

HYDROGEN SURVEY 2008 END USERS

Using Computer Assisted Telephone Interview (CATI), the company will be contacted. The following protocol will be used.

Interviewer:

May I please speak to the person who is most responsible for energy-related decisions at this location? [*INTERVIEWER, SEE HELP SHEET FOR POSSIBLE TITLES FOR THIS SEGMENT*]

Hello, I'm ___ calling from _____ on behalf of the U.S. Department of Energy. The DOE is sponsoring a survey about energy sources with business leaders in your sector. Each company we contact is an important part of the survey process and we urge you or someone within your organization to participate. While your responses are voluntary, every response is valuable in this survey because the results will be used to help design the hydrogen education program for the Department of Energy. Are you the person most responsible for energy-related decisions at this location?

Your responses are confidential, and neither you nor your company name will be associated with the results.

Before we begin, I would like you to know there are both technical and opinion questions in the survey. Tell me what you think or believe, but keep in mind that “no opinion” or “don’t know” are perfectly acceptable responses. The survey takes about 12 minutes to complete.

Interviewers will also have the following information to provide to the respondent:

- OMB Control Number
- Hydrogen website URL

Also note that, if asked at any point during the survey, the interviewer should tell the respondent that there are no trick questions.

Opening Question

Q1. Please rate your familiarity with hydrogen and fuel cell technologies:

- A. Not at all familiar
(You know nothing about hydrogen and fuel cell technologies)
- B. Slightly familiar
(You've heard about hydrogen and fuel cell technologies, read an article or watched a television feature about the technology, or participated in casual conversation about the technology)
- C. Familiar
(You've had limited experience with hydrogen and fuel cell technologies; researched the subject for school, work, or personal interest; or learned about the technology in a class or workshop)
- D. Very familiar
(You consider yourself an expert in hydrogen and fuel cell technologies)

Q2. I am going to read several job titles; please tell me which one applies to you.

- A. Fleet manager
- B. Plant or facility manager
- C. Operations manager
- D. Financial manager
- E. Energy manager
- F. CEO
- G. Something else (specify) _____
- H. Don't know/Refused

Q3. How many years have you held this position?

- A. Less than one year
- B. Between one and five years
- C. Over five years
- D. Don't know/Refused

Ask if respondent is in the "transportation" category

Q4. How many vehicles are in the ground-based fleet operated by your organization or agency?

- A. Less than 100
- B. 100-1,000
- C. 1,000-10,000
- D. Over 10,000
- E. Don't know/Refused

Ask if respondent is in the "needs uninterrupted power" or "large power requirements" categories

Q5. What is the average annual cost of electrical energy for your organization or agency?

- A. Under \$100,000

- B. \$100,000 - \$1 million
- C. \$1 million - \$2 million
- D. Over \$2 million
- E. Don't know/Refused

Technical Knowledge Questions

T1-4 I am going to read several statements. After each one, please tell me if you believe the statement is true, if it is false, or if you don't know

- A. True
- B. False
- C. Don't know/No opinion
 - T1. Hydrogen gas is toxic
 - T2. Fuel cells produce electricity through hydrogen combustion
 - T3. Hydrogen is lighter than air
 - T4. Hydrogen has a distinct odor

T5. Fuel cells can provide power to which of the following?

- A. Your home
- B. Your car
- C. Your laptop computer
- D. None of these
- E. Or, all of these
- F. Don't know/No opinion

T6. In which state or condition can hydrogen be stored?

- A. Chemical compound
- B. Liquid
- C. Both of these
- D. Or, neither of these
- E. Don't know/No opinion

T7. When using pure hydrogen, fuel cell vehicles generate electricity, water, and what else?

- A. Carbon dioxide
- B. Nitrous oxides
- C. Heat
- D. Or, all of these
- E. Don't know/No opinion

T8. Hydrogen can be produced using which of the following sources of energy?

- A. Natural gas
- B. Sunlight
- C. Organic matter
- D. Or, all of these
- E. Don't know/No opinion

Opinion Questions

O1-7. I am going to read some characteristics of fuels or power supplies. Please rate the importance of each characteristic for your facility, using a scale of low, medium, high, or no opinion.

- A. Low
- B. Medium
- C. High
- D. No opinion
 - O1. System installation cost
 - O2. System maintenance cost
 - O3. Fuel cost
 - O4. Dependability
 - O5. Safety
 - O6. Environmental impact
 - O7. Uninterrupted availability

O8. How would you feel if your local gas station also sold hydrogen?

- A. Frightened
- B. Uneasy
- C. At ease
- D. Or, pleased
- E. Don't know/No opinion

O9. Please tell me if you believe the following statement is true, if it is false, or if you don't know.

- A. True
- B. False
- C. Don't know/No opinion

O6. Hydrogen is too dangerous for everyday use by the general public.

O10-12. Next, I am going to read several statements about potential benefits of using hydrogen as a VEHICLE FUEL. For each, tell me if you disagree, are neutral, agree, or if you have no opinion?

- A. Disagree
- B. Are neutral
- C. Agree
- D. No opinion
 - O10. Using hydrogen will reduce U.S. dependence on foreign oil
 - O11. Using hydrogen will reduce emissions and improve air quality
 - O12. Hydrogen is as safe to use in my car as gasoline and diesel fuels

O13-O18. For the following applications, please rate the safety of using hydrogen and fuel cells, in comparison with technology in use today. Is it not as safe, equally as safe, or safer to use hydrogen and fuel cells for ...

- A. Not as safe

- B. Equally as safe
- C. Safer
- D. No opinion
 - O13. Personal cars and trucks
 - O14. Buses and commercial vehicles
 - O15. Large power plants
 - O16. Small portable devices such as laptop computers or cell phones
 - O17. Onsite power for the home
 - O18. Onsite power for buildings such as hospitals and schools

O19. If fuel cell vehicles were available today at a cost competitive to gasoline internal combustion engine vehicles, would you buy/lease or recommend buying/leasing them for your organization's vehicle fleet?

- A. Yes
- B. No
- C. Don't know

O20. If stationary fuel cells were available today at a cost competitive to traditional power systems, would you buy or recommend buying one to help meet your facility's power needs?

- A. Yes
- B. No
- C. Don't know

O21. I am going to read several statements. Please select the one that describes how you feel about using hydrogen and fuel cell technology to meet your organization's energy needs.

- A. I know enough to seriously consider it if products are available
- B. I am considering it but need more information
- C. I'm going to wait and see how the market develops
- D. There's no way I'll consider it anytime soon
- E. Don't know/No opinion

Information Sources

I1-8. The next question is about your use of information sources that can help you make decisions about energy costs and safety. How often do you use each of the following sources for energy information? Would you say never, sometimes, or frequently?

- A. Never
- B. Sometimes
- C. Frequently
- D. Don't know
 - I1. Teachers and schools
 - I2. Friends and family members
 - I3. Environmental and conservation groups
 - I4. Utility companies or brokers, for example, gas or electricity providers
 - I5. Industry/trade associations or non-profit organizations
 - I6. Federal government

- I7. State government
- I8. Local government

I9-14. Finally, how often do you get energy information from different types of mass media?

Would you say that you never, sometimes, or frequently get energy information from...

- A. Never
 - B. Sometimes
 - C. Frequently
 - D. Don't know
- I9. Television
 - I10. Radio
 - I11. The Internet
 - I12. Newspapers and general interest magazines
 - I13. Science and technology magazines and journals
 - I14. Business or trade magazines

I15. Have you received information at your workplace concerning hydrogen and/or fuel cells?

- A. Yes → Skip to I17
- B. No → Continue
- C. Don't know → Continue

I16. Would information be valuable to you?

- A. Yes
- B. No
- C. Don't know

I17. Would a "Hydrogen 101" class, or training at a conference, be of value to you?

- A. Yes → Continue to I18
- B. No → Skip to A1
- C. Don't know → Skip to A1

I18. Which would you prefer?

- A. A workshop in conjunction with a major conference I am already planning to attend
- B. Stand-alone workshop in my area
- C. Either one
- D. Don't know/No opinion

Audience-specific Questions

A1. Does your organization use hydrogen and/or fuel cells for any purpose?

- A. Yes → Continue
- B. No → Skip to A3
- C. Don't know → Skip to A3

A2. What is the PRIMARY function of the hydrogen and/or fuel cells used by your organization?

- A. To power buses
- B. To power vehicles other than buses
- C. To provide stationary on-site power
- D. To provide power for small portable equipment
- E. To provide back-up power
- F. Other [Specify]
- G. Don't know/Refused

A3. Does your organization have plans to use hydrogen or fuel cells in the future?

- A. Yes → Continue
- B. No → Skip to A5
- C. Don't know → Skip to A5

A4. What is the time frame for your plans to use hydrogen or fuel cells?

- A. Within the next year
- B. 1-5 years
- C. Over 5 years
- D. Don't know