

**MECS: Manufacturing Energy Consumption Survey  
Protocol for Energy Efficiency Questions – Round One  
May 2014 – Version B**

*(This protocol is a guide – the questions presented here won't necessarily be asked exactly as worded in the protocol or in this order. It is important to note that not all questions will be asked in every interview.)*

**Research Goals**

- To assess potential respondents' understanding of electrical demand control terminology, demand management terminology, and in general, terminology related to energy management practices;
- To confirm that potential respondents, including both the person and the manufacturing site, can complete the new energy management questions that will be added to the MECS;
- To assess the cognitive burden required from potential respondents at these manufacturing sites to respond to these new questions.

**Part A – Introduction**

- Introduce observers and their background

**Purpose of visit:**

Let me start by telling you a little about what we will be doing today:

- The Energy Information Administration (EIA) added some new energy management questions to the Manufacturing Energy Consumption Survey (MECS) that will be conducted in 2015.
- The MECS is a national survey conducted jointly by EIA and the Census Bureau. The survey provides detailed data on energy consumption in the manufacturing sector.
- This manufacturing site was selected because it is a site, or what we call an establishment, that could potentially be selected to be on the MECS. As a potential respondent, we want to ask you, a representative of this manufacturing site, about these questions to see how easy or difficult they are to answer
- Ultimately, we are interested in how you understand our questions, how the information we ask for is kept in your records, and the challenges you may face when reporting the data to EIA.
- There are no right or wrong answers, and if something doesn't make sense to you or you have any questions, please ask. It is important for us to know both things that work and don't work so we can improve the form.
- Before we get started, I'd like to audio record this interview so I don't have to later rely on my memory. This session is confidential, which means only persons directly related to this project can listen to your tapes, and the recordings are erased once our report is written. The report combines information from all of

our interviews and contains no information that personally identifies you or the plant at which you work. Is it okay if I record this interview?

- Do you have any questions?

## **Part B – Background Information**

Let's begin by talking about your manufacturing site:

- How long has this manufacturing site been in business?
- What is the primary function of this manufacturing site?
- Are there other types activities that occur at this site/location?

What is your role at this company?

- What is your title?
- How long have you been at this manufacturing site?
- What are your responsibilities?
- Are you in charge of government reporting? (If not, who is?)

Do you currently complete any government forms? Can you tell me more about the other forms for which you report?

- (If needed) Do you complete any regulatory forms, State and/or Federal?
- (If needed) Do you complete any other EIA forms?
- (If respondent has completed the MECS in the past) Are the data that you submit on the MECS reported on any other government forms? These may be forms from EIA, other federal agencies, or state agencies.
- Do you generally have the data needed to report for these forms, or do you work with others to gather this data?
- How do you usually submit these other reports? (electronically, fax, mail, email)
- Do you fill out these other forms manually or automatically?

## **Part C – New MECS Questions for Energy Efficiency**

In the interest of time, we are only going to ask you about the new energy management questions that EIA would like to add to the 2014 MECS. Because we're only focusing on the new questions, I may ask you to skip questions as we walk through the survey form.

### **Energy Management Activities**

Please take a few minutes to look over these proposed new questions that we want to add to the 2014 MECS.

Let's start by looking at the **Items 201-204**.

Now take a few minutes to read **Item 201**.

- Can you tell me in your own words what this question is asking?
- What does the term "pumping systems" mean to you?
- (If needed) When you think of "pumping systems," what comes to mind?
- How would you answer this question?
- (If needed) How would you know if the pumping system is installed equipment or a retrofit?
- (If needed) How would you know the source of assistance?
- (If needed) Looking at the response options available, what does the term "In-house" mean to you? What about the term "product or service provider?"
- In your opinion, are there any sources of assistance that are missing from the list for this particular question?

Next, take a moment to review **Item 202**.

- How would you answer this question?
- What does the term "fan systems" mean to you?
- (If needed) When you think of "fan systems," what comes to mind?
- (If needed) How would you know if the fan system is installed equipment or a retrofit?
- (If needed) How would you know the source of assistance?

Let's move on to **Item 203**.

- Can you tell me in your own words what this question is asking?
- And how would you answer this question?
- Now thinking about the term "other process motor driven systems," what does this term mean to you?
- (If needed) When you think of "other process motor driven systems," what comes to mind?
- (If needed) How would you know if the "other process motor driven systems" are installed equipment or a retrofit?
- (If needed) How would you know the source of assistance?

Now finally for this section, let's look at **Item 204**. Take a moment to review it.

- How would you answer this question?
- What does the term "computing systems" mean to you?
- (If needed) When you think of "computing systems," what comes to mind?
- (If needed) How would you know if the "computing systems" are installed equipment or a retrofit?
- (If needed) How would you know the source of assistance?

Now we are going to skip two questions and go directly to **Item 207**. Take a moment to read **Item 207**.

- When you read this question, in your opinion, what is it asking?
- What does the term “management decision making” mean to you?
- What does the term “total life cycle” mean to you?
- Looking at the response options listed, how would you answer this question?
- How confident are you in your response?

Next, take a moment to read the next item, **Item 208**.

- Can you tell me in your own words what this question is asking?
- What does the term “energy use” mean to you?
- How about the term “consumption?”
- (If needed) In your opinion, do the term “energy use” and the term “consumption” mean the same thing or are they different?
- Now looking at the response options available, what term would you use to describe these programs?
- Are there any programs missing?
- Looking at the response options listed, how would you answer this question?
- How confident are you in your response?

Let’s go ahead and move on to the next item, **Item 209**. Take a moment to read it.

- Can you tell me in your own words what this question is asking?
- Have you heard of the term “ISO 50001?”
- (If yes) What is “ISO 50001?”
- How would you answer this question for this establishment?
- How confident are you in your response?
- (If needed) Is there someone else in this establishment that would be better at responding to this question?
- (If yes) Who? And what do they do?

(If yes to **209**) Now looking at **Item 210**, Can you tell me what this question is asking?

- How would you know if this establishment is implementing ISO 50001?
- How would you answer this question for this establishment?
- How confident are you in your response?
- (If needed) Is there someone else in this establishment that would be better at responding to this question?
- (If yes) Who? And what do they do?

(If yes to **209**) Next, **Item 211** asks about implementing ISO 50001, how would you answer this question?

- How confident are you in your response?
- (If needed) Is there someone else in this establishment that would be better at responding to this question?
- (If yes) Who? And what do they do?

Let's skip these next questions and move on to **Item 218**.

- What does the term "energy management" mean to you?
- How would you answer this question?
- How confident are you in your answer?
- Is there a better way to ask this question?

(If yes to **Item 218**) Looking at the next question, **Item 219**, what is it asking?

- How would you answer this?
- How confident are you in your answer?
- Is there a better way of asking this question?

**Item 220** please take a moment to look at the question.

- In your own words can you tell me what does the term "submetering" mean to you?
- How would you answer this question?
- How confident are you in your answer?

Moving on to **Item 221**, can you tell me in your own words what this question is asking?

- What does the term "methodology" mean to you?
- What does "criteria" mean to you?
- How would you respond to this question?
- (If needed) Would you consult with someone else to answer this question?
- (If needed) Would you consult records?

Now let's look at **Item 222**. Please take a moment to look over the question?

- How would you answer this question?
- Who/what would you consult with in order to answer this question?
- How confident are you in your response?

(If yes to **Item 222**) In your opinion, what is **Item 223** asking?

- What does the term "other direct machine drives" mean to you?
- How would you answer this question?
- (If needed) Would you consult with someone else to answer this question?
- (If needed) Would you consult records?

Please look over **Item 224**.

- In your own words, what does "maximum simple payback" mean to you?
- What about the phrase "capital investment projects?"
- How would you respond to this question?
- (If needed) Would you consult another person in order to answer this question?  
What about records?

- How confident are you in your response?

In the interest of time, we will skip over the next few questions and move to **Item 232**. Please take a moment to look over the question.

- In your opinion, what is this question asking?
- How would you answer this question?
- (If needed) Would you consult with someone else to answer this question?
- (If needed) Who would you consult? What is their position?

Now let's move on to **Item 233**. Please take a moment to look over this question.

- In your own words, what is this question asking?
- What are "controls" in the context of this question?
- What about "critical grid conditions?"
- How would you answer this question?
- (If needed) Would you consult with someone else to answer this question?
- (If needed) Who would you consult? What is their position?
- How confident are you in your answer?

### **Wrapping Up**

- Overall, what do you think of these energy management questions?
- If we weren't here, how long do you think it would take you to complete these energy management questions?
- Do you have any suggestions to improve them?

**Thank you for your time today!**