

HYDROGEN SURVEY 2008 STUDENTS

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

Interviewer:

Hello, I'm ___ calling from _____ on behalf of the U.S. Department of Energy. Your household has been randomly selected for an important national research survey about new energy sources. I want to assure you we are not selling any products or services.

Ask to speak with an adult, 18 years of age or older, who lives in this household.

Your telephone number has been selected at random to be included in the study. I have a couple of questions to determine who in your household should be interviewed for this study. All of your responses will be confidential. How many [INSERT FROM BELOW] live in this household?

- A. None
 - B. One
 - C. Two or more
 - D. Refused
-
- 1. Adults 18 to 45 years old
 - 2. Adults over 45 years old
 - 3. Children under 6 years old
 - 4. Children 6 to 11 years old
 - 5. Children 12 to 17 years old

For this interview, the person 12-17 years old has been selected. None of the answers will be associated with your household in any way.

May I please speak to the 12-17 year old who had the most recent birthday?

When teen comes to phone:

Hello, I'm ___ from ____. We're conducting a research survey on behalf of the U.S. Department of Energy about your knowledge and opinions about hydrogen and fuel cell technologies. Your responses are voluntary; however, every response is extremely important. It will take about 14 minutes to complete the survey.

The results of this survey will be used to help design the hydrogen education program for the U.S. Department of Energy. Your responses are confidential and will not be associated with you or your household in any way.

Before we get started, I want to mention that 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.

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)

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. 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

O2. How would you feel if your school's electricity and heat were provided by a fuel cell located on school grounds?

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

O3. 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.

O4-6. 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

O4. Using hydrogen will reduce U.S. dependence on foreign oil

O5. Using hydrogen will reduce emissions and improve air quality

O6. Hydrogen is as safe to use in my car as gasoline and diesel fuels

O7-12. 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
- O7. Personal cars and trucks
 - O8. Buses and commercial vehicles
 - O9. Large power plants
 - O10. Laptop computers or cell phones
 - O11. Power for your home
 - O12. Power for buildings such as hospitals, banks, and schools

O13-18. I am going to read several characteristics of new vehicles. Please imagine that you are shopping for an automobile, and rank each of the following characteristics for its importance to you. Would you say it is not important, you are neutral, it is important, or you don't have an opinion?

- A. Not important
 - B. Neutral
 - C. Important
 - D. No opinion
- O13. Cost of vehicle at the point of sale
 - O14. Gas mileage
 - O15. Power and speed
 - O16. Reliability
 - O17. Safety
 - O18. Impact on the environment – emissions produced

Information Sources

I1-7. Have you ...

- A. Yes
 - B. No
 - C. Don't know
- I1. Received instruction on or otherwise learned about energy use, fuels, and emissions
 - I2. Received instruction on or otherwise learned about hydrogen and fuel cells
 - I3. Ever used a demonstration kit to produce hydrogen
 - I4. Ever used a model fuel cell science kit
 - I5. Ever seen or used a hydrogen fuel cell model car
 - I6. Participated in a fuel cell vehicle design competition
 - I7. Participated in a science competition that involved knowledge of hydrogen or fuel cells in some way

FOR ALL QUESTIONS I1-I17 FOR WHICH THE RESPONSE IS “YES,” ASK THE FOLLOWING. (Note: if asked, indicate that “at school” includes home-schooled activities for students who receive all their education via home schooling)

I8-14. Did the learning or activity take place at school?

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

I8. Received instruction on or otherwise learned about energy use, fuels, and emissions

I9. Received instruction on or otherwise learned about hydrogen and fuel cells

I10. Ever used a demonstration kit to produce hydrogen

I11. Ever used a model fuel cell science kit

I12. Ever seen or used a hydrogen fuel cell model car

I13. Participated in a fuel cell vehicle design competition

I14. Participated in a science competition that involved knowledge of hydrogen or fuel cells in some way

FOR ALL QUESTIONS I8-I14 FOR WHICH THE RESPONSE IS “NO,” ASK THE FOLLOWING.

I15-21. If not at school, where did the learning take place?

- A. With my family [*at home (not home-school), at a museum*]
- B. In a youth group activity [*after school program or club, scouts, camp*]
- C. On my own [*via the Internet, television, newspapers, books*]
- D. Other [specify]
- E. Don't know

I15. Received instruction on or otherwise learned about energy use, fuels, and emissions

I16. Received instruction on or otherwise learned about hydrogen and fuel cells

I17. Ever used a demonstration kit to produce hydrogen

I18. Ever used a model fuel cell science kit

I19. Ever seen or used a hydrogen fuel cell model car

I20. Participated in a fuel cell vehicle design competition

I21. Participated in a science competition that involved knowledge of hydrogen or fuel cells in some way

I22-27. 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

I22. Television

- I23. Radio
- I24. The Internet
- I25. Newspapers and general interest magazines
- I26. Science and technology magazines and journals
- I27. Business or trade magazines