Environmental Protection Agency Fuel Economy Label

Phase 3 Focus Groups

United States Environmental Protection Agency

Department of Transportation United States of America

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Office of Transportation and Air Quality
U.S. Environmental Protection Agency

and

National Highway Traffic Safety Administration
United States Department of Transportation

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Introduction

Background

In 2006, EPA updated how the city and highway fuel economy values are calculated to better reflect typical real-world driving patterns and provide more realistic fuel economy estimates. In addition, EPA redesigned the fuel economy label to make it more informative for consumers. The redesigned label more prominently featured annual fuel cost information, provided contemporary and easy-to-use graphics for comparing the fuel economy of different vehicles, used clearer text, and included a Web site reference to www.fueleconomy.gov which provided additional information.

EPA and the National Highway Traffic Safety Administration (NHTSA) are now initiating a new rulemaking to ensure that American consumers continue to have the most accurate, meaningful and useful information, as well as an understanding of how the labeled vehicle impacts the environment. With the introduction of advanced technology vehicles on the market the agencies must provide metrics that are relevant and useful for vehicles such as Electric Vehicles, Extended Range Electric Vehicles and Plug-in Hybrid Electric Vehicles.

To help inform the creation of the new label, EPA engaged PRR Inc. to work with them in the design and implementation of several information gathering protocols including:

- Literature review
- Focus groups (in 3 phases, including pre-group online surveys)
- Online survey of new vehicle buyers
- Expert panel

It was decided to use a three-phase approach for the focus groups in order to accommodate the amount of information required to be covered in the focus groups, as well as to use each phase to inform the next phase on overall label design in regard to both content and look. The three phases were designed to address the following issues:

- Phase I – Use of the current label, as well as content and design of the label for internal combustion engine vehicles
- Phase II – Understandability of and preference for metrics for advanced technology vehicle labels
- Phase III – Assessment of full label designs in regard to content and look

This document provides an overview of the Phase III focus groups and is designed specifically to refine the full label designs. It is not intended as a comprehensive report of results from the Phase III focus groups; that will come in the form of a full comprehensive report incorporating the results of all three phases of the focus groups, including the results of the pre-group online surveys. It should be noted that all results reported here refer to the focus group discussions.

Methodology

Focus groups are the optimum approach to use when the task calls for qualitative, in-depth understanding of consumers' understanding of fuel economy labels. Focus groups allow for probing around such issues as why some label designs are more understandable, how such label designs would be used in the vehicle purchase process, and which label metrics are most important to consumers. The focus group discussion can also provide insights about how a label design may influence consumers' use of the fuel economy label, as well as helping consumers to identify the most fuel-efficient and environmentally friendly vehicles that meet their needs.

Sixteen focus groups were conducted between May 17th and 27th, 2010 in the cities of Seattle, Chicago, Houston and Charlotte. In each city, four groups (two male, two female) were conducted in English and each lasted for two hours. A moderator guide was used to structure the focus group discussions (see Appendix A).

Participants were recruited from within panels developed and maintained by the focus group facility used in each city. Twelve persons were recruited for each group, with the assumption that eight to ten would be present for participation. With the exception of the May 17th Seattle female group (which had six participants), May 24th Houston male group (which had five participants) and May 25th Houston male group (which had seven participants), the rest of the groups consisted of eight participants each.

In order to screen out 'professional focus group participants,' only those who had not participated in a focus group in the last six months were included. In addition, participants were required to demonstrate evidence that they had purchased a new vehicle (not a used or pre-owned vehicle; not a motorcycle; not a 'Cash for Clunkers' purchase) in the last 12 months. In addition, participants must have been the sole or primary decision maker with regard to this new vehicle purchase. Having internet access was also a requirement so that they could complete the pre-group online survey. To ensure a good cross-section of participants, each focus group included individuals representing diversity in: type of new vehicle, price range of new vehicle, distance they typically travelled daily in this new vehicle, if they had seriously considered an advanced technology vehicle before purchasing their vehicle, and demographics (see Appendix B for participant profiles).

For the Phase III focus groups, participants were asked to provide input on fuel economy label designs for conventional gas, EV, EREV and PHEV technologies. The fuel economy label designs used for the Phase III focus groups were based on input received during the Phase I and Phase II focus groups and input from EPA and NHTSA officials. Participants were asked to evaluate three different fuel economy label designs for the four different vehicle technologies. Each fuel economy label design contained similar information, but differed in presentation, lay-out, and some of the metrics used.

- Option A labels focused on the use of colored boxes to separate information. On the left side of the label, the top box presented fuel economy and the bottom box presented consumption and cost information. The right side of the label was one long box that presented environmental information. The Optin A label used stars to rate both fuel economy and environmental impact, and provided a combined MPG/MPGe metric along with gallons per hundred miles.

- Option B labels focused on making the fuel metric stand out. Information was presented from left to right. The box on the left presented information on fuel economy, consumption and cost, while the box on the right presented environmental information. The Option B label used also provided combined and separate city and highway fuel consumption information, used the kWh metrics to represent vehicle electric operation fuel consumption, included a Smartphone scan code, and used leaves to display the environmental impact information. For vehicles that used electric operation, information on electric vehicle range and charge time was prominently displayed in their own box on the right above the environmental information box.

- Option C labels focused on providing a large combined mileage MPG/MPGe fuel metric to show fuel consumption. Information was presented from left to right, but used one large box on top to presented mileage information. Below that box, consumption and cost was presented in a box on the left and environmental information was provided in a box on the right. Option C labels did not provide separate city and highway MPG/MPGe numbers, but did provide a gallons per hundred miles metric. Leaves were again used to display the environmental impact information. Unique to Option C labels was the fuel economy comparison slider bar, and the electric range and charge graphic.

To provide adequate time for participants to discuss each label design, each focus group focused on three of the four different vehicles technologies. Which three vehicle technologies were included was rotated amongst the focus groups to provide equal coverage of all four vehicle technologies. To allow for appropriate comparisons to be made, one male and one female group in each city were asked about the same three vehicles technologies in the same order.

Participants were asked to complete an online survey before they took part in the focus group discussions. The purpose of the online survey was to obtain additional information regarding their vehicle purchase process, the role of fuel economy in their purchase decision, how they used the current fuel economy label, and motivators and barriers to their purchasing alternative fuel vehicles. The pre-group online survey did not present new label designs (these were covered exclusively in the focus groups). It should be noted that the pre-group online surveys were not meant to be representative of new vehicle buyers in general (since focus group participants are in many ways unique), but rather to provide additional information about these specific participants. The online survey was approximately 12 to 15 minutes in length and was completed by 176 of the recruited participants. Of those who had completed the online survey, 60 male recruits and 62 female recruits participated in the focus group discussions. The complete results for this online survey can be found in the Pre-Focus Group Online Survey Report.

Gasoline Engine Vehicle Label Designs

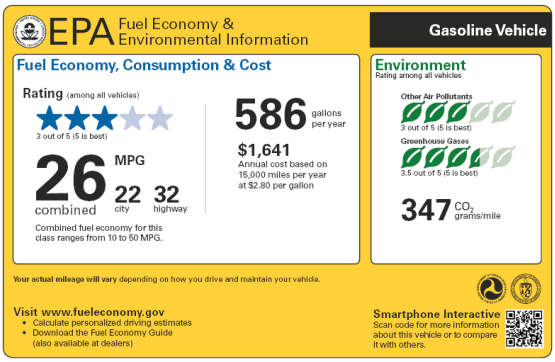
Understandability of vehicle label designs

Participants in twelve of the sixteen groups were asked to provide input on gasoline vehicle label designs[1]. For this discussion, the moderator handed out individual copies of three different gasoline vehicle label designs (see Appendix C). The moderator asked each participant to indicate which label they viewed as most and least understandable (see Appendix D for tally) and to explain their rationale for choosing the most and the least understandable designs.

The majority of the participants in eleven of the twelve groups found Option B to be the most understandable. Option B was picked as the most understandable by all four Charlotte groups, all four Seattle groups, the male Chicago group, and the two Houston groups that viewed the gasoline vehicle labels. Participants explained that this option was perceived as the most understandable because it provided them with separate city and highway fuel economy estimates just like the current EPA label. They explained that they usually looked for the "two big numbers" (i.e., city/highway MPGs) on the label for the

"It was the only that gave me city and highway."
– Charlotte Male

"Not everyone drives highway, need to know city driving too."
– Charlotte Female



Option B

1 Four groups (two female and two male) in both Charlotte and Chicago, and two groups (one female and one male) in both Seattle and Houston.

"It's laid out better, easier on the eyes." – Charlotte Female

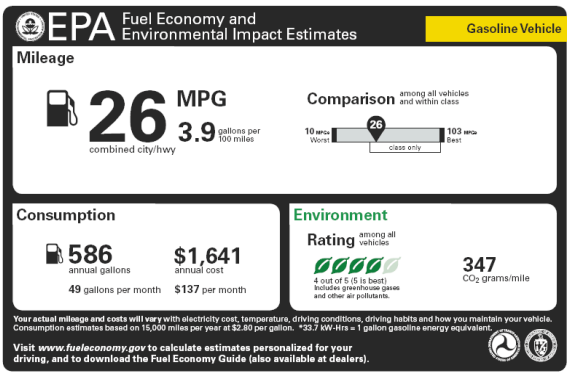
"All the information in the square is pretty much what I'm looking for, mileage and what my cost will be. I'm less concerned about environmental issues."
– Charlotte Male

"It is easy to find cost and consumption in this format."
– Chicago Male

fuel economy of the vehicle. When they were asked if they preferred a combined (city and highway) estimate over separate city and highway estimates, most reported preferring the latter. They explained that people had different driving styles (city versus highway driving) and seeing each estimate gave them the basic information to do the math and calculate fuel economy for their particular case. They also liked having the annual cost and consumption information provided in a prominent location, which made it easy to find and read.. Participants added that they liked the layout used in Option B because the side-by-side layout format was simple, easy to read and appealing, and the arrangement of fuel economy, cost and consumption information in one box and the environment related information in a separate box worked well for them. Participants also stated that they liked the use of leaves to represent the vehicle's environmental rating. Some participants indicated that the yellow color used in Option B grabbed their attention. Most participants across groups indicated that they liked the Smartphone interactive scan code on Option B and thought it would be useful in accessing information easily. This is significant since the moderators intentionally did not draw participants' attention to this feature.

Although participants were fairly evenly split between Option A and Option C as the least understandable label, seven of the groups selected Option C, while five groups selected Option A as the least understandable label.

About half of all participants and seven of the twelve focus groups (two male Charlotte groups, one female Seattle group, one female Houston group, and one female and two male Chicago groups) found Option C to be the least understandable. Participants that found this option least understandable stated that the information on the label was difficult to interpret at a glance, especially the grey MPG comparison slider bar graphic. Participants also stated that

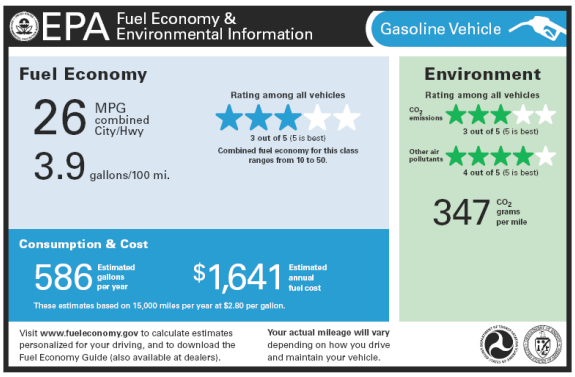


Option C

they thought there was too much information on the label. They also did not like the top-to-bottom format used in this option. Instead, but preferred the side-by-side format used in Option B. The use of color on the label to separate information was preferred over the use of black and white. For the participants that did like this option (about one-quarter of the total), they stated that they liked the MPG comparison slider bar (since it provided the range of worst to best), the presentation of the estimated annual fuel cost in its own box, and the estimated monthly fuel cost (because it helped them to think of their fuel spending at the monthly level similar to how they budgeted other living costs). Some participants added that they liked the way environmental information was presented because the leaf design was well suited to the environment theme. In addition, having a combined metric for CO_2 and other pollutants worked well for some participants because it was simple and sufficient for them to judge how a vehicle fared as compared to others with regard to the environmental impact.

"I like the comparison bar- gives me the range of the worst and the best." - Chicago Male

"The environment part uses green leaves. I like that." - Chicago Male



Option A

Close to half of the participants found Option A to be the least understandable. Option A was also picked as the least understandable by five of the twelve focus groups (one male and two female groups in Charlotte, one male Seattle group, and one male Houston group). These participants explained that they thought this option was the least understandable because it used "too many colors," looked "too busy," and did not present information in an organized way. They added that the information was not separated well, and no particular information stood out prominently in this design option. It also did not provide them with separate city and highway fuel consumption estimates, which is information that the participants were very interested in having available. Some

"There's too much going on." – Charlotte Female

"I don't know anyone who thinks that way." – Charlotte Male

participants also indicated that the font used in this option was "not bold enough." When probed about the use of gallons per 100 miles as a fuel consumption metric, most participants in all the groups said that they preferred it less than MPG as they were not familiar with it.

No major city or gender differences were found with regard to participants' perceived understanding of gasoline engine vehicle label designs.

Based on the above findings, it can be said that Option B was perceived as the most understandable overall vehicle label design for gasoline vehicles and that participants were split between Option A and Option C as the least understandable design. In essence, for gasoline engine vehicles, participants preferred a label design that gave them separate city and highway fuel consumption estimates, provided annual cost and consumption information, and was presented in a side-by-side format.

Using the label to determine vehicle fuel efficiency

The moderator passed out individual copies of three pairs of gasoline vehicle labels (one pair of labels for each of the three design options discussed above) to the participants (see Appendix E). Each label pair was identical except that one was for a more fuel efficient vehicle. The goal of this exercise was to determine whether the participants were able to use the information on the labels to determine which vehicle was more fuel efficient within each pair, to understand what information they used to make that determination, and whether any information caused misunderstanding.

"It's always easy to look at the dollar amount." – Seattle Male

The majority of participants across all groups were easily able to determine which gasoline vehicle was most fuel efficient for each pair (see Appendix F for tally). Higher MPG and lower fuel costs were used by participants to determine which vehicle was most fuel efficient. Some participants also looked at gallons per hundred miles and CO_2 emissions. All but a few participants correctly chose Options A2, B1, and C2 as the most fuel efficient.

No major city or gender differences were found with regard to participants' use of the labels to determine vehicle fuel efficiency.

Based on the above findings, it can be said that regardless of label design, participants relied primarily on MPG and fuel cost information to correctly determine which vehicle was most fuel efficient. Some participants also looked at gallons per hundred miles and CO_2 emissions to make fuel efficiency judgments.

Suggestions to improve the vehicle label

The following suggestions were provided by participants across groups to improve the label design for gasoline engine vehicles:

- Use different font size with larger and bolder font for more critical information:
    - Emphasize city and highway MPG estimates by using larger and bolder font
    - Reduce the font size for combined MPG estimate
    - Reduce the font size for estimated gallons per year
- Include Smartphone interactive scan code
- Do not use stars for environmental ratings (as in Option A)
- Use a side-by-side format (as in Option B)
- Include the gas pump symbol (as in Option C)

Electric Vehicle Label Designs

Understandability of vehicle label designs

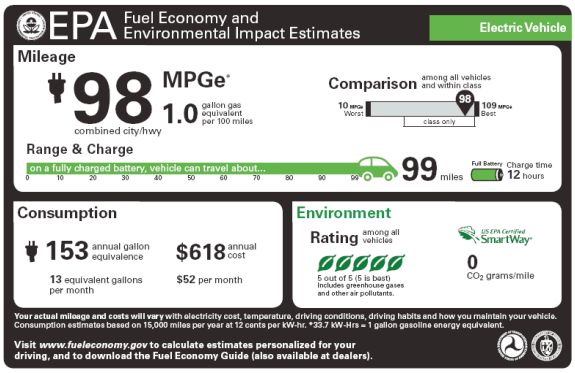
Participants in twelve[2] of the sixteen groups were asked to provide input on electric vehicle (EV) label designs. The moderator distributed individual copies and read out loud the following description of an electric vehicle and confirmed that participants understood how such vehicles function:

> *"Electric Vehicles use electricity stored in batteries to propel the vehicle. The battery is charged by plugging it into an electrical outlet. This could be a standard electric outlet, or a high voltage custom-installed station for more rapid charging. Like hybrid vehicles, some energy is recovered when the brakes are applied. The vehicle travels until the charge is depleted, or it is re-charged. There is no option to run it on gasoline."*

For this discussion, the moderator handed out individual copies of three different electric vehicle label designs (see Appendix G). The moderator asked each participant to indicate which label they viewed as most and least understandable (see Appendix H for tally) and to explain why.

Interestingly, for electric vehicles, the majority of the groups thought that Option C was both the most understandable and the least understandable vehicle label. Option C was selected as *most* understandable by seven (all Houston groups, the two Seattle male groups, and the Charlotte male group) of the twelve focus groups. Option C was selected as least understandable by five (the Charlotte female group, the two Seattle female groups, and the Chicago male group) of the twelve focus groups. Two more of the groups (one Houston female group, and the Chicago female group) were undecided on which of the three options were least understandable.

2 Four groups each (two female and two male) in both Seattle and Houston, and two groups each (one female and one male) in both Charlotte and Chicago.



Option C

"I like the graphic on the range and the charging capabilities. It was nicely laid and easy to understand." – Chicago Male

"I like the green at the bottom that shows on a fully charged battery how far you can travel because it's there, it's a picture, so people don't have to really to guess what it means by having to convert kW-hr or trying to figure out what I'm going to get city vs. highway."
– Houston Female

"I liked that it [Option C] gave you the equivalent gallons per month that you utilize, because most of us still think in terms of gasoline. It gives me more of a benchmark about what I would be paying to run an electric car per month, opposed to what I would spend on 13 gallons of gasoline a month."
– Houston Male

Those participants who thought that Option C was the most understandable stated that it was well organized and very informative. They thought it was "less cluttered," "clear," easy to read, and had good graphics (especially the range & charge graphic). Most useful was the large MPGe number and the annual fuel cost and consumption information. Participants also liked Option C because it carried charging time information. According to participants, charging time was a crucial piece of information especially for EVs and it was essential for the label to carry this information. Participants liked how this information was presented on the label in the range and charge bar graphic.

When the moderator asked if they understood what MPGe was, most were not sure, but assumed it was some way of comparing electric power with gasoline power. While there were some who reported reading its description on the label, others guessed it to be an electric-equivalent of MPG ("MPG-electric," "MPG-equivalent"). Many participants also liked the use of the large font for the MPGe numbers which made it easy to find on the label. Most individuals did not read the description even if they had noticed the asterisk placed next to the MPGe.

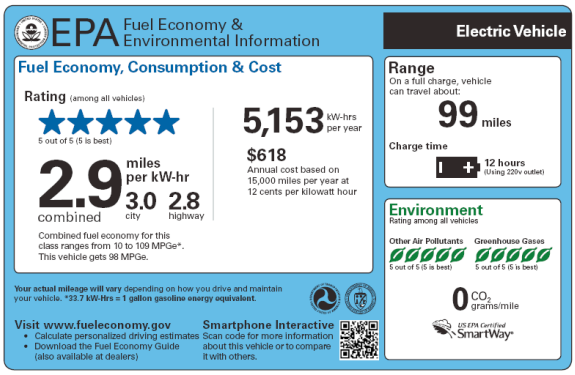
Many participants liked the estimated monthly fuel cost in addition to the annual fuel cost on the label. According to them, it was consistent with how they plan and monitor their budgets (monthly) and allowed them to project how their budget would change for each month if they bought the vehicle. Some participants also reported liking the format used in Option C. They explained that they liked the fuel cost, consumption and economy information in a black and white format because it looked straightforward and

to-the-point. The use of green color for the environmental elements was symbolic of the environment theme. Further, some participants mentioned liking the symbol of the plug and thought that it was intuitive and well suited for electric vehicles. A few participants mentioned liking the comparison bar used to compare vehicles within its class and among all vehicles, but suggested including a clearer description of what "within class" stood for – whether it was comparing vehicles that were based on the same technology or those that were of the same size/type of vehicle.

"To me, this 2.9 miles per kW-hr [referring to Option B], if I'm comparing it to a gasoline car, that doesn't help me, where as the 98 MPG [as presented in Option C], my brain knows MPG." – Houston Female

For the participants that found Option C least understandable, the black and white format did not appeal to them and they did not like the grey MPGe comparison bar. They also struggled with what the MPGe metric and charge time meant. With regard to MPGe, participants described that they had a hard time equating electricity to gallons and struggled with how to estimate their cost for electricity. As for charge time, a few female participants thought that it referred to how long one could drive the vehicle. A few participants in one of the Seattle male groups struggled with the vehicle charge time and range graphic because they did not understand that it was trying to provide information that was different than the estimate ('98 MPGe') for combined city/highway driving.

"I don't need to know how many gallons its equivalent to, I don't really care about that, I just need to know overall how much it's going to cost for the month." – Houston Male



Option B

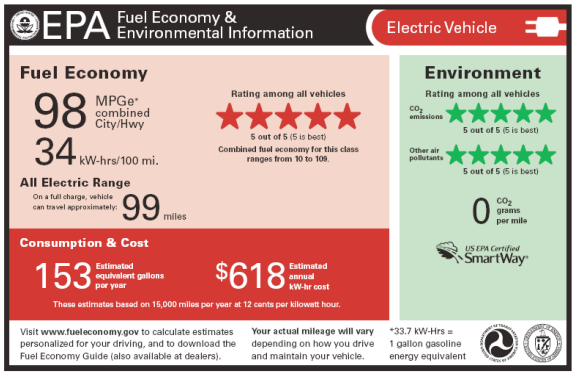
Option B was found to be least understandable by a majority of the participants, but just one Seattle male group and one Houston male group (2 of 12) definitively selected it as the least understandable label design. Also, two more of the groups (one Houston female group, and the Chicago female group) were undecided on which of the three options were least understandable. The Charlotte female group and the two Seattle female groups found Option B most understandable (3 out of 12).

All focus groups conducted in Seattle, Charlotte, and two of the groups conducted in Houston were shown a version of the Option B label that used a kW-hr per 100 miles as the fuel economy metric, rather the miles per kW-hr metric shown above. Groups that were shown the kW-hr per 100 miles metric tended to struggle with the concept of a smaller number indicating better fuel efficiency rather than a larger number as with MPG for gasoline powered vehicles. To determine if a different representation of the kW-hr metric would improve its understandability, miles per kW-hr was used on the Option B labels shown to two of the Houston groups and all of the Chicago groups. The change in this kW-hr did cause less confusion when participants were asked to choose which of two vehicles was more fuel efficient, but did not change which label option the groups selected as most and least understandable. Regardless of the presentation of the kW-hr metric, Option B faired the same in overall understandability in relation to Options A or C.

Those participants who found Option B most understandable did so because it provided them separate city and highway fuel economy estimates. They explained that they typically looked for the "two big numbers" (i.e., city/highway fuel economy estimates) for vehicle fuel efficiency information on the label. Some participants said that they liked the layout used in Option B. According to them, the placement of fuel economy, consumption, and cost in a separate box, as well as range, and environment in separate boxes was well organized and made it easier for them to read and understand. In addition, participants liked the Smartphone interactive code on Option B and thought it was very useful. Those participants who found Option B to be the least understandable said that they did not like kW- hr as a metric for fuel consumption as they were unfamiliar with what a kW-hr represented. Those groups that viewed labels with the kW-hr per 100 miles metric struggled with the concept that a smaller number meant better fuel efficiency (as opposed to MPG where the bigger number indicates a more fuel efficient vehicle). The groups that viewed labels with the miles per kW-hr metric, understood that the bigger number represented a more fuel efficient vehicle, but again they struggled with understanding what a kW-hr presented and how to equate that with MPG.

"It goes back to what you were saying about focusing on key information, which is range. Most people wouldn't be able to tell you how many kW-hr they use each month in their homes, so it's a very ambiguous measure of energy usage."
– Houston Male

Option A was not selected as either the most or least understandable label design by a majority of the participants or groups. The Chicago female and male groups found it most understandable (2 of 12), while the Charlotte female group, one Houston female group, and one Houston male group (3 of 12) found it least understandable. Also, as explained for Options C and B, three of the groups (one Houston female group, one Seattle male group and the Chicago female group) were undecided on which of the three options were least understandable.



Option A

Participants who found Option A least understandable did so because it used the same font size for all the numbers irrespective of whether these numbers were viewed as critical or not. This made it unappealing to them as they wanted critical information such as fuel economy and range to appear more prominent than other information. Participants also said that they did not like the color format (use of red color) and the star rating system used in this option ("too many stars"). Many also said that Option A was less informative because it did not carry charging time information and the Smartphone interactive scan code on the label.

"It didn't give enough information. It was kind vast and flat, blah." – Houston Female

"The focus is in the wrong place. The things I would be looking at, I would want to know how far I can go on a full charge." – Houston Female

"It has no information on charging."-Chicago Male

No major city or gender differences were found with regard to participants' understanding of electric vehicle label designs.

Based on the above findings, it can be said that Option C was perceived as both the most and least understandable electric vehicle label design. Participants thought Option C was the most understandable because it was well organized and easy to read. It contained the information that was important to them like the charge time and the MPGe. They also liked the estimated annual and monthly fuel cost, and the black

and white format. Participants who thought Option C was the least understandable did not like the black and white format, or the grey fuel economy comparison bar, and struggled with the MPGe metric.

Using the label to determine vehicle fuel efficiency

The moderator passed out individual copies of three pairs of electric vehicle labels to the participants (see Appendix I). Each label pair was identical except that one was for a more fuel efficient vehicle. The goal of this exercise was to determine whether the participants were able to use the information on the labels to determine which vehicle was the more fuel efficient in each pair, to understand what information they used to make that determination, and whether any information was misunderstood.

All but a few participants were able to easily determine the most fuel efficient vehicle for Options A and C (see Appendix J for tally). For Option A, participants who chose correctly based their choice on MPGe, and fuel consumption and cost estimates. Those who chose incorrectly reported using KW-hr per 100 miles as their basis of comparison and thought that a bigger number stood for a better estimate. For Option C, participants who chose Option C2 (which was the more fuel efficient vehicle) as the more fuel efficient vehicle based their choice on MPGe, and fuel consumption and cost estimates. A few who chose Option C1 as the more fuel efficient vehicle thought that the annual cost estimates indicated annual dollar savings per vehicle and that a bigger number therefore stood for a more fuel efficient vehicle.

For Option B, participants in the groups that viewed Option B labels with the kW-hr per 100 miles metric struggled with determining which vehicle was more fuel efficient. About 40% of the participants in those groups did not correctly select the more fuel efficient vehicle. Most of these participants used the larger kW-hr per 100 miles, rather than smaller number as more fuel efficient because they related it larger MPG numbers indicating more fuel efficient vehicles. Those participants that correctly chose the more fuel efficient vehicle stated that they relied on the annual cost and/or they correctly applied the kW-hr per 100 miles metric by stating that the vehicle that used the least amount of electricity was the most fuel efficient.

All but one of the participants in groups that viewed Option B labels with the miles per kW-hr metric was able to correctly determine which vehicle was more fuel efficient. This was due to the larger miles per kW-hr number indicating the more fuel efficient vehicle. These participants also used the annual fuel cost and consumption information to make their selection.

Based on the above findings, it can be said that participants used MPGe, annual fuel costs and consumption information to correctly determine which vehicle was more fuel efficient for Options A and C. For Option B, the participants used the kW-hr metrics along with the annual fuel cost and consumption information, but struggled with correctly applying the 'kW-hr/100 miles' metric. Participants who were shown the miles per kW-hr metric were able to correctly apply it and select the more fuel efficient vehicle.

Suggestions to improve the vehicle label

The following suggestions were provided by participants across groups to improve label design for EVs:

- Use MPGe estimates instead of KW-hr estimates on the label
- Include charging time information
- Include Smartphone interactive scan code
- Include monthly as well as annual fuel cost estimates
- Do not use white printing on a black or colored background because it is very difficult to read
- Use leaves, not stars for environmental metrics
- Use the electric plug icon
- Group all fuel economy information together

Extended Range Electric Vehicles

Understandability of vehicle label designs

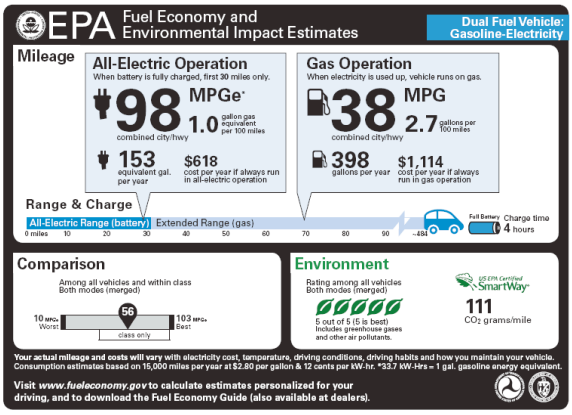
Participants in twelve[3] of the sixteen groups were asked to provide input on extended range electric vehicle (EREV) label designs. The moderator distributed individual copies and read out loud the following description of an extended range electric vehicle and confirmed that participants understood how EREVs functioned:

> *"An EREV has two modes of operation and can be plugged in to charge the battery.*
>
> 1. *It uses wall electricity to propel the vehicle (like an EV) until the wall electricity is used up.*
>
> 2. *Once the stored wall electricity is used up, it runs like a gasoline hybrid, using gasoline to propel the vehicle and some energy is recovered when the brakes are applied.*
>
> *Important: Daily driving distance can GREATLY affect the amount of gasoline used. It can go all the way from zero gasoline (with shorter commutes and plenty of recharging) to entirely gasoline (with longer drives and no recharging.)"*

For this discussion, the moderator handed out individual copies of three different extended range electric vehicle label designs (see Appendix K). The moderator asked each participant to indicate which label they viewed as most and least understandable (see Appendix L for tally) and to explain why.

3 Four each (two female and two male) in both Seattle and Houston, and two groups each (one female and one male) in both Charlotte and Chicago.

About half of the participants found Option C to be the most understandable. Option C was also picked as the most understandable by six (all four Houston groups, and one male and one female Seattle group) of the twelve focus groups. The Chicago male group was unable to come to any consensus on which label design was most or least understandable.



Option C

"It looks familiar, gives a lot of good information, and clearly separates electric and gas." – Chicago Male

"Colors don't do a lot for me, just the facts." – Charlotte Male

"I like the range and charge bar graph. It clearly tells you how far you can go on a full tank and full charge for each mode, and how long it takes to charge up the battery completely." – Chicago Male

"I like the side by side comparison." – Houston Female

"It's the only one that says 'environmental impact estimate.' The others say 'environmental information.' I think as we move forward our environmental impact is going to be critical for

Participants who thought Option C was the most understandable stated that this option was the most informative and found the format appealing, including how the information was presented on the label with similar information together in boxes. They liked how information for gas and electric operation was presented side-by-side, but separately. They also liked the range and charge bar illustration and the use of MPGe to describe fuel economy. When the moderator asked if they understood what MPGe was, most were not sure, but assumed it was some way of comparing electric power with gasoline power. While some reported reading its description on the label, others guessed it to be an electric-equivalent of MPG ("MPG-electric," "MPG-equivalent").

Some participants also said that they liked the fuel economy comparison bar within class and among all vehicles used in this option. According to them, it was useful in comparing vehicles. Some also mentioned that they found the vehicle range and charge graphic to be helpful in understanding how EREVs functioned with regard to distance traveled and transition from electric mode to gas mode. A few participants also added that the range information was better presented in Option C as compared to other options because it clearly demonstrated how the vehicle used electricity to travel the initial distance and then changed to gasoline mode

when the vehicle ran out of charge in a graphical form. Those participants who found Option C the least understandable stated that it was difficult to find information on this label which made it time consuming to read.

"The white fine print on the black label is hard to see and read." – Chicago Male

Participants and groups were split between Option A and Option B as the least understandable, but six (two female and one male Seattle group, and two female and one male Houston group) of the twelve groups found Option A as the least understandable, while only four (Charlotte female group, Charlotte male group, one Houston male group, and one Chicago female group) of the twelve groups found Option B to be the least understandable. Again, the Chicago male group was unable to come to any consensus on which label design was most or least understood.

Participants who found Option A to be the least understandable stated that it was less informative (did not provide information regarding charging time), looked "too busy" (too many stars), was "too colorful," and the fonts used in this option were not distinguishable. The information provided was complicated and difficult to understand, and they could not easily find the information they were interested in. The participants who found Option A most understandable did so because they liked the colors and format, and thought that the information was easy to read.

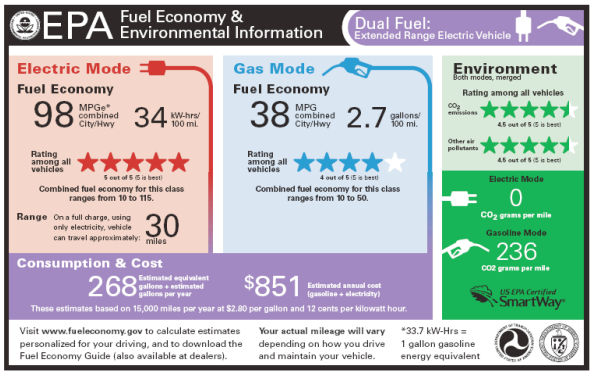
"I didn't like that it [Option A] had a merged total cost." – Houston Male

"It [Option A] doesn't say combined range [full range of both modes]." – Houston Male

"It doesn't say how long it takes to charge the car." – Houston Male

"[Option A] The distinction between the electric and the gas, it's too complicated." – Houston Female

"I like things that are easy to look and give you information right away. The little environment leaves down there, stars, it just works better for me." – Seattle Female

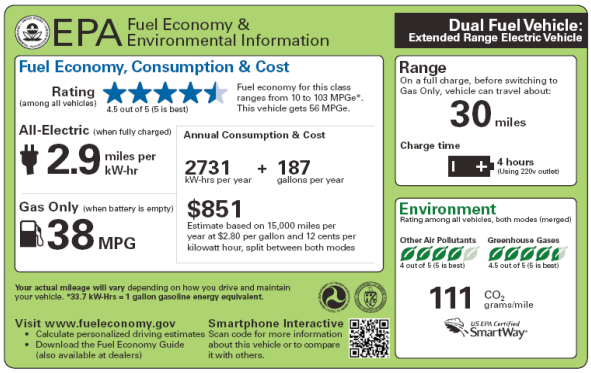


Option A

"I think if you're going to try to get folks thinking in this mindset you need have both [kW-hr and MPG] on there so they are used to seeing, and then eventually you would phase MPG out once folks understand it and are used to seeing it."
– Charlotte Male

"The first thing you see is the kW-hr. For me it just didn't seem as apparent, for the things I would be looking at. It has charge time, but you have to really look for it. It was not as obvious to me."
– Seattle Female

Participants who found Option B to be the least understandable thought it was "not well organized," "looked cluttered," and "did not clearly separate information based on different modes of operation." Regardless of whether the group viewed the Option B label with the kW-hr per 100 miles metric, or with the miles per kW-hr metric, participants stated that they found the kW-hr metric to be confusing, and did not know how to compare or combine it with the MPG metric to determine overall fuel efficiency. Instead, they suggested using MPGe estimates to describe fuel economy on the label because it could be analogous with MPG. Those that liked Option B said that it was also more informative than the other options because it provided battery charge time information.



Option B

No major city or gender differences were found with regard to participants' understanding of extended range electric vehicle label designs.

Based on the above findings, it can be said that Option C was perceived as the most understandable extended range electric vehicle label design. Participants who thought Option C was the most understandable thought this option was the most informative, the format appealing, and liked how the information was presented in separate boxes. They liked how information for gas and electric operation was presented side-by-side, but separately. They also liked the range and charge bar illustration and the use of MPGe to describe fuel economy.

Using the label to determine vehicle fuel efficiency

The moderator passed out individual copies of three pairs of extended range electric vehicle labels to the participants (see Appendix M). Each label pair was identical except that one was for a more fuel efficient vehicle. The goal of this exercise was to determine whether the participants were able to use the information on the labels to determine which vehicle in each pair was more fuel efficient, and to understand what information they used to make that determination and whether any information was misunderstood.

All but a few participants were able to determine the more fuel efficient vehicle for all three label design options (see Appendix N for tally). For Option A, participants used MPGe, MPG and annual fuel cost, and consumption numbers to determine that A2 was the most fuel efficient vehicle. For Option B, participants used annual cost, the fuel economy consumption and cost star rating, and MPG to determine that B1 was the most fuel efficient vehicle. Participants that viewed Option B labels with the kW-hrs per 100 miles metric did not rely on it to help them determine the more fuel efficient vehicle. Participants that viewed Option B labels with the miles per kW-hr metric also did not rely on it to make their selection, but some participants did use it to confirm their choice after looking at annual cost and consumption and MPG numbers. For Option C, participants used MPGe, MPG, average annual fuel cost and consumption numbers, and the comparison slider bar to determine C1 was the more fuel efficient vehicle.

Based on the above findings, it can be said that participants relied on annual fuel and cost numbers, MPG and MPGe the most to determine which vehicles were more fuel efficient. They did not rely on either of the kW-hr metrics presented to make their selections.

Suggestions to improve the vehicle label

The following suggestions were provided by participants across groups to improve label design for EREVs:

- Use MPGe estimates instead of kW-hr estimates on the label
- Include charging time information
- Include Smartphone interactive scan code
- Don't use multiple colors in the color format (like Option A). Instead, use variations of same colors to distinguish between the different modes
- Include comparison slider bar
- Do not use star rating system for environmental metrics

Plug-In Hybrid Electric Vehicles

Understandability of vehicle label designs

Participants in twelve[4] of the sixteen groups were asked to provide input on plug-in hybrid electric vehicle (PHEV) label designs. The moderator distributed individual copies and read out loud the following description of an extended range electric vehicle and confirmed that the participants understood how PHEVs functioned:

> *A PHEV has two modes of operation and can be plugged in to charge the battery.*
>
> 1. *It uses wall electricity intermingled with some gasoline to propel the vehicle until the wall electricity is used up.*
>
> 2. *Once the stored wall electricity is used up, it runs like a gasoline hybrid, using gasoline to propel the vehicle and some energy is recovered when the brakes are applied.*
>
> *Important: Daily driving distance can GREATLY affect the amount of gasoline used.*

For this discussion, the moderator handed out individual copies of three different plug-in hybrid electric vehicle label designs (see Appendix O). The moderator asked each participant to indicate which label they viewed as most and least understandable (see Appendix P for tally) and to explain why.

4 Four each (two female and two male) in both Charlotte and Chicago, and two groups each (one female and one male) in both Seattle and Houston.

The majority of the participants and groups were split between Option A and Option C as the most understandable. Option A was selected by almost half of the participants and seven (one male and both female Charlotte groups[5], and all four Chicago groups) of the twelve focus groups as most understandable. Option C was also selected by almost half of the participants and six (two female and one male Charlotte group, one male Seattle group, one female and one male Houston group) of the twelve focus groups as the most understandable.

"The consumption and cost were easy to read. It [Option A] is a nice layout out."- Chicago Male

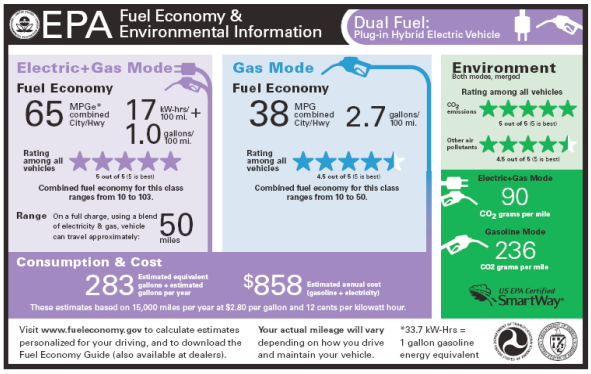
Participants who found Option A to be the most understandable liked how it was laid out and how it was easy to read the information on the label from left to right. They liked the use of color and felt it did a good job of separating the different types of information. They also liked how the label showed the combined modes of operation for cost and consumption in a separate box and used the plug and gas hose graphics to show the operation modes.

"The colors draw your attention; it's easier on your eyes [Option A]." – Charlotte Female

"Having the visual with the gas hose, it's just instant [Option A]." – Charlotte Female

"Option A was my favorite. I think we live in a society that gives us star ratings."- Charlotte Male

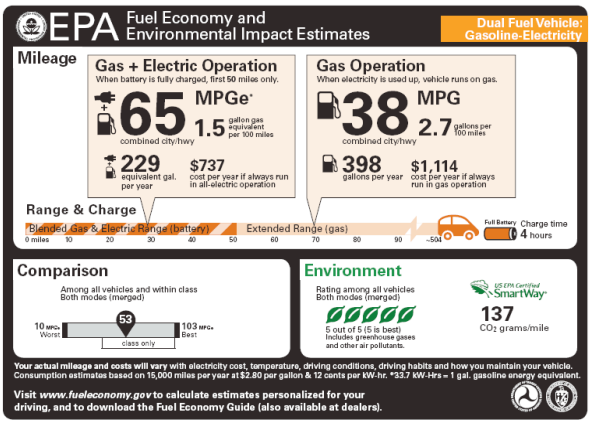
"Looks like a kid's book." – Houston Female



Option A

5 The first female group in Charlotte were split between Option A (preferred by 4 out of 8 participants) and Option C (preferred by 4 out of 8 participants)

Participants who found Option C to be the most understandable liked how it used separate boxes to show the blended gas + electric and separate gas cost and consumption information. They also liked how those boxes used arrows to point to the range and charge graphic, and the use of MPG and MPGe. Those participants who found Option C as least understandable said that the 'zebra pattern' used to depict the blended mode for PHEVs in the range and charge graphic on Option C was difficult to read.



Option C

The majority of the participants and groups found Option B to be the least understandable. This included over half of the participants and seven (all four Charlotte groups, the male Seattle group, the male Houston group, and one male Chicago group) of the twelve focus groups. Participants stated that they found Option B the least understandable because it was cluttered and they found it hard to find information on the label. They also did not find a combined gas and electric fuel economy metric which they wanted. Participants in the groups that viewed Option B with the kW-hr per 100 miles metric, and those in groups that viewed Option B with the miles per kW-hr metric both struggled with how to combine kWh and MPG and found the use of MPG and MPG + kWh confusing. Some groups also struggled with how to show that overall vehicle fuel efficiency could be impacted by how often you charge the vehicle. That is, the more often it is charged, the less gas the vehicle uses because it would be operated in its gas + electric mode more often. They wondered how this concept could be shown on the fuel economy label.

"It gives you the most important information first."
– Charlotte Male

"I also like where it [Option C] shows that if you run strictly on gas, you can expect roughly 398 gallons per year, versus the 229 if you the gas and electric combined. To me that would matter, how much gas you have to pump." – Houston Female

"I like the separation of gas and electric from gas in Option C. The range and charge bar chart is a better representation of how far the car can go."- Chicago Male

"The stripes in Option C are difficult to read and it is really difficult to find information."
– Chicago Male

"It's [Option C] like what they have on appliances, if they all had that, I wouldn't need any of the other numbers."
– Charlotte Female

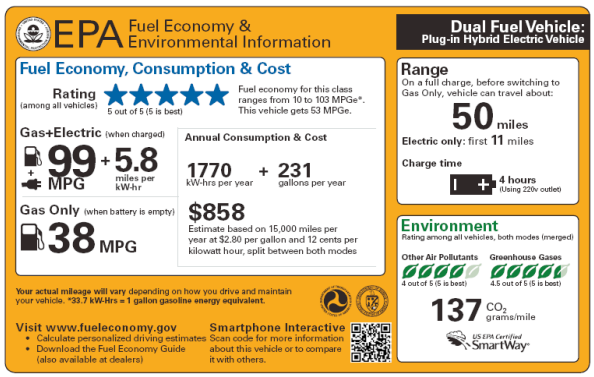
"The arrows point down to range and charge." – Seattle Female

"It's [Option B] not side by side, you can't make a comparison." – Charlotte Female

"The electric gas mileage is not intuitively obvious, at least while looking quickly at it." – Charlotte Male

"The range took up too much space; the others show the information more efficiently." –Charlotte Male

"Everything is on here that you need, but you have to search a little bit more to find it. My eyes didn't go exactly where I wanted them to go." – Seattle Female



Option B

Although overall the participants and the groups were split between Options A and C as the most understandable PHEV label, females preferred Option C, while males preferred Option A. Additionally, all four Charlotte groups picked Option B as the least understandable, and all four Chicago groups picked Option A as the most understandable.

Based on the above findings, it can be said that Option A and Option C were perceived as the most understandable. For both label designs, participants liked how the information was laid out and grouped together to make it easy to read and understand. They liked the use of boxes to separate information and liked the use of the MPG and MPGe metrics. Participants found Option B least understandable because they thought it was hard to find the information they were interested in on the label and struggled with how to use and compare the MPG and kWh metrics - no matter which kW-hr metric was presented.

Using the label to determine vehicle fuel efficiency

The moderator then passed out individual copies of three pairs of plug-in hybrid electric vehicle labels to the participants (see Appendix Q). Each label pair was identical except that one was for a more fuel efficient vehicle. The goal of this exercise was to determine whether the participants were able to use the information on the labels to determine which vehicle in each pair was more fuel efficient, and to understand what information they used to make that determination and whether any information was misunderstood.

All but a few participants were able to correctly determine the most fuel efficient vehicle for all of the three Options (see Appendix R for tally). For Option A, participants used annual fuel cost and consumption numbers, MPG and MPGe, and range to determine that A2 was the more fuel efficient vehicle. For Option B, participants used annual fuel cost and consumption numbers to determine that B1 was the more fuel efficient vehicle. For Option C, participants used annual fuel cost and consumption numbers, MPGe and MPG, and the grey fuel economy comparison bar to determine C2 was the more fuel efficient vehicle.

Based on these results it can be said the participants relied most on fuel cost and consumption numbers, and MPG and MPGe metrics to determine which vehicles were more fuel efficient.

Suggestions to improve the vehicle label

The following suggestions were provided by participants across groups to improve label designs for PHEVs:

- Use MPGe as a metric for electric operation of the vehicle
- Don't use stars – many equate them with vehicle safety ratings
- Make sure all print is readable
- Include time needed to recharge vehicle battery
- Change the 'zebra pattern' in the Option C blended fuel part of the range graphic

Using Labels To Compare Across Technologies

Elements of vehicle label most useful in comparing across technologies

The majority of participants across all groups said that it was important to be able to compare across vehicle technologies.

When the moderator asked the participants about the elements of the vehicle labels that would be most helpful for comparing vehicles with different technologies, the elements that came up in all the groups were fuel economy (MPG, MPGe), range, cost (estimated annual cost) and consumption (estimated gallons per year) information.

"Because its different technologies, you have to compare on costs. Otherwise it's apples to oranges."
– Charlotte Male

Which vehicle label design is best for comparing across technologies?

To understand how consumers would use vehicle labels to compare vehicles of differing technologies, the moderator typically selected the label design option that the group chose most often throughout the exercises as the most understandable for this exercise. Among the sixteen groups, each of the different label design options was used several times for this exercise. The goal of this exercise was to gain a better understanding of the type of information on the label that participants would use to compare across different technologies. Each group considered just the three vehicle technologies that they had discussed during the focus group to make these comparisons.

Information used to compare vehicles across technologies

For this exercise the moderator provided each participant a handout that showed the vehicle label for all vehicle technologies for the vehicle label design option selected for the exercise. Each participant was asked to use this information to determine which vehicle technology would be best for each of the following situations.

- Which type of vehicle is better for a trip of 30 miles?
- Which type of vehicle is better for a trip of 50 miles?
- Which type of vehicle is better for a round trip of 100 miles?
- Which type of vehicle is most environmental friendly?

"I figure regardless of the length of the trip, the electric is always cheapest." – Charlotte Male

"I think a lot more education is needed for consumers to really understand the benefits of electric vehicles." – Seattle Female

Seven groups (Seattle male group 1, Seattle female group 2, Seattle male group 2, Charlotte female group 2, Houston female group 1, Houston female group 2, and Houston male group 2) used vehicle label design Option C (see Appendix W) for this exercise. The majority of participants chose EV for 30 miles and 50 miles because they could drive that far on a charge. The majority of participants chose the EREV for 100 miles because they could drive on electric power some of the way and its MPGe was higher than the MPGe for the PHEV The participants stated that they primarily used electric range to compare the vehicles and make their selections. They also used fuel cost (estimated annual cost), mileage (MPG, MPGe), and CO_2 grams per mile. All but one participant chose the EV as the most environmentally friendly because there would be no CO_2 emissions from the vehicle (see Appendix X for tally).

Six groups (Seattle female group 1, Charlotte female group 1, Charlotte male group 1, Houston male group 1, Chicago female group 2 and Chicago male group 2) used vehicle label design Option A (see Appendix S) for this exercise. The majority of participants chose the EV for 30 miles, Participants were split between the EV or PHEV for the 50 mile trip because they noted that the EV would travel the entire way with no emissions, and the PHEV had a 50 mile range to travel as a hybrid. The majority of participants also chose, the PHEV for 100 miles. The majority of participants selected the EV as the most environmentally friendly (see Appendix

T for tally). Like those groups that used Option C for this exercise, participants used the information on the label to maximize the use of electricity to travel the specified distance. The participants stated that they primarily used electric range to compare the vehicles and make their selections. They also used fuel cost (estimated annual cost), consumption (estimated gallons per year), mileage (MPG/MPGe), and CO_2 grams per mile information. When the EV was an available choice, all participants selected the EV as the most environmentally friendly vehicle. If the EV was not a choice for the group, they split their choices between the EREV and the PHEV as the most environmentally friendly vehicle.

Three groups (Charlotte male group 2, Chicago female group 1 and Chicago male group 1) used vehicle label design Option B (see Appendix U) for this exercise. The Charlotte group used the Option B label with the kW-hr per 100 metric, while the two Chicago groups used the miles per kW-hr metric. The two Chicago groups also did not have the EV as an available choice for this exercise. The majority of participants chose the EREV for 30 miles, the PHEV for 50 miles and 100 miles, and the EREV as the most environmentally friendly (see Appendix V for tally). As with all the groups, the participants tried to maximize the use of electric power for the specified distance within their available choices. For these three groups, the participants stated that they primarily used electric range to compare the vehicles and make their selections. They also used fuel cost (estimated annual cost), mileage (MPG/MPGe), and the CO_2 grams per mile information. The two Charlotte groups did not have EV as an available choice, so they were split between the EREV and the PHEV as the most environmentally friendly vehicle.

In summary, it can be said that no matter the label design used by the group, participants made choices based on maximizing the use of electric power for the distance traveled. The information they used to make these choices were electric range of the vehicle, MPG and MPGe numbers, estimated annual fuel costs, and CO_2 grams per mile. When the EV was a choice, participants chose that vehicle technology as the most environmentally friendly. When the EV was not an option, participants were split between the EREV and PHEV.

"It [carbon emissions information] means nothing to me. Again, it depends on the way that electricity is produced in your town. If its coal it's one thing, wind power another. How can you determine if it's environmentally friendly or not?" – Charlotte Male

"To me, to have the cost of the electric and the cost of the gas separately, and not a combined average, is more confusing." – Houston Female

"You know, I bought a gasoline engine car because I don't understand any of this." – Seattle Female

What information is not needed when comparing across technologies

Considering the label design option used for the previous exercise, the moderator asked the participants to consider what information included on the labels was not needed to compare across vehicle technologies. No consensus was reached among the groups, although participants provided some suggestions. Many stated that they did not like or use the star ratings, and others did not find gallons per hundred miles to be a useful metric. Other suggestions included getting rid of the costs per month because annual costs were sufficient, and getting rid of the grey fuel economy bar because it was hard to understand what was being compared.

Environmental Metrics

Environmental metrics preferences

For this discussion, the moderator handed out individual copies of a sheet with five different presentations of environmental metrics (see Appendix Y). The goal of this exercise was to help determine what information and format is most useful for comparing the environmental impacts of different vehicles. The environmental metrics for this exercise were presented to participants separately, not within the context of the larger fuel economy label. Participants were asked to individually rank their first and second choice for which presentation was most understandable (see Appendix Z for tally).

Across all the groups, Option C emerged as the most understandable design for the environmental metric on the fuel economy label, closely followed by Option A. Option C was picked as the most understandable option (rated as "#1" or "#2") by female participants (both female groups in Charlotte, Seattle female group 1, Houston female group 2) more often as compared to male participants (Charlotte male group 1, Houston male group 1, and Chicago male group 1). According to the participants who liked Option C, it was simple, easy to understand, and more informative (it provided information separately for CO_2 and other pollutants) than the option that carried a combined rating for CO_2 and other pollutants (Option D). Many participants also reported liking the leaf layout used in Option C and said that it was symbolic of the environment theme.

"It covers all the information-gives a better breakdown and ratings."-Chicago Male

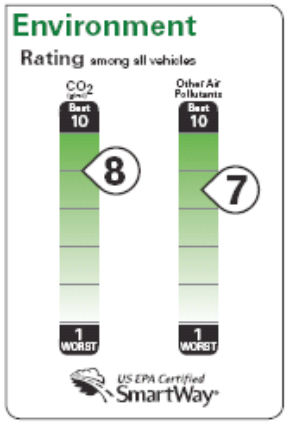
"I like the leaves and it tells me right away that I am looking at environment." -Chicago Male

Those who liked Option A said that it was easy to understand ("read like a thermometer"), and more informative (it provided information separately for CO_2 and other pollutants) than the option that carried a combined rating for CO_2 and other pollutants (Option D). Male groups (Charlotte male group 2, Seattle male group 1, Houston male group 2 and Chicago male group 2) liked Option A more often as compared to female groups (both Houston female groups and Chicago female group 1).

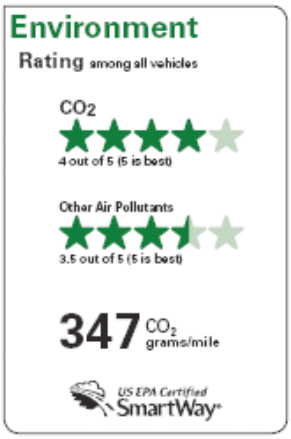
"Option A is easiest to read. I don't need to know how many CO2 grams." – Houston Male

"1 out of 10 is very easy to understand." – Charlotte Male

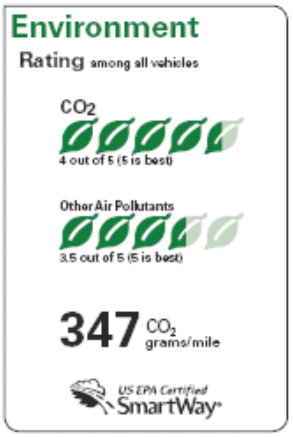
"The scale is familiar, 1 – 10 is familiar. It's simple, easy." – Houston Female



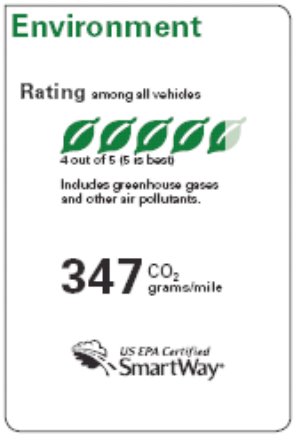
Option A



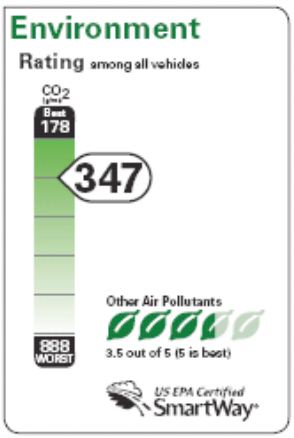
Option B



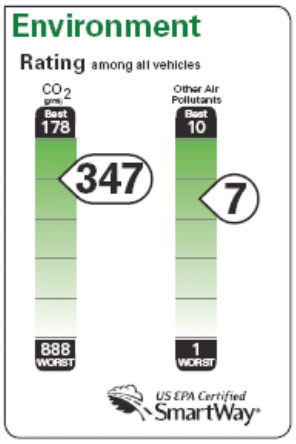
Option C



Option D



Option E



Option F

"I liked that it [Option E] identified what the worst case scenario, you know where the 347 falls in relation to the scale." – Houston Male

"It's simple [Option D], it combines the CO2 and pollutants, without having that extra comparison to make." – Houston Female

Those who liked Option B said that they were familiar with the star ratings system and liked it being used to depict CO_2 and other air pollutants in this option. Option B was picked as the most understandable design (rated as "#1" or "#2") for the environment metric by Seattle female group 2 and Chicago female group 2.

Those who liked Option E said that it was more informative than other options. According to them, Option E provided them with more accurate range information (i.e. best "178" case and worst "888" case). Option E was chosen as the most understandable design (rated as "#1" or "#2") for the environment metric by Seattle male group 2. A few participants liked Option D and explained that it was simple. In addition, they said that they did not really look for an environmental metric on the label and that they preferred a combined rating for CO_2 and other pollutants.

The ten groups (one Seattle male group, one Chicago female group, both of the Houston female and Chicago male groups and all of the Charlotte groups) of the sixteen groups that were interested in Options A and/or E were also shown "Option F" handout (see Appendix AB) and asked if they liked it better than either Option A or Option E. The majority of participants in the Seattle male group, Chicago female group, Charlotte male group 1, and Houston female groups stated they would have picked Option F if it had been available. Option F was also preferred by half of the participants in each of the Charlotte female groups. For the two Chicago male groups, Option F was viewed as a more attractive choice by only 1 participant in each group. None of the participants in Charlotte male group 2 chose Option F as their preferred option.

The moderator then explained to the participants that the 'CO_2 grams per mile' slider scale shown in this option was an absolute scale with the tail ends representing the best ("178 g/miles") and worst ("888 g/miles") environment-friendly vehicles that were currently available in the market across all vehicle class. On the other hand, the 'other air pollutants' slider scale was a relative scale that calibrated all vehicles on a scale of 1 to 10, with 1 representing the worst case and 10 representing the best case across all vehicle classes. When the participants were subsequently probed with regard to what they thought about these scales, most said this did not matter to them as long as the information was clearly explained. They explained that they wanted something that was easy and quick to read and understand. Additionally, for those participants that preferred Option F, they were more comfortable having both a relative and absolute scale represented on the environmental label as opposed to an absolute scale for CO_2 and leaves for other pollutants (as in option E).

When participants were asked their views on the use of SmartWay logo on the environmental metrics options, almost all stated that they did not know to what it referred. However, once it was explained, they liked it. Some said that it was like "EnergyStar for vehicles" and explained that it would be something you could look for when shopping for vehicles that would let you know right away that it was an environmentally friendly vehicle, without having to understand the rest of the environmental information on the label.

Inclusion of pollutants generated from charging electric vehicles

The moderator then asked the participants whether they thought anything might be missing from the environmental ratings that they had looked at. The moderator probed the groups to determine whether anyone realized that these environmental ratings did not take into account the pollutants emitted from power plants that generated the electricity to charge the vehicle battery. When the moderator asked directly whether participants thought this pollution was included in the environmental information on the vehicle fuel economy labels, about half of the participants across all the groups indicated that they had realized that it was not included.

"It's hard to account for regional things." – Charlotte Male

The moderator then asked the participants whether they thought this label should include information on pollutants created from generating electricity to charge the vehicle battery. Most participants reported that this point was not that important to them. Many participants discussed how you would not include the pollutants created to generate the gas for your car as part of the pollutants created by your car, so why include the pollutants from generating electricity to charge a car battery. Many participants, especially those in the Seattle groups, pointed out that the amount of pollutants created from generating the electricity needed to charge vehicle batteries varies greatly depending on the power source. For example, in the Pacific Northwest most power comes from hydroelectric plants which are much cleaner than power created by coal plants in the other parts of the country. Generally, participants stated that they did not think this information needed to be included on the vehicle labels, but thought it would be helpful to have this information available on a website.

"It's going to be understood by the way you buy your power. When I buy the power for my house, I have the choice to choose green. So I choose to buy green, that's the choice I make at that point. So I don't think it's necessary to put it on the vehicle." – Houston Female

"You have to clarify, otherwise that will come back to you." – Charlotte Female

The moderator then asked whether they liked the phrase 'the environmental ratings are based on tailpipe emissions" being added to the fuel economy label. Almost all participants in all the groups stated that that terminology was acceptable, although many did not think it was necessary.

Although the Seattle groups were a bit more passionate about this subject, there were no specific gender or city differences in terms of how this information should be included on the vehicle label.

Annual Cost and Annual Gallons Assumptions

The moderator asked the participants to consider whether they had a preference on the annual mileage assumption used to calculate the annual cost and annual gallon information used on the fuel economy labels. Participants were asked to consider whether it made any difference to them if these calculations were based on the average number of miles driven by U.S. consumers during the first year they owned their vehicle (15,000 miles), or the average number of miles driven annually by all U.S. drivers (12,000 miles).

The majority of participants stated that this did not matter to them as long as the basis used was consistent and clearly explained. A few participants stated that they thought that using 15,000 miles would be a better assumption to have on the label because they drove at least 15,000 miles each year. The few who stated that they preferred the annual cost and annual gallon assumption based on 12,000 miles said that they drove their vehicles for more than a year from their time of purchase and assumption based on 12,000 miles was a more accurate assumption in their case.

"It doesn't matter. It's a tool to compare one vehicle to the next. I'm really only using it to see if it's more efficient or not."
– Charlotte Female

No major city or gender differences were found with regard to participants' preference for the annual mileage assumption used to calculate the annual cost and annual gallon information used on the fuel economy label.

Placement of the Fuel Economy Label within the Monroney Label

The moderator showed participants three different options for placement of the fuel economy label within the Monroney Label (see Appendix AB). The options included placing the fuel economy label in the upper right, lower left, or upper left area of the Monroney label.

The majority of participants across most groups chose the upper right as the best placement for the fuel economy label. This included participants that were left-handed. According to those who liked upper right as the best placement, price and other vehicle specifications such as safety ratings were more critical to them and they wanted to see that information before the fuel economy information on the Monroney label.

The participants who liked upper left as the best placement for fuel economy label explained that they considered fuel economy as a very important consideration in their vehicle purchase and wanted to see it at a prominent place on the Monroney label. Their thinking was that people read from left to right and therefore this placement made the most sense. Only a handful of participants across any of the groups liked the placement of the fuel economy label on the lower left side of the Monroney label.

In addition, when asked if they thought the Monroney label itself should be larger, almost all participants stated that the size was fine as presented. Just a few participants stated they thought it should be bigger.

No major city or gender differences were found with regard to participants' preference for label size and placement.

"The price is most important, so that's what I want to see first. It doesn't matter how economical it is if I can't afford it." – Charlotte Female

"It's the second most important thing for what you're buying." – Charlotte Male

"I want to see the features of what I'm buying first. Odds are that I already know about gas mileage…I just want to know the features." – Houston Female

"You read left to right." – Charlotte Female

"If what you're trying to sell is the efficiency, that's where my eye goes first." – Charlotte Male

"It's not important when you put it in the bottom." –Houston Male

"It's at the bottom, your eye doesn't go there." – Houston Female

Overall Summary

Understandability of label design options

When considering all vehicle technologies, Option C was chosen most often as the most understandable label design. Option C was selected as the most understandable for electric vehicles, extended range electric vehicles, and by the six female groups for the plug-in hybrid electric vehicles. The groups selected Option B as the most understandable label design for gasoline engine vehicles, and Option A was selected by the six male groups as most understandable for plug-in hybrid electric vehicles.

Gasoline vehicle labels

Option B was perceived as the most understandable gasoline engine vehicle label design. Participants were split between Option A and Option C as the least understandable design. Participants preferred Option B because they wanted the separate city and highway fuel consumption estimates and the annual cost and consumption information, and liked how the information was laid out in a side-by-side format.

Electric vehicle labels

Option C was perceived as both the most and the least understandable electric vehicle label design. Participants who thought Option C was the most understandable said it was well organized and easy to read. It contained the information that the participants stated was important to them such as charge time and MPGe, they liked the estimated annual and monthly fuel cost, and the black and white format. Participants who thought Option C was the least understandable did not like the black and white format or the grey fuel economy comparison bar and struggled with the MPGe metric.

Extended range electric vehicle labels

Option C was perceived as the most understandable extended range electric vehicle label design. Participants who thought Option C was the most understandable thought this option was the most informative and found the format appealing including how the information was presented on the label with related information together in separate boxes. They liked how information for gas and electric operation was presented side-by-side (but in separate boxes), the range and charge bar illustration, and the use of MPGe to describe fuel economy.

Plug-in hybrid electric vehicle labels

Option A and Option C were both perceived as the most understandable plug-in hybrid electric vehicle designs. Option A was chosen as the most understandable primarily by the six male groups, while Option C was chosen as the most understandable primarily by the six female groups. For both label designs, participants liked how the information was laid out and grouped together to make it easy to read and understand. They liked the use of boxes to separate information and liked the use of the MPG and MPGe metrics. Participants found Option B least understandable because they found it hard to find the information they were interested in on the label and struggled with how to use MPG with kW-hr metrics.

Using the fuel economy labels to determine vehicle fuel efficiency

Generally, for all label design options and vehicle technologies, participants were able to determine which of the vehicles was the most fuel efficient when comparing labels across design options. Participants used MPG, MPGe. annual fuel cost and consumption information, kW-hr per 100 miles, miles per Kw-hr, and CO_2 emissions. For Options A and C, all but a few participants were easily able to determine which was the most fuel efficient vehicle. For Option B, participants in the groups that viewed the label with the kW-hr per 100 miles metric struggled more with determining which was the most fuel efficient vehicle. This was especially true for EVs where forty percent were unable to determine which vehicle was the most fuel efficient. This was because participants struggled with

the concept that a lower kW-hr per 100 miles number is more fuel efficient. This problem was not as prevalent for these groups when they did this exercise with the EREV and PHEV Option B labels because they could rely on the MPG numbers in addition to the annual fuel cost and consumption numbers. Participants in groups that viewed the Option B label design that used the miles per kW-hr metric did not experience this same difficulty because the larger miles per kW-hr number indicated the more fuel efficient vehicle.

Suggestions to improve the vehicle label designs

The following participant suggestions to improve the vehicle label designed were consistent across all label design options and vehicle technologies. More specific suggestions for each vehicle technology can be found within the body of this memorandum.

- Use larger font sizes for the most critical pieces of information like MPG and MPGe, and annual fuel cost and consumption information
- Avoid the use of white text on black or colored backgrounds
- Use the MPG and MPGe metrics to show fuel economy
- Include separate MPG and MPGe for city and highway travel on gasoline and electric vehicles (more important to participants then having a combined city/highway number)
- Include Smartphone interactive scan code
- Do not use stars for environmental ratings
- Use a side-by-side format for different fuel modes
- Include the gas pump and plug-in graphics
- Change 'within class' language to reflect actual class (mini-vans, SUVs, etc.)
- Use terms 'best' and 'worst' in comparisons

Using fuel economy label to compare across vehicle technologies

Participants were asked to determine the most fuel efficient vehicle to use for a 30 mile, 50 mile, and 100 mile trip. Each group was asked to choose among the three vehicle technologies they discussed in their group. For each situation, participants used the information available on the vehicle labels to make their choices based on maximizing the use of electric power for the distance to be traveled. Participants used the electric range of the vehicle, MPG and MPGe numbers, estimated annual fuel costs, and CO_2 grams per mile to make their choices. Participants chose the EV then the EREV for the 30 mile trip, the EV then the PHEV for the 50 miles trip, and the majority were split between the EREV and PHEV, with a few choosing the EV, for the 100 mile trip. In terms of choosing which vehicle was the most environmentally friendly, when the EV was a choice for the group, participants chose that vehicle technology as the most environmentally friendly. If the EV was not a choice for the group, participants split their choices between EREV and PHEV.

Annual cost and gallons assumptions

Participants in all groups expressed no real preference between using the 15,000 miles per year that drivers typically drive their new cars during their first year of ownership, or the 12,000 miles that all drivers drive on average each year to calculate annual fuel consumption and cost information. Participants stated it didn't matter as long as it was consistent and the assumption used was clearly stated on the vehicle label.

Placement of the fuel economy label within the Monroney label

Almost all participants stated that they preferred the fuel economy label be placed in the upper right corner of the Monroney label. In addition, almost all participants stated that the size of the fuel economy label was fine as it was, with just a few participants stating it should be larger.

Appendices

Appendix A: Moderator Guide

Introduction (7 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.
- Mention observers in separate room. As you know from when we recruited you, 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:
    - 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.
    - Please only speak one at a time, so that the recorder can pick up all your comments.
    - It is important to tell YOUR thoughts, not what you think others will think, or what you think others want to hear.
    - Please turn off cell phones
    - Your stipend will be provided as you leave.
    - 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 and the fuel economy label that appears on all new vehicles. 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 (Listed on poster chart):
  - Your first name
  - When did you buy your last new vehicle?
  - Did you consider buying a hybrid, or clean diesel, or some other alternative fuel vehicle?
  - Do you drive more city, highway, or combined?
  - About how many miles do you drive a year?

(THREE OF THE FOLLOWING 4 VEHICLE TECHNOLOGIES WILL BE COVERED IN EACH GROUP. THE ORDER OF PRESENTATION WILL BE ROTATED ACROSS GROUPS. TOTAL TIME SPENT ON THESE 3 TECHNOLOGIES WILL BE 75 MINUTES.)

Moderator starts off by letting them know that the fuel economy label appears within what is called a Monroney label (show large version of this on the wall; hand out copies in actual size to each participant so they can see the size of the fuel economy label within the larger label). Moderator to regularly remind them to keep this in mind as we work through the remainder of the focus group.

Now we are going to take a look at some fuel economy label designs for 3 different vehicle types. (For each of the groups, three out of the four technologies were discussed)

Gasoline Engine Vehicle Label Designs (25 minutes)

1. (Hand out the gasoline engine label work sheet #1 and the individual copies of the designs. Show them the 3 options on large boards.)
   a. Please indicate on your worksheet which option is most understandable and which is least understandable. For each choice write brief bullet points explaining why.
   b. (Then show two versions of each of the 3 label designs, each pair identical in every way except that one label will be for a vehicle that is more fuel efficient.) On the same worksheet I would like you to identify the vehicle which is more fuel efficient from each label pair and what you are basing that on.

      (**Tally results from section 'a' above and this section** and open up to discussion). Probe on how the vehicles in each pair compare in regard to the following metrics: fuel consumption, fuel cost, and environmental impact. This

probing needs to uncover any misunderstandings.

- If costs are broken out by city/highway or just combined, draw their attention to this and probe on which they prefer.

c. Of these designs, which most clearly demonstrates the fuel efficiency of the vehicle?

2. What top 2 pieces of information did you get from the labels? Can you suggest improvements to these label designs, not just in how they look, but also in regard to content? Probe on metrics or other information that would increase their understanding and how that would influence their choice of a fuel efficient vehicle.

Collect worksheets and ask client if they have any questions at this time.

Electric Vehicle Label Designs (25 minutes)

Read the following (Handout copies and read the following statement: Leave the conventional vehicle label showing for reference.)

Electric Vehicles use electricity stored in batteries to propel the vehicle. The battery is charged by plugging it 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, some energy is recovered when the brakes are applied. The vehicle travels until the charge is depleted or it is re-charged. There is no option to run it on gasoline.

3. (Hand out the EV label work sheet #2 and the individual copies of the designs. Show them the 3 options on large boards.)
   - Please indicate on your worksheet which option is most understandable and which is least understandable. For each choice write brief bullet points explaining why.
   - (Then show two versions of each of the 3 label designs, each pair identical in every way except that one label will be for a vehicle that is more fuel efficient.) On the same worksheet I would like you to identify the vehicle which is more fuel efficient from each label pair and what you are basing that on.
   - (**Tally results from section 'a' above and this section** and open up to discussion). Probe on how the vehicles in each pair compare in regard to the following metrics: fuel consumption, fuel cost, and environmental impact. This probing needs to uncover any misunderstandings.

- If costs are broken out by city/highway or just combined, draw their attention to this and probe on which they prefer.

- Which of the designs would most influence you to purchase a fuel efficient vehicle? Why? Listen for and probe on any misunderstandings of metrics.

4. What top 2 pieces of information did you get from the labels? Can you suggest improvements to these label designs, not just in how they look, but also in regard to content? Probe on metrics or other information that would increase their understanding and how that would influence their choice of a fuel efficient vehicle.

Collect worksheets and ask client if they have any questions at this time.

Extended Range Electric Vehicle Label Designs (25 minutes)

Read the following (Handout copies and read the following statement: Leave the conventional vehicle label and EV label showing for reference.)

An EREV has 2 modes of operation and can be plugged in to charge the battery.

1. *It uses wall electricity to propel the vehicle (like an EV) until the wall electricity is used up.*

2. *Once the stored wall electricity is used up, it runs like a gasoline hybrid, using gasoline to propel the vehicle and some energy is recovered when the brakes are applied.*

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). Validate that they understand this.

5. (Hand out the EREV engine label work sheet #3 and the individual copies of the designs. Show them the 3 options on large boards.)

   a. Please indicate on your worksheet which option is most understandable and which is least understandable. For each choice write brief bullet points explaining why.

   b. (Then show two versions of each of the 3 label designs, each pair identical in every way except that one label will be for a vehicle that is more fuel efficient.) On the same worksheet I would like you to identify the vehicle which is more fuel efficient from each label pair and what you are basing that on.

(**Tally results from section 'a' above and this section** and open up to discussion). Probe on how the vehicles in each pair compare in regard to the following metrics: fuel consumption, fuel cost, and environmental impact. This probing needs to uncover any misunderstandings.

- If costs are broken out by city/highway or just combined, draw their attention to this and probe on which they prefer.

c. Of these designs, which most clearly demonstrates the fuel efficiency of the vehicle?

6. What top 2 pieces of information did you get from the labels? Can you suggest improvements to these label designs, not just in how they look, but also in regard to content? Probe on metrics or other information that would increase their understanding and how that would influence their choice of a fuel efficient vehicle.

Collect worksheets and ask client if they have any questions at this time.

Plug-in Hybrid Electric Vehicle Label Designs (25 minutes)

(Handout copies and read the following statement).

A PHEV has 2 modes of operation and can be plugged in to charge the battery.

1. *It uses wall electricity intermingled with some gasoline to propel the vehicle until the wall electricity is used up.*
2. *Once the stored wall electricity is used up, it runs like a gasoline hybrid, using gasoline to propel the vehicle and some energy is recovered when the brakes are applied.*

Important: daily driving distance can GREATLY affect amount of gasoline used. Validate that they understand this.

7. (Hand out the PHEV label work sheet #4 and the individual copies of the designs. Show them the 3 options on large boards.)

a. Please indicate on your worksheet which option is most understandable and which is least understandable. For each choice write brief bullet points explaining why.

b. (Then show two versions of each of the 3 label designs, each pair identical in every way except that one label will be for a vehicle that is more fuel efficient.) On the same worksheet I would like you to identify the vehicle which is more fuel efficient from each label pair and what you are basing that on.

(**Tally results from section 'a' above and this section** and open up to discussion). Probe on how the vehicles in each pair compare in regard to the following metrics: fuel consumption, fuel cost, and environmental impact. This probing needs to uncover any misunderstandings.

- If costs are broken out by city/highway or just combined, draw their attention to this and probe on which they prefer.

c. Which of the designs would most influence you to purchase a fuel efficient vehicle? Why? Listen for and probe on any misunderstandings of metrics.

8. What top 2 pieces of information did you get from the labels? Can you suggest improvements to these label designs, not just in how they look, but also in regard to content? Probe on metrics or other information that would increase their understanding and how that would influence their choice of a fuel efficient vehicle.

9. What top 2 pieces of information did you get from the labels? Can you suggest improvements to these label designs, not just in how they look, but also in regard to content? Probe on metrics or other information that would increase their understanding and how that would influence their choice of a fuel efficient vehicle.

Collect worksheets and ask client if they have any questions at this time.

Using Labels to Compare Across Technologies (14 minutes)

10. Is there a particular part of the label that would help you compare across vehicle technologies? Probe on fuel cost and fuel consumption. Is there something that would work better?

MODERATOR: ASK GROUP WHICH LABEL DESIGN TO USE FOR THIS NEXT EXERCISE. IF NO CONSENSUS, WORK TO TEST THE TOP PICKS. THE LABEL DESIGN TYPE TO BE USED IN THE EXERCISE NEEDS TO ENSURE THAT EACH DESIGN IS USED AT LEAST ONCE (AND PREFERABLY TWICE) ACROSS ALL FOCUS GROUPS .

11. Show participants a label for each of the three vehicle types and pass out worksheet #5.
    - Please indicate on your worksheet:
    - Which type of vehicle is better for a trip of 30 miles?
    - Which type of vehicle is better for a trip of 50 miles?

- Which type of vehicle is better for a round trip of 100 miles?
- Which type of vehicle is most environmentally friendly?

  (Possible Tally)

Then open up to discussion and probe on what information they used to compare and make their choices.

12. Looking across the labels you preferred for each technology, are there portions of the labels that could be removed without affecting your ability to compare within or across vehicle technologies?
    - Could the design of the label be modified to assist you in making these comparisons?
    - Is the information you would want to see for comparison purposes easily found on label?
13. If group has not reached a consensus on a label design that is the same for all technologies, moderator to display the choice options from the group and tell them to work to reach consensus. Probe on eventual level of agreement -- is it a fairly strong consensus vs. "I can live with that design."

Collect worksheets.

Environmental Metrics (15 minutes)

Now we'd like to explore some ways to communicate the environmental impact of vehicles.

14. (Hand out worksheet #6) Show participants the 4 possible metrics (see below) and ask them to individually rank their preference for understanding and to briefly explain why they chose their #1 and #2 rankings. Tally results in regard to how many ranked each option as their number 1 or number 2 choices. Then open to discussion regarding reasons behind their preferences. Probe group on what the metric information meant to them to see if they understood, which one was most intuitive, does it provide enough information, and which one they would be most likely to use.

    Also probe on their reaction to the following:

    - Leafs and stars and 0-10 rating bars are a relative scale (comparisons to other vehicles rather than objective measure for a specific vehicle)

- Rating criteria could change each year as the fleet of vehicles improved, that is, a vehicle with a certain emissions level in one year might get 4 leafs, but the next year might only get 3 leafs if the technology did not change
  - (1) 2 enviro ratings which are relative --1-10 for both CO2 and Air Pollution (Label A)
  - (2) 1 enviro rating which is relative for CO2 (using stars) and another that is relative (using stars) for air pollution (Label B)
  - (3) 2 enviro ratings depicted by leafs for both CO2 and Air Pollution (Label C)
  - (4) A mixed approached-- leafs for air pollution but absolute number for CO2 (Label D)

15. For vehicles that run on electricity, the environmental ratings do not take into account any pollutants emitted from the power plant that generated the electricity to charge the battery. Probe on:
    - How many realized that (show of hands)?
    - Should that information be on the fuel economy label? (show of hands) Why or why not?
    - Is the following language sufficient – "The environmental ratings are based on tailpipe emissions." Why or why not?

Collect worksheets.

Annual Cost and Annual Gallons Assumptions (3 minutes)

16. Moderator to point to the "annual cost number and annual gallons" and indicate that this is **based on the average number of miles driven by a U.S. consumer the first year they own their new vehicle**. Get their reaction to this.

    Then ask if EPA **instead** based the annual estimate for both the annual gallons of gasoline used and the cost **on the average annual miles driven by all US drivers** (which is closer to 12,000). Get reaction to this. Probe on why or why not?

Monroney Label Placement (3 minutes)

17. Show 3 versions of Monroney label with the EPA fuel economy label in different locations. Ask for show of hands as to which version they would find:
    - Most useful and why?
    - Most appealing and why?

    (Probe on left-handed and right-handed person issue.)
18. What do you think about the size of the fuel economy label? (Listen for and probe on whether it needs to be bigger and why or why not.)

Wrap-Up (3 minutes)

19. Is there information that we have not discussed today that would influence you to choose a fuel efficient vehicle?
20. Anything else you would like our clients to know about you thoughts about fuel economy labels?

Ask client if they have any last questions.

Appendix B: Participants' Profile

Seattle female group: May 17th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	Passenger car	Gasoline	20-29	$20K- less than $30K	65 +	Graduate degree	White/non Hispanic
2	SUV	Gasoline	20-29	$20K- less than $30K	35-49	Some college or college graduate	White/non Hispanic
3	Passenger car	Hybrid	10-19	$20K- less than $30K	50-64	Some college or college graduate	White/non Hispanic
4	Passenger car	Gasoline	20-39	$20K- less than $30K	50-64	Some college or college graduate	Black/non Hispanic
5	Station Wagon or mini van	Gasoline	40+	$30K - less than $40K	50-64	Some college or college graduate	White/non Hispanic
6	SUV	Gasoline	10-19	$20K- less than $30K	50-64	Some college or college graduate	White/non Hispanic

Seattle male group: May 17th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	SUV	Gasoline	40+ miles	$30K - less than $40K	20-34	Graduate degree	White/non Hispanic
2	SUV	Gasoline	10-19 miles	$40K - less than $50K	50-64	Some college or college graduate	White/non Hispanic
3	Station wagon or minivan	Gasoline	Less than 10	$30K - less than $40K	50-64	Graduate degree	White/non Hispanic
4	Passenger car	Hybrid	20-29	$20K- less than $30K	50-64	Some college or college graduate	White/non Hispanic
5	Station wagon or minivan	Gasoline	Less than 10	$20K- less than $30K	35-49	Some college or college graduate	White/non Hispanic
6	SUV	Gasoline	Less than 10	$30K - less than $40K	50-64	Graduate degree	White/non Hispanic
7	Passenger car	Gasoline	20-29 miles	$30K - less than $40K	50-64	Some college or college graduate	White/non Hispanic
8	Passenger car	Gasoline	20-29 miles	$20K- less than $30K	50-64	Some college or college graduate	White/non Hispanic

Seattle female group: May 18th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	Pickup Truck	Gasoline	10-19 miles	$30K - less than $40K	35-49	Some college or college graduate	White/Non-Hispanic
2	Pickup Truck	Gasoline	Less than 10 Miles	$40K - less than $50K	50-64	Graduate Degree	White/Non-Hispanic
3	Passenger Car	Hybrid	20-29 Miles	$20K- less than $30K	65+	Some college or college graduate	White/Non-Hispanic
4	Pickup Truck	Gasoline	Less than 10 Miles	$30K - less than $40K	35-49	Some college or college graduate	White/Non-Hispanic
5	Passenger Car	Gasoline	30-39 miles	$20K- less than $30K	35-49	Some college or college graduate	Hispanic
6	SUV	Gasoline	10-19 miles	$30K - less than $40K	65+	Some college or college graduate	White/Non-Hispanic
7	SUV	Gasoline	10-19 miles	$30K - less than $40K	65+	Some college or college graduate	White Non-Hispanic
8	Passenger Car	Hybrid	40+ Miles	$20K- less than $30K	50-64	Graduate Degree	White Non-Hispanic

Seattle male group: May 18th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	Other	Gasoline	Less than 10	$30K - less than $40K	50-64	Some college or college graduate	White/Non-Hispanic
2	SUV	Gasoline	Less than 10	$20K- less than $30K	50-64	Graduate Degree	White/Non-Hispanic
3	Station wagon or minivan	Gasoline	Less than 10	$20K- less than $30K	35-49	Some college or college graduate	White/Non-Hispanic
4	SUV	Gasoline	Less than 10	$20K- less than $30K	50-64	Some college or college graduate	White/Non-Hispanic
5	Passenger car	Gasoline	20-29 miles	$20K- less than $30K	35-49	Some college or college graduate	Hawaiian/Pacific Islander
6	Station wagon or minivan	Gasoline	10-19 miles	$20K- less than $30K	50-64	Some college or college graduate	White/Non-Hispanic
7	Passenger car	Gasoline	Less than 10	$15K- less than $20K	35-49	Some college or college graduate	Asian
8	Passenger car	Gasoline	20-29 miles	$20K- less than $30K	50-64	Some college or college graduate	White/non Hispanic

Charlotte female group: May 19th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	Passenger Car	Gasoline	20-29	$15-$20k	50-64	Some college or college graduate	White/Non-Hispanic
2	SUV	Gasoline	30-39	$40-$50k	35-49	Some college or college graduate	White/Non-Hispanic
3	SUV	Gasoline	10-19	$40-$50k	50-64	Some college or college graduate	White/Non-Hispanic
4	Passenger Car	Gasoline	30-39	$15-$20k	20-34	Some college or college graduate	White/Non-Hispanic
5	Passenger Car	Gasoline	40+	$30-$40k	35-49	Graduate degree	White/Non-Hispanic
6	SUV	Gasoline	30-39	$20-$30k	20-34	Graduate degree	White/Non-Hispanic
7	SUV	Gasoline	20-29	$30-$40k	50-64	Some college or college graduate	African American
8	Passenger Car	Gasoline	40+	$15-$20k	35-49	Some college or college graduate	White/Non-Hispanic

Charlotte male group: May 19th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	Passenger Car	Gasoline	40+	$20-$30k	50-64	Some high school or high school graduate or GED	Hispanic
2	SUV	Gasoline	40+	$20-$30k	50-64	Some college or college graduate	White/Non-Hispanic
3	Passenger Car	Gasoline	40+	$30-$40k	20-34	Some college or college graduate	African American
4	SUV	Gasoline	30-39	$20-$30k	20-34	Some college or college graduate	White/Non-Hispanic
5	Passenger Car	Gasoline	20-29	$20-$30k	35-49	Some college or college graduate	White/Non-Hispanic
6	SUV	Hybrid	30-39	$30-$40k	20-34	Some college or college graduate	African American
7	Passenger Car	Gasoline	40+	$20-$30k	35-49	Some college or college graduate	White/Non-Hispanic
8	Passenger Car	Gasoline	10-19	$15-$20k	35-49	Some college or college graduate	African American

Charlotte female group: May 20th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	Passenger Car	Gasoline	20-29	$20-$30k	35-49	Some college or college graduate	White/Non-Hispanic
2	Passenger Car	Gasoline	40+	$15-$20k	50-64	Some high school or high school graduate or GED	White/Non-Hispanic
3	Passenger Car	Gasoline	less than 10	$15-$20k	65+	Some college or college graduate	White/Non-Hispanic
4	Passenger Car	Gasoline	less than 10	$30-$40k	50-64	Some college or college graduate	White/Non-Hispanic
5	Passenger Car	Gasoline	20-29	$30-$40k	50-64	Graduate degree	White/Non-Hispanic
6	Crossover	Gasoline	30-39	$20-$39k	35-49	Some college or college graduate	White/Non-Hispanic
7	Passenger Car	Gasoline	20-29	$15-$20k	50-64	Some college or college graduate	White/Non-Hispanic
8	SUV	Gasoline	40+	$20-$30k	20-34	Some college or college graduate	White/Non-Hispanic

Charlotte male group: May 20th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	Passenger Car	Gasoline	20-29	$20-$30k	20-34	Some college or college graduate	White/Non-Hispanic
2	Passenger Car	Gasoline	10-19	$30-$40k	35-49	Graduate degree	White/Non-Hispanic
3	SUV	Gasoline	20-29	$20-$30k	65+	Some college or college graduate	White/Non-Hispanic
4	Passenger Car	Gasoline	Less than 10	$15-$20k	35-49	Graduate degree	Hispanic
5	Passenger Car	Hybrid	40+	$20-$30k	50-64	Some college or college graduate	White/Non-Hispanic
6	Passenger Car	Gasoline	Less than 10	$20-$30k	20-34	Some college or college graduate	African American
7	Passenger Car	Hybrid	30-39	$20-$30k	20-34	Graduate degree	White/Non-Hispanic
8	Passenger Car	Gasoline	10-19	$30-$40k	50-64	Graduate degree	African American

Houston female group: May 24th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	Passenger Car	Gasoline	10-19	$15-20k	20-34	Graduate degree	Asian
2	Passenger Car	Gasoline	10-19	$30-40k	50-64	Some college or college graduate	African American
3	Passenger Car	Gasoline	30-39	$15-20k	20-34	Some college or college graduate	African American
4	Passenger Car	Gasoline	40+	$30-40k	20-34	Some college or college graduate	White/Non
5	SUV	Gasoline	20-29	$20-30k	35-49	Some college or college graduate	White/Non
6	Passenger Car	Gasoline	30-39	$20-30k	50-64	Some college or college graduate	White/Non
7	SUV	Gasoline	40+	$20-30k	65+	Some college or college graduate	White/Non
8	Passenger Car	Gasoline	30-39	$15-20k	35-49	Graduate degree	White/Non-Hispanic

Houston male group: May 24th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	SUV	Gasoline	40+	$20-30k	35-49	Graduate degree	African American
2	Crossover	Gasoline	40+	$20-30k	20-34	Some college or college graduate	White/Non-Hispanic
3	Passenger Car	Gasoline	40+	$15-20k	50-64	Some college or college graduate	White/Non-Hispanic
4	Passenger Car	Hybrid	20-29	$30-40k	20-34	Graduate degree	Middle Eastern
5	Passenger Car	Gasoline	40+	$20-30k	20-34	Some college or college graduate	White/Non-Hispanic

Houston female group: May 25th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	Passenger Car	Gasoline	40+	$20-30k	35-49	Some college or college graduate	White/Non-Hispanic
2	Passenger Car	Gasoline	30-39	$30-40k	50-64	Some college or college graduate	White/Non-Hispanic
3	Passenger Car	Gasoline	40+	$30-40k	20-34	Some college or college graduate	African American
4	Passenger Car	Gasoline	10-19	$15-20k	50-64	Graduate degree	White/Non-Hispanic
5	SUV	Gasoline	40+	$30-40k	35-49	Graduate degree	African American
6	SUV	Gasoline	20-29	$30-40k	35-49	Some college or college graduate	Hispanic
7	SUV	Gasoline	10-19	$30-40k	35-49	Some college or college graduate	Hispanic
8	Passenger Car	Flex Fuel	40+	$30-40k	35-49	Graduate degree	African American

Houston male group: May 25th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	SUV	Gasoline	30-39	$20-30k	20-34	Graduate degree	White/Non-Hispanic
2	Passenger Car	Gasoline	40+	$15-20k	20-34	Some college or college graduate	Hispanic
3	Passenger Car	Gasoline	30-39	<$15k	20-34	Some college or college graduate	Hispanic
4	SUV	Gasoline	10-19	$30-40k	50-64	Some college or college graduate	Hispanic
5	Pickup Truck	Gasoline	20-29	$20-30k	20-34	Some college or college graduate	White/Hispanic
6	Passenger Car	Gasoline	20-29	$20-30k	20-34	Graduate degree	White/Non-Hispanic
7	Pickup Truck	Gasoline	30-39	$20-30k	50-64	Some high school or high school graduate or GED	African American/
8	SUV	Gasoline	30-39	$20-30k	50-64	Some college or college graduate	White/Non-Hispanic

Chicago female group: May 26th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	Minivan	Gasoline	10-19 miles	$30-40k	50-64	Some college or college graduate	White/Non-Hispanic
2	Passenger car	Flex fuel	40 or more miles	$20-30k	35-49	Some college or college graduate	White/Non-Hispanic
3	SUV	Gasoline	40 or more miles	$30-40k	35-49	Graduate degree	White/Non-Hispanic
4	Passenger car	Hybrid	40 or more miles	$30-40k	50-64	Some college or college graduate	African American/
5	Passenger car	Gasoline	30-39 miles	$20-30k	50-64	Graduate degree	White/Non-Hispanic
6	Passenger car	Gasoline	40 or more miles	$15-20k	20-34	Some college or college graduate	Asian
7	Passenger car	Gasoline	40 or more miles	$20-30k	50-64	Some high school or high school graduate or GED	White/Non-Hispanic
8	SUV	Gasoline	10-19 miles	$20-30k	50-64	Graduate degree	White/Non-Hispanic

Chicago male group: May 26th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	SUV	Gasoline	Less than 10 miles	$40-50k	20-34	Some college or college graduate	Asian
2	SUV	Gasoline	40 or more miles	$20-30k	20-34	Graduate degree	White/Non-Hispanic
3	Passenger car	Gasoline	40 or more miles	$40-50k	35-49	Some college or college graduate	White/Non-Hispanic
4	Passenger car	Gasoline	30-39 miles	$20-30k	20-34	Some college or college graduate	White/Non-Hispanic
5	Passenger car	Gasoline	10-19 miles	$20-30k	35-49	Some college or college graduate	White/Non-Hispanic
6	Passenger car	Gasoline	40 or more miles	$20-30k	20-34	Some college or college graduate	White/Non-Hispanic
7	Passenger car	Gasoline	20-29 miles	$15-20k	35-49	Graduate degree	White/Non-Hispanic
8	SUV	Gasoline	40 or more miles	$30-40k	50-64	Some college or college graduate	White/Non-Hispanic

Chicago female group: May 27th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	SUV	Gasoline	20-29 miles	$20-30k	35-49	Some college or college graduate	Hispanic
2	SUV	Gasoline	20-29 miles	$40-50k	35-49	Graduate degree	White/Non-Hispanic
3	Passenger car	Gasoline	10-19 miles	$15-20k	50-64	Some college or college graduate	White/Non-Hispanic
4	SUV	Gasoline	10-19 miles	$40-50k	20-34	Some college or college graduate	Asian
5	Passenger car	Gasoline	40 or more miles	$30-40k	20-34	Some college or college graduate	White/Non-Hispanic
6	Passenger car	Gasoline	20-29 miles	$20-30k	35-49	Graduate degree	White/Non-Hispanic
7	SUV	Gasoline	10-19 miles	$30-40k	20-34	Some high school or high school graduate or GED	Asian
8	Passenger car	Gasoline	20-29 miles	$30-40k	35-49	Graduate degree	White/Non-Hispanic

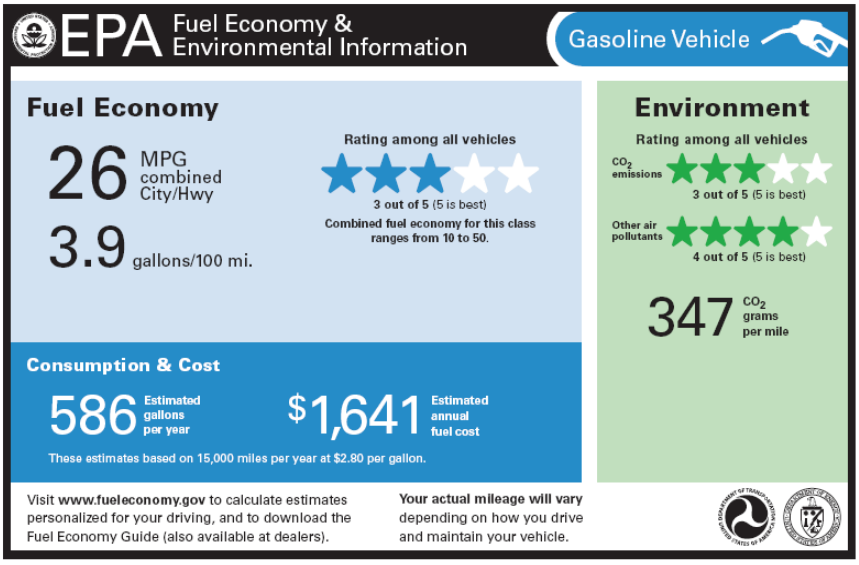
Chicago male group: May 27th, 2010

	Q9. What type of vehicle did you purchase?	Q10. How is this vehicle powered?	Q11. What is the distance in miles of your typical daily travel in this vehicle?	Q12. Price range of new vehicle	Q13. Age	Q14. Education	Q15. Ethnicity
1	Passenger car	Gasoline	30-39 miles	$20-30k	20-34	Some college or college graduate	White/Non-Hispanic
2	Pickup truck	Gasoline	20-29 miles	$30-40k	50-64	Some college or college graduate	White/Non-Hispanic
3	Passenger car	Gasoline	20-29 miles	$20-30k	50-64	Graduate degree	White/Non-Hispanic
4	Passenger car	Gasoline	10-19 miles	$20-30k	50-64	Some college or college graduate	White/Non-Hispanic
5	Passenger car	Gasoline	10-19 miles	$20-30k	20-34	Graduate degree	White/Non-Hispanic
6	SUV	Gasoline	Less than 10 miles	$20-30k	35-49	Some college or college graduate	White/Non-Hispanic
7	Station wagon or mini van	Gasoline	10-19 miles	$20-30k	20-34	Graduate degree	White/Non-Hispanic
8	SUV	Gasoline	20-29 miles	$30-40k	50-64	Graduate degree	White/Non-Hispanic

Appendix C: Gasoline Engine Labels Understandability Handout

1 Gas Vehicle Labels

A



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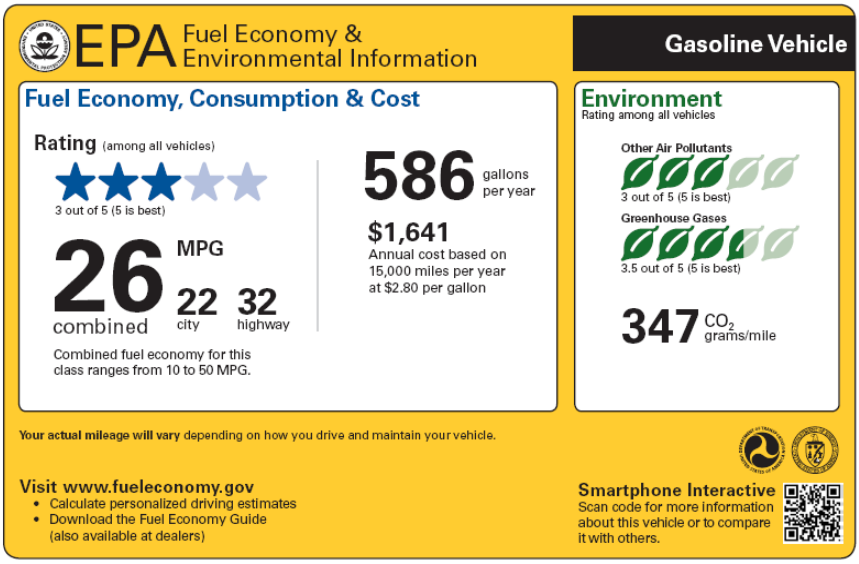
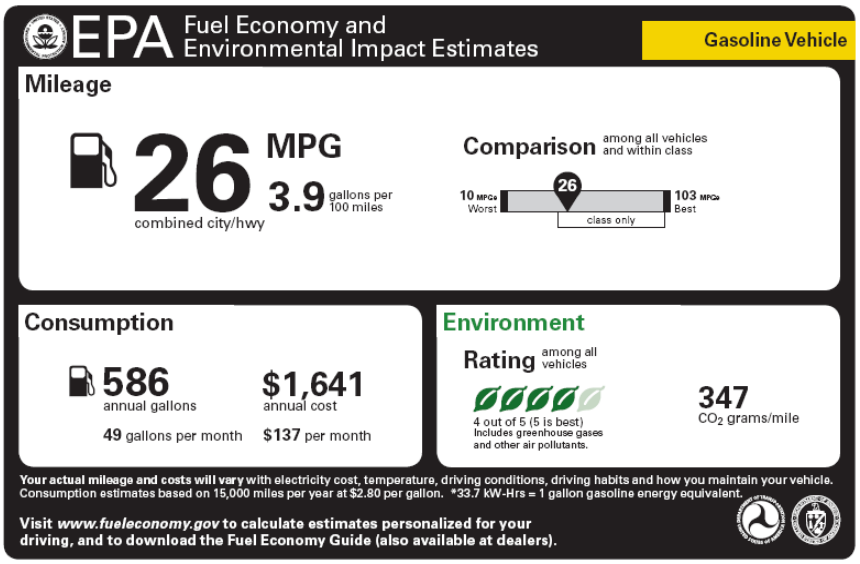


C


EPA Fuel Economy and Environmental Impact Estimates
Gasoline Vehicle
Mileage
26 MPG
3.9 gallons per 100 miles
combined city/hwy
Comparison among all vehicles and within class
10 MPG Worst
26
103 MPG Best
class only
Consumption
586 annual gallons
$1,641 annual cost
49 gallons per month
$137 per month
Environment
Rating among all vehicles
4 out of 5 (5 is best)
Includes greenhouse gases and other air pollutants.
347 CO2 grams/mile
Your actual mileage and costs will vary with electricity cost, temperature, driving conditions, driving habits and how you maintain your vehicle.
Consumption estimates based on 15,000 miles per year at $2.80 per gallon. *33.7 kW-Hrs = 1 gallon gasoline energy equivalent.
Visit www.fueleconomy.gov to calculate estimates personalized for your driving, and to download the Fuel Economy Guide (also available at dealers).

Appendix D: Gasoline Engine Labels Understandability Tally

		Option 1A	Option 1B	Option 1C
Seattle Female Group: 05/17/2010				
	Most Understandable	4	2	0
	Least Understandable	0	2	4
Seattle Male Group: 05/17/2010				
	Most Understandable	2	3	3
	Least Understandable	5	0	3
Seattle Female Group: 05/18/2010 – Not Used for this Group				
Seattle Male Group: 05/18/2010 – Not Used for this Group				
Total	Female Most Understandable	4	2	0
	Female Least Understandable	0	2	4
	Male Most Understandable	2	3	3
	Male Least Understandable	5	0	3
	Overall Most Understandable	6	5	3
	Overall Least understandable	5	2	7
	Group Most Understandable	1	1	0
	Group Least Understandable	1	0	1
Charlotte Female Group: 05/19/2010				
	Most Understandable	0	5	3
	Least Understandable	6	1	1
Charlotte Male Group: 05/19/2010				
	Most Understandable	0	7	1
	Least Understandable	2	1	5
Charlotte Female Group: 05/20/2010				
	Most Understandable	0	6	2
	Least Understandable	4	1	3

		Option 1A	Option 1B	Option 1C
Charlotte Male Group: 05/20/2010				
	Most Understandable	0	6	2
	Least Understandable	2	1	5
Total	Female Most Understandable	0	11	5
	Female Least Understandable	10	2	4
	Male Most Understandable	0	13	3
	Male Least Understandable	4	2	10
	Overall Most Understandable	0	24	8
	Overall Least understandable	14	4	14
	Group Most Understandable	0	4	0
	Group Least Understandable	2	0	2
Houston Female Group: 05/24/2010				
	Most Understandable	0	7	1
	Least Understandable	2	1	5
Houston Male Group: 05/24/2010				
	Most Understandable	0	5	0
	Least Understandable	3	0	2
Houston Female Group: 05/25/2010 – Not Used for this Group				
Houston Male Group: 05/25/2010 – Not Used for this Group				
Total	Female Most Understandable	0	7	1
	Female Least Understandable	2	1	5
	Male Most Understandable	0	5	0
	Male Least Understandable	3	0	2
	Overall Most Understandable	0	12	1
	Overall Least Understandable	5	1	7
	Groups Most Understandable	0	2	0
	Groups Least Understandable	1	0	1

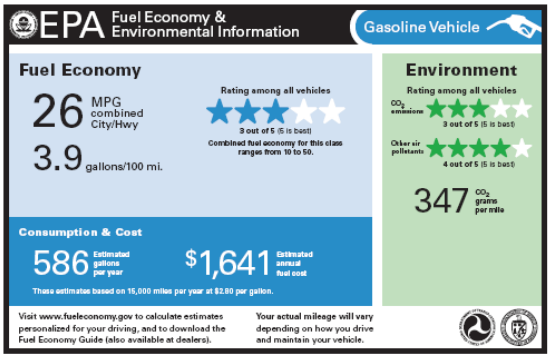
		Option 1A	Option 1B	Option 1C
Chicago Female Group: 05/26/2010				
	Most Understandable	0	6	2
	Least Understandable	6	0	2
Chicago Male Group: 05/26/2010				
	Most Understandable	1	4	3
	Least Understandable	2	2	4
Chicago Female Group: 05/27/2010				
	Most Understandable	2	6	0
	Least Understandable	2	2	4
Chicago Male Group: 05/27/2010				
	Most Understandable	1	4	3
	Least Understandable	2	2	4
Total	Female Most Understandable	2	12	2
	Female Least Understandable	8	2	6
	Male Most Understandable	2	10	6
	Males Least Understandable	4	4	8
	Overall Most Understandable	4	20	11
	Overall Least understandable	12	6	`14
	Groups Most Understandable	0	4	0
	Groups Least Understandable	1	0	3
COMBINED TALLY FOR ALL GROUPS				
Total	Female Most Understandable	6	32	8
	Female Least Understandable	20	7	19
	Male Most Understandable	4	31	12
	Male Least Understandable	16	6	23
	Overall Most Understandable	10	61	23
	Overall Least Understandable	36	13	42
	Groups Most Understandable	1	11	0
	Groups Least Understandable	5	0	7

Appendix E: Gasoline Engine Labels Fuel Efficiency Handout

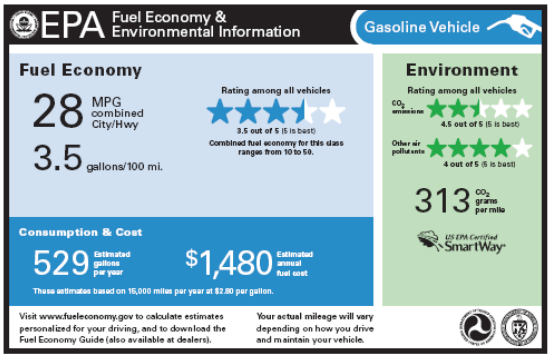
1 Gas Vehicle Labels

Which is more fuel efficient?

A1



A2



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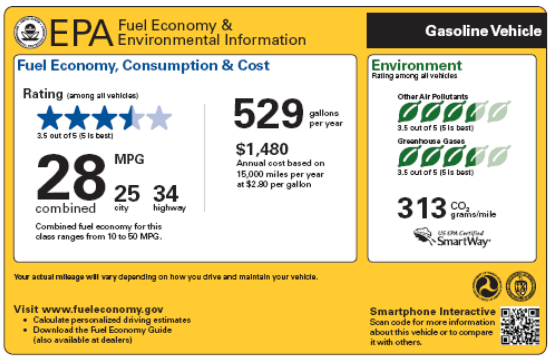

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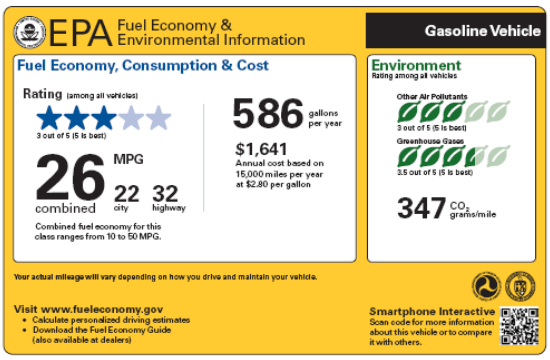
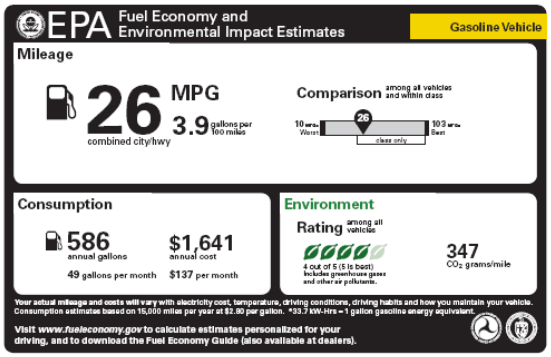
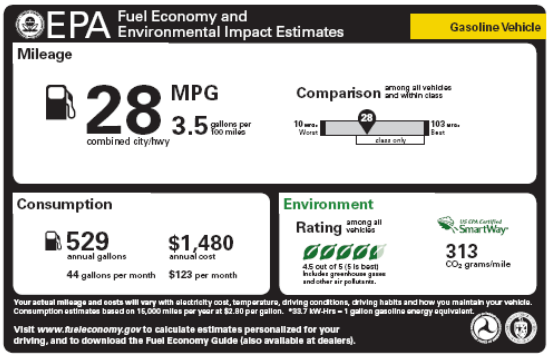


C1



C2



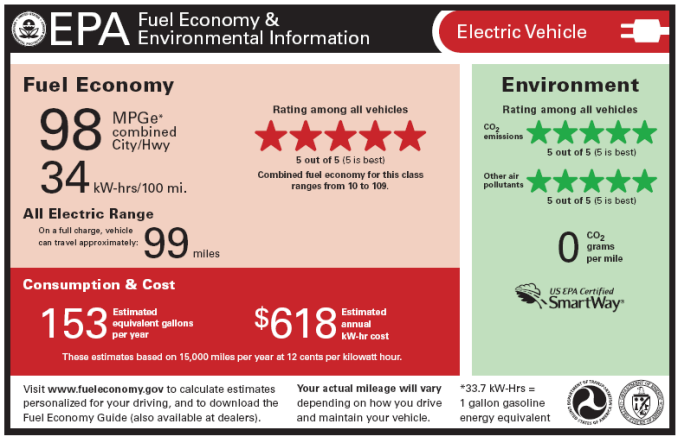
Appendix F: Gasoline Engine Labels Fuel Efficiency Tally

	Option 1A1	Option 1A2	Option 1B1	Option 1B2	Option 1C1	Option 1C2
Seattle Female Group: 05/17/2010						
	0	5	5	0	0	5
Seattle Male Group: 05/17/2010						
	0	8	8	0	0	8
Seattle Female Group: 05/18/2010 – Not Used for this Group						
Seattle Male Group: 05/18/2010 - Not Used for this Group						
Most fuel efficient	0	13	13	0	0	13
Charlotte Female Group: 05/19/2010						
	0	8	8	0	1	7
Charlotte Male Group: 05/19/2010						
	0	8	7	1	0	8
Charlotte Female Group: 05/20/2010						
	1	7	8	1	0	7
Charlotte Female Group: 05/20/2010						
	1	7	8	0	0	8
Most fuel efficient	2	30	31	2	1	30
Houston Female Group: 05/24/2010						
	1	7	8	0	2	6
Houston Male Group: 05/24/2010						
	1	4	5	0	1	4
Houston Female Group: 05/25/2010 – Not Used for this Group						
Houston Male Group: 05/25/2010 – Not Used for this Group						
Most fuel efficient	2	11	13	0	3	10
Chicago Female Group: 05/26/2010						
	0	8	8	0	0	8
Chicago Male Group: 05/26/2010						
	0	8	8	0	0	8
Chicago Female Group: 05/27/2010						
	0	8	8	0	0	8
Chicago Male Group: 05/27/2010						
	0	8	8	0	0	8
Most fuel efficient	0	32	32	0	0	32
COMBINED TALLY FOR ALL GROUPS						
Total	4	86	89	2	4	85

Appendix G: Electric Vehicle Labels Understandability Handout

2 Electric Vehicle Labels

A



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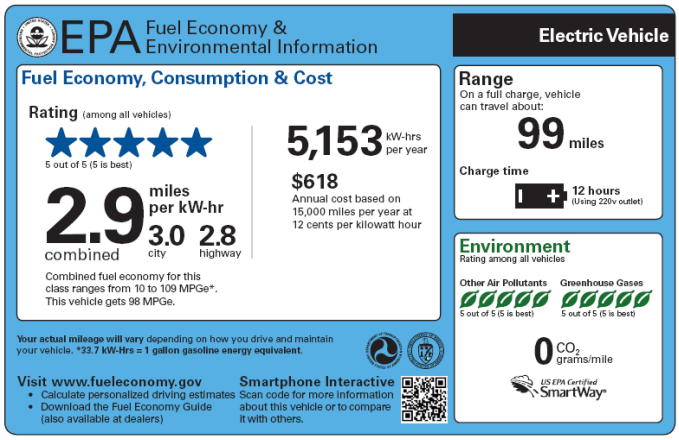

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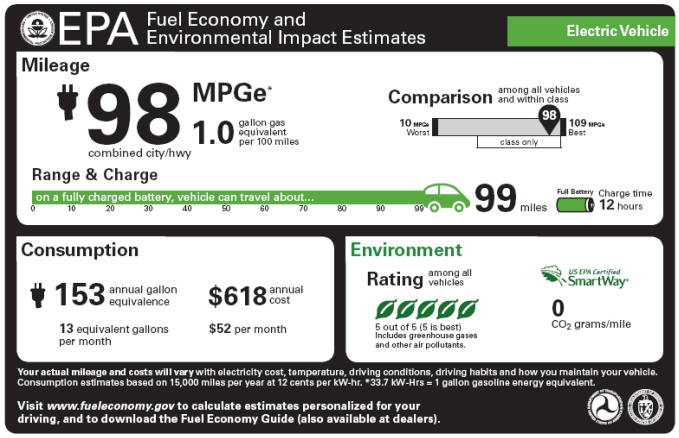


Appendix H: Electric Vehicles Labels Understandability Tally

		Option 2A	Option 2B	Option 2C
Seattle Female Group: 05/17/2010				
	Most Understandable	2	2	2
	Least Understandable	1	2	3
Seattle Male Group: 05/17/2010				
	Most Understandable	2	2	4
	Least Understandable	1	6	1
Seattle Female Group: 05/18/2010				
	Most Understandable	2	3	3
	Least Understandable	2	2	3
Seattle Male Group: 05/18/2010				
	Most Understandable	3	1	4
	Least Understandable	3	2	3
Total	Female Most Understandable	4	5	5
	Female Least Understandable	3	5	6
	Male Most Understandable	5	3	8
	Male Least Understandable	4	8	4
	Overall Most Understandable	9	8	13
	Overall Least understandable	7	13	10
	Group Most Understandable	0	2	2
	Group Least Understandable	1	1	2
Charlotte Female Group: 05/19/2010 – Not used for this Group				
Charlotte Male Group: 05/19/2010 – Not used for this Group				
Charlotte Female Group: 05/20/2010				
	Most Understandable	1	5	2
	Least Understandable	2	3	3
Charlotte Male Group: 05/20/2010				
	Most Understandable	1	3	4
	Least Understandable	4	3	1
Total	Female Most Understandable	1	3	4
	Female Least Understandable	4	3	1
	Male Most Understandable	1	5	2
	Male Least Understandable	2	3	3
	Overall Most Understandable	2	8	6
	Overall Least Understandable	6	6	4
	Groups Most Understandable	0	1	1
	Groups Least Understandable	1	0	1

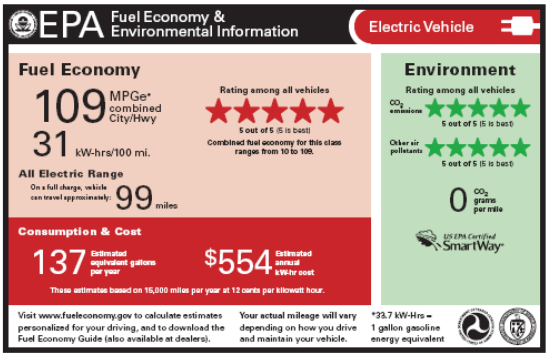
		Option 2A	Option 2B	Option 2C
Houston Female Group: 05/24/2010				
	Most Understandable	0	3	5
	Least Understandable	6	2	0
Houston Male Group: 05/24/2010				
	Most Understandable	0	2	3
	Least Understandable	2	1	2
Houston Female Group: 05/25/2010				
	Most Understandable	1	3	4
	Least Understandable	2	3	3
Houston Male Group: 05/25/2010				
	Most Understandable	1	1	6
	Least Understandable	2	5	1
Total	Female Most Understandable	1	3	4
	Female Least Understandable	2	3	3
	Male Most Understandable	1	1	6
	Male Least Understandable	2	5	1
	Overall Most Understandable	2	4	10
	Overall Least Understandable	4	8	4
	Groups Most Understandable	0	0	4
	Groups Least Understandable	2	2	2
Chicago Female Group: 05/26/2010 - Not used for this Group				
Chicago Male Group: 05/26/2010 - Not used for this Group				
Chicago Female Group: 05/27/2010				
	Most Understandable	4	2	2
	Least Understandable	2	3	3
Chicago Male Group: 05/27/2010				
	Most Understandable	3	2	3
	Least Understandable	2	2	4
Total	Female Most Understandable	4	2	2
	Female Least Understandable	2	3	3
	Male Most Understandable	3	2	3
	Male Least Understandable	2	2	4
	Overall Most Understandable	7	4	5
	Overall Least Understandable	5	5	7
	Groups Most Understandable	2	0	0
	Groups Least Understandable	0	1	2

		Option 2A	Option 2B	Option 2C
COMBINED TALLY FOR ALL GROUPS				
Total	Female Most Understandable	10	13	15
	Female Least Understandable	11	14	13
	Male Most Understandable	10	11	19
	Male Least Understandable	10	18	12
	Overall Most Understandable	20	24	34
	Overall Least Understandable	22	32	25
	Groups Most Understandable	2	3	7
	Groups Least Understandable	4	4	7

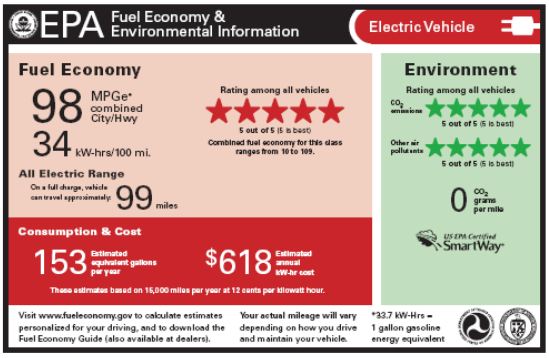
2 Electric Vehicle Labels

Which is more fuel efficient?

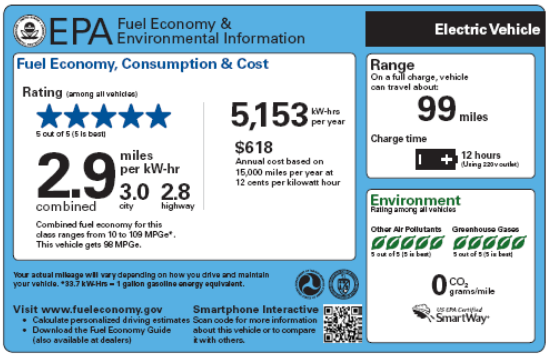
A1



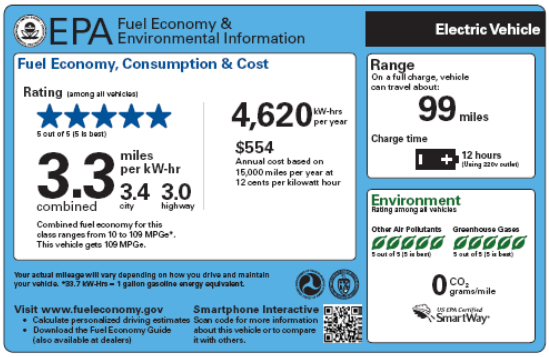
A2



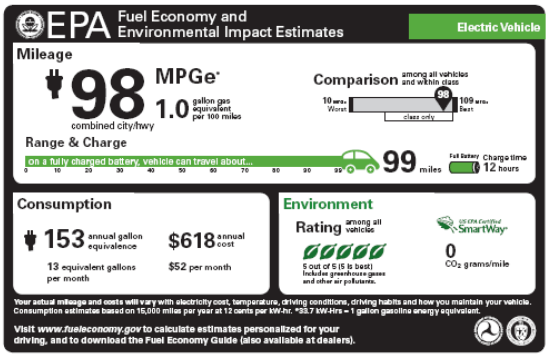
B1



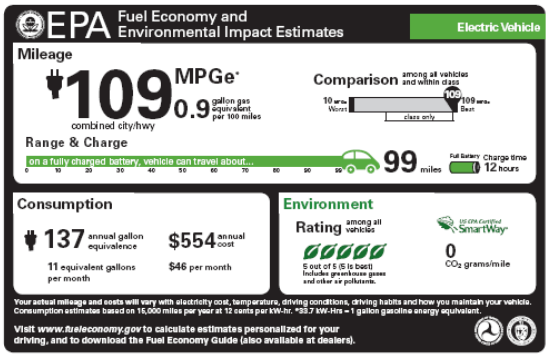
B2



C1



C2



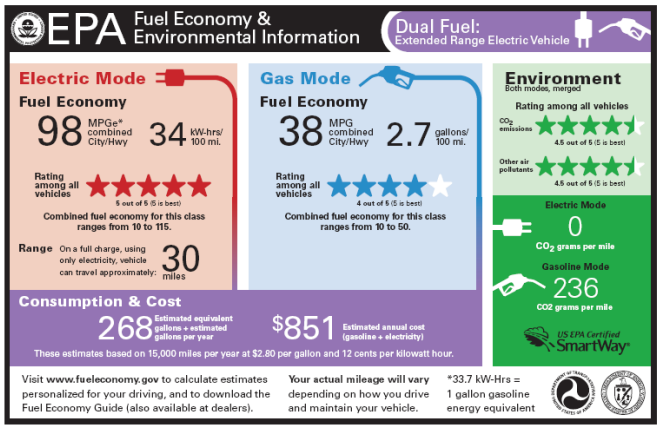
Appendix J: Electric Vehicles Labels Fuel Efficiency Tally

	Option 2A1	Option 2A2	Option 2B1	Option 2B2	Option 2C1	Option 2C2
Seattle Female Group: 05/17/2010						
	6	0	2	4	0	6
Seattle Male Group: 05/17/2010						
	7	1	2	6	0	8
Seattle Female Group: 05/18/2010						
	8	0	4	4	0	8
Seattle Male Group: 05/18/2010						
	8	0	2	6	0	8
Most fuel efficient	29	1	10	20	0	30
Charlotte Male Group: 05/19/2010						
	5	3	4	4	1	7
Charlotte Female Group: 05/19/2010						
	8	0	3	5	0	8
Charlotte Male Group: 05/20/2010 – Not Used for this Group						
Charlotte Female Group: 05/20/2010 – Not Used for this Group						
Most fuel efficient	13	3	7	9	1	15
Houston Female Group: 05/24/2010						
	6	2	3	5	1	7
Houston Male Group: 05/24/2010						
	4	1	4	1	0	5
Houston Female Group: 05/25/2010						
	8	0	0	8	1	7
Houston Male Group: 05/25/2010						
	7	0	0	7	0	7
Most fuel efficient	25	3	7	21	2	26
Chicago Female Group: 05/26/2010 – Not used for this Group						
Chicago Male Group: 05/26/2010 – Not used for this Group						
Chicago Female Group: 05/27/2010						
	8	0	0	8	0	8
Chicago Male Group: 05/27/2010						
	8	0	0	8	0	8
Most fuel efficient	16	0	0	16	0	16
COMBINED TALLY FOR ALL GROUPS						
Total	83	7	24	66	3	87

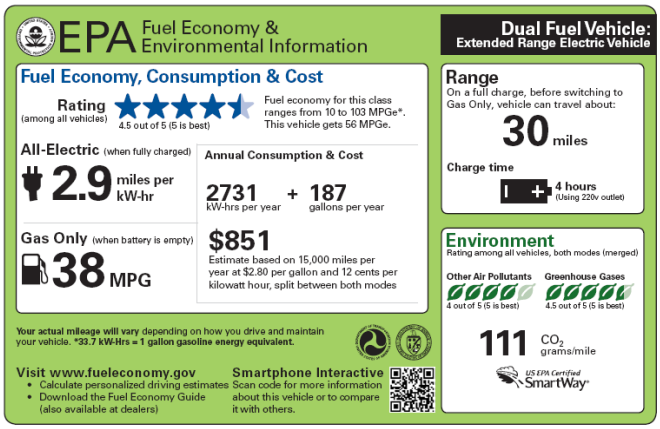
Appendix K: Extended Range Electric Vehicle Labels Understandability Handout

3 EREV Vehicle Labels

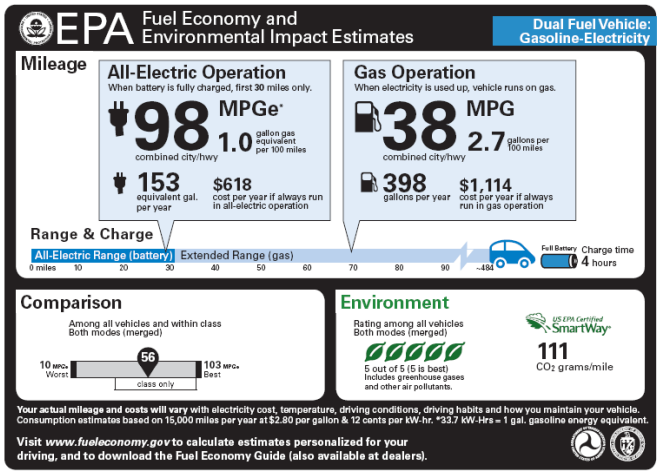
A



B



C



Appendix L: EREV Labels Understandability Tally

		Option 3A	Option 3B	Option 3C
Seattle Female Group: 05/17/2010				
	Most Understandable	0	2	4
	Least Understandable	3	2	1
Seattle Male Group: 05/17/2010				
	Most Understandable	2	1	5
	Least Understandable	4	3	1
Seattle Female Group: 05/18/2010				
	Most Understandable	1	6	1
	Least Understandable	6	0	2
Seattle Male Group: 05/18/2010				
	Most Understandable	2	3	3
	Least Understandable	2	2	3
Total	Female Most Understandable	1	8	5
	Female Least Understandable	9	2	3
	Male Most Understandable	4	4	8
	Male Least Understandable	6	5	4
	Overall Most Understandable	5	12	13
	Overall Least understandable	15	7	7
	Group Most Understandable	0	2	2
	Group Least Understandable	3	0	1
Charlotte Female Group: 05/19/2010				
	Most Understandable	5	0	3
	Least Understandable	2	3	3
Charlotte Male Group: 05/19/2010				
	Most Understandable	5	2	1
	Least Understandable	1	5	2
Charlotte Female Group: 05/20/2010 - Not used for this Group				
Charlotte Male Group: 05/20/2010 - Not used for this Group				

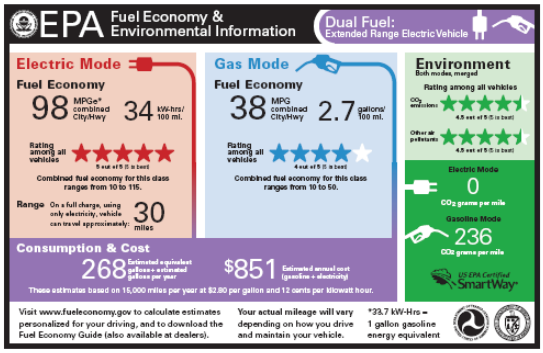
		Option 3A	Option 3B	Option 3C
Total	Female Most Understandable	5	0	3
	Female Least Understandable	2	3	3
	Male Most Understandable	5	2	1
	Male Least Understandable	1	5	2
	Overall Most Understandable	10	2	4
	Overall Least Understandable	3	8	5
	Groups Most Understandable	2	0	0
	Groups Least Understandable	0	2	0
Houston Female Group: 05/24/2010				
	Most Understandable	0	2	6
	Least Understandable	5	3	0
Houston Male Group: 05/24/2010				
	Most Understandable	0	1	4
	Least Understandable	4	1	0
Houston Female Group: 05/25/2010				
	Most Understandable	0	1	7
	Least Understandable	4	3	1
Houston Male Group: 05/25/2010				
	Most Understandable	0	1	7
	Least Understandable	2	5	1
Total	Female Most Understandable	0	3	13
	Female Least Understandable	9	6	1
	Male Most Understandable	0	2	11
	Male Least Understandable	6	6	1
	Overall Most Understandable	0	5	24
	Overall Least Understandable	15	12	2
	Groups Most Understandable	0	0	4
	Groups Least Understandable	3	1	0

		Option 3A	Option 3B	Option 3C
Chicago Female Group: 05/26/2010 - Not used for this Group				
	Most Understandable	5	1	2
	Least Understandable	1	6	1
Chicago Male Group: 05/26/2010 - Not used for this Group				
	Most Understandable	2	3	3
	Least Understandable	2	3	3
Chicago Female Group: 05/27/2010 - Not used for this Group				
Chicago Male Group: 05/27/2010 - Not used for this Group				
Total	Female Most Understandable	5	1	2
	Female Least Understandable	1	6	1
	Male Most Understandable	2	3	3
	Male Least Understandable	2	3	3
	Overall Most Understandable	7	4	5
	Overall Least Understandable	3	9	4
	Groups Most Understandable	1	1	1
	Groups Least Understandable	0	2	1
COMBINED TALLY FOR ALL GROUPS				
Total	Female Most Understandable	11	12	23
	Female Least Understandable	21	17	8
	Male Most Understandable	11	11	23
	Male Least Understandable	15	19	10
	Overall Most Understandable	22	23	46
	Overall Least Understandable	36	36	18
	Groups Most Understandable	3	3	7
	Groups Least Understandable	6	5	2

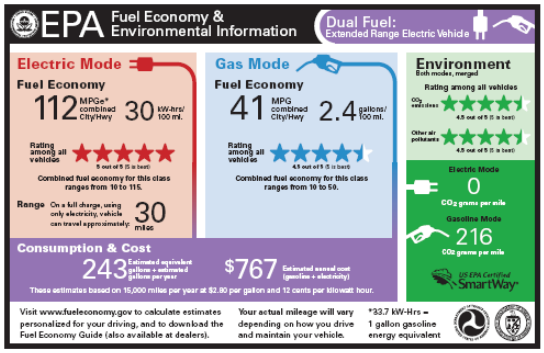
3 EREV Vehicle Labels

Which is more fuel efficient?

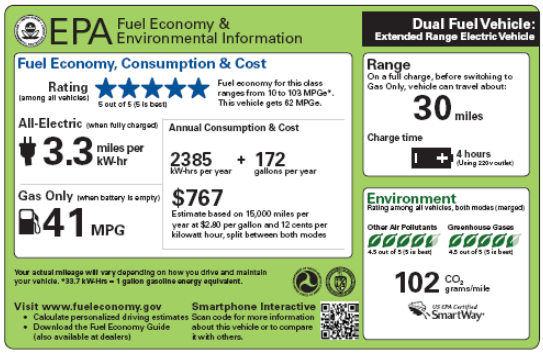
A1



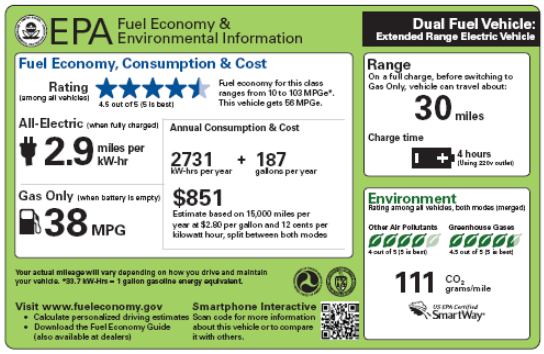
A2



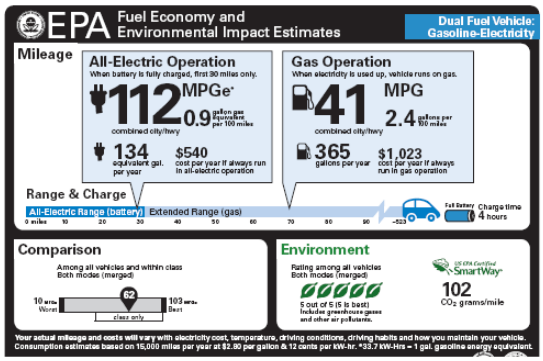
B1



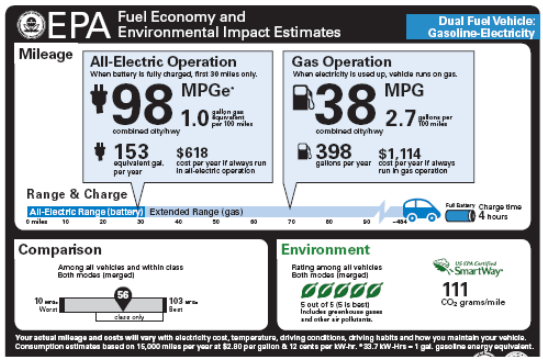
B2



C1



C2



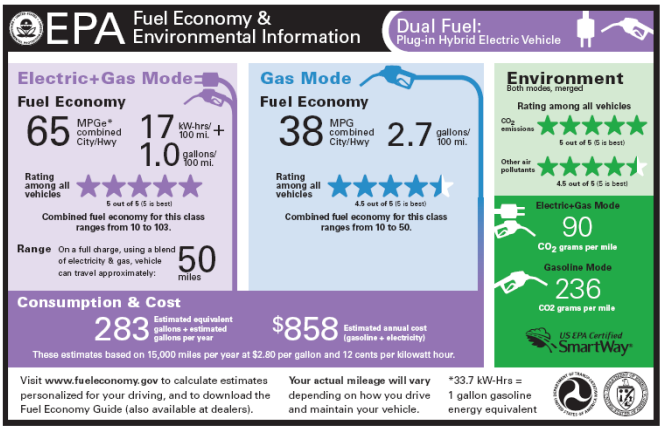
Appendix N: EREV Labels Fuel Efficiency Tally

Seattle Female Group: 05/17/2010						
	0	6	6	0	6	0
Seattle Male Group: 05/17/2010						
	0	8	8	0	8	0
Seattle Female Group: 05/18/2010						
	0	7	7	0	6	0
Seattle Male Group: 05/18/2010						
	1	7	8	0	8	0
Most fuel efficient	1	1	28	29	0	28
Charlotte Female Group: 05/19/2010						
	0	8	8	0	8	0
Charlotte Male Group: 05/19/2010						
	1	6	4	3	5	2
Charlotte Male Group: 05/20/2010 – Not Used for this Group						
Charlotte Female Group: 05/20/2010 – Not Used for this Group						
Most fuel efficient	1	14	12	3	13	2
Houston Female Group: 05/24/2010						
	0	8	8	0	8	0
Houston Male Group: 05/24/2010						
	0	5	4	1	5	0
Houston Female Group: 05/25/2010						
	0	8	8	0	8	0
Houston Male Group: 05/25/2010						
	1	7	5	3	5	3
Most fuel efficient	1	28	25	4	26	3
Chicago Female Group: 05/26/2010						
	0	8	8	0	8	0
Chicago Male Group: 05/26/2010						
	0	8	8	0	8	0
Chicago Female Group: 05/27/2010 – Not used for this Group						
Chicago Male Group: 05/27/2010 – Not used for this Group						
Most fuel efficient	0	16	16	0	16	0
COMBINED TALLY FOR ALL GROUPS						
Total	3	86	82	7	83	5

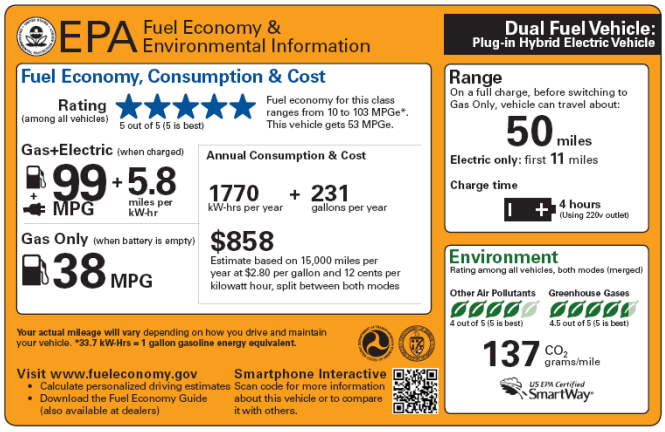
Appendix O: PHEV Labels Understandability Handout

4 PHEV Vehicle Labels

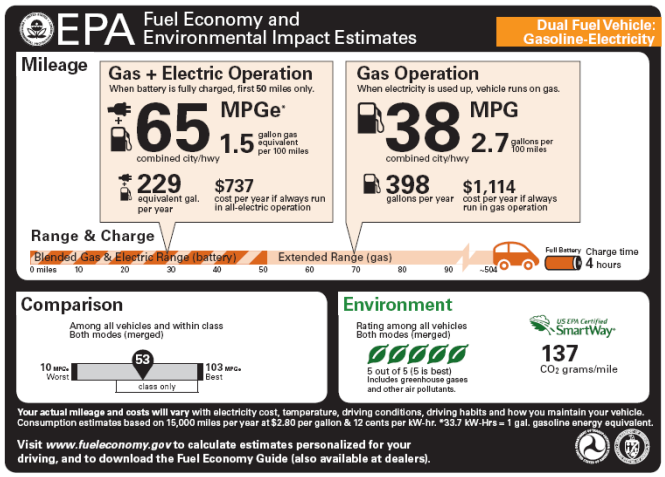
A



B



C



Appendix P: PHEV Labels Understandability Tally

		Option 4A	Option 4B	Option 4C
Seattle Female Group: 5/17/2010 - Not used for this Group				
Seattle Male Group: 5/17/2010 - Not used for this Group				
Seattle Female Group: 5/18/2010				
	Most Understandable	1	4	3
	Least Understandable	4	2	2
Seattle Male Group: 5/18/2010				
	Most Understandable	2	1	5
	Least Understandable	2	5	1
Total	Female Most Understandable	1	4	3
	Female Least understandable	4	2	2
	Male Most Understandable	2	1	5
	Male Least Understandable	2	5	1
	Overall Most Understandable	3	5	8
	Overall Least Understandable	6	7	3
	Groups Most Understandable	0	1	1
	Groups Least Understandable	1	1	0
Charlotte Female Group: 05/19/2010				
	Most Understandable	4	0	4
	Least Understandable	2	5	1
Charlotte Male Group: 05/19/2010				
	Most Understandable	6	2	0
	Least Understandable	0	6	2
Charlotte Female Group: 05/20/2010				
	Most Understandable	3	0	5
	Least Understandable	1	6	1
Charlotte Male Group: 05/20/2010				
	Most Understandable	3	1	4
	Least Understandable	2	4	2
Total	Female Most Understandable	7	0	9
	Female Least Understandable	3	11	2
	Male Most Understandable	9	3	4
	Male Least Understandable	2	10	4
	Overall Most Understandable	16	3	13
	Overall Least Understandable	5	21	6
	Groups Most Understandable	2	0	3
	Groups Least Understandable	0	4	0

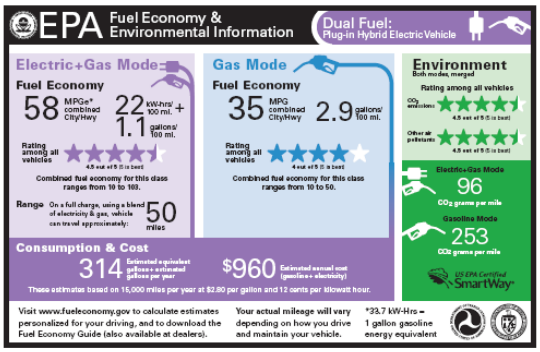
		Option 4A	Option 4B	Option 4C
Houston Female Group: 5/24/2010 - Not used for this Group				
Houston Male Group: 5/24/2010 - Not used for this Group				
Houston Female Group: 5/25/2010				
	Most Understandable	0	1	7
	Least Understandable	6	2	0
Houston Male Group: 5/25/2010				
	Most Understandable	1	0	7
	Least Understandable	2	6	0
Total	Female Most Understandable	0	1	7
	Female Least Understandable	6	2	0
	Male Most Understandable	1	0	7
	Male Least Understandable	2	6	0
	Overall Most Understandable	3	1	14
	Overall Least Understandable	8	8	0
	Groups Most Understandable	0	0	2
	Groups Least Understandable	1	1	0
Chicago Female Group: 05/26/2010				
	Most Understandable	3	2	3
	Least Understandable	2	2	4
Chicago Male Group: 05/26/2010				
	Most Understandable	4	1	3
	Least Understandable	2	4	2
Chicago Female Group: 05/27/2010				
	Most Understandable	6	2	0
	Least Understandable	0	4	4
Chicago Male Group: 05/27/2010				
	Most Understandable	5	2	1
	Least Understandable	1	1	6
Total	Female Most Understandable	9	4	3
	Female Least Understandable	2	6	8
	Male Most Understandable	9	3	4
	Male Least Understandable	3	5	8
	Overall Most Understandable	18	7	7
	Overall Least Understandable	5	11	16
	Groups Most Understandable	4	0	0
	Groups Least Understandable	0	1	3

		Option 4A	Option 4B	Option 4C
COMBINED TALLY FOR ALL GROUPS				
Total	Female Most Understandable	17	9	22
	Female Least Understandable	15	21	12
	Male Most Understandable	21	7	20
	Male Least Understandable	9	26	13
	Overall Most Understandable	40	16	42
	Overall Least Understandable	24	47	25
	Groups Most Understandable	6	1	6
	Groups Least Understandable	2	7	3

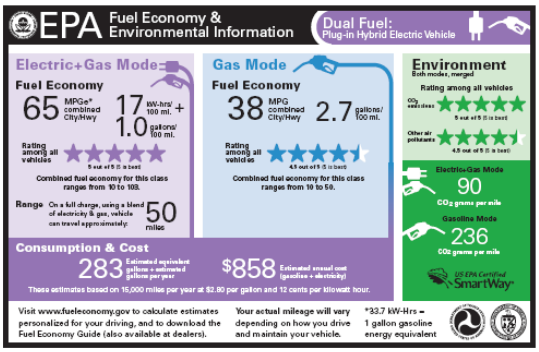
4 PHEV Vehicle Labels

Which is more fuel efficient?

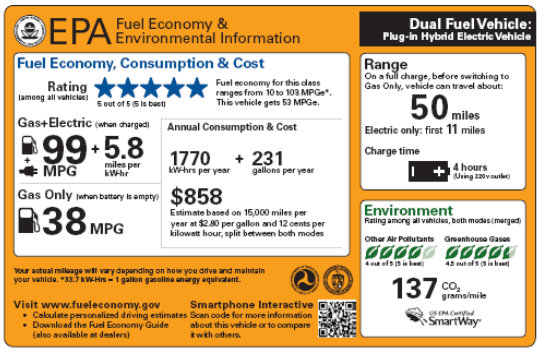
A1



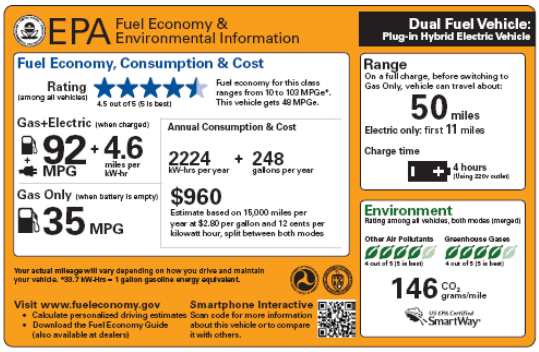
A2



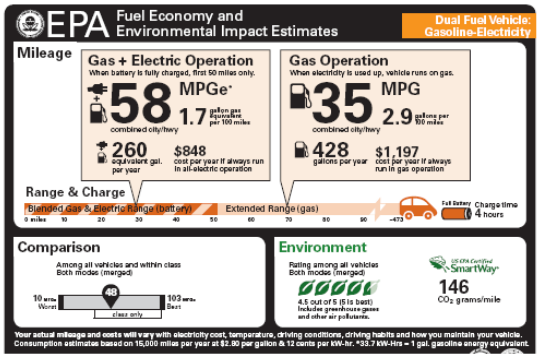
B1



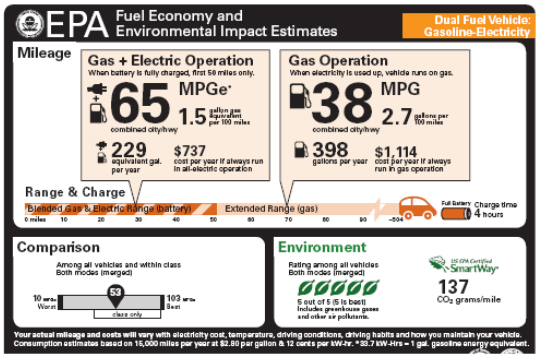
B2



C1



C2



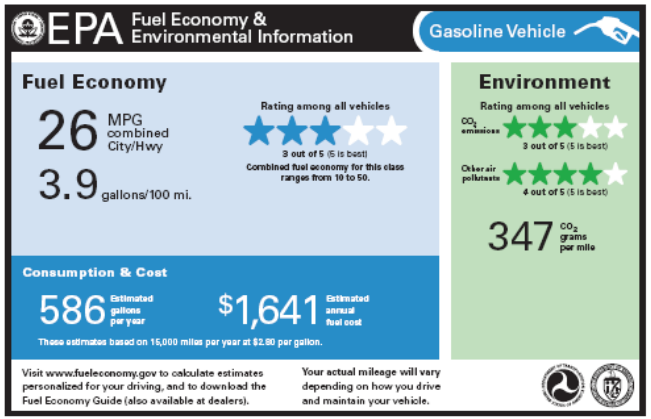
Appendix R: PHEV Labels Fuel Efficiency Tally

	Option 4A1	Option 4A2	Option 4B1	Option 4B2	Option 4C1	Option 4C2
Seattle Female Group: 05/17/2010 – Not used for this Group						
Seattle Male Group: 05/17/2010 – Not used for this Group						
Seattle Female Group: 05/18/2010						
	1	7	8	0	1	7
Seattle Male Group: 05/18/2010						
	0	8	7	1	0	8
Most fuel efficient	1	15	15	1	1	15
Charlotte Female Group: 05/19/2010						
	2	6	5	3	1	7
Charlotte Male Group: 05/19/2010						
	0	8	8	0	0	8
Charlotte Female Group: 05/20/2010						
	3	5	7	1	2	6
Charlotte Male Group: 05/20/2010						
	1	7	7	1	0	8
Most fuel efficient	6	26	27	5	3	29
Houston Female Group: 05/24/2010 – Not used for this Group						
Houston Male Group: 05/24/2010 – Not used for this Group						
Houston Female Group: 05/25/2010						
	1	7	8	0	0	8
Houston Male Group: 05/25/2010						
	0	8	7	1	0	8
Most fuel efficient	1	15	15	1	1	16
Chicago Female Group: 05/26/2010						
	1	7	7	1	2	5
Chicago Male Group: 05/26/2010						
	1	7	8	0	0	8
Chicago Female Group: 05/27/2010						
	0	8	8	0	1	7
Chicago Male Group: 05/27/2010						
	0	8	8	0	0	8
Most fuel efficient	2	30	31	1	3	28
COMBINED TALLY FOR ALL GROUPS						
Total	10	86	88	8	8	88

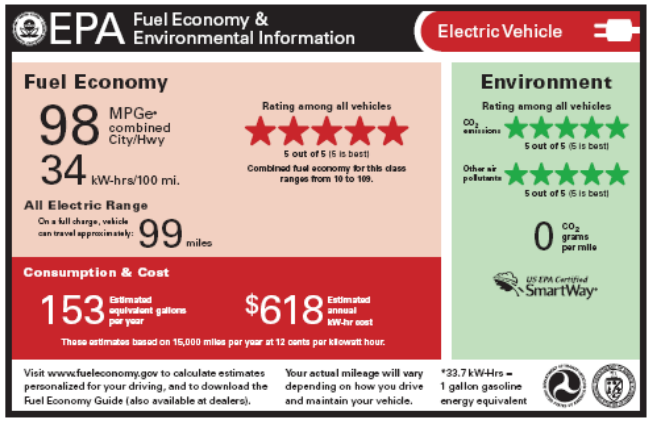
Appendix S: Comparing Across Technology Option A Handout

5 Comparing Across Technologies

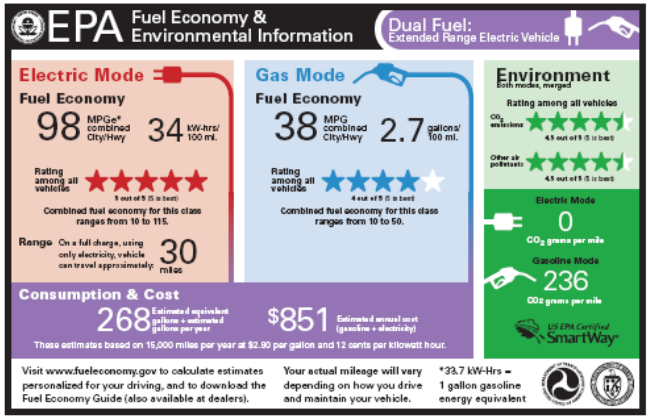
A1



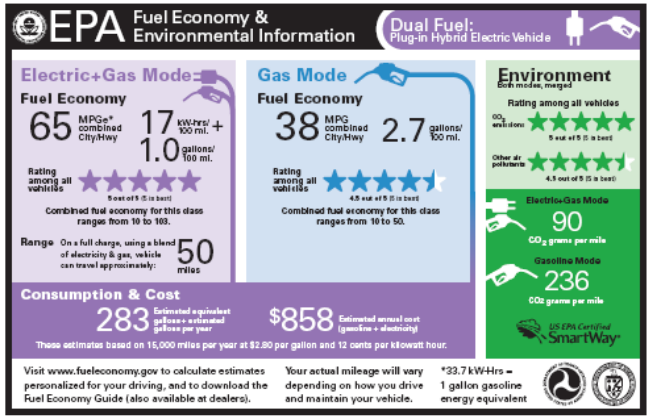
A2



A3



A4



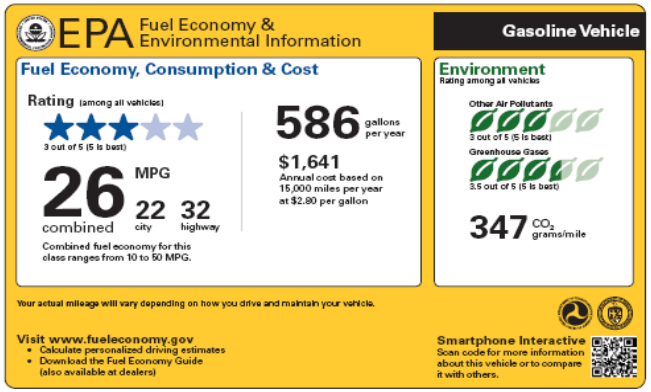
Appendix T: Comparing Across Technology Option A Tally

		30 miles				50 Miles				100 miles				Environment Friendly			
OPTION A		GAS	EV	EREV	PHEV	GAS	EV	EREV	PHEV	GAS	EV	EREV	PHEV	GAS	EV	EREV	PHEV
	Seattle Female Group 1	0	5	1	N/A	0	6	0	N/A	2	2	2	N/A	0	6	0	N/A
	Charlotte Female Group 1	0	5	N/A	3	0	N/A	2	6	0	N/A	2	6	0	N/A	4	4
	Charlotte Male Group 1	0	N/A	8	0	0	N/A	2	6	0	N/A	2	6	0	N/A	4	4
	Houston Male Group 1	0	3	2	N/A	0	4	1	N/A	0	2	3	N/A	0	5	0	N/A
	Chicago Female Group 2	0	6	N/A	2	0	2	N/A	6	4	1	N/A	3	0	7	N/A	1
	Chicago Male Group 2	0	8	N/A	0	0	7	N/A	1	3	0	N/A	4	1	5	N/A	1
	Total	0	27	11	5	0	19	5	19	9	5	7	19	1	23	8	10

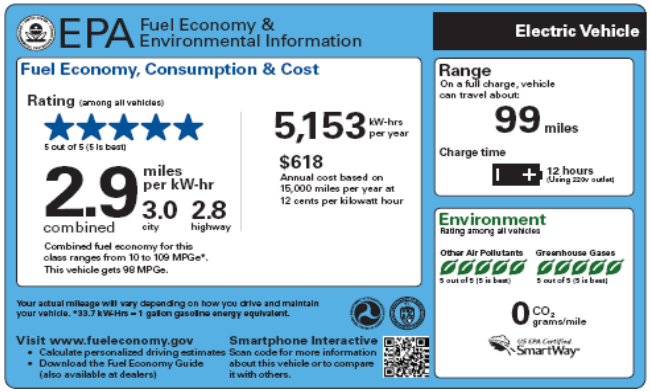
Appendix U: Comparing Across Technology Option B Handout

5 Comparing Across Technologies

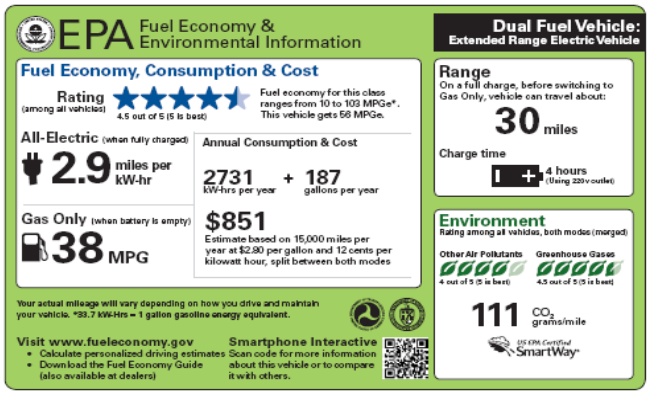
B1



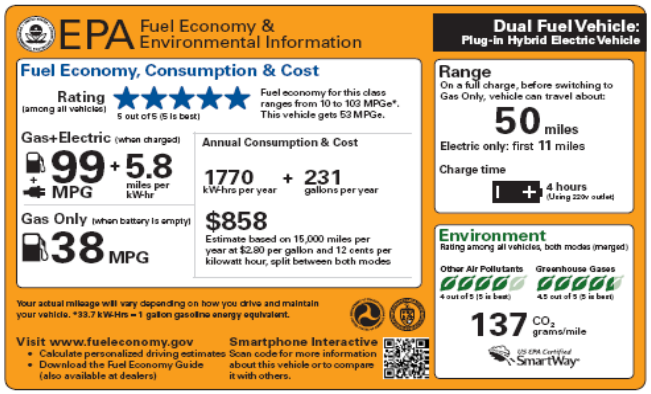
B2



B3



B4



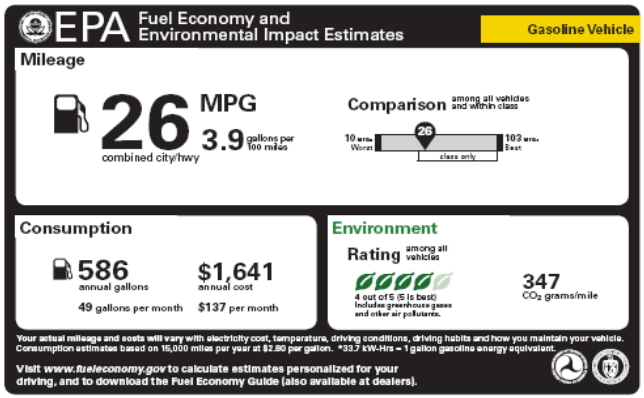
Appendix V: Comparing Across Technology Option B Tally

		30 miles				50 Miles				100 miles				Environment Friendly			
OPTION B	Charlotte Male Group 2	0	6	N/A	2	0	5	N/A	3	1	4	N/A	3	0	8	N/A	0
	Chicago Female Group 1	1	N/A	7	0	0	N/A	4	4	1	N/A	1	6	0	N/A	8	6
	Chicago Male Group 1	0	N/A	6	2	0	N/A	2	6	0	N/A	1	7	0	N/A	7	1
	Total	1	6	13	4	0	5	6	13	2	4	2	16	0	8	15	7

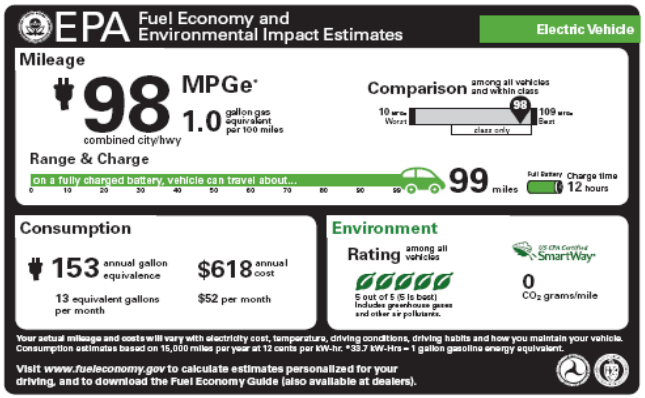
Appendix W: Comparing Across Technology Option C Handout

5 Comparing Across Technologies

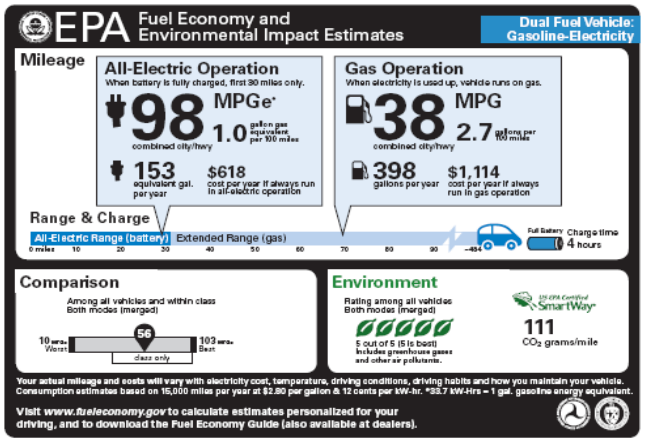
C1



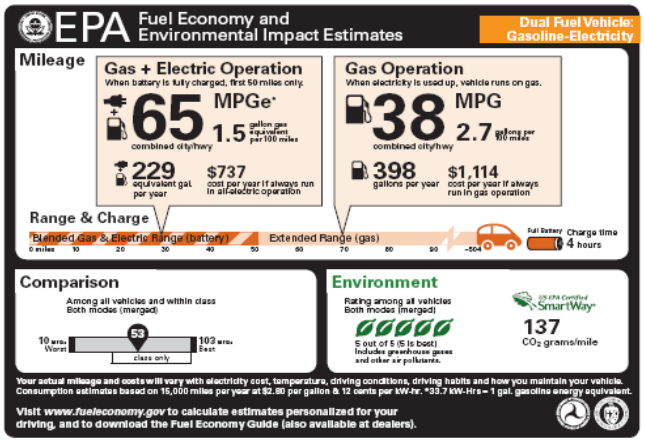
C2



C3



C4



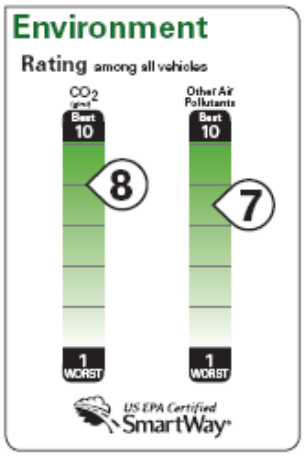
Appendix X: Comparing Across Technology Option C Tally

		30 miles				50 Miles				100 miles				Environment Friendly			
OPTION C																	
	Charlotte Female Group 2	0	5	N/A	3	0	6	N/A	2	0	0	N/A	8	0	8	N/A	0
	Seattle Male Group 1	0	0	8	N/A	0	8	2	N/A	0	1	7	N/A	0	8	0	N/A
	Seattle Female Group 2	N/A	5	3	0	N/A	7	0	1	N/A	3	5	0	N/A	8	0	0
	Seattle Male Group 2	N/A	7	3	0	N/A	7	1	0	N/A	0	7	1	N/A	8	0	0
	Houston Female Group 1	0	7	1	N/A	1	6	2	N/A	0	3	5	N/A	0	8	0	N/A
	Houston Female Group 2	N/A	7	1	0	N/A	2	2	4	N/A	0	7	1	N/A	8	0	0
	Houston Male Group 2	N/A	8	0	0	N/A	1	2	5	N/A	7	0	1	N/A	7	0	1
	Total	0	39	16	3	1	37	9	12	0	14	31	11	0	55	0	1

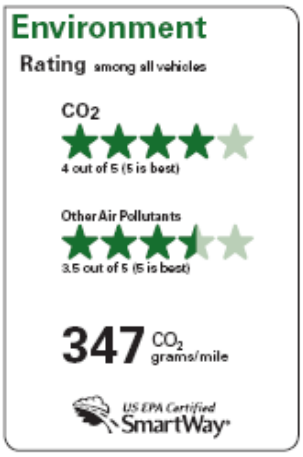
Appendix Y: Environmental Metrics Handout

6 Environmental Metrics

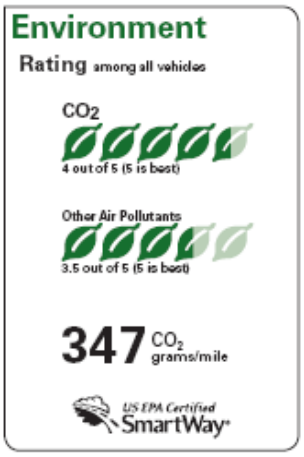
A



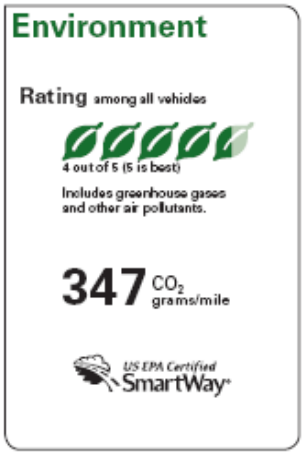
B



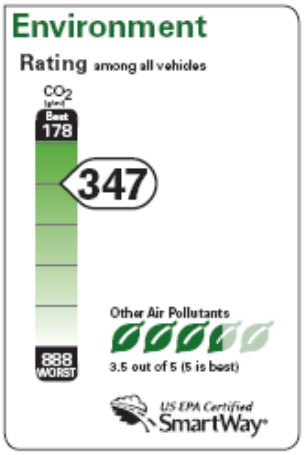
C



D



E



Appendix Z: Environmental Metrics Tally

		LABEL A	LABEL B	LABEL C	LABEL D	LABEL E
Seattle Female Group: 05/17/2010						
	Rated as #1	2	3	0	1	1
	Rated as #2	0	0	4	1	1
	Total	2	3	4	2	2
Seattle Male Group: 05/17/2010						
	Rated as #1	5	2	0	0	1
	Rated as #2	2	3	1	0	2
	Total	7	5	1	0	3
Seattle Female Group: 05/18/2010						
	Rated as #1	1	2	5	0	0
	Rated as #2	2	3	1	2	0
	Total	3	5	4	2	0
Seattle Male Group: 05/18/2010						
	Rated as #1	2	0	1	1	4
	Rated as #2	2	2	2	0	2
	Total	4	2	3	1	6
Total	Rated as “#1”	10	7	6	2	6
	Rated as “#2”	6	8	8	3	5
	Overall	16	15	14	5	11
Charlotte Female Group: 05/19/2010						
	Rated as #1	1	1	3	1	3
	Rated as #2	0	3	4	0	1
	Total	1	4	7	1	4
Charlotte Male Group: 05/19/2010						
	Rated as #1	2	1	2	1	2
	Rated as #2	1	3	3	1	0
	Total	3	4	5	2	2
Charlotte Female Group: 05/20/2010						
	Rated as #1	0	0	3	3	2
	Rated as #2	2	3	3	0	0
	Total	2	3	6	3	2

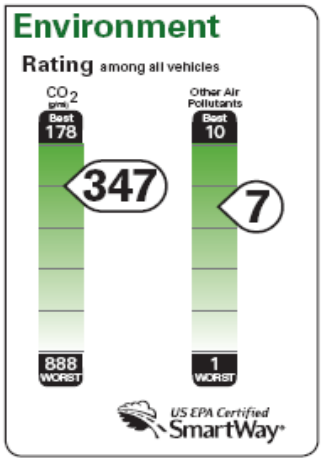
		LABEL A	LABEL B	LABEL C	LABEL D	LABEL E
Charlotte Male Group: 05/20/2010						
	Rated as #1	5	1	0	0	2
	Rated as #2	1	0	4	1	2
	Total	6	1	4	1	4
Total	Rated as "#1"	8	3	8	5	9
	Rated as "#2"	4	9	14	2	3
	Overall	12	12	22	7	12
Houston Female Group: 05/24/2010						
	Rated as #1	2	0	3	2	3
	Rated as #2	0	3	5	1	0
	Total	2	3	8	3	3
Houston Male Group: 05/24/2010						
	Rated as #1	2	1	1	1	0
	Rated as #2	0	0	3	1	1
	Total	2	1	4	2	1
Houston Female Group: 05/25/2010						
	Rated as #1	3	2	1	2	0
	Rated as #2	1	1	3	2	1
	Total	4	3	4	4	1
Houston Male Group: 05/25/2010						
	Rated as #1	6	2	0	0	0
	Rated as #2	1	1	0	2	4
	Total	7	3	0	2	4
Total	Rated as "#1"	13	5	5	5	3
	Rated as "#2"	2	5	11	6	6
	Overall	15	10	16	11	9
Chicago Female Group: 05/26/2010						
	Rated as #1	4	0	1	3	0
	Rated as #2	1	2	3	1	1
	Total	5	2	4	4	1
Chicago Male Group: 05/26/2010						
	Rated as #1	2	2	2	0	2
	Rated as #2	1	1	2	3	1
	Total	3	3	4	3	3

		LABEL A	LABEL B	LABEL C	LABEL D	LABEL E
Chicago Female Group: 05/27/2010						
	Rated as #1	2	1	3	1	1
	Rated as #2	1	4	1	1	1
	Total	3	5	4	2	2
Chicago Male Group: 05/27/2010						
	Rated as #1	6	1	1	0	0
	Rated as #2	0	3	0	1	4
	Total	6	4	1	1	4
Total	Rated as “#1”	14	4	7	4	3
	Rated as “#2”	3	10	6	6	7
	Overall	17	14	13	10	10
COMBINED TALLY FOR ALL GROUPS						
Total	Rated as “#1”	45	19	26	16	21
	Rated as “#2”	15	32	39	17	21
	Overall	60	51	65	33	42

Appendix AA: Environmental Metrics Option F Handout

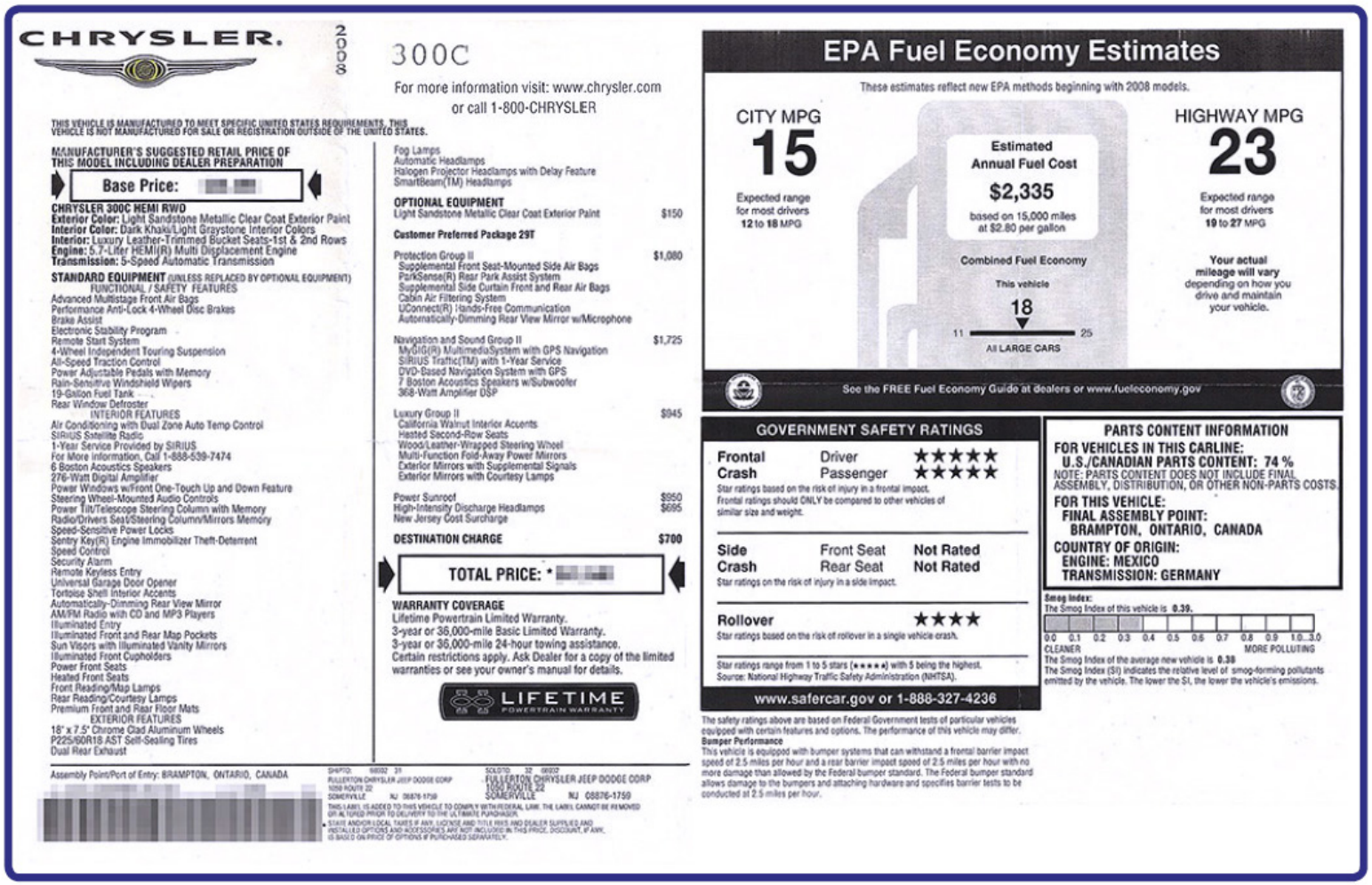
6 Environmental Metrics

F



Appendix AB: Monroney Label Handout

A Monroney Label



CHRYSLER. 2008

300C

For more information visit: www.chrysler.com
or call 1-800-CHRYSLER

THIS VEHICLE IS MANUFACTURED TO MEET SPECIFIC UNITED STATES REQUIREMENTS. THIS VEHICLE IS NOT MANUFACTURED FOR SALE OR REGISTRATION OUTSIDE OF THE UNITED STATES.

MANUFACTURER'S SUGGESTED RETAIL PRICE OF THIS MODEL INCLUDING DEALER PREPARATION

Base Price: [redacted]

CHRYSLER 300C HEMI RWD
Exterior Color: Light Sandstone Metallic Clear Coat Exterior Paint
Interior Color: Dark Khaki/Light Graystone Interior Colors
Interior: Luxury Leather-Trimmed Bucket Seats-1st & 2nd Rows
Engine: 5.7-Liter HEMI(R) Multi Displacement Engine
Transmission: 5-Speed Automatic Transmission

STANDARD EQUIPMENT (UNLESS REPLACED BY OPTIONAL EQUIPMENT)

FUNCTIONAL / SAFETY FEATURES
Advanced Multistage Front Air Bags
Performance Anti-Lock 4-Wheel Disc Brakes
Brake Assist
Electronic Stability Program
Remote Start System
4-Wheel Independent Touring Suspension
All-Speed Traction Control
Power Adjustable Pedals with Memory
Rain-Sensitive Windshield Wipers
19-Gallon Fuel Tank
Rear Window Defroster

INTERIOR FEATURES
Air Conditioning with Dual Zone Auto Temp Control
SIRIUS Satellite Radio
1-Year Service Provided by SIRIUS
For More Information, Call 1-888-539-7474
6 Boston Acoustics Speakers
276-Watt Digital Amplifier
Power Windows w/Front One-Touch Up and Down Feature
Steering Wheel-Mounted Audio Controls
Power Tilt/Telescope Steering Column with Memory
Radio/Drivers Seat/Steering Column/Mirrors Memory
Speed-Sensitive Power Locks
Sentry Key(R) Engine Immobilizer Theft-Deterrent
Speed Control
Security Alarm
Remote Keyless Entry
Universal Garage Door Opener
Tortoise Shell Interior Accents
Automatically-Dimming Rear View Mirror
AM/FM Radio with CD and MP3 Players
Illuminated Entry
Illuminated Front and Rear Map Pockets
Sun Visors with Illuminated Vanity Mirrors
Illuminated Front Cupholders
Power Front Seats
Heated Front Seats
Front Reading/Map Lamps
Rear Reading/Courtesy Lamps
Premium Front and Rear Floor Mats

EXTERIOR FEATURES
18" x 7.5" Chrome Clad Aluminum Wheels
P225/60R18 AST Self-Sealing Tires
Dual Rear Exhaust
Fog Lamps
Automatic Headlamps
Halogen Projector Headlamps with Delay Feature
SmartBeam(TM) Headlamps

OPTIONAL EQUIPMENT
Light Sandstone Metallic Clear Coat Exterior Paint $150

Customer Preferred Package 29T

Protection Group II $1,080
Supplemental Front Seat-Mounted Side Air Bags
ParkSense(R) Rear Park Assist System
Supplemental Side Curtain Front and Rear Air Bags
Cabin Air Filtering System
UConnect(R) Hands-Free Communication
Automatically-Dimming Rear View Mirror w/Microphone

Navigation and Sound Group II $1,725
MyGIG(R) Multimedia System with GPS Navigation
SIRIUS Traffic(TM) with 1-Year Service
DVD-Based Navigation System with GPS
7 Boston Acoustics Speakers w/Subwoofer
368-Watt Amplifier DSP

Luxury Group II $945
California Walnut Interior Accents
Heated Second-Row Seats
Wood/Leather-Wrapped Steering Wheel
Multi-Function Fold-Away Power Mirrors
Exterior Mirrors with Supplemental Signals
Exterior Mirrors with Courtesy Lamps

Power Sunroof $950
High-Intensity Discharge Headlamps $695
New Jersey Cost Surcharge

DESTINATION CHARGE $700

TOTAL PRICE: * [redacted]

WARRANTY COVERAGE
Lifetime Powertrain Limited Warranty.
3-year or 36,000-mile Basic Limited Warranty.
3-year or 36,000-mile 24-hour towing assistance.
Certain restrictions apply. Ask Dealer for a copy of the limited warranties or see your owner's manual for details.

LIFETIME POWERTRAIN WARRANTY

Assembly Point/Port of Entry: BRAMPTON, ONTARIO, CANADA

[redacted]

SHIPTO: 68032 31
FULLERTON CHRYSLER JEEP DODGE CORP
1050 ROUTE 22
SOMERVILLE NJ 08876-1759

SOLDTO: 32 68032
FULLERTON CHRYSLER JEEP DODGE CORP
1050 ROUTE 22
SOMERVILLE NJ 08876-1759

THIS LABEL IS ADDED TO THIS VEHICLE TO COMPLY WITH FEDERAL LAW. THE LABEL CANNOT BE REMOVED OR ALTERED PRIOR TO DELIVERY TO THE ULTIMATE PURCHASER.

* STATE AND/OR LOCAL TAXES IF ANY, LICENSE AND TITLE FEES AND DEALER SUPPLIED AND INSTALLED OPTIONS AND ACCESSORIES ARE NOT INCLUDED IN THIS PRICE. DISCOUNT, IF ANY, IS BASED ON PRICE OF OPTIONS IF PURCHASED SEPARATELY.

EPA Fuel Economy Estimates

These estimates reflect new EPA methods beginning with 2008 models.

CITY MPG **15**
Expected range for most drivers **12** to **18** MPG

Estimated Annual Fuel Cost **$2,335**
based on 15,000 miles at $2.80 per gallon

HIGHWAY MPG **23**
Expected range for most drivers **19** to **27** MPG

Combined Fuel Economy
This vehicle **18**
11 — 25
ALL LARGE CARS

Your actual mileage will vary depending on how you drive and maintain your vehicle.

See the FREE Fuel Economy Guide at dealers or www.fueleconomy.gov

GOVERNMENT SAFETY RATINGS

Frontal Crash — Driver ★★★★★ — Passenger ★★★★★
Star ratings based on the risk of injury in a frontal impact.
Frontal ratings should ONLY be compared to other vehicles of similar size and weight.

Side Crash — Front Seat: Not Rated — Rear Seat: Not Rated
Star ratings on the risk of injury in a side impact.

Rollover ★★★★
Star ratings based on the risk of rollover in a single vehicle crash.

Star ratings range from 1 to 5 stars (★★★★★) with 5 being the highest.
Source: National Highway Traffic Safety Administration (NHTSA).

www.safercar.gov or 1-888-327-4236

The safety ratings above are based on Federal Government tests of particular vehicles equipped with certain features and options. The performance of this vehicle may differ.

Bumper Performance
This vehicle is equipped with bumper systems that can withstand a frontal barrier impact speed of 2.5 miles per hour and a rear barrier impact speed of 2.5 miles per hour with no more damage than allowed by the Federal bumper standard. The Federal bumper standard allows damage to the bumpers and attaching hardware and specifies barrier tests to be conducted at 2.5 miles per hour.

PARTS CONTENT INFORMATION

FOR VEHICLES IN THIS CARLINE:
U.S./CANADIAN PARTS CONTENT: 74 %
NOTE: PARTS CONTENT DOES NOT INCLUDE FINAL ASSEMBLY, DISTRIBUTION, OR OTHER NON-PARTS COSTS.

FOR THIS VEHICLE:
FINAL ASSEMBLY POINT:
BRAMPTON, ONTARIO, CANADA
COUNTRY OF ORIGIN:
ENGINE: MEXICO
TRANSMISSION: GERMANY

Smog Index:
The Smog Index of this vehicle is **0.39.**
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0...3.0
CLEANER — MORE POLLUTING
The Smog Index of the average new vehicle is **0.38**
The Smog Index (SI) indicates the relative level of smog-forming pollutants emitted by the vehicle. The lower the SI, the lower the vehicle's emissions.