

## **B. Collections of Information Employing Statistical Methods**

### **B1. Description of Respondent Universe and Sampling Plan**

The universe consists of all operators of producing wells in the United States (excluding Alaska) that produce natural gas, including Offshore wells. A natural gas operator forms the responding unit. A cut-off sample of well operators is selected. It is refined to give the targeted coverage in all areas with the minimum amount of operators. For the 2007 survey, EIA met its quality goal with 220 operator respondents. The cut-off sample is designed to provide about 90 percent coverage at the lower-48 level and an adequate percent coverage in seven areas. The seven areas include the Gulf of Mexico Federal Offshore, Louisiana, New Mexico, Oklahoma, Texas, Wyoming, and Other States (defined as all remaining States excluding Alaska).

The cut-off sample is selected from a current commercially available data source (HPDI LLC) and the EIA-23 frame. These provide the most recent and accurate available data. All estimates are based on the adjusted ratio estimate method with the exception of Other States which is currently determined by applying the ratio of 2005 total gross natural gas production published in the EIA *Natural Gas Annual* to the 2005 EIA-914 survey production. The 2007 EIA-914 frame consisted of roughly 8,300 operators who produced at least 1,000,000 cubic feet of gas per day in 2005.

### **B2. Data Aggregation Procedures**

Currently, well operator respondents are asked to submit monthly reports of their natural gas production for seven areas. The respondent data submitted for each area are processed by EIA using its Standard Energy Processing System (STEPS), a general-purpose survey processing system originally developed by the Bureau of Census. EIA has an established procedure for both follow-up of non-respondents and for verification of data filed. Data filed on the EIA-914 are aggregated in STEPS and undergo a series of mathematical checks for reasonableness and accuracy. EIA uses documented techniques to estimate total monthly natural gas production volumes for the total US and the seven areas (techniques described at [http://www.eia.doe.gov/oil\\_gas/natural\\_gas/data\\_publications/eia914/eia914meth.pdf](http://www.eia.doe.gov/oil_gas/natural_gas/data_publications/eia914/eia914meth.pdf)).

#### **B2.1 Revisions**

Revisions to aggregated data are published when respondents submit revised data for prior months or late data for the current month; see EIA-914 revision policy at

[http://www.eia.doe.gov/oil\\_gas/natural\\_gas/data\\_publications/eia914/revision\\_policy.pdf](http://www.eia.doe.gov/oil_gas/natural_gas/data_publications/eia914/revision_policy.pdf).

## **B2.2 Security**

Several steps have been taken to assure confidentiality and security of respondent data and estimates during data processing and report preparation. One example is that respondent data can be submitted to EIA using the secure file transfer (SFT) system. SFT is based on the secure hypertext transfer protocol (HTTPS), an industry standard method to send information over the web using a secure, encrypted process. All information is protected by 128-bit encryption to maintain the privacy and confidentiality of transmitted data. See Section A10 for a discussion on confidentiality of the data.

## **B3. Methods to Maximize Response Rates**

Form EIA-914 is collected under EIA's mandatory data collection authority and its response rate has been good. For example, the 2006 production weighted response rate for the eight areas averaged 99 percent. To maximize response rates, the form was designed for ease of completion, and instructions were written in a clear and concise manner to make them easily understood. Potential respondents initially tested the form and instructions, which were modified based on their feedback. Furthermore, small operators who usually have low response rates are not sampled.

Forms are e-mailed as early as possible to maximize the time that respondents have to complete the surveys; the forms and instructions are available on the EIA Website. Survey non-respondents are contacted by telephone to discuss the requirement to file and any problems or questions that are delaying filing. Follow-up letters regarding the failure to file are also mailed to non-respondents. Specific schedules are followed for telephone calls and letters to non-respondents. Every effort is made to assist respondents in completing the survey and submitting it in a timely manner.

## **B4. Contacts**

For additional information concerning the survey design, please contact Rhonda Green at (214) 720-6161. For more information regarding the approval request, please contact Grace Sutherland at (202) 586-6264.