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Supporting Statement for Generic Clearance for Questionnaire Testing and Research

# Part A: Justification

**OMB No. 1905-0186**

*EIA-882T*



U.S. Department of Energy

Washington, DC 20585

*Independent Statistics & Analysis*

www.eia.gov

February 19, 2019

Table of Contents

[Part A: Justification i](#_Toc503969432)

[Introduction 2](#_Toc503969433)

[A.1. Legal Justification 2](#_Toc503969434)

[A.2. Needs and Uses of Data 4](#_Toc503969435)

[A.3. Use of Technology 13](#_Toc503969436)

[A.4. Efforts to Identify Duplication 14](#_Toc503969437)

[A.5. Provisions for Reducing Burden on Small Businesses 14](#_Toc503969438)

[A.6. Consequences of Less-Frequent Reporting 14](#_Toc503969439)

[A.7. Compliance with 5 CFR 1320.5 15](#_Toc503969440)

[A.8. Summary of Consultations Outside of the Agency 15](#_Toc503969441)

[A.9. Payments or Gifts to Respondents 15](#_Toc503969442)

[A.10. Provisions for Protection of Information 15](#_Toc503969443)

[A.11. Justification for Sensitive Questions 16](#_Toc503969444)

[A.12. Estimate of Respondent Burden Hours and Cost 16](#_Toc503969445)

[A.13. Annual Cost to the Federal Government 17](#_Toc503969446)

[A.14. Changes in Burden 17](#_Toc503969447)

[A.16. Collection, Tabulation, and Publication Plans 18](#_Toc503969448)

[A.17. OMB Number and Expiration Date 18](#_Toc503969449)

[A.18. Certification Statement 18](#_Toc503969450)

**EIA-882T, Generic Clearance for Questionnaire Testing and Research**

## 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. EIA is required to publish, and otherwise make available independent, high-quality statistical data to federal government agencies, state and local governments, the energy industry, researchers, and the general public.

EIA requests a three-year extension with changes for EIA-882T, “Generic Clearance for Questionnaire Testing and Research.” The EIA-882T allows EIA to conduct field testing of pilot surveys, cognitive interviews, respondent debriefings, usability interviews, field tests, focus groups, pretesting of questionnaires and the validation of quality data that is collected on EIA survey forms. Through the use of these methodologies, EIA will improve the quality of data being collected, reduce or minimize respondent burden, increase agency efficiency, and improve responsiveness to the public’s need for relevant energy data.

## A.1. Legal Justification

The authority for this mandatory data collection is provided by the following provisions:

1. Section 13(b) of the Federal Energy Administration Act of 1974 (FEA Act), Public Law 93 275, 15 U.S.C. 772(b) states:
   1. "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."
2. Section 5(b) of the FEA Act, 15 U.S.C. 764(b) states that to the extent authorized by Section 5(a), the [Secretary] shall:

(1) …advise the President and the Congress with respect to the establishment of a comprehensive national energy policy in relation to the energy matters for which the Administration has responsibility, and, in coordination with the Secretary of State, the integration of domestic and foreign policies relating to energy resource management;

(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;

(3) …develop effective arrangements for the participation of State and local governments in the resolution of energy problems;

(4) …develop plans and programs for dealing with energy production shortages; …

(5) …promote stability in energy prices to the consumer, promote free and open competition in all aspects of the energy field, prevent unreasonable profits within the various segments of the energy industry, and promote free enterprise; …

(6) …assure that energy programs are designed and implemented in a fair and efficient manner so as to minimize hardship and inequity while assuring that the priority needs of the Nation are met; …

(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."

1. As the authority for invoking Section 5(b), above, Section 5(a) of the FEA Act, 15 U.S.C. 764(a) in turn states:
   1. ”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. (1) ...specifically transferred to or vested in him by or pursuant to this Act...
      2. (3) ...otherwise specifically vested in the (Secretary) by the Congress."
2. Authority for invoking Section 5(a) of the FEA Act is provided by Section 52 of the FEA Act, 15 U.S.C. 790a, which states that the Administrator of the EIA:
   1. “... (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 within and affecting the United States on the basis of such geographic areas and economic sectors as may be appropriate… to meet adequately the needs of…”

(1) …the Department of Energy in carrying out its lawful functions;

(2) …the Congress;

(3) …other officers and employees of the United States in whom have been vested, or to whom have been delegated energy-related policy decision-making responsibilities;

(4) …the States to the extent required by the Natural Gas Act [15 U.S.C. 717 et seq.] and the Federal Power Act [16 U.S.C. 791a et seq.].

* 1. "...the System shall contain such energy information as is necessary to carry out the Administration's statistical and forecasting activities, and shall include, such energy information as is required to define and permit analysis of;”

(1) …the institutional structure of the energy supply system including patterns of ownership and control of mineral fuel and non-mineral energy resources and the production, distribution, and marketing of mineral fuels and electricity;

(2) … the consumption of mineral fuels, non-mineral energy resources, and electricity by such classes, sectors, and regions as may be appropriate for the purposes of this Act;

(5) …industrial, labor, and regional impacts of changes in patterns of energy supply and consumption;

(6) …international aspects, economic and otherwise, of the evolving energy situation;

(7) …long-term relationships between energy supply and consumption in the United States and world communities.

## A.2. Needs and Uses of Data

EIA-882T, Generic Clearance for Questionnaire Testing and Research, allows EIA to adopt, and use state-of-the-art and multi-disciplinary research methods and software tools to improve and enhance the quality of EIA and DOE data collections. This clearance will also be used to aid in the development of new surveys. In addition, it will help ensure that requested data can be provided in the desired format, reporting burden (time and financial resources) is minimized, collection instruments are clearly understood, and the impact of collection requirements on respondents can be properly assessed. This authority would also allow EIA to improve data collection in order to meet the needs of EIA’s customers while also staying current in the evolving nature of the energy industry.

EIA will use a variety of survey improvement techniques as appropriate to the individual project being researched. These include pilot surveys, pretests/field tests, usability testing, cognitive interviews and focus groups.

The following methods are included in this clearance:

Pilot Surveys Pilot surveys conducted under this clearance will generally be methodological studies and will use statistically representative samples when appropriate. Pilot surveys will normally be utilized when EIA undertakes a complete redesign of a particular data collection methodology or when EIA undertakes data collection in new energy areas, such as Hydrocarbon Gas Liquids production, alternative fueled motor vehicles, battery storage for electric power production, and other emerging areas of the energy sector where data collection would provide utility to EIA. The pilot surveys may replicate all or some components of the methodological design, sampling procedures (where possible), and questionnaires of the full-scale survey. There may be circumstances when the full survey and all components of the methodological design are not needed for the pilot test and an abbreviated form may be substituted for conducting a pilot test. This occurs when EIA is testing the mode of reporting information such as a new online reporting system or utilizing new software. A pilot test may also be conducted before a large-scale collection in order to test and refine the implementation procedures for the full-scale survey. Another example is when EIA is conducting qualitative research and seeks to test a research protocol or the effectiveness of an approach for contacting potential volunteers and inviting them to participate.

Pretests/Field Tests EIA conducts pretests when developing new questions or new survey questionnaires to see how respondents answer questions, interpret terminology, and identify potential data quality problems. EIA may also conduct pretests to gather data to refine questionnaire items, response categories and scales, and assess reliability or validity of responses. In addition, EIA may use a field test or experiment (a study to compare the effects of two or more procedures or questionnaires) when planning a change in methodology, mode of data collection, or questions in an ongoing survey. This enables comparisons and often provides quantifiable data to decide among the different methods or questions to use. EIA may consider conducting a field test experiment on a representative sample to measure the effect of changing the sample design, the sampling frame, or any other change in methods or questions that impact the resulting estimates.

Qualitative Studies EIA uses qualitative studies for exploratory investigations in order to decide on the appropriate data collection mode, interview contact approach, or any other issue when little is known about a problem or the best approach to implement a data collection program. A qualitative study uses unstructured interviews, notes, or observations that are typically difficult to quantify. A variety of methods may be used in a qualitative study, including focus groups, unstructured interviews, or semi-structured interviews with “experts,” stakeholders, or other participants. Case studies may also be conducted. Typically, these methods attempt to obtain insights through the intensive study of a relatively small number of people, institutions, or establishments. Respondents are usually purposively chosen because of their knowledge, experience, or status. In a qualitative study different persons or entities may be chosen because they “represent” a particular kind of person, entity, or building establishment, but the sample is usually not representative—in a statistical sense—of any larger population. However, the obtained information may be very useful in generating hypotheses that can be tested more systematically with other methods such as quantitative surveys.

Cognitive Interviews Cognitive interviews are typically one-on-one interviews in which respondents are asked to "think aloud" or is asked “retrospective questions” as they answers questions, reads survey materials, defines terminology, or completes other activities as part of a typical survey process. A number of different techniques may be involved including, asking respondents what specific words or phrases mean or asking respondents probing questions to determine how they estimate, calculate, or determine specific data elements on a survey. The objectives of these cognitive interviews is to identify problems of ambiguity or misunderstanding, explain their process for reporting information, or to identify other difficulties respondents have answering survey questions in order to reduce measurement error from estimates based on a survey. Respondent debriefings conducted under this clearance will generally be methodological or cognitive research studies. The debriefing form is administered after a respondent completes a questionnaire either in paper format, electronically, or through in-person interviews. The debriefings contain probing questions to determine how respondents interpret the survey questions, how much time and effort was spent completing the questionnaire, and whether they have problems in completing the survey/questionnaire. Respondent debriefings also are useful in determining potential issues with data quality and in estimating respondent burden.

Usability Testing Usability tests are similar to cognitive interviews in which a respondent is typically asked to “think aloud” or asked “retrospective questions” as he or she reviews an electronic questionnaire, website, visual aid, or hard copy survey form. The objective of usability testing is to check that respondents can easily and intuitively navigate electronic survey collection programs, websites, and other survey instruments to submit their data to EIA.

Focus Groups. Focus groups, in person or online, involve group sessions guided by a moderator who follows a topic guide containing questions or subjects focused on a particular issue rather than adhering to a standardized cognitive interview protocol. Focus groups are useful for exploring issues with from a specific group of respondents, data users, or other stakeholders of EIA data.

The information gathered will be used to modify and develop better questionnaires and data collection procedures. The end result will be improvements in the quality of data being collected by EIA, reduction or minimization of respondent burden, increased agency efficiency, and improved responsiveness to the public.

Results of these efforts will also provide EIA a better understanding of the energy areas being studied and how respondents comprehend survey questions. Methodological results will be shared with other DOE components and other agencies in seminars and through presentations at meetings, e.g., at the American Statistical Association's meetings and the Federal Committee on Statistical Methodology Research conference.

During the past three years, EIA has used this clearance for a variety of studies including:

**Coal Survey Program (Forms EIA-3, EIA-7A, and EIA-8A)**

**December 2015 – May 2016**

EIA conducted cognitive research on respondents’ understanding of survey questions, industry terminology, and data elements collected on the surveys that make up EIA’s Coal Survey Program. In addition to these topics, EIA investigated the prevalence of sales brokers in the coal industry and the ability of respondents to distinguish and report their sales of coal into the categories of Open Market Sales and Closed Market Sales. Additionally, this project assessed survey respondents reporting of Maximum Annual Capacity information and examined the methodology respondents used when reporting the BTU content of their coal in order to reduce the measurement error of the data collected by the Coal Survey Program. The findings of this cognitive research project resulted in changes to the Coal Survey Program, such as collecting coal broker information to maintain and develop the respondent frames used for surveys, collecting more accurate information on domestic sales and export sales of coal, revising the questions used to gather more accurate capacity information and recoverable reserves information.

**Petroleum Marketing Information Collection (Forms EIA-182, EIA-856, EIA-782, EIA-821, EIA-877)**

**April 2016 – October 2016**

EIA conducted multiple research studies on the surveys that make up EIA’s Petroleum Marketing Information Collection. These studies were conducted in response to the changes to the petroleum energy markets since the last clearance of this information collection. EIA’s research on these surveys included studies on the ability of survey respondents to report information on emerging domestic crude oil streams, propane sales activity, assessing respondents’ understanding of energy terms and definitions, validate the reporting burden for responding to a survey instrument, and assess the reporting habits of respondents to EIA’s winter fuels surveys.

The specific objectives of these cognitive research projects and their findings are discussed below:

**Domestic Crude Oil First Purchase Report (Form EIA-182)**

**April 2016 -June 2016**

EIA conducted research on Form EIA-182 to assess the need to expand the list of crude streams listed on EIA-182 to include North Dakota Bakken Crude. Form EIA-182, "Domestic Crude Oil First Purchase Report" is designed to collect data on both the average cost and volume associated with the physical and financial transfer of domestic crude oil off the property on which it was produced. The monthly reported data represent the initial market value and volume of domestic crude oil production. EIA carried out cognitive interviews with respondents located in the North Dakota Bakken region to determine the prevalence of new crude stream and determine if EIA should include this crude stream list on EIA-182. The results of this cognitive research showed that production of North Dakota Bakken crude oil significantly increased in that region the past 3 years, and determined that EIA should begin collecting accurate price information on this domestic crude stream.

**Monthly Foreign Crude Oil Acquisition Report (Form EIA-856)**

**April 2016 – July 2016**

EIA conducted cognitive interviews with respondents of Form EIA-856, “Monthly Foreign Crude Oil Acquisition Report” to understand how they are reporting the Canadian crude oil they receive via pipeline and how respondents report their offshore inventories on this survey. Form EIA-856 collects data on the cost of foreign crude oil acquired for importation into the United States, its territories and possessions. The data collected from Form EIA-856 provide valuable data for EIA’s Petroleum Market Monthly report, which provides information used to inform the public and policymakers with price and volume statistics on crude oil and petroleum products at a national, regional and state level. The findings from this cognitive research project identified areas of this survey that were confusing to respondents, such as the appendices used by respondents when completing the survey and confusing survey instructions that required clarification.

**Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report and Monthly Report of Prime Supplier Sales of Petroleum Products Sold for Local Consumption (Form EIA-782A and Form EIA-782C)**

**August 2016 – September 2016**

EIA conducted cognitive research with respondents of Forms EIA-782A and EIA-782C to determine how these respondents report the destination state for sales of petroleum products, to determine how respondents report finished gasoline, distillate fuel, and kerosene data, and to assess the impact of consolidating No. 2. Diesel fuel product categories. Form EIA-782A, “Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report” collects monthly sales of petroleum product by refiners and gas plant operators. Form EIA-782C, “Monthly Report of Prime Supplier Sales of Petroleum Products Sold for Local Consumption” collects monthly sales of petroleum products by prime supplier delivered into states for local consumption. Form EIA-782A is a census of refiners and gas plant operators and Form EIA-782C is a census of petroleum refiners, gas plant operators, importers, petroleum product resellers, and petroleum product retailers who are suppliers of refined petroleum products into states. This research provided EIA with a better understanding of the types of information respondents track about their distillate sales and their ability to report that information. In addition, this cognitive research revealed where title of the petroleum products is transferred to the customer and improved EIA’s understanding about the prevalence of ethanol blending and the information respondents track and report about that activity.

**Annual Fuel Oil and Kerosene Sales Report (Form EIA-821)**

**August 2016 – October 2016**

EIA conducted cognitive research with respondents of Form EIA-821 to understand the burden impact of consolidating sales data on products and end use categories, assess what portion of the reported values are estimated by respondents, and the feasibility of collecting propane sales data. Form EIA-821 collects annual sales data on No. 2 and 6 distillate fuels and kerosene. The monthly reported data represent the sales of distillate, residual fuel oils, and kerosene by end use for each state. This research project provided EIA with an increased understanding of respondents’ tracking of distillate sales and also identified terminology used on the survey form that required more clarification.

**Winter Heating Fuels Telephone Survey (EIA-877)**

**April 2016 – July 2016 and August 2018 – September 2018**

EIA researched the ability of respondents of EIA-877 “Winter Heating Fuels Telephone Survey” to report sales information at both the residential and state levels. EIA also conducted cognitive interviews with these respondents to understand the discounts offered to customers in the heating oil industry, and to determine if respondents are including price-discount information in the price reported on the EIA-877 survey. EIA-877 collects data on State-level stocks and residential prices of No. 2 heating oil and propane during the heating season. The data are used to monitor the prices of propane and No. 2 heating oil during the heating season, and to report to Congress and others when requested. The findings from this research project supported EIA’s positon that respondents to this survey are, in general, correctly reporting retail price information. Based on the findings of this research project, EIA expanded the data collected on EIA-877 to include annual sales volumes of propane and heating oil. The newly collected annual sales volume data has provided EIA with a more accurate method to calculate point-in-time price information, which enabled EIA to publish more precise price information about the winter heating fuels market.

**Confidentiality Information Protection and Statistical Efficiency Act Pledge (CIPSEA)**

**June 2016 – October 2016**

EIA conducted research to evaluate changes to EIA’s confidentiality pledge for data protected under the Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA). This study was conducted with other federal statistical agencies and examined respondents understanding of language used in the CIPSEA pledge and analyzed differences in the perceptions of respondents reporting on surveys protected under CIPSEA and those respondents reporting on surveys protected using the exemptions under the Freedom of Information Act. The results of this research showed that the modified CIPSEA pledge that specifically mentioned the Department of Homeland Security (DHS) received more positive feedback from participants and incorporating DHS language into EIA’s pledge would help preserve or minimize any negative impact to EIA’s existing reporting relationship with its survey respondents.

**Monthly Crude Oil, Lease Condensate, and Natural Gas Production Report (Form EIA-914)**

**October 2016 - December 2016**

EIA conducted several research projects on Form EIA-914 on the topics of; assessing respondents’ ability to report information about the stabilization of crude oil and condensate, the prevalence of stand-alone stabilizers used in natural gas processing, and determining the additional time and effort required by respondents to report this new information. Form EIA-914 “Monthly Crude Oil and Lease Condensate, and Natural Gas Production Report” collects information used to estimate state-level oil and natural gas production and production by API gravity category. The results of this research project provided EIA with a better understanding of the use of stabilizers in crude oil industry and how survey respondents use, operate, or acquire the services of these stabilizers. EIA determined there was sufficient need to expand the data collected on EIA-914 to include crude oil and lease condensate information, crude oil and lease condensate sales volumes by API gravity, natural gas gross withdrawals, and natural gas lease production volumes. This new collected data has provided EIA with more current information about the changing quality of U.S. crude oil and lease condensate production.

**Annual Survey of Alternative Fueled Vehicles (Form EIA-886)**

**January 2017 – May 2017**

EIA conducted research with Form EIA-886 respondents to determine their ability to report more detailed vehicle weight information and other data about the fuel consumed by respondents’ alternative fueled vehicles (AFVs). This research project was carried out in response to comments from Environmental Protection Agency (EPA) recommending that EIA make changes to the EIA-886 to align the vehicle weight categories collected with those weight categories already used by EPA. In addition to these research topics, EIA also investigated the prevalence of electric vehicles (EVs) utilized by EIA-886 respondents to assess what information, if any, EIA should begin collecting on the usage of EVs. To carry out this research project, EIA conducted cognitive interviews with different categories of respondents to EIA-886, such as AFV manufacturers, fleet owners, and state and local governments. The research results supported EIA’s position to collect more detailed vehicle weight information on Form EIA-886. EIA also expanded the information collected on this form to begin collecting information on EVs, which will be used to establish parameters for estimating electricity consumption on charging patterns and electric utility bills for EVs.

**Electric Emergency Incident and Disturbance Report** (**Form OE-417)**

**March 2017 – May 2017**

EIA conducted cognitive research to verify the previous burden estimates for collecting the requested information shown on Form OE-417 and estimate any changes in reporting burden. Form OE-417 “Electric Emergency Incident and Disturbance Report”, collects information on electric emergency incidents and disturbances for DOE's use in fulfilling its overall national security and other energy management responsibilities. The findings of this research revealed the average total response burden for this form is 1.6 hours, half an hour less than the current burden listed on the form. The research revealed that a significant amount of time spent completing the form was requesting new login credentials because their login information had typically expired. Additionally, cognitive interviews with respondents showed that most respondents were unaware of the need to submit this form to DOE within 1 hour of an incident.

**Densified Biomass** (**Form EIA-63C)**

**May 2017 - July 2017**

EIA conducted cognitive research to verify the previous burden estimates for collecting the requested information shown on Form EIA-63C and estimate any changes in reporting burden. EIA started collecting information on densified biomass in 2015 and determined the initial estimate was accurate for the reporting burden. The results of this researched showed that the current response burden figure is still accurate.

**Annual Report of Natural and Supplemental Gas Supply and Disposition (Form EIA-176)**

**March 2017 – May 2017**

EIA conducted research on the ability of Form EIA-176 respondents to report information on alternative fuel vehicle fleets, the locations of end use customers, the use of natural gas in liquefaction and vaporization operations, and the locations of aboveground Liquid Natural Gas (LNG) facilities. Form EIA-176, “Annual Report of Natural and Supplemental Gas Supply and Disposition” collects data on natural, synthetic, and other supplemental gas supplies, disposition, and certain revenues by state. The respondents of this survey are natural gas processing plant operators. The results of the cognitive interviews revealed that the use of natural gas, or other fuels, in vaporization or liquefaction activities is extremely common by respondents of this form, however the participants that report natural gas consumed for these purposes on the survey report that information in various sections and with no common method. In addition, the research project showed that the respondents who use electricity for liquefaction or vaporization activities do not report that energy consumption on the current EIA-176 and that providing respondents with a dedicated section to report natural gas, or other fuels, used in vaporization or liquefaction would allow EIA to collect this additional data.

**Annual Report of the Origin of Natural Gas Liquids Production Form EIA-64A**

**March 2018 – June 2018**

EIA conducted cognitive research to assess the ability of EIA survey respondents to report information on Natural Gas Liquids (NGL) production and electricity usage at natural gas processing activities based on area of origin. Information was also collected on reported burden as a quality check on the reporting burden per response was also checked by the participants in the study. The responses from the participants show that the current estimate of 6 hours per response overstates the time respondents need to complete this survey. The information gathered from the cognitive interviews shows a weighted average burden per response of 2.08 hours. The cognitive interviews show that respondents are able to report inlet gas and NGLs by area of origin. The interviews also found that participants determine the area of origin of their inlet gas and NGLs from information gathered at their plant’s custody transfer points. The interviews with participants also revealed that they can easily report their production of outlet residue gas and the volume of residue gas sent to the pipeline. The results of this project showed that EIA can expand the data collected on Form EIA-64A to begin collecting more information on natural gas processing activities including the production of NGLs.

**Petroleum Supply Information Collection (Forms EIA-816 and EIA-806)**

**December 2017 – March 2018**

EIA conducted cognitive research with respondents of Form EIA-816 to assess their ability to report additional information related to their gas processing and condensate stabilization activities, specifically detailed input and output (“Y-grade mix” NGLs, lease condensate, etc.) information. In addition, as part of this research, EIA assessed the creation of a weekly survey (EIA-806) to collect data from respondents on their weekly fractionated product output and determine the level of detail respondents can report about their NGL production. This research project also estimated any changes in reporting burden associated with collecting this additional information and obtain feedback on appropriateness of current reporting burden. Form EIA-816, “Monthly Natural Gas Liquids Report” collects data on the balance between the supply (beginning stocks, receipts, and production) and disposition (input, shipments, fuel use and losses, and ending stocks) of natural gas liquids. The data collected are used to report aggregate statistics on, and conduct analyses of, the operation of U.S. natural gas processing plants and fractionators. Data are reported by operators of all facilities designed to extract liquid hydrocarbons from a natural gas stream (natural gas processing plants) and/or to separate a liquid hydrocarbon stream into its component products (fractionators).The results of the cognitive research showed the current response burden for Form EIA-816 for gathering and reporting the data to EIA is overstated. Additionally, this research found that respondents are able to provide EIA with more detailed data about their gas processing activities. The cognitive research project on the proposed Form EIA-806 revealed that respondents have the ability to report their total natural gas liquids production to EIA on a weekly basis. As a result of this research project, EIA decided to pursue collecting weekly NGL production information from current EIA-816 respondents using the proposed EIA-806.

**Petroleum Supply Information Collection (Forms EIA-22M and EIA-819)**

**December 2017 – March 2018 and May 2018 - September 2018**

EIA conducted two cognitive research project with respondents of Form EIA-819.

The first research project involved cognitive interviews respondents to assess their ability to report ethanol blended for transportation purposes and to understand how respondent report ethanol and denaturants used in the production of ethanol for transportation fuel. Form EIA-819 *Monthly Oxygenate Report* collects information on fuel ethanol production capacity, fuel ethanol production, ending stocks, gasoline blending at fuel ethanol plants, storage capacity of fuel ethanol, and production and ending stocks of other oxygenates. Respondents to this survey are facilities that produce oxygenates, including ethanol plants, MTBE (Methyl Tertiary Butyl Ether) plants, petrochemical plants, and refineries that produce oxygenates as part of their operations located in the United States. The results of the first research project showed that respondents are correctly reporting their ethanol production and denaturant blending according to the instructions on the survey. This project also revealed that respondents to this survey were confused about EIA’s request for their facility’s nameplate production capacity. As a result of this findings, EIA carried out another research project with EIA-819 respondents to determine a more effective question to collect capacity information from these respondents.

The second research project conducted by EIA explored a number of proposed changes to the EIA-819 survey form, including merging Form EIA-819 with Form EIA-22M. This project explored areas of possible respondent confusion and misreporting on the proposed form, including assessing the ability of respondents to report ethanol blended exclusively for transportation purposes, and collected information on the burden per response estimate for new Form EIA-819. As part of this project, EIA also conducted usability testing on the proposed form, which involved EIA making changes were made to the formatting, layout, and column labels of the proposed survey form after a designated number of interviews based on participants identifying wording that was confusing or unclear on what information EIA was requesting. The modified form was shown to participants during the cognitive interviews to collect feedback and assess whether the changes to the survey design reduced respondent confusion. The results of this cognitive research project informed EIA that respondents are able to move showed that they are able to report many of the new data elements on the new survey form. The participants stated that the new data EIA is requesting is already tracked in their data systems as part of their normal course of business. Requesting respondents to report new additional data elements would not significantly change the amount of time it currently takes respondents to complete the survey forms.

## Electric Power Supply Forms EIA-860, EIA-861, and EIA-923 September – December, 2018

EIA conducted 39 cognitive interviews with respondents to Forms EIA-860, EIA-861, and EIA-923 to collect information on respondents’ ability to report new data elements related to utility level programs utilized by companies on the electric grid, installed battery storage, and microgrids. This research project allowed EIA to determine what questions and terminology to use on these surveys to more accurately collect operational characteristics of these research elements. Additionally, EIA seeks to understand recent changes to the demand side resource capacity and demand response of the electric grid in the U.S., and to assess, to what extent, battery storage is being used by electric power producers to ensure reliability of the grid for their distribution territory.

Installed battery storage power capacity has nearly doubled every two years since 2011. While initial battery storage installations were often exploratory projects by power producers, more recent additions are often driven by policy or market opportunities. Battery storage is versatile and can be paired with a generator to smooth the available supply of electricity, installed at a load to reduce demand, or stationed along the grid to support voltage. The market growth and interest in battery storage creates an opportunity for EIA to assess the practical utility of collecting more relevant electric power data. EIA is interested in testing survey questions and terminology specific to battery storage to more accurately collect their operational characteristics and to better understand how they are being used.

The public’s interest in the electric grid has increased recently, especially as more changes at the distribution system level occur with the expansion of demand side resource capacity and demand response. Better statistics on the state and evolution of the electric grid could inform these discussions so this cognitive study asks a sample of utilities about their systems and current programs, such as their tracking of momentary outages or electric vehicle load. Collecting this kind of data in a standardized format would provide an important baseline for tracking these developments over time. In addition, EIA does not currently track microgrids and adding them to the surveys would allow data users to see where there is backup support designed for local loads. Different aspects of a single microgrid may be reported on by utilities or plant owners, so these questions will test survey respondents’ ability to report about the system as a whole.

EIA’s research project utilized cognitive interviews to learn what information respondents maintain in their data bases, how certain information is measured or tracked, their understanding of certain terminology used in the industry, and assess respondents’ ability to report additional information. There was one in-person interview and 38 telephone interviews. EIA also collected information from the interviews to estimate the current burden per response for these forms, and collected information on any incremental changes to the burden per response caused by reporting additional information.

## A.3. Use of Technology

EIA utilizes different forms of technology when conducting its questionnaire testing.

Internet data collection will continue to be a primary collection mode for EIA when conducting its research proposals approved under EIA-882T. EIA utilizes online surveys to answer research questions ranging from respondents’ cognitive understanding of terminology used on our surveys to EIA data users preferences on our data and methods EIA releases the data. In addition to online based surveys, EIA also uses internet based video interviews with respondents and data users. This provides EIA with a cost efficient system to collect information from respondents to improve EIA’s survey. Additionally, EIA plans to hold online focus groups to gather respondent’s opinions and perceptions through an easy to use, online focus group platform. Similar to online surveys, online focus groups provide a more efficient mechanism to gather respondents’ preferences and opinion relative to traditional, in person focus groups.

EIA uses Calendy software to schedule interviews with participants. Participants are able to follow the link sent in their invitation letter and choose which time works best with their schedule, it then adds the interview to their calendar so they are less likely to forget the interview. This has saved EIA staff time by eliminating scheduling phone calls and numerous emails back and forth. Implementing the use of this website has led to participants becoming more willing to schedule interviews.

Iresearch.com allows EIA to preform online focus groups. This tool records a real time transcript of all of the participant’s responses. Iresearch also allows EIA staff to show parts of the survey form to participants to get feedback on it quickly. EIA staff benefit from speed and agility to easily show participants survey forms, websites, and other audio-visuals. Instant access to transcripts and data expedites implementation. Respondents, clients, and moderators can participate from anywhere which helps EIA get hard to reach respondents and can easily incorporate online sessions into their time-constrained schedules.

NVivo is a software program that EIA staff use when compiling research notes. This tool helps categorize and classify your data. Automatically sort sentiment, themes, and attributes in seconds, and quickly exchange data with SPSS for further statistical analysis. This tool allows staff to easily cross tabulate mixed methods data and visualize the results to brainstorm and map ideas, explore connections between project items and discover new paths of investigation.

## A.4. Efforts to Identify Duplication

These tasks will not duplicate any other survey/questionnaire design or pretest work being done by EIA or other Federal agencies. One of the purposes of this request is to stimulate additional research that would not otherwise be performed due to time and cost constraints. This research may involve collaboration with other agencies, especially the Office of Management and Budget, Bureau of Labor Statistics, Census Bureau, and the National Science Foundation.

EIA will use existing information to the maximum extent possible by reviewing results of earlier evaluations of survey data before attempting to revise existing questionnaires or design new ones.

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

One purpose of these research efforts is to accurately measure the reporting burden, develop survey methodologies and questionnaires that are consistent with the information that respondents maintain in their data systems during the ordinary course of business in order to minimize burden. These methods also provide small establishments a vehicle to inform EIA of the impacts of data collection activities have on establishments of their size could face as a result of changes to the different EIA information collections.

## A.6. Consequences of Less-Frequent Reporting

Because this clearance is an on-going effort, it has the potential to have an immediate impact on all of EIA’s data collections. If this project were not carried out, the quality of the data collected in the surveys would decline, EIA would be hindered in is ability to modify survey forms to collect information relevant to the energy market and it would limit EIA from meeting its mission of providing 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.

## A.7. Compliance with 5 CFR 1320.5

All the guidelines listed in the OMB guidelines are met. There are no special circumstances.

## A.8. Summary of Consultations Outside of the Agency

Consultations with staff from other Federal agencies that sponsor surveys conducted by EIA will occur in conjunction with the testing program for each survey. These consultations include discussions concerning potential response problems, clarity of questions and instructions, and other aspects of respondent burden. EIA staff are active members of both government organizations and private organizations focused on the survey data collection and survey operations. As part of their memberships, EIA staff frequently attend annual conferences and regularly present research and chair panels at these events.

Since the last clearance of EIA-882T in March 2016, EIA has engaged in the follow activities to meet the requirements of consultations outside of the agency:

EIA staff presented at Federal Committee on Statistical Methodology (FCSM) Research and Policy Conference March 7-9th 2018, and chaired a panel at the 2017 Federal Computer Assisted Survey Information Collection workshop on April 12, 2017 (FedCasic) and another session at 2018 FedCasic on April 17, 2018. EIA staff also attended the American Association for Public Opinion Research (AAPOR) Conferences in May 18-21, 2017 in New Orleans, LA and May 16-19, 2018 in Denver, CO. Additional efforts to consult with respondents to obtain their views on the availability of data, clarity of instructions, etc. may be undertaken as part of the testing conducted under this clearance. All EIA staff who preform cognitive research are members of the Interagency Response Error Group (IREG). This group is composed of employees across principal federal statistical agencies and meets quarterly to discuss current cognitive research projects and confer about common issues affecting cognitive research. In addition to attending these quarterly meetings, EIA hosted two IREG meeting at its headquarters on October 12, 2016 and on April 25, 2018. At the October 12, 2016 IREG meeting, EIA staff discussed common issues on measuring respondents’ perceptions on privacy protections. At the IREG meeting on April 25, 2018, EIA staff presented on how to measure burden for cognitive research projects to account for the time participants spend reading invitational materials and preparing for an interview. On October 10, 2018 EIA staff presented at the IREG meeting hosted by NASS on determining the appropriate sample size for designing a cognitive research project and how to assess when a researcher reaches the “saturation point” in collecting information from a sample of participants.

## A.9. Payments or Gifts to Respondents

Respondents for activities conducted in the laboratory (e.g. cognitive interviews and focus groups) under this clearance may receive compensation for travel and participation. This practice has proven necessary and effective in recruiting subjects to participate in such research, and is also employed by the other Federal cognitive laboratories. Research on incentives that may be conducted under this clearance may also involve nonmonetary incentives. The Office of Management and Budget (OMB) has noted that effectiveness of such incentives is a worthwhile research topic. If incentives need to be proposed for any research activity under this clearance, justification will be provided and we will work closely with OMB on the incentive strategy to be employed.

## A.10. Provisions for Protection of Information

If a confidentiality pledge is deemed useful and feasible, EIA will include a pledge of confidentiality that is supported by authority established in statute or regulation that is supported by disclosure and data security policies that are consistent with the pledge, and that does not unnecessarily impede sharing of data with other agencies for compatible confidential use. If the agency includes a pledge of confidentiality, it will include a citation for the statute or regulation supporting the pledge.

If information is protected by exemptions under the Freedom of Information Act (FOIA), then information provided by participants in cognitive research activities 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 DOE regulations, 10 C.F.R. §1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905. If the survey is protected under the Confidential Information Protection and Statistical Efficiency Act of 2002, then participants are informed that their responses are confidential and will only be used for statistical purposes. This is useful when the cognitive research involves a survey that already is protected under CIPSEA.

The data collected from respondents are tabulated and analyzed only for the purpose of evaluating the research in question. Information from cognitive interviews is de-identified with all direct identifying information removed and reference to the respondent is written in the third person singular and plural tenses. All respondents who participate in research under this clearance will be informed that their participation is voluntary. Survey results will only be presented internally to EIA stakeholders and will be presented in de-identified form.

## A.11. Justification for Sensitive Questions

Most of the questions being asked will not be of a sensitive nature and should not pose a problem to respondents. However, it is possible that in developing surveys potentially sensitive questions may be included. One of the purposes of these efforts is to identify such questions, determine sources of sensitivity, and alleviate them insofar as possible before an actual survey is conducted.

## A.12. Estimate of Respondent Burden Hours and Cost

The total requested burden is 5,400 hours and 6,660 responses. These hours and responses will be distributed as follows:

Annual: 1,800 hours/ 2,220 responses

Total: 5,400 hours/6,660 responses

As EIA works to better meet its organizational goals, we anticipate more collaboration with respect to enhanced survey/product development planning. EIA plans to expand cognitive research activity for evaluating proposals to modify surveys and to more accurately estimate reporting burden. This estimate is based on recent trends to increase the electronic data collection and processing of survey data, our experience with past clearances, and our anticipation that the research will require approximately one hour per respondent.

A variety of forms will be used in conducting the research under this clearance, and the exact number of different forms, length of each form, and number of subject/ respondents per form are unknown at this time. Additional capital, start-up, or operation and maintenance costs for respondents should not be necessary for any data collections under this clearance. There is typically no cost to respondents for participating in the research being conducted under this clearance, except for their time to complete the questionnaire.



Table A1 shows that the average annual burden per response is 1.22 hours per response (2,220 hours / 1800 responses).

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

Additional cost to the Federal Government is not anticipated. Expenses (equipment, overhead, printing, and support staff) will be incurred by EIA components as part of their normal operating budgets. We will include information about costs in the individual submissions to OMB.

## A.14. Changes in Burden



In a previous clearance, EIA requested 6,000 hours and 6,000 responses across all three years. In this current clearance EIA is requesting 6,660 hours and 5,400 responses across the three period (2,220 hours and 1,800 responses annually). The increase in burden hours requested in this clearance is based on EIA’s experience from previous research efforts. EIA found that allotting an average time of 1.2 hours per response is a sufficient amount of time for EIA to carry out its questionnaire testing and research activities. The average burden per response increase for two reasons. First, the burden for cognitive interviews increased from 1 hour to 1.5 hours. An additional 0.5 hour was added to reflect the pre-interview time that participants may spend reviewing invitation letters, past EIA survey reports, and coordinating with their supervisor before agreeing to participate in an interview. Second, EIA added usability testing as an activity and the burden per response for usability testing is 2.0 hours. The change in the time allotted to conduct usability testing and using other research methods raised the weighted average time per response from 1 hour to 1.2 hours.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table A3. ICR Summary of Burden** | | | | |
|  | **Requested** | **Program Change Due to Agency Discretion** | **Change Due to Adjustment in Agency Estimate** | **Previously Approved** |
| Total Number of Responses | 5,400 | -600 | 0 | 6,000 |
| Total Time Burden (Hr) | 6,660 | 660 | 0 | 6,000 |

## A.16. Collection, Tabulation, and Publication Plans

Feedback collected under this generic clearance provides useful information, but it does not yield data that can be generalized to the overall population. Findings will be used for general service improvement, but are not for publication or other public release.

Although the Agency does not intend to publish its findings, the Agency may receive requests to release the information (e.g., congressional inquiry, Freedom of Information Act requests). The Agency will disseminate the findings when appropriate, strictly following the Agency's "Guidelines for Ensuring the Quality of Information Disseminated to the Public," and will include specific discussion of the limitation of the qualitative results discussed above.

## A.17. OMB Number and Expiration Date

The OMB Number (1905-0186) and expiration date will be displayed on all the data collection forms and instructions.

## A.18. Certification Statement

There are no exceptions to the certification statement identified in Item 19, "Certification for Paperwork Reduction Act Submissions," of OMB Form 83-I. This information collection request complies with 5 CFR 1320.9.