

Request for Approval under the “Generic Clearance for Questionnaire Testing and Research” (OMB Control Number: 1905-0186)

Web/Mail National Pilot Test of Form EIA-457A, “Residential Energy Consumption Survey”

PURPOSE: The Residential Energy Consumption Survey (RECS) is a periodic series of surveys of households and their energy suppliers with the purpose of collecting and reporting energy characteristics, consumption, and expenditures data of homes in the United States. The data are widely used throughout the government, academia and the private sector to understand current and future energy demand. Results are released via data tables, public-use data files, and analysis articles.

The Household Survey phase of EIA’s RECS program (Form 457A) has been conducted primarily using in-person interviews since its inception in the late 1970s. Since 1997, EIA and its contractors have used computer-assisted personal interviewing (CAPI) as the means to collect household and structural characteristics data related to energy use in the residential sector. With the rising cost of in-person interviews and the time lapse between each RECS cycle, EIA seeks to test the feasibility, cost effectiveness, time efficiency, and response validity of conducting the RECS Household Survey in self-administered (Web and mail) modes. If proven successful, these new modes of collection will make data collection more sustainable, flexible, and cost effective for residential demand analyses. Using Web and mail modes of data collection may also allow EIA to extend program capacities to cover new topics, close data gaps, and develop estimates for smaller geographic areas.

In spring 2015, EIA conducted a small pilot test of Web and mail modes of collection in five U.S. cities (the “Cities Pilot”). EIA now proposes a nationwide test of these new modes. This pilot will allow for a direct comparison of results using the new methods against the official in-person interviews from the 2015 RECS benchmark. The 2015 RECS will be conducted concurrently with the proposed National pilot test.

EIA will conduct a National Pilot test of the Household Survey using Web and mail data collection modes. This pilot test will incorporate key design elements and lessons learned from the Cities Pilot in order to compare these results against our benchmark RECS CAPI collection.

- The Cities Pilot tested open-ended response options for appliance usage questions. Results showed that response quality was sufficient to support their use in the National Pilot. Response options for these items were also updated in the official 2015 RECS survey collected via CAPI.
- In one experiment embedded in the Cities Pilot, we studied the impact of survey length on response rates and bias. We randomized respondents to receive either a long or short self-administered questionnaire. The long form, at 30 minutes, included the full battery of RECS questions; the short form, at 20 minutes, was a reduced set of questions. The impact on response rates was negligible (a 2% difference), so we will field the full, long form only in the National Pilot test against the RECS CAPI. This permits the fullest evaluation between the personal and web/mail approaches.

- To optimize web response, the Cities Pilot also tested an Internet propensity model that assigned the initial data collection mode to households based on their likelihood of having internet access. Although the propensity model was not sufficient in predicting mode choice, we will run additional mode-related experiments in the National Pilot to identify the best contact protocol for a self-administered RECS.

Thus, the National Pilot will include experiments that vary two design components: response incentives and contact protocols. Sampled housing units will be distributed equally across the treatment groups. Results from these experiments will inform future applications of a self-administered survey approach within a benchmark residential survey data program to achieve optimal validity, precision and accuracy of estimates of U.S. home energy use within occupied housing units.

Incentive treatments (Factor A):

- A1. A \$5 prepaid incentive will be included in the first questionnaire mailing. \$10 will be promised for response under the response protocol specified by Factor B.
- A2. A \$5 prepaid incentive will be included in the first questionnaire mailing. \$20 will be promised for response under the response protocol specified by Factor B.

Contact protocol treatments (Factor B):

- B1. Web Only protocol - only the web response option is offered for all survey response invitations.
- B2. Choice protocol - both paper and web questionnaires are offered for all survey response invitations and reminders
- B3. Choice-Plus protocol - both paper and web questionnaires are offered for all survey response invitations and reminders. However, a \$10 promised bonus incentive is offered in addition to the incentives specified by Factor A if the respondent chooses to respond by the web option rather than by paper.
- B4. Web then Paper protocol (control) - the web response option is offered in the first invitation and first nonresponse invitation; both web and paper are offered in all subsequent reminders.

A sub-sample of nonrespondents will be mailed a short Paper questionnaire consisting of 20 items that can be used to evaluate response bias.

Results of the National Pilot should inform EIA on the feasibility and cost to produce key statistical measures of household energy use of quality that is comparable to the 2015 RECS benchmark collected via CAPI. EIA will evaluate response propensity and data quality by Web and mail respondents to determine optimal mode mix, contact strategies, and statistical methodologies for future RECS studies.

The National Pilot sample will be drawn from a housing unit frame constructed using the U.S. Postal Services' Computerized Delivery Sequence (CDS) file. EIA estimates a total sample size of 9,650 housing units will yield 4,000 completed questionnaires. Average response time is expected to be 30 minutes per complete. EIA estimates 200 completes for the short, nonresponse follow-up paper questionnaire. Average response time for the short questionnaire is expected to be 5 minutes per complete. The total respondent burden to conduct the National Pilot is estimated to be 2,017 hours.

The questionnaire used for the National Pilot is based on the Cities Pilot long form, which includes both minor updates and some additional items to ensure the questionnaire is comparable to the RECS CAPI instrument. This includes the addition of energy assistance questions used in past rounds. Updates were also based on results from cognitive testing conducted in June 2015 and informed by lessons learned from the Cities Pilot collection.

DESCRIPTION OF RESPONDENTS: The National Pilot sample of households will be drawn from a frame of housing units using the U.S. Postal Service Delivery Sequence File (DSF). Respondents will represent the general population.

TYPE OF COLLECTION: (Check one)

- | | |
|---|---|
| <input type="checkbox"/> Field Testing | <input type="checkbox"/> Cognitive Interviews |
| <input type="checkbox"/> Usability Testing | <input type="checkbox"/> Focus Groups |
| <input checked="" type="checkbox"/> Pilot Surveys | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Respondent Debriefings | |

CERTIFICATION:

I certify the following to be true regarding the proposed collection of information:

1. It is necessary for the proper performance of agency functions.
2. It avoids unnecessary duplication.
3. It reduces burden on small entities.
4. It uses plain, coherent, and unambiguous language that is understandable to respondents.
5. Its implementation will be consistent and compatible with current reporting and recordkeeping practices.
6. It indicates the retention periods for recordkeeping requirements.
7. It informs respondents of the information called for under 5 CFR 1320.8 (b)(3) about:
 - i. Why the information is being collected;
 - ii. Use of information;
 - iii. Burden estimate;
 - iv. Nature of response (voluntary, required for a benefit, or mandatory);
 - v. Nature and extent of confidentiality; and
 - vi. Need to display currently valid OMB control number
8. It was developed by an office that has planned and allocated resources for the efficient and effective management and use of the information to be collected.
9. It uses effective and efficient statistical survey methodology (if applicable).
10. It makes appropriate use of information technology.

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U.S. Energy Information Administration

To assist review, please provide answers to the following questions:

Personally Identifiable Information:

1. Is personally identifiable information (PII) collected? Yes No
2. If Yes, will any information that is collected be included in records that are subject to the Privacy Act of 1974? Yes No
3. If Yes, has an up-to-date System of Records Notice (SORN) been published? Yes No

Gifts or Payments:

Is an incentive (e.g., money or reimbursement of expenses, token of appreciation) provided to participants? Y No

All National Pilot sampled households will receive a \$5 prepaid incentive. Responding households will receive an additional incentive upon completing the survey. The amount of the promised incentive will vary based on the household incentive treatment group and the mode of response.

BURDEN HOURS

Category of Respondent	No. of Respondents	Participation Time	Burden
Individuals/Householders: Web/Mail National Pilot	4,000	30 minutes	2000 hours
Individuals/Householders: Mail National Pilot Nonresponse Followup	200	5 minutes	1 hours
Totals	4,200		2017 hours

FEDERAL COST: The estimated cost to the Federal government is \$2,000,000. This includes the entire cost of modifying the Web and Paper instruments, sample design, data collection, respondent incentives, post collection statistical activities, analysis, documentation, and reporting.

If you are conducting a focus group, survey, or plan to employ statistical methods, please provide answers to the following questions:

The selection of your targeted respondents

1. Do you have a customer list or something similar that defines the universe of potential respondents and do you have a sampling plan for selecting from this universe?
 Yes No

If the answer is yes, please provide a description of both below (or attach the sampling plan)? If the answer is no, please provide a description of how you plan to identify your potential group of respondents and how you will select them?

The population of interest for the National Pilot is all occupied housing units in the United States. The sampling approach is to select a systematic sample of housing units from an address-

based sampling frame. The frame will be stratified on geography and other energy related characteristics.

Administration of the Instrument

1. How will you collect the information? (Check all that apply)

Web-based or other forms of Social Media

Telephone

In-person

Mail

Other, Explain

2. Will interviewers or facilitators be used? Yes No

Please make sure that all instruments, instructions, and scripts are submitted with the request.

Instructions for completing Request for Approval under the
“Generic Clearance for Questionnaire Testing and Research”
(OMB Control Number: 1905-0186)

TITLE OF INFORMATION COLLECTION: Provide the name of the collection that is the subject of the request. (e.g. Comment card for soliciting feedback on xxxx)

PURPOSE: Provide a brief description of the purpose of this collection and how it will be used. If this is part of a larger study or effort, please include this in your explanation.

DESCRIPTION OF RESPONDENTS: Provide a brief description of the targeted group or groups for this collection of information. These groups must have experience with the program.

TYPE OF COLLECTION: Check one box. If you are requesting approval of other instruments under the generic, you must complete a form for each instrument.

CERTIFICATION: Please read the certification carefully. If you incorrectly certify, the collection will be returned as improperly submitted or it will be disapproved.

Personally Identifiable Information: Provide answers to the questions. Note: Agencies should only collect PII to the extent necessary, and they should only retain PII for the period of time that is necessary to achieve a specific objective.

Gifts or Payments: If you answer yes to the question, please describe the incentive and provide a justification for the amount.

BURDEN HOURS:

Category of Respondents: Identify who you expect the respondents to be in terms of the following categories: (1) Individuals or Households; (2) Private Sector; (3) State, local, or tribal governments; or (4) Federal Government. Only one type of respondent can be selected per row.

No. of Respondents: Provide an estimate of the Number of respondents.

Participation Time: Provide an estimate of the amount of time required for a respondent to participate (e.g. fill out a survey or participate in a focus group)

Burden: Provide the Annual burden hours: Multiply the Number of responses and the participation time and divide by 60.

FEDERAL COST: Provide an estimate of the annual cost to the Federal government.

If you are conducting a focus group, survey, or plan to employ statistical methods, please provide answers to the following questions:

The selection of your targeted respondents. Please provide a description of how you plan to identify your potential group of respondents and how you will select them. If the answer is yes, to the first question, you may provide the sampling plan in an attachment.

Administration of the Instrument: Identify how the information will be collected. More than one box may be checked. Indicate whether there will be interviewers (e.g. for surveys) or facilitators (e.g., for focus groups) used.

Submit all instruments, instructions, and scripts are submitted with the request.