		X
Teco Energy, Inc.		X		
Wisconsin Electric Power Company		X		
Xcel Energy		X		

On January 19, 2016, EIA also conducted a natural gas workshop at DOE headquarters in Washington, DC, with a webinar option for those not able to attend in person. The purpose of the meeting was to gather stakeholder input on how EIA collects data on the cost and quality of natural gas on Form EIA-

923. Meeting attendees (see Table 4) were selected based on their first-hand knowledge of how electric power plants acquire their natural gas for power generation.

<b>Table 4. Natural Gas Workshop Participants</b>	
1. Calpine Corporation	6. ISO-New England
2. Consolidated Edison	7. New York ISO
3. Constellation NewEnergy Inc.	8. Pace Global Energy Services, LLC
4. Federal Energy Regulatory Commission	9. Southern Company
5. Florida Power & Light Co	10. Southwest Gas Corporation

More specifically, meeting attendees were asked to give EIA feedback on its draft proposal to change some of the data elements on natural gas receipts on Form EIA-923. EIA, at the time, was considering changing the way natural gas receipts are collected on Schedule 2, Parts A and B. Under its original May 19, 2016 proposal that appeared in the Federal Register, EIA proposed that receipts data would be aggregated by pipeline and reported for each individual pipeline servicing a plant. The data would be broken down into total delivered costs excluding fixed charges, and pipeline capacity reservation and other fixed charges. The object of this change was to collect more useful information and to reduce the reporting burden. After careful consideration and a review of the public comments, EIA has reconsidered this proposal and instead decided to continue to collect these data in its current manner, namely, by supplier and individual contract.

Additional meetings were held when requested by an organization. These included:

- Conference call with Southern Company to discuss the mechanics of natural gas purchases by power plants (February 4, 2016).
- Conference call with Calpine Energy to discuss the mechanics of natural gas purchases by power plants (January 28, 2016).
- Meeting with DOE's Office of Electricity Delivery and Energy Reliability regarding possible changes to the EIA-411 (January 24, 2016).
- Meeting with Lawrence Berkeley National Lab regarding possible changes to the EIA-411 (January 14, 2016).
- Meeting with Solar Energy Industries Association regarding possible improvements to the solar PV survey (November 16, 2015).
- Meeting with Sandia National Lab to determine if changes to the EIA-860 and EIA-923 would be helpful to improve our energy storage data (November 2015). In addition, there have been multiple related conversations with Sandia staff.

After each meeting, attendees were urged to contact EIA if they had questions or comments.

On May 19, 2016, the first Federal Register Notice (FRN) was published announcing the proposed revisions and the 60-day comment period (ending July 18, 2016). In response, EIA received comments

from 37 organizations (including 47 signatories) that represented a wide range of interested parties across all nine of the forms being proposed/renewed. Below is a summary of the responses, which are included in the Public Comment file, accompanying this clearance package. A full copy of each set of comments is also included in the Public Comment file. As these comments cover a wide range of issues across many of the forms, EIA has responded to each of these commenters as reflected in the Public Comment File, "Comments and EIA Responses," included with this OMB package.

Five public comments were received from federal, quasi-federal, or international agencies: (1) the Bureau of Economic Analysis, (2) Bonneville Power Administration, (3) Lawrence Berkeley National Laboratory, (4) the Puerto Rico Institute of Statistics (on behalf of the Government of the Commonwealth of Puerto Rico), and (5) the International Atomic Energy Agency.

(1) The Bureau of Economic Analysis (BEA) strongly supports the continued collection of data by EIA for the electric power surveys and determined that the proposed changes for the surveys will not impact their use of the data. EIA appreciates BEA's long-standing support of the electric data program.

(2) Bonneville Power Administration (Bonneville) comments on the proposed changes to the EIA-930 and states that it is already their practice to report within 30 minutes of the end of the data hour and to report hourly sub-regional actual demand. Bonneville also states it plans to be able to report hourly net generation by standard fuel type categories by the time EIA needs these data. EIA appreciates Bonneville's support of the enhancements to the EIA-930.

(3) Lawrence Berkeley National Laboratories (LBNL) requests EIA collect the MAIFI (Momentary Average Interruption Frequency Index) value for the year and more SIADI (System Average Interruption Duration Index) and SAIFI (System Average Interruption Frequency Index) subgroups. Based on EIA's experience with the collection of distribution system reliability data over the last three years, it is likely that adding these additional measures will require significant effort by EIA to explain the request to respondents and to verify the data. EIA does not believe that these proposed data elements add sufficient value to justify the additional burden on respondents and EIA.

(4) The Puerto Rico Institute of Statistics (Puerto Rico) requests EIA extend coverage to Puerto Rico with regards to the EIA-860 and the EIA-923. EIA agrees with Puerto Rico's requests and has extended coverage of these forms to include them.

(5) The International Atomic Energy Agency (IAEA) requests EIA collect both Net and Gross Reference Unit Power (RUP) with reference to the INPO (Institute for Nuclear Plant Operators) definition. The intent in adding a question on RUP was to collect a single standard value that would be available to respondents in the normal course of business. IAEA's comments highlight that a standard measurement of RUP may not be available, a concern further confirmed by EIA through a consultation with technical industry group, the Institute of Nuclear Plant Operators (INPO). Accordingly, the proposed new question was removed.

Additional public comments came from four national and three state industry associations:

(1) American Public Power Association

- (2) Edison Electric Institute
- (3) Solar Energy Industries Association
- (4) National Rural Electric Cooperative Association (NRECA)
- (5) Grand Canyon State Electric Cooperative Association
- (6) Nebraska Power Association
- (7) Nebraska Rural Electric Association (NREA)

One state energy agency, and 12 public power entities and electric cooperatives commented:

- (1) Cornhusker Public Power District
- (2) Cuming County Public Power District on behalf of NREA
- (3) Dawson Public Power
- (4) ElectriCities of North Carolina
- (5) Elkhorn Rural Public Power District
- (6) KBR Rural Public Power District
- (7) Midwest Electric Cooperative Corporation
- (8) Nebraska Chamber of Commerce & Industry
- (9) Nebraska Energy Office
- (10) North Central Public Power District
- (11) Southwest Public Power District
- (12) Twin Valleys Public Power
- (13) Wheat Belt Public Power District

The comments received from the state trade associations, the entities listed immediately above other than ElectriCities of North Carolina, and in part the comments from NRECA, focused on the inclusion of irrigation electricity sales and revenues in the industrial sector on the EIA-861. The commenters raise three issues: how EIA categorized agriculture prior to 2003, the impact on reported average rates of including agriculture in the industrial sector, and how EIA should report industrial and agricultural data going forward. EIA has responded to each of these issues in detail as reflected in the Public Comment File, "Comments and EIA Responses," included with this OMB Package.

Three public comments were received from Federal Energy Regulatory Commission regulated regional transmission entities (known as Regional Transmission Organizations and Independent System Operators (RTOs/ISOs) regarding changes to the Form EIA-930:

- (1) California Independent System Operator
- (2) PJM Interconnection
- (3) Indicated ISOs on the changes to the EIA-930

The RTOs/ISOs generally raise no objection to the changes proposed to the EIA-930. However, because the changes may require modifications to reporting systems, they request adequate time to implement changes. They request EIA provide flexibility and extensions of time as needed. Based on these comments, the changes to Form EIA-930 will not be required until July 1, 2018 which should provide ample time for the changes to be made. The RTOs/ISOs detailed comments and EIA responses are included in the Public Comment File, "Comments and EIA Responses," included with this OMB Package.

Ten additional public comments came from utilities, independent generators, and others:

- (1) Associated Electric Cooperative Inc.
- (2) Los Angeles Department of Water and Power
- (3) Southern California Edison
- (4) Calpine Corporation
- (5) CFB Power Plant of Formosa Plastics
- (6) Empire District Electric Company
- (7) First Energy
- (8) Luminant
- (9) Pulama Lanai

Their comments covered a wide range of issues. EIA has responded to each of these commenters as shown in the Public Comment File, "Comments and EIA Responses," included with this OMB Package.

Following the receipt of comments, EIA had additional discussions with Empire Power regarding its concerns about burden.

After the 30-day FRN is published, EIA will notify all stakeholders and respondents via email. The email will provide a link to the FRN, the modified forms and instructions, and this supporting statement.

#### **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 5, below, lists those data elements by form that are protected.

Each element in Table 5 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 and D, and Schedule 3 for power marketers on the new Form EIA-861M will be protected and not disclosed for 9 months after the end of the reporting year. After 9 months, this information will be considered non-sensitive and may be publicly released in identifiable form.

**Table 5. 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-411	<ul style="list-style-type: none"> <li>• All information associated with the “Survey Contact” and the “Supervisor of Contact Person for Survey” on Schedule 1.</li> <li>• Schedule 4, Bulk Transmission Facility Power Flow Cases.</li> <li>• Schedule 5, Bulk Electric Transmission System Maps.</li> </ul>
EIA-826 (discontinued and replaced by the new EIA-861M)	
EIA-860	<ul style="list-style-type: none"> <li>• All information associated with the “Survey Contact” and the “Supervisor of Contact Person for Survey” on Schedule 1.</li> <li>• Information reported for the data element “Tested Heat Rate” on Schedule 3, PART B, Generator Information – Existing Generators.</li> <li>• All data reported on Parts A and B of Schedule 5, Generator Cost Information.</li> </ul>
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 (replaces Form EIA-826)	<ul style="list-style-type: none"> <li>• All information associated with the “Survey Contact” and the “Supervisor of Contact Person for Survey” on Schedule 1.</li> <li>• 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 9 months after the end of the of the reporting year. After 9 months from the end of the reporting year, this information is considered non-sensitive and may be publicly released in identifiable form.)</li> </ul>
EIA-923, EIA-923 Monthly, and EIA-923 Supplemental	<ul style="list-style-type: none"> <li>• All information associated with the “Survey Contact” and the “Supervisor of Contact Person for Survey” on Schedule 1.</li> <li>• 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.</li> <li>• <b>Change:</b> “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 would no longer be a protected data element. In the case of coal and petroleum coke stocks, EIA will release plant-specific monthly stock data a year after the end of the prior calendar year. Additionally, EIA will publicly release, no earlier than the last business day of December 2017, monthly and annual stocks data by plant for the period 2002 to 2016.</li> </ul>
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 the 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 Annual Estimate of Respondent Burden Hours and Cost**

The overall annual burden for this package is estimated to be 152,120 burden hours (see Table 6 below). The burden estimate includes time for follow-up on survey responses to clarify any questions and correct or edit information reported by respondents.

The burden has increased from the previous clearance (May 29, 2014) from 141,145 total burden hours to 152,120 hours. This increase is primarily the result of frame growth due to industry expansion particularly as it pertains to Form EIA-860, Form EIA-861, and Form EIA-861M (that replaces Form EIA-826). For instance, the number of respondents to the EIA-860 survey of power plants has increased from 3,347 respondents in 2012 to an estimated 4,763 respondents in 2016, largely due to the growth in renewable power generators. EIA was able to counter this respondent growth in part by reducing the monthly sample for the EIA-923 survey.

**Table 6. Estimated 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"					
EIA-63B -- Monthly	12	16	192	2.62	503
EIA-63B -- Annual	1	60	60	1.84	110
<b>EIA-411 "Coordinated Bulk Power Supply and Demand Report"</b>	<b>1</b>	<b>9</b>	<b>9</b>	<b>122.00</b>	<b>1,098</b>
EIA-860 "Annual Electric Generator Report"					
EIA-860 -- Respondents Completing Environmental Questions	1	1,046	1,046	15.99	16,726
EIA-860 -- Respondents Not Completing Environmental Questions	1	3,717	3,717	7.55	28,063
<b>Start-Up Burden: New Respondents for EIA-860 and EIA-923 [1]</b>					67
<b>EIA-860M "Monthly Update to the Annual Electric Generator Report"</b>	<b>5.6</b>	<b>478</b>	<b>2,677</b>	<b>0.31</b>	<b>830</b>
<b>EIA-861 "Annual Electric Power Industry Report"</b>	<b>1</b>	<b>2,295</b>	<b>2,295</b>	<b>12.75</b>	<b>29,261</b>
<b>EIA-861S "Annual Electric Power Industry Report (Short Form)"</b>	<b>1</b>	<b>1,110</b>	<b>1,110</b>	<b>0.75</b>	<b>833</b>
<b>EIA-861M "Monthly Electric Power Industry Report"</b>	<b>12</b>	<b>620</b>	<b>7,440</b>	<b>2.04</b>	<b>15,178</b>
EIA-923 "Power Plant Operations Report"					
EIA-923 -- Monthly	12	1,333	15,996	1.99	31,832
EIA-923 -- Annual	1	6,020	6,020	3.17	19,083
EIA-923 -- Supplemental (Annual Respondents Completing Environmental Questions) [2]	1	1,064	1,064	4.40	4,682
<b>EIA-930 "Balancing Authority Operations Report" [3]</b>	<b>365</b>	<b>66</b>	<b>24,090</b>	<b>0.16</b>	<b>3,854</b>
<b>TOTAL</b>		<b>16,770</b>	<b>65,716</b>		<b>152,120</b>

**[1]** The burden hours associated with a one-time start-up for 25 new respondents (power companies in Puerto Rico) total 200 hours (25 plants time 8 hours), annualized over a period of three years results in a rounded estimate of 67 hours per year. **[2]** The respondents who complete the environmental questions on the EIA-923 (1,064 respondents) are a subset of the total number of monthly filers (1,333 respondents). Therefore, their number of respondents (Column C) is not added into the total number of respondents for the EIA-923. Columns D, E, and F are added into the 923 totals. **[3]** The "Burden Hours per Response" for the EIA-930

The annual cost to the respondents is estimated to be \$10,955,682 (152,120 burden hours times \$72.02 per hour). The total cost includes 66.67 (67 rounded) burden hours associated with start-up activities (annualized over a period of three years) for the new respondents. A one-time startup cost of 200 total burden hours for the 25 new plants in Puerto Rico totals approximately \$14,400 (25 companies times 8 hours times \$72.02 per hour), which is annualized over a three-year period at \$4,800. EIA estimates that it will take each respondent for the 25 new plants 8 hours to configure their reporting systems, review instructions, search their data systems and receive authentication for EIA's Single Sign-on Internet Data Collection System in order to report electronically. An average cost per hour of \$72.02 is used because that is the estimated average loaded cost (salary plus benefits) for an EIA employee in FY 2016. EIA assumes that the survey respondent workforce completing surveys for EIA is comparable with the EIA workforce.

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

### **A.13 Annual Cost to the Federal Government**

The annual cost of operating these surveys is estimated at \$5.5 million, including contractor costs and federal staff time. This cost estimate includes personnel, maintenance, collection, and processing by EIA staff.

### **A.14 Changes in Burden**

The currently approved burden for the surveys under OMB approval No. 1905-0129 is 141,145 hours. The new burden is 152,120 hours, representing an increase of 10,975 hours (7.7 percent). Most of the change is driven by an overall 17-percent increase in survey respondents due to rapid growth in the electric power industry. To a smaller extent, the increase is due to additional questions that are needed on certain surveys to optimize data coverage while adding only a minimal increase in the burden. Also, there is a new requirement for plants in Puerto Rico to begin filing the Form EIA-860 and EIA-923. For

additional information, please see Table 7 below.

**Table 7 Notes:** [1] Burden hours associated with start-up activities for Forms EIA-860 and EIA-923 are shown together. [2] The sum of individual rows or columns may not equal totals due to independent rounding. Note: Shaded areas are subsets of the total and, therefore, are not added into the form totals or the Total for Electric and Solar (PV) Surveys line.

The burden hours for the electric power and renewable electricity surveys are less for those who file electronically due to ease and accuracy of data entry and the integrated data editing process, compared to paper forms. Recent Internet submission rates are shown below in Table 8.

Table 8. Recent Experience with Submissions Using Internet Data Collection (IDC) Systems						
Frequency of Survey	Survey	Number of Responses	Number of Responses Using IDC	IDC Percentage	Responses Not Using IDC [1]	Non-IDC Percentage
Annual Surveys: Collection of 2015 Data	EIA-63B	177	177	100.00%	0	0.00%
	EIA-411 [2]	9			9	
	EIA-860	4,164	3,772	90.59%	392	9.41%
	EIA-861	2,297	2,248	97.87%	49	2.13%
	EIA-861S	1,103	993	90.03%	110	9.97%
	EIA-923	5,236	5,055	96.54%	181	3.46%
	EIA-923 Supp.	1,789	1,763	98.55%	26	1.45%
Monthly Surveys: Collection of 2015 Data	EIA-826	7,430	6,819	91.78%	611	8.22%
	EIA-860M [3]	4,150	3,456	83.28%	694	16.72%
	EIA-923	26,317	24,729	93.97%	1,588	6.03%
Hourly Survey	EIA-930	24,090	24,090	100.00%	0	0
Overall IDC Usage		76,762	73,102	95.23%	3,660	4.77%

[1] Non-IDC responses are received by fax, mail, email, and phone calls. [2] The EIA-411 data are consolidated and edited at NERC headquarters and provided to EIA as a data file. [3] The EIA-860M data are based on the sum of monthly responses from March 2015 through February 2016. Everything else is based on Calendar Year 2015.

### A.15 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, respectively.

**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-411	Data related to the reliability of the electric power system, such as actual and projected peak demand; existing and future generating capacity; transmission line outage statistics.	NERC Region and Sub-region
EIA-826 (discontinued and replaced by the new 861M)		
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 (replaces the EIA-826 Monthly)	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 <sub>x</sub> , SO <sub>2</sub> , and particulate matter control equipment.	Boiler/Generator/Prime Mover/Plant
EIA-923S	Operational environmental information (The other data elements on the 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-411	Annual	First business day in January	July 15	August 31	EPA	November
EIA-826 (discontinued and will be replaced by the EIA-861M)						
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 (replaces EIA-826)	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 <sup>th</sup> 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/>.



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 the Form EIA-930 hourly survey is reported in near real-time on the EIA web site ([http://www.eia.gov/beta/realtime\\_grid/#/summary/demand?end=20160902&start=20160802](http://www.eia.gov/beta/realtime_grid/#/summary/demand?end=20160902&start=20160802)). The data can be viewed in graphic and tabular form and can be downloaded by the user.

The electric power data is also part of EIA's U.S. Energy Mapping System (see: [http://www.eia.gov/beta/realtime\\_grid](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 website at: <http://www.eia.gov/beta/api/>.

#### **A.16 OMB Number and Expiration Date**

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

#### **A.17 Certification Statement**

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