

Environmental Protection Agency

Fuel Economy Label - Phase 2 Focus Group Moderator Guide

Introduction (8 minutes)

- Moderator introduces herself/himself.
- [Explain:] A focus group is a group discussion where we can learn more in-depth about peoples' ideas and opinions (compared to telephone or written surveys).
- My job is to facilitate the discussion and make sure that everyone has an opportunity to speak and to make sure that no one dominates the conversation.
- Mention observers in separate room. Our discussion today is being recorded. These
 recordings allow us to write a more complete report, and to make sure we accurately reflect
 your opinions.
- Housekeeping Toilets and refreshments.
- Mention ground rules:
 - o There is no right or wrong answer; we're interested in your honest and candid opinions and ideas.
 - Our discussion is totally confidential. We will not use your name or contact information in any report.
 - o Please only speak one at a time, so that the recorder can pick up all your comments.
 - o It is important to tell YOUR thoughts, not what you think others will think, or what you think others want to hear.
 - o Please turn off cell phones
 - o Your stipend will be provided as you leave.
 - o Relax and enjoy

Thank you all for participating in the survey we sent to you in advance. Today we will continue the discussion talking about new car purchases. Any questions before we begin?

- Let's start off by getting to know a little more about each other. I'd like us to go around the room with each person answering the following questions:
 - Your first name
 - When did you buy your last new vehicle?
 - What make and model did you buy?
 - > Did you consider buying a hybrid, or clean diesel, or some other alternative fuel vehicle?



Current Label Use (12 minutes)

- 1. What were the top two things that influenced your vehicle choice? Could I see a show of hands of those who considered fuel efficiency as an important factor in the decision of which vehicle you chose to buy? Probe: If the vehicle met your needs, but was considered by you to be:
 - Unattractive, would you still have bought it?
 - Not cool, would you still have bought it?

Are there other things that you haven't mentioned that would stop you from buying this vehicle that in all other ways meets your needs?

- 2. Did you have a specific vehicle in mind when you started shopping for a vehicle? Is that the vehicle you ended up purchasing? Why or why not? If not, probe to determine if fuel efficiency influenced the change.
- 3. Did you use the fuel economy label when deciding on your new vehicle purchase? Why or why not? How did you use it? Then show participants a large size example of the current label (as well as 8 x11 copy for each participant) and ask what information on the label most influenced their purchasing decision.
- 4. In regard to the fuel economy label information, do you find the information accurate, in particular to your driving patterns, cost information? Why or why not?
- 5. What are some of the hybrid vehicles that are on the market today? If you look at these vehicles on a new car lot you will see that they use the same fuel economy label as a conventional gasoline engine vehicle. (Show large size version of a Prius fuel economy label and hand out 8 X 11 copy for each participant.) Why is that? (Listen for their understanding of how hybrids work and then explain that:

Hybrid Vehicles use a gasoline engine as well as an electric motor to propel the vehicle. However, power for the electric motor comes from a battery that is charged by the gasoline engine and by "recovering" the energy from the decelerating and braking action of the vehicle. Therefore the only fuel a hybrid vehicle uses is gasoline, either to propel the vehicle or to charge the battery. [Put this statement on a flip chart sheet so that we can refer to it when discussing other types of vehicles below that "work like a hybrid."])

Electric Vehicles (25 minutes)

Now we're going to talk about Electric Vehicles. Read the following (and put on flip chart sheet):

Electric Vehicles use electricity stored in batteries to propel the vehicle. You charge the battery by plugging your vehicle into an electrical outlet. This could be a standard electric outlet or a high voltage custom-installed charging station for more rapid charging. Like hybrid vehicles, energy recovered from braking and decelerations can be used to charge the battery. The vehicle travels until the charge is depleted or you recharge it. You do not have the option to run it on gasoline.



- 6. If you were looking at an Electric Vehicle while shopping on a car dealer lot, what information do you want to see on the Fuel Economy Label? (Capture list on flip chart) Now let's put those in priority order. (Rank the list) (Listen for and probe for items such as range, fuel efficiency, fuel cost, and environmental impact.)
- 7. (Pass out a blank label template) For the next couple minutes I'd like you to look at the list of elements on the flip chart that we discussed and sketch or write down how you might design the label (Have the participants individually work on this for 3 minutes -- Then open up to discussion and have the group work together to design a label for Electric Vehicles using the elements they identified offering up the following as needed. Utilize a large board that is a blank label with pre-created elements as listed below, that can be stuck on the board blank pieces will also be created for additional elements that the group identifies) [May want to probe on use of City and Highway for some of the metrics, e.g., consumption, MPGe, range. There is likely to be a difference in these values across the two conditions.]
 - a. kwhr/100 miles (or another consumption measure)
 - b. miles per gallon equivalent MPGe
 - If not mentioned, ask about a vehicle that gets 300 MPGe. Probe on:
 - o What does MPGe mean to you?
 - o Do you think this is useful considering an electric vehicle does not consume gallons? Why or Why not?
 - o Should MPGe be on the label? Why or why not?
 - c. Fuel cost (Probe on annual, per month, weekly, cents per mile, cents per 100 miles.)
 - d. Range
 - e. Charging time
 - f. Info on how to charge

Have a parking lot of other elements that <u>must</u> be on the label. Bring these out as needed if not mentioned by participants. Ask how important these are and where they should go on the label.

Once the exercise is done show them one example of an electric vehicle label and:

- Get their reaction to the label (is it clear, understandable)
- Are there things on this label that should be added to their label design?

Ask client if they have any additional questions regarding Electric Vehicle discussion.

Extended Range Electric Vehicle (35 minutes)

Now we're going to talk about another type of vehicle that some refer to as an Extended Range Electric Vehicle (such as the Chevrolet Volt). (Read the following and put on flip chart sheet and leave the conventional vehicle label and just designed EV label showing for reference.):

- Extended Range Electric Vehicles have two modes of operation—1) when battery is charged and 2) when it isn't:
 - o Once charged, the car uses all the electricity, then it turns on the gasoline engine

DRAFT - 3/19/2010



- o When it's discharged, it works like a hybrid—battery gets recharged when driving and braking. Therefore, when discharged it uses gasoline, either to propel the vehicle or to charge the battery.
- Important: daily driving distance can GREATLY affect amount of gasoline used. Can go all the way from zero gasoline (if shorter commutes and plenty of recharging) to entirely gasoline (if longer drives and no recharging)
- 8. What should we call the two modes? (Write the following on flip chart and add others that they suggest then get a show of hands vote and probe on why.)
 - Full Battery and Empty Battery
 - Electricity and Gasoline
 - All Electric and Gasoline
 - Charged and Discharged
 - Other?
- If you were looking at an Extended Range Electric Vehicle while shopping on a car dealer lot, what information would you want to include on the Fuel Economy Label? (Capture list on flip chart) Now let's put those in priority order. (Rank the list) (Listen for and probe for items such as range, fuel efficiency, fuel cost, and environmental impact.)
- 10. Is it important to you to understand that some of these things will be different depending on the mode of operation? Why or why not? (Use 'Mode Teaching Tool' as a handout to get them to see the impact of different mode configurations.)
- 11. (Pass out a blank label template) For the next couple minutes I'd like you to look at the list of elements on the flip chart that we discussed and sketch or write down how you might design the label (Have the participants individually work on this for 3 minutes -- Then open up to discussion and have the group work together to design a label for Extended Range Electric Vehicle using the elements they identified offering up the following as needed. Utilize a large board that is a blank label with pre-created elements as listed below, that can be stuck on the board blank pieces will also be created for additional elements that the group identifies.)
 - a. Range
 - b. Fuel efficiency
 - c. Fuel cost
 - d. Environmental impact.

Have a parking lot of other elements that <u>must</u> be on the label. Bring these out as needed if not mentioned by participants. Ask how important these are and where they should go on the label.

Once the exercise is done show them one example of an extended range electric vehicle label and:

- Get their reaction to the label (is it clear, understandable)
- Are there things on this label that should be added to their label design?
- 12. Once label elements have been added, probe on the following:
 - Does this give them the information they need?
 - Do they need all of this info?

DRAFT - 3/19/2010



- Do they need additional info?
- Do they need City and Highway, even if values are close? (Recognize impact of wanting City and Highway on quantity of information.)
- 13. Would it help to merge some of this information, such as combined gas and electric fuel consumption or combined gas and electric fuel costs? Or is it better to keep these separate? Why or why not? Probe on:
 - a. Total energy consumption:
 - Is it useful as a comparison across vehicles?
 - Do you understand what it means? Does it matter that it combines things that really are different (electricity and gasoline)?
 - Is MPGe helpful/meaningful when merging two fuels? Or is better to have MPG for gasoline use and Kwhr for electricity use?
 - Driving distance has huge impact on the number each driver will actually get—does that matter in your vehicle choice or in understanding the label?
 - Show the table label example with merged info is this helpful? Why or why not?
 - Do the "bookends" of all-electric and all-gasoline numbers give enough info? Why or why not?

b. Total cost:

- Is it useful as a comparison across vehicles—is that useful?
- Do you understand what It means? Does it matter that it combines things that really are different (electricity and gasoline-different on several of levels)—does that matter?
- Driving distance has huge impact on the number each driver will actually get—does that matter in your vehicle choice or in understanding the label? How xcan this information be clearly presented in the label?
- Show the table label example with merged info is this helpful? Why or why not?
- Do the "bookends" of all-electric and all-gasoline numbers give enough info? Why or why not?
- Prices vary over time and by region (especially true of electricity costs) –
 would a total cost calculated using national average prices for the
 previous calendar year be useful? Or would a number tailored to your
 region be more useful? If you could go to a website to tailor the cost
 estimates to your region, would you do so?"

Ask client if they have any additional questions about Extended Range Electric Vehicles.

PHEV Vehicles (25 minutes)

Now we're going to talk about a label for what is known as a Plug In Hybrid Electric Vehicle, also referred to as PHEVs. (Read and put on flip chart sheet.)

Works like an Extended Range Electric Vehicle, except that:

- Has two modes of operation—when battery is charged and when it isn't
 - o When it's charged, the car uses up the charge along with the gasoline—may use both at once, may or may not have periods of using just electricity

DRAFT - 3/19/2010



- o When it's discharged, works like a hybrid—battery gets recharged when driving and braking. Therefore, when discharged it uses gasoline, either to propel the vehicle or to charge the battery.
- Important: daily driving distance can GREATLY affect amount of gasoline used.
- 14. What should we call the two modes of operation in a PHEV? (Write the following on flip chart and add others that they suggest then get a show of hands vote and probe on why.)
 - Full Battery and Empty Battery
 - Electricity and Gasoline
 - Mostly Electric (with some gasoline) and Gasoline
 - Charged and Discharged
- 15. If you were looking at a Plug-In Hybrid Electric Vehicle while shopping on a car dealer lot, what information do you want to include on the Fuel Economy Label? (Capture list on flip chart) Now let's put those in priority order. (Rank the list) (Listen for and probe for items such as range, fuel efficiency, fuel cost, and environmental impact.)
- 16. (Pass out a blank label template) For the next couple minutes I'd like you to look at the list of elements on the flip chart that we discussed and sketch or write down how you might design the label (Have the participants individually work on this for 3 minutes -- Then open up to discussion and have the group work together to design a label for Blended Plug in Hybrid Electric Vehicle using the elements they identified offering up the following as needed. Utilize a large board that is a blank label with pre-created elements as listed below, that can be stuck on the board blank pieces will also be created for additional elements that the group identifies.)
 - a. Range
 - b. Fuel efficiency
 - c. Fuel cost
 - d. Environmental impact

Have a parking lot of other elements that <u>must</u> be on the label. Bring these out as needed if not mentioned by participants. Ask how important these are and where they should go on the label.

Once the exercise is done show them one example of an electric vehicle label and:

- Get their reaction to the label (is it clear, understandable)
- Are there things on this label that should be added to their label design?
- 17. Once label elements have been added, probe on the following:
 - Does this give them the information they need?
 - Do they need all of this info?
 - Do they need additional info?

(Note: this section is particularly tricky and where we most need to get input—the balance between providing enough info so that people can make the right choice for their driving needs and making it understandable is our greatest challenge. It will be important to make sure they know, if they tend toward simple, what they are giving up—and probe on whether that matters to them or not. Refer to their list of potential elements as a discussion guide in probing this area)



Ask client if they have any additional questions about PHEVs.

Comparison Across Vehicle Types (10 minutes)

- 18. Is it important to be able to compare across these different types of vehicles, meaning conventional, electric, extended range electric, plug-in hybrid electric vehicles? Why or why not? Or is it more important to have a label that explains in more detail how a particular type of vehicle works?
- 19. What would you need to know to seriously consider buying:
 - An Electric Vehicle as compared to a conventional gasoline vehicle?
 - An Extended Range Electric Vehicle compared to a conventional gasoline vehicle?
 - A Plug-In Hybrid Electric Vehicle compared to a conventional gasoline vehicle?

Probe on where would they look for this information? Where would they be *willing to look* for that information? How likely to look for that information before going to the lot?

- 20. Thinking about the labels we have created for Electric Vehicles, Extended Range Electric Vehicles, Plug-In Hybrid Vehicles, as well as conventional gasoline vehicles, is there a particular element of the labels that would allow you to compare these different types of vehicles as part of your decision process? What would that be? (Probe on fuel cost and fuel consumption.)
- 21. Picture yourself standing on a dealer's lot (or sitting at your computer, or whatever). What else do you think could help you better understand and compare these vehicles to each other?
- 22. Should the current label for gasoline vehicles be revised to make it easier to compare with the labels for these other kinds of vehicles? Why or why not?

Wrap-Up (5 minutes)

- 23. Summarize findings from focus group and ask for confirmation of summarized findings.
- 24. Is there information that we have not discussed today that would influence you to choose a fuel efficient vehicle?
- 25. Anything else you would like our clients to know about your thoughts about fuel economy labels?