



Department of Energy

Washington, DC 20585

February 27, 2015

Department of Energy Desk Officer
Office of Information and Regulatory Affairs
Office of Management and Budget
Washington, DC 20503

SUBJECT: Use of Generic Clearance for U.S. Energy Information Administration (EIA-882T(58), approved under OMB number 1905-0186), to conduct pilot tests of Web and mail modes of collection for form EIA-457A, "Residential Energy Consumption Survey."

Dear Desk Officer:

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 and the private sector for policy analysis and are made available to the public via data tables, public-use data files, and analysis articles.

Background: 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 critical household and structural characteristics 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 the RECS program. Using Web and mail modes of data collection may also allow EIA to extend program capacities in the future to cover special topics and data gaps, as well as develop estimates for small areas.

Proposed Methods: EIA will conduct a Cities Pilot test of the Household Survey using data collection modes other than CAPI. It will also test the use of open ended responses to specific appliance usage questions. Results of the Cities Pilot should inform EIA on the feasibility and cost to produce key statistical measures at the same level of quality that are produced from the CAPI data collection mode. 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. EIA will

also evaluate open-ended responses to the appliance usage questions to inform optimal question-response strategies in follow-on tests and future RECS household survey cycles.

This pilot test will be conducted in five U.S. cities – Worcester, MA; Chicago, IL; Jacksonville, FL; Seattle, WA; and San Diego, CA. EIA estimates a total of 2,200 completed household surveys and an average of 25 minutes per complete. (See note below regarding per response burden estimate.) All responses will be collected from self-administered (Web or mail mode) questionnaires. The total respondent burden to conduct the Cities Pilot is estimated to be 917 hours.

Note about burden estimate: The questionnaire burden estimates per response are based on a household energy use study conducted in 2014 by the Joint Program in Survey Methodology (JPSM) at the University of Maryland. This study fielded a RECS-like household survey with input from EIA. Respondents answered an average of 97 questions and median web response was 22 minutes for an average item response of 13.6 seconds. We applied this estimate to determine the per response burden estimate for the questionnaire being used for the Cities Pilot.

The questionnaire used for this pilot test will include updates from the CAPI instrument used for the most recent survey, the 2009 RECS. This includes new questions requested by stakeholders and key data users, as well as modified questions and response options to adapt to self-administered modes of collection. Some of the Cities Pilot questions and response options are informed by feedback from recently completed cognitive testing. EIA will analyze the quality of these new or modified items and apply lessons learned to future studies. For example, the Cities Pilot questionnaire will include revised appliance usage questions with open-ended response options for dishwasher, stove use, cooktop use, oven use, microwave use, dishwasher use, clothes washer use, dryer use, most-used TV weekday watching use, most-used TV weekend watching use, second most-used TV weekday watching use, and second TV most-used TV weekend watching use. EIA will analyze responses for these items to determine which Cities Pilot methodologies should be used in future rounds of testing.

Burden: We expect 2,200 completed surveys for the Cities Pilot test. Each survey will take approximately 25 minutes to complete. Total respondent burden for the Cities Pilot is estimated to be 917 hours.

The estimated cost to the Federal government is \$1,500,000. This includes the entire cost of designing the Cities Pilot, building Web and paper instruments, data collection, respondent incentives, post collection statistical activities, analysis, documentation, and reporting.

The cost of burden hours to household respondents is estimated to be \$65,996 (917 burden hours times \$71.97 per hour.) Other than the cost of burden hours, EIA estimates that there are no additional costs to respondents for generating, maintaining and providing the information.

EIA will provide OMB with the results of these tests in the annual summary of generic clearances. Attached are the draft survey questions and specifications to be used for the pilot tests.

For questions on these methods, please contact Jacob Bournazian (202-586-5562).

Sincerely,

Nanda Srinivasan, Director
Office of Survey Development and
Statistical Integration
U.S. Energy Information Administration