

**Supporting Statement:**  
**Customer Electricity Data Access and Control Questionnaire**  
**OMB Control Number: 1910-NEW**

This supporting statement provides additional information regarding the Department of Energy (DOE) request for processing of the proposed information collection, Customer Electricity Data Access and Control Questionnaire. The numbered questions correspond to the order shown on the Office of Management and Budget (OMB) Form 83-I, "Instructions for Completing OMB Form 83-I."

**A. Justification**

- 1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the information collection.**

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

Section 13(b) of the Federal Energy Administration Act of 1974 (FEA Act), as amended, codified at 15 U.S.C. § 772(b)<sup>1</sup>, 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.

Section 1301 of the Energy Independence and Security Act of 2007 (EISA), as amended, codified at 42 U.S.C. § 17381,<sup>2</sup> outlines the policy on modernization of electricity grid. Provision (8) specifically provides the justification for pursuing this information collection. Section 1301 states:

It is the policy of the United States to support the modernization of the Nation's electricity transmission and distribution system to maintain a reliable and secure electricity infrastructure that can meet future demand growth and to achieve each of the following, which together characterize a Smart Grid:

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<sup>1</sup><http://uscode.house.gov/download/pls/15C16B.txt>

<sup>2</sup><http://uscode.house.gov/download/pls/42C152.txt>

- (1) Increased use of digital information and controls technology to improve reliability, security, and efficiency of the electric grid.
- (2) Dynamic optimization of grid operations and resources, with full cyber-security.
- (3) Deployment and integration of distributed resources and generation, including renewable resources.
- (4) Development and incorporation of demand response, demand-side resources, and energy-efficiency resources.
- (5) Deployment of “smart” technologies (real-time, automated, interactive technologies that optimize the physical operation of appliances and consumer devices) for metering, communications concerning grid operations and status, and distribution automation.
- (6) Integration of “smart” appliances and consumer devices.
- (7) Deployment and integration of advanced electricity storage and peak-shaving technologies, including plug-in electric and hybrid electric vehicles, and thermal-storage air conditioning.
- (8) Provision to consumers of timely information and control options.
- (9) Development of standards for communication and interoperability of appliances and equipment connected to the electric grid, including the infrastructure serving the grid.
- (10) Identification and lowering of unreasonable or unnecessary barriers to adoption of smart grid technologies, practices, and services.

**2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection**

Many consumers have insufficient access to their electricity usage data. Among those who do have access to their data, some are denied necessary control to share it with third parties who might help them develop energy savings strategies. Because of these inadequacies, building and home owners are unable to capitalize on energy savings opportunities, determine savings that could result from building improvements, or verify savings if improvements have been undertaken. An example of a missed opportunity is the increasing number of companies that offer software tools to help homeowners and commercial building owners visualize and understand their energy consumption data.<sup>3</sup> Often these tools cannot be used because many of the nation’s 3,000<sup>+</sup> utilities offer limited access to energy usage data or only provide it in inflexible formats, such as embedded in PDFs. The National Institute of Standards and Technology (NIST) is working with industry to develop standard machine-readable formats for energy information, but does not have an effective way to track how many consumers have access to their own information using these standards.

Last year, a joint memo from the White House, DOE, USDA, DOI and NIST announced that DOE would undertake as part of the grid modernization initiatives the production of a “crowd-sourced” map (a map in which the aggregate content is generated from the contributions of many

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<sup>3</sup>[http://www.energystar.gov/index.cfm?fuseaction=new\\_homes\\_partners.locator](http://www.energystar.gov/index.cfm?fuseaction=new_homes_partners.locator)

individuals) to track progress on efforts to improve consumer access to and control of their energy usage data.<sup>4</sup> The memo states,

Consumers deserve access to their own energy usage information in consumer-friendly and computer-friendly formats. The Administration is committed to working with States and stakeholders to ensure all Americans can take advantage of new tools and services to manage their energy use and save on their utility bills. With proper privacy safeguards and consumer protections, a smarter electricity system can benefit all consumers.

DOE has constructed a web-based questionnaire device that will generate “crowd-sourced” national maps based on information gathered from electricity providers. The maps will be the central feature of a consumer-focused website where electricity customers can learn about the access offered by their utility provider to energy usage data, in addition to measures they can take to use energy more efficiently. Each map will display different features of electricity usage data including the time period of data access and the extent to which the data can be shared. DOE hopes to establish a starting point from which consumers can improve energy efficiency through education and collaboration. DOE will engage the public by undertaking a dynamic marketing approach that will capitalize on the Department’s high-profile Internet presence via websites and social media platforms. The maps will also inform local, state, corporate and federal agencies of areas within the country where individuals and businesses have limited access to their energy usage data or limited ability to share their data with third parties for auditing. This will assist consumers and other stakeholders developing strategies for improving overall access to energy usage data and design of energy savings programs.

The website will feature a series of digital representations of the continental United States in which color codes overlaying the service areas of electricity providers will indicate the quality of data access currently offered to their customers. The quality of data access will be scaled based on six factors including:

1. Mode of data delivery (i.e., Mail, Online in PDF format, Online downloadable, In home)
2. Time period of access (i.e., Since last bill, Last month, Last 12 months, Longer than 12 months)
3. Frequency of data (i.e., Real-time, 15-minute increments, Hourly, Daily, Monthly)
4. Level of access (i.e., Direct to third parties, Customer download and share, Customer authorization for third party to access their data)
5. Benchmarking (the practice of comparing how efficiently a building uses energy, compared to its own previous use, to similar buildings, or to both) Based on factors 1-4. This data must be available in an electronic format for the benchmarking system, and in the case of multi-meter buildings, aggregated data must be provided.
6. Demand Response (allows an energy user to lower energy consumption at times when electricity is in high demand and, thus, most expensive) and Energy Efficiency (refers to products or systems using less energy to do the same or more work than conventional

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<sup>4</sup><http://www.whitehouse.gov/sites/default/files/microsites/ostp/smart-grid-press-release-6-13-2011.pdf>

products or systems, in this case homes and buildings) Both are based on factors 1-4. In the case of multi-meter buildings, aggregate building data must be available.

DOE has established a system of tiers based on the quality of data access and control services offered to customers. Responses to questions about the above listed factors will determine the tier status for each electricity provider. DOE has constructed a scoring system that evaluates each of the responses, according to Table 1. Relevant scores from each of the individual categories will be tallied to determine the tier status for each of the policy cases, Benchmarking and Demand Response/Energy Efficiency. Color codes will be used to designate the tier status for each electricity provider. Dark blue would represent the highest tier (Tier 1) of data access, whereas light blue or gray would represent the lowest tier (Tier 3 or Standard Access) of data access. DOE will provide a legend on each map that identifies the tier status as a function of color using the following terminology, No data, Standard Access, Tier 2 Access and Tier 1 Access. For example, an electricity provider that offers real-time, in-home access to residential data going back 13 months and allows for third parties to access the data directly from the provider would be classified in the highest tier (Tier 1 Access) for the “Residential Demand Response and Energy Efficiency” policy case. The electricity provider’s area of service would be shaded dark blue to inform consumers of their superior access to their electricity data for this category. Areas where no information or insufficient information has been collected would be colored accordingly. The current design uses white for no data or insufficient data. Up to twelve maps will be created for each provider, based on residential and commercial services offered. The website will complement the maps by providing consumer tips for visitors to learn how they can maximize energy savings based on the information access currently offered by their electricity company. Visitors will also be able to offer general feedback about the website and its value to them.

To collect the necessary information to populate the maps, DOE will send an email to qualified representatives from each electricity provider requesting that they complete the questionnaire. A qualified respondent will have:

- the knowledge to provide accurate responses about services provided by the electricity provider to customers, especially in regards to customer access to energy usage data and the customers’ ability to share it
- the authority to provide those responses to the DOE

The Energy Information Administration (EIA), the Edison Electric Institute (EEI) and the National Rural Electric Cooperative Association (NRECA) have agreed to cooperate with DOE to identify or contact the entire respondent universe. Respondents will be asked to visit a website where they will be prompted to enter responses into an easy-to-use web application. The questionnaire will begin by requesting that the respondent select the states in which the provider offers services. A drop down menu will allow the respondent to select the company on whose behalf they are acting, based on their EIA Utility ID. The information collection will consist of a series of multiple choice and short answer questions related to customer access to energy usage data and the customers’ ability to share the data. Utilities will also be invited to provide an additional 255 characters worth of information to supplement their responses. The additional

information will be viewable by the public. The application is designed to automatically process responses, store data, and integrate the data into a series of maps.

The National Renewable Energy Laboratory (NREL) will collect the information on behalf of DOE. The maps and information collected from utility companies will be stored in NREL files following all relevant protocols and procedures. The data will be published as a series of maps immediately upon completion of the questionnaire responses. In some cases, the immediate respondent may not fully complete the questionnaire due to insufficient awareness of or access to information. This will trigger an automatic notification to be sent to DOE for follow-up.

Data accuracy depends on asking the right questions of the user. Therefore, in the development of the question architecture, we worked with a survey professional to assist us in crafting the wording of the questions. To improve accuracy, the website will allow electricity providers to submit feedback on the way the maps portray their data. DOE will contact by phone or email any respondents who do not fully complete the questionnaire or whose responses are unclear.

DOE will use this information to support activities of the State Energy Efficiency Action Network (SEE Action) Customer Information and Behavior Working Group. SEE Action ([seeaction.energy.gov](http://seeaction.energy.gov)) is a state and local effort facilitated by the DOE and the Environmental Protection Agency that helps states, utilities, and other local stakeholders take energy efficiency to scale. The Customer Information and Behavior Working Group works with state and local governments to change residential energy consumption behavior by using information and feedback. The information generated by this collection will also inform the effort to create a Home Energy Score, which is designed to educate homebuyers on the energy savings they can expect when purchasing a home. The DOE will also use this information to fashion education efforts to be undertaken by [smartgrid.gov](http://smartgrid.gov), such as raising awareness of opportunities and challenges to installing smart meters.

**Table 1. Electricity Data Access Tier Criteria**

Residential	Policy Cases						
	Option	Benchmarking			Energy Efficiency		
		Standard Access	Tier 2	Tier 1	Standard Access	Tier 2	Tier 1
Time-period	Last month	X		X	X	X	X
	Last 13 months			X		X	X
	Since last bill						X
	Last 24 months						
Delivery of data	Mail	Any of		X	X	X	X

	Online in PDF or similar format	<b>these.</b>		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
	Online and in a downloadable spreadsheet or similar format			<b>X</b>		<b>X</b>	<b>X</b>
	In-home through a home area network or dedicated device						<b>X</b>
Frequency of data	Monthly	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
	Daily					<b>X</b>	<b>X</b>
	Hourly						<b>X</b>
	15 minutes or more frequently						<b>X</b>
	Real-time						<b>X</b>
Access to data	Customer	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
	Available to authorized third party			<b>X</b>		<b>X</b>	<b>X</b>
<b>Commercial</b>	<b>Policy Cases</b>						
	<b>Option</b>	<b>Bench marking</b>			<b>Energy Efficiency</b>		
		Standard Access	Tier 2	Tier 1	Standard Access	Tier 2	Tier 1
Consumption (kWh)		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
Demand					<b>X</b>	<b>X</b>	<b>X</b>

Time-period	Last month	<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>
	Last 13 months		<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>
	Since last bill						<b>X</b>
	Last 24 months						
Delivery of data	Mail/Paper bill	<b>Any of these.</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
	Online in PDF or similar format		<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
	Online and in a downloadable spreadsheet or similar format		<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>
Cost of access	Free			<b>X</b>			<b>X</b>
Frequency of data	Monthly	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
	Since last bill					<b>X</b>	<b>X</b>
	Daily					<b>X</b>	<b>X</b>
	Hourly						<b>X</b>
	15 minute interval or less						<b>X</b>
	Real-time						<b>X</b>
Multi-tenant, individually metered	Aggregated data for entire building		<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>
Access to data	Customer	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
	Available to 3 <sup>rd</sup> party via customer			<b>X</b>			<b>X</b>

	authorization						
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**3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.**

Responses will be submitted electronically via an online questionnaire device. On behalf of DOE, NREL will collect the responses through a web portal for processing and storage. The responses will automatically populate a data set, which will then be analyzed and processed to generate a series of maps. Maps representing commercial and residential services, as determined by responses to the questionnaire, will be published to the website. Both residential and commercial maps will be digitally navigable for viewing the multiple layers that display the responses for the different factors: benchmarking, energy efficiency, delivery of data, time period, frequency of data and access to data. To construct the map layers, each electricity provider’s responses will be analyzed and categorized into one of three tiers, based on the quality of access and the ability of the customer to share their energy usage data. As data is received, it will automatically be coded and displayed within 30 minutes on the website for viewing, interacting and collecting responses from the public and the electricity providers. Because the collection is done electronically and the results are automatically published, utilities will be able to quickly view and verify their results. During the collection period, utilities will be able to update their responses as circumstances change by returning to the questionnaire. Upon selection of their EIA Utility ID, they will be prompted to contact the [openei.gov](http://openei.gov) administrator to re-open their questionnaire and they will subsequently be allowed to proceed with their updates. Utilities may update their responses as often as is needed.

The web address for the questionnaire device will only be sent to electricity providers. Electronic checks will be implemented to ensure that only qualified respondents enter information on behalf of a utility. Only single responses will be allowed for each provider. NREL will have the capability to confirm the source of the responses based on the IP address associated with the completed questionnaire. The reason for using a web portal is to simplify the transfer of information and reduce the burden on the respondents. The electronic questionnaire will also reduce the process burden on DOE and NREL.

**4. Describe efforts to identify duplication.**

DOE carefully searched for surveys conducted by other agencies that might duplicate the Customer Electricity Data Access and Control Questionnaire. This search resulted in a list of electric power-related data collections that provide some information about consumer access to electricity usage data, both in the Federal government and in private industry (Table 2). Some of the organizations collecting and publishing electric power-related data include:

- Energy Information Administration (EIA), U.S. Department of Energy
- The American Public Power Association (APPA)
- The Edison Electric Institute (EEI)
- American Council for an Energy-Efficient Economy (ACEEE)
- J.D. Power and Associates



- The Rural Utilities Service (RUS), U.S. Department of Agriculture
- The Federal Energy Regulatory Commission (FERC), U.S. Department of Energy
- The Nuclear Regulatory Commission (NRC)
- The Office of Electricity Delivery and Energy Reliability (OEDER), U.S. Department of Energy
- The Office of Civilian Radioactive Waste Management (RW)

Table 2 includes a list of surveys from the above listed sources that collect information similar but not equivalent to this collection. Sources of data collected for specific regulatory purposes or having limited general use are not included. Information collections that are limited in scope and insufficient for the purposes of the DOE “Customer Electricity Data Access and Control Questionnaire” are also omitted.

**Table 2. Electric Power Data Collection Forms**

Responsible Group	Form No.	Title
Edison Electric Institute		
	EEI TEB	Typical Electric Bills
Energy Information Administration (Department of Energy)		
	EIA-457	Residential Energy Consumption Survey (Household Electricity Usage)
	EIA-826	Monthly Electric Sales and Revenue with State Distributions Report
	EIA-846	Manufacturing Energy Consumption Survey
	EIA-861	Annual Electric Power Industry Report
	EIA-871	Commercial Buildings Energy Consumption Survey (electricity usage)
Federal Energy Regulatory Commission (U.S. Department of Energy)		
	FERC-717	Open Access Same-Time Information Systems
American Council for an Energy-Efficient Economy (ACEEE)		
	Research Report E105	Advanced Metering Initiatives and Residential Feedback Programs

DOE evaluated a wide range of sources of data relating to the electric power industry and has found no other source that captures the data necessary to replace the information proposed by the DOE “Customer Electricity Data Access and Control Questionnaire.” DOE has determined that sources listed in Table 2 cannot replace or even approximate the information proposed for collection here because of inconsistency, incompleteness, unavailability, or lack of universal coverage. In fact, some of the DOE data collected here will complement, rather than duplicate, other Federal agency data collections. These efforts taken together will encapsulate the entire electric power industry and the breadth of consumer access and control of their electricity data while minimizing the burden on industry.

The following are explanations regarding the collection of similar data and the reasons why these similarities are not duplicative collections.

- **Form EEI-TEB, “Typical Electric Bills”**

DOE and EEI have a long history of collaboration encouraging the wise use of energy and educating and assisting customers on how to use energy more efficiently and save money on their bills. The “Typical Electric Bills” report analyzes electricity costs throughout the country. Based upon comprehensive, industry-wide surveys, this semi-annual report presents typical monthly electric bills and average kilowatt-hour cost to the customer as charged by shareholder-owned utilities.<sup>5</sup> This data can be used to compare the price of electricity by customer type, state, region, company, year, fuel clause adjustment, state average of listed companies or state average of all companies. In addition, rates for some international utilities are also included. However, this report does not provide sufficient information about consumer access to electricity usage data and their ability to share the data with third parties to meet the goals of the Customer Electricity Data Access and Control Questionnaire.

- ***Form EIA-457, “Residential Energy Consumption Survey (Household Electricity Usage)”***

EIA administers the Residential Energy Consumption Survey (RECS) to a nationally representative sample of housing units.<sup>6</sup> Specially trained interviewers collect energy characteristics on the housing unit, usage patterns, and household demographics. This information is combined with data from energy suppliers to these homes to estimate energy costs and usage for heating, cooling, appliances and other end uses — information critical to meeting future energy demand and improving efficiency and building design. RECS, though very useful for estimating nationwide energy usage trends, is based on sampling therefore does not represent the entire universe of electricity providers. Further, its quadrennial collection frequency is not sufficiently timely to inform the current state of consumer access to electricity usage data. In the brief period since its most recent collection in 2009, significant changes may have occurred in the context of smart metering and consumer access to electricity consumption data and the customers’ ability to share it with third parties.

- ***Form EIA-861, “Annual Electric Power Industry Report”***

EIA conducts a census of electric utilities and provides information on the sale of electric energy and other financial data. Aggregate data are collected on electric sales (revenue and megawatt hours) to consumers by class of consumer, sales for resale, other revenue, depreciation, and net income. No information is collected on consumer access to electricity usage data or their ability to share the data, which is a major focus of this collection.

- ***Research Report E105, “Advanced Metering Initiatives and Residential Feedback Programs: A Meta-Review for Household Electricity-Saving Opportunities”***

ACEEE conducted a comprehensive review of residential sector feedback studies between 1974 and 2010 and included the systematic assessment of information gathered from 57 primary studies. The one-time report investigated the ways in which feedback and advanced metering initiatives (AMI) can reduce energy consumption in the residential sector. The authors found

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<sup>5</sup>[http://www2.eei.org/products\\_and\\_services/descriptions\\_and\\_access/typ\\_bills\\_report.htm](http://www2.eei.org/products_and_services/descriptions_and_access/typ_bills_report.htm)

<sup>6</sup><http://www.eia.gov/consumption/residential/about.cfm>

these initiatives are opening the door to potential energy savings that, on average, have reduced individual household electricity consumption 4 to 12% across their multi-continent sample. While this report provides insight into the benefits of customer access to electricity consumption data, it does not provide comprehensive information about the current extent to which consumers have access to their data or their ability to share it. Furthermore, because it is a one-time report, DOE cannot rely on this information for the purposes of this information collection.

To confirm these research results, DOE directly consulted industry organizations and trade groups including:

- Energy Information Administration
- Edison Electric Institute
- National Association of Regulatory Utility Commissioners
- National Association of State Utility Consumer Advocates
- Critical Consumer Issues Forum
- National Rural Electric Cooperative Association
- Institute for Electric Efficiency
- Tendril

DOE concludes that the “Customer Electricity Data Access and Control Questionnaire” is a unique program. Neither industry nor the U.S. government typically collects comprehensive information regarding customer access to electricity usage data and their ability to share it with third parties. Furthermore, there is no evidence that similar presentation of the information collected (a series of national maps that visually represent customer access to electricity usage data and their ability to share the data) is currently available to the public. This series of maps will serve as a valuable educational resource for public consumption, allowing Americans to learn about their energy usage and saving options. Others will gain insight into the need or opportunity for providing improved access to electricity usage data.

**5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.**

According to EIA, there are more than 3,000 electricity providers nationwide that make up the respondent universe for this collection. Of those, many qualify as small businesses. To minimize the burden on these organizations, DOE has consulted with EIA, EEI and NRECA to simplify and streamline the questionnaire. DOE has designed the questionnaire so that respondents will answer a maximum of 17 brief questions about the services they offer to residential and commercial customers. Four of these questions are about identification, location and contact information, which should require no research. No individual customer records are required for this information collection. The use of a user-friendly web portal for carrying out the questionnaire further reduces the burden by reducing the need for mail or telephone calls.

**6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

A recent Presidential memo announcing a \$4 billion initiative to increase energy savings stated, “Upgrading the energy performance of buildings is one of the fastest and most effective ways to reduce energy costs, cut pollution, and create jobs in the construction and energy sectors.”<sup>7</sup> As part of the effort to identify energy savings opportunities for American consumers, businesses and Federal agencies, DOE has initiated multiple programs to assist in making homes and buildings more energy efficient, including the Home Energy Score pilot program,<sup>8</sup> the “Green Button” initiative,<sup>9</sup> and the “Smart Grid Data Access” Funding Opportunity Announcement.<sup>10</sup> DOE and the President have also introduced programs designed to develop a workforce that will support the transition to more energy efficient buildings and a more advanced electric power industry. Among these plans are the electric grid modernization initiatives.<sup>4</sup> Aimed at building the necessary transmission infrastructure and developing and deploying digital information or “smart grid” technologies, these initiatives would accelerate the modernization of the Nation’s electric infrastructure, bolster electric-grid innovation, and advance a clean energy economy. On jobs, Vice President Biden charged the White House Council on Environmental Quality (CEQ) with developing a proposal for Federal action that would grow green job opportunities and boost energy savings by retrofitting homes for energy. A 2009 CEQ report entitled “Recovery through Retrofit” made recommendations for meeting the Vice President’s goals.<sup>11</sup> The report identified homeowners’ lack of access to information as a key barrier to a strong nationwide market for home energy upgrades. The common link between all these programs is the need for electricity consumers, residential and commercial, to have extensive knowledge about their electricity consumption information. This ICR is specifically designed to make consumers aware of what information they currently have available to them.

The data gathered will be auto-processed by NREL, reviewed by DOE and used to inform electricity consumers and the broader public for the purpose of determining their energy savings options. Access to this information is also critical for estimating market opportunities for third parties to work with consumers to maximize their energy saving opportunities. Preventing DOE from providing this information would deny consumers and various industry-related firms’ access to information that would help reduce the national energy cost burden. Furthermore, DOE would be limited in its ability to expedite expansion of a smart grid, facilitate much-needed energy savings and meet the Vice President’s goal of growing the green job workforce through retrofitting efforts. Constraining the frequency of the data collection to less often than once per year would reduce DOE’s ability to document rapid changes occurring in the electricity industry. The real-time update capability of the questionnaire device will allow electricity providers to contribute new information more frequently, if desired. Prohibiting this collection would also increase the burden on electricity consumers by requiring them to seek out this information from their electricity providers. It would also place a larger burden on the industry to provide this information to each individual customer as they become more aware and more interested in the value of their electricity usage data in reducing their energy costs.

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<sup>7</sup><http://www.whitehouse.gov/the-press-office/2011/12/02/presidential-memorandum-implementation-energy-savings-projects-and-perfo>

<sup>8</sup>[http://apps1.eere.energy.gov/news/progress\\_alerts.cfm/pa\\_id=433](http://apps1.eere.energy.gov/news/progress_alerts.cfm/pa_id=433)

<sup>9</sup><http://www.whitehouse.gov/blog/2011/11/21/empowering-customers-green-button>

<sup>10</sup><http://energy.gov/articles/department-energy-announces-funding-help-consumers-better-manage-their-energy-consumption>

<sup>11</sup>[http://www.whitehouse.gov/assets/documents/Recovery\\_Through\\_Retrofit\\_Final\\_Report.pdf](http://www.whitehouse.gov/assets/documents/Recovery_Through_Retrofit_Final_Report.pdf)

7. **Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines. (a) requiring respondents to report information to the agency more often than quarterly; (b) requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it; (c) requiring respondents to submit more than an original and two copies of any document; (d) requiring respondents to retain records, other than health, medical government contract, grant-in-aid, or tax records, for more than three years; (e) in connection with a statistical survey, that is not designed to product valid and reliable results that can be generalized to the universe of study; (f) requiring the use of statistical data classification that has not been reviewed and approved by OMB; (g) that includes a pledge of confidentiality that is not supported by authority established in stature of regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; (h) requiring respondents to submit proprietary trade secrets, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

The data are being collected consistent with the guidelines in 5 CFR 1320.5.

8. **If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5CFR 320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken in response to the comments. Specifically address comments received on cost and hour burden. Describe efforts to consult with persons outside DOE to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or report.**

This proposed agency information collection was published for comments in the Federal Register Friday, January 13, 2012, Vol. 77, No. 9, pg. 2054.

Prior to publication, DOE staff collected input from select electricity experts from government and private organizations including EIA, EEI and NRECA. Staff conducted personal interviews and solicited input via e-mails and telephone calls with potential respondents and experts in the field. DOE received feedback regarding the availability of data, the benefits and costs of the information collection, the clarity of instructions, the quality of the questionnaire, recordkeeping, disclosure issues and reporting format. All of the comments and suggestions received were considered, and some improvements were made to the questionnaire as a result. The general consensus was the data sought by this information collection should be readily available for collection and the frequency of collection was deemed reasonable. Select consultants were given an opportunity to review preliminary and final drafts of the information collection instrument.

Suggestions from these consultations included:

- Change the order of the time frequency responses
- Clarify whether DOE is interested in pilot projects as representations of services provided
- Clarify what "since the last bill" means
- Offer additional information about the goals of the questionnaire
- Specify that DOE is interested in customer access to electricity consumption data via their website as well as their monthly bills
- Identify appropriately qualified and authorized respondents

The information collection instrument has been modified to reflect this feedback and to make appropriate requests from qualified respondents while minimizing burden and ensuring proper disclosure and reporting.

In addition, DOE received a letter from the Edison Electric Institute that contained comments on the *Federal Register* notice. Below is a list of the comments and DOE responses.

**Comment:** We are not clear whether a “crowd-sourced map” will be a useful and accurate means of presenting the information captured in the Questionnaire in order to facilitate the development of energy savings plans.

**DOE Response:** A key barrier to a strong nationwide effort for home/building energy upgrades and retrofits is the owners’ lack of access to energy usage data. The first step toward action is knowledge of one’s energy consumption and costs. Currently, there is no single location for consumers nationwide to find out what access they have to their energy usage data. The maps generated from this questionnaire are designed to make customers aware of what information they currently have available to them and what type of access would be useful for developing energy savings plans. In addition, the website will provide information to assist consumers on how to use their data to develop energy saving strategies. We have determined that direct responses from utilities would be the most accurate source for the information sought in this information collection. The accuracy of the data presented in the maps relies on the information we receive from utilities.

**Comment:** ...given that anonymity is a common trait in “crowd-sourced” projects, this begs questions of how DOE intends to publish the results of the survey. For example, this raises questions such as at what geographic level will the information be presented at – state, county, city? Will the responding utilities be identified in some fashion, and if so, how?

**DOE Response:** The information collected by this questionnaire will be treated as public information. As such, the results of the questionnaire will be made available to the public.

DOE will contact respondents at each of the electric utilities by email. Respondents will be asked to visit a website where they will be prompted to enter responses into an easy-to-use web application. The questionnaire will begin by requesting that the respondent select the state(s) in which the utility offers services. A drop down menu will allow the respondent to select the company on whose behalf they are acting, based on their name and EIA Utility ID. The questionnaire will consist of a series of multiple choice and short answer questions related to

customer access and control of their energy usage data. For utilities with multiple service areas, the respondents will complete a questionnaire for each EIA Utility ID.

The responses will automatically populate a data set, which will then be analyzed and processed to generate a series of maps. To construct the map layers, responses will be categorized into one of three tiers, based on the quality of customer access and control of their energy usage data. Each utility's service area will be overlaid with a color code corresponding to its tier status. Within 30 minutes of completing the questionnaire, the results will automatically be coded and displayed on the website for viewing. Visitors to the website will be able to view any service area in the country to learn about the quality of data access available in those areas.

Up to twelve maps will be created for each provider, based on residential and commercial services offered. The website will complement the maps by providing consumer tips for visitors to learn how they can maximize energy savings based on the information access currently offered by their electricity company. Visitors will also be able to offer general feedback about the data access and energy efficiency, in general, as well as the website and its value to them.

**Comment:** It is also not entirely clear who is the intended audience of the crowd-sourced map?

**DOE Response:** The primary audience consists of U.S. electricity consumers. Consumers have the most to gain by learning about access and control of their energy usage data. DOE will also use this information to support activities of the State Energy Efficiency Action Network (SEE Action) Customer Information and Behavior Working Group. SEE Action ([seeaction.energy.gov](http://seeaction.energy.gov)) is a state and local effort facilitated by the DOE and the Environmental Protection Agency government that helps states, utilities, and other local stakeholders take energy efficiency to scale. The Customer Information and Behavior Working Group works with state and local governments to change residential energy consumption behavior by using information and feedback. The information generated by this collection will also inform the effort to create a Home Energy Score, which is designed to educate homebuyers on the energy savings they can expect when purchasing a home. The DOE will also use this information to fashion education efforts to be undertaken by [smartgrid.gov](http://smartgrid.gov), such as raising awareness of opportunities and challenges to installing smart meters.

**Comment A:** EEI believes that concerns about under-representing the efforts underway by utilities to enhance customer access to consumption data may be potentially resolved if a prospective question of intent which is shaped by a known timeline is included in the survey.

**Comment B:** EEI believes that the Questionnaire can be improved by allowing electricity providers that ability to provide a narrative answer since some question may require an explanation or qualification.

**DOE Response:** DOE has added as 255 character comment box for utilities to add any information related to ongoing or planned projects in order to provide a narrative response to questions that might under represent the utility's efforts to provide information to its customers. However, the map will only display the current status of customer access and control of their data.

**Comment:** EEI believes that to enhance the utility of the information captured, the DOE should consider linking the advancements in data access to the smart grid deployments.

**DOE Response:** DOE has integrated links to related websites and other relevant DOE projects such as the Green Button Initiative, SmartGrid.gov and the Smart Grid Information Clearinghouse (<http://www.sgiclearinghouse.org/ProjectMap>) into the Utility Data Access Map website.

**Comment:** Question 16 asks about whether an electricity provider allows commercial building owners or managers to access aggregate data from multiple meters in the same building even if bills are paid by individual tenants. Some electricity providers may wish to explain the circumstances or requirements around whether this is allowed or not.

**DOE Response:** DOE has modified the wording of this question. The current wording is, “Does your company allow commercial building owners or managers to access data from multiple meters in the same building, such as in an aggregate format, even if individual tenants pay the bills?” Utilities may use the comment box at the end of the questionnaire to provide details or expand on their response.

**Comment:** An additional example is Question 9, which asks whether the utility “uses” customer data to customize energy efficiency information. This question cannot be answered as simply as “yes,” “no,” or “I don’t know.” Some utilities may provide residential customers with access to an online tool that links to the customer’s usage information to provide a customized comparison with a benchmark of electric and gas usage for similar premises, but it is not clear that this is the equivalent of “using” customer data to customize information.

**DOE Response:** DOE has removed this question from the questionnaire.

**Comment:** Finally, the Notice states that the DOE is requesting a six-month approval to collect this information, but does not indicate whether or how frequently it will seek to update this information. Additionally, it is not clear what is the relevant time period associated with the information provided by the utilities on customer electricity consumption data access. For example, will DOE ask electricity providers to provide information as of March 1, 2012, January 1, 2012, or will the DOE not identify a set date and allow the utility to self-describe the time period with respect to their responses?

**DOE Response:** DOE initially applied for a six-month information collection, during which DOE will re-apply for a 3-year continuation. The initiation of the six-month information collection will begin upon OMB approval. The expiration date for the collection will be six months after receiving OMB approval and will be posted on the questionnaire. Utilities will be expected to respond within that six-month period.

DOE will first roll out the questionnaire to a small sample of respondents. The roll out will allow for troubleshooting and optimizing the web portal functionality, but will not involve substantive changes to the content of the questionnaire. After establishing that the instrument is satisfactorily functioning, DOE will extend the questionnaire to the entire respondent universe. The map will



go live on the Internet immediately upon deployment of the questionnaire. Data will automatically be integrated into the map as responses are received, processed and verified. DOE will contact non-respondents and perform follow-ups by email and phone to improve data accuracy and response rate. The nature of the data collection via web portal allows for rolling responses and updates. Therefore, the map will remain open to new responses and updates at all times, creating an interactive experience for the utilities and the users.

**9. Explain any decision to provide any payment or gift to respondents, other than re-enumeration of contractors or grantees.**

No payments or gifts are made to respondents for completing this questionnaire.

**10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.**

DOE will clearly communicate to respondents that it is responsible for treating information according to U.S. law and regulations. Those considered are:

1. The Freedom of Information Act (FOIA), (5 U.S.C. 552)
2. The Department of Energy, Freedom of Information Act (FOIA) Regulations, (10 C.F.R. 1004)
3. The Paperwork Reduction Act, (44 U.S.C. 35)

**1. Freedom of Information Act (FOIA)**

The Freedom of Information Act is an open policy favoring disclosure of information held by Federal agencies, and consequently the burden rests on the party or agency seeking non-disclosure to establish that an enumerated exemption to FOIA applies in the circumstances.

**2. Paperwork Reduction Act**

The DOE also complies with the Paperwork Reduction Act of 1995 that provides that a Federal agency may make confidential information available to other Federal agencies if the disclosure is not inconsistent with applicable law. For the purposes of this information collection, DOE does not foresee a need to share any confidential information with other federal agencies.

Most elements collected are considered public information and will be publicly released in identifiable form. For those elements, the survey respondents will be told the following:

“The information reported will be considered public information and may be released in identifiable form. All information gathered will be subject to the Freedom of Information Act and the Paperwork Reduction Act.”

**11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why DOE considers the questions necessary, the specific uses to be made of the information., the explanation**

**to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.**

There are no questions of a sensitive nature.

**12. Provide estimates of the hour burden of the collection of information. The statement should indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, DOE should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample fewer than 10 potential respondents is desirable.**

DOE estimates the total number of unduplicated respondents would be approximately 3,261. Three potential respondents and experts from EEI and NRECA have tested the questionnaire device. The estimated burden for completing the questionnaire is 10 minutes (for utilities with residential and commercial customers). A total burden estimate of fourteen minutes includes four minutes for follow-up on survey responses in the event there is a need to clarify any responses or edit information reported by DOE. Therefore, the overall annual burden for the entire respondent universe for this questionnaire is estimated to be 761 hours. Use of the web-based questionnaire application helps to minimize respondent burden.

Qualified employees should require little to no research time to respond to the questionnaire.

DOE is aware this is possibly an over-estimate of the burden for the following reasons:

- Some responses will not require both parts (commercial and residential) to be filled out based on clientele
- Some responses will not require follow-up.

The total cost to the respondent universe is estimated to be \$50,880.46 (761 burden hours times \$66.86 per hour). An average cost per hour of \$66.86 is used because that is the estimated average loaded (salary plus benefits) cost for an EIA employee in 2011. DOE assumes that the questionnaire respondent workforce completing surveys for the EIA is comparable with the EIA workforce.

*Total number of unduplicated respondents: 3261*  
*Reports filed per person: 1 per EIA Utility ID*  
*Total annual responses: 1*  
*Total annual burden hours: 761*

*Average Burden            Per Collection: 761 hours*  
*Per Applicant: 14 minutes*

**13. Provide an estimate for the total annual cost burden to respondents or recordkeepers resulting from the collection of information.**

There are no capital and start-up cost components or operations and maintenance costs associated with this data collection. The information is maintained in the normal course of business. Therefore, other than the cost of burden hours, there are no additional costs for generating, maintaining, and providing the information.

**14. Provide estimates of annualized cost to the Federal government.**

The Federal government will invest \$30,000 for website development, including creation of the online questionnaire tool and programming for automatic data sorting and categorization. Total cost for maintenance of the website and program support is estimated to be \$7,210 for 6 months (100 burden hours times \$72.10 per hour). An average cost per hour of \$72.10 is used because that is the estimated average loaded (salary plus benefits) cost for an AAAS Fellowship in 2012. DOE assumes the questionnaire support workforce is comparable with the AAAS Fellowship workforce. The total cost to the Federal government is \$37, 210.

**15. Explain the reasons for any program changes or adjustments reported in Items 13 (or 14) of OMB Form 83-I.**

This is a new collection of information. There are no program changes or adjustments.

**16. For collections whose results will be published, outline the plans for tabulation and publication.**

DOE plans to begin data collection immediately upon OMB approval of the ICR. The goal for the “Customer Electricity Data Access and Control Questionnaire” is to begin releasing results in March 2012, in accordance with a request from the White House for timely data collection. Results will be published to a website that is linked from the DOE website, EnergySavers.gov. Visitors to the website will find each of the maps available for viewing along with complementary information such as consumer tips for energy savings options.

The time schedule for the information collection will begin immediately upon OMB approval. DOE will first roll out the questionnaire to a small sample of respondents. The roll out will allow for troubleshooting and optimizing the web portal functionality, but will not involve substantive changes to the content of the questionnaire. After establishing that the instrument is satisfactorily functioning, DOE will extend the questionnaire to the entire respondent universe. The map will go live on the Internet immediately following the full deployment of the questionnaire. Data will be automatically integrated into the map as the responses are received, processed and verified (as previously described). DOE will contact non-respondents and perform follow-ups by email and phone to improve data accuracy and response rate. The nature of the data collection via web portal allows for rolling responses and updates. Therefore, the map will remain open to new responses and updates at all times, creating an interactive experience for the utilities and the users. Changes made to responses will be tracked and records could be generated with time stamps designating the period at which the data was collected.

DOE will manage the questionnaire and maintain the site for six months. During that time, DOE will submit a regular ICR for a three-year continuation of this collection. If DOE determines that

the site and questionnaire are useful in the long term, we will discuss with EIA and consider other options for its continuation.

**17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.**

DOE will display the expiration date on the questionnaire.

**18. Explain each exception to the certification statement identified in Item 19 of OMB Form 83-I.**

This submission meets all certification requirements of the "Certification for Paperwork Reduction Act Submissions," for OMB Form 83-11.