FEDERAL TRADE COMMISSION

FEDERAL TRADE COMMISSION: LAMP LABELING EFFECTIVENESS ROUNDTABLE

Monday, September 15, 2008

9:00 a.m.

Federal Trade Commission

FTC Conference Center

601 New Jersey Avenue, N.W.

Washington, D.C.

FEDERAL TRADE COMMISSION

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WELCOME - INTRODUCTORY REMARKS

MR. KOHM: Good morning, everybody. Welcome to the FTC's Lamp/Light Labeling Roundtable. My name is Jim Kohm. I am the Associate Director of the Enforcement Division. We're the division that the FTC has tasked with creating the rule-making that Congress has asked us to do in the lamp/light area.

A few opening announcements, and these are practical announcements. The microphones before you look like high-tech microphones. In fact, they are not. You need to lean into them. If you lean back and assume that you will be picked up, you won't be. It won't be a big deal in this room today because we are all fairly close, but this event is being webcast, and then an archive will be kept that all of you can refer to, as well as the public. You won't get on that webcast very well if you don't lean in. So, you have to lean in to your microphone when you talk.

Any of you who have been to any of our green workshops in packaging or carbon offsets or most recently in building and textiles know that we run as close to on time as possible. I really mean within a minute or two. So, our promise to you is that we will run on time. We

packed a lot of information into a short period of time so that you all can get back to your real jobs. So, if you could make your comments as brief as possible that will help us move forward expeditiously.

Okay, a few security announcements. One is you noticed you had to be screened when you came in. If you leave the building for any reason, to get a cup of coffee or I don't know if anybody smokes, you need to be rescreened when you come back in. So, account for that time period when you are going out.

You got a name tag when you came in, please wear that name tag at all times when you are in the building. Security will demand that you have a name tag on.

In case of a fire emergency, the easiest way is to go out the glass doors to the conference center, straight out the front of the building and diagonally across the street. If that is not open for some reason, you can go through the pantry and then out onto G Street. Take a left and out onto G Street.

In case of a shelter-in-place emergency, that would be an emergency where we do not leave the building, what you will do is go to the bathrooms, which I will tell you where they are in a second, and take the staircase down and I believe it is to the second level

down into the garage.

Cell phones, cell phones, BlackBerries, here is the amnesty period right now. So, everybody turn off their cell phones and their BlackBerries who has them on right now. If you want to use your cell phones, you should leave the conference center. So, go out the glass doors because they can interfere with some of our equipment. So, not only outside, but please step out of the glass doors.

Okay, my highest calling today, since we will be here for several hours, is to tell you where the bathrooms are. Go out the conference center to the left of the guard desk and follow that around to the left and both the men's and the women's rooms are in that direction. If you don't remember or you're not sure, the guards can tell you obviously where it is.

Okay. I would like to ask people to focus particularly on three questions today in your comments throughout the panels. First, what should the descriptors be on any lamp labeling? What are those descriptors that are best going to help consumers both today and in the future?

Second, what should our label format look like? What should the format be in order to best convey the information we are trying to convey?

Finally, we have asked for public bids on a consumer perception study that we plan to conduct. There is always a chance that that won't happen. But assuming that we are going to conduct a consumer perception survey, what advice would you have for us on what that survey should look like? What should we ask? What should we not waste our time asking? How should we go about asking? And if you think we should not be doing it, please tell us that and why.

In the name of time, before we start our first panel, we want to move directly to it, but let's try and go around the room. If everybody could just identify themselves and their organization.

Hampton, why don't we just start with you and we'll go around clockwise from you.

MR. NEWSOME: Okay. Hampton Newsome, FTC.

MR. DOWDY: Lem Dowdy, FTC.

MR. HILGER: James Hilger, FTC.

MR. BAKER: Alex Baker, EPA.

MS. KERR: Carolyn Kerr, Philips Lighting Company.

MS. HAMILTON: Rebecca Hamilton, University of Maryland.

MS. LINDSLEY: Diane Lindsley, Walmart Stores.

MR. BANTA: John Banta, Consumer Reports.

MR. FICHERA: John Fichera, Osram Sylvania.

MS. EATON: Eileen Eaton, CEE.

MR. WILLIAMS: Brad Williams, The Home Depot.

MR. KARNEY: Richard Karney, Department of Energy.

MR. HOROWITZ: Noah Horowitz, the Natural Resources Defense Council, NRDC.

MR. HOWLEY: Joe Howley, GE Lighting.

MR. KOHM: Okay, thank you very much. That was an interesting way to go around clockwise. I guess that was the Australian method of going around clockwise.

(Laughter.)

SESSION 1: ENERGY USE AND LIGHT OUTPUT DISCLOSURES

MR. KOHM: So, without further ado, I will turn it over to Hampton and our first panel. Thank you very much for joining us today.

MR. NEWSOME: Okay, thanks, Jim. I want to thank everybody for coming to participate. I know some of you have come from pretty far away. This should be very, very helpful to us in this rule-making. As most of you know, we are not an agency that has technical expertise in these areas. So, to have you all here in the same room to discuss these issues is very helpful to us.

What I want to do is we are going to kick off this first session in just a few minutes. What we are going to do this morning is pretty much an open discussion format. Pretty informal. I will go over some process items for that, for how we're going to conduct that.

Before we jump into that, I have a few slides here I want to go through, some background about current rules, why we're here, the kinds of things we are doing. I'm not going to spend a lot of time on it, but it's just to get everybody on the same page in terms of what we are doing here, and also for people on the webcast, to give them a little background about the FTC and Lamp Labeling.

So, we have current requirements for Lamp Labeling. They were promulgated in the early '90s in response to the Energy Policy Act of 1992. They should be fairly familiar to everyone here. Essentially, it has three pieces of information, light output in lumens, energy use and life. And if you go back and look at the rule-making in the early '90s, there was a panel discussion just like this one and there were lots of ideas kicked around. After considering several approaches, this is what the FTC decided to go with.

What it does is it sets up kind of a two-step process for consumers and encourages them to find -- there is a little statement here about to save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts. So, it has consumers finding the brightness of the bulb that they want and then, after figuring that out, looking for the one that has the lowest energy use.

So, the lamps that are covered currently by the rule, and these are terms of art, as most people know, in the statute, general service incandescent lamps, compact fluorescents. Those are the main two kind of consumer lamps that most people would buy in the grocery store or in the hardware store. Then there are also other products that are covered. The general service --

actually that should be fluorescent lamps, which are the big two types. The metal halide lamp pictures which were added this summer and fluorescent ballasts and luminaires.

In terms of the average consumer lamps, these are some details that were hammered out in the early '90s. I don't expect we will be talking a lot about that today. Today, we're going to try to focus on the bigger issues of energy descriptors. But what -- when a manufacturer is making a label, they need to give the number of lamps in the package, the design voltage if it is something other than 120 volts, the light output and average initial lumens. And for CFLs it's based off energy use and average initial wattage and the life in hours.

The disclosure, also under the current rules, has to appear on the principal display package or panel.

So, now, we have this new act that came out in 2007. It requires what's essentially a two-year rule-making on the FTC's part. There are two purposes here. One is to look at the effectiveness of this current label that I just described and the second is to look at alternative approaches. We have kind of paraphrased the language. But essentially we are supposed to consider alternative approaches that will increase consumer

understanding of new technology bulbs that are coming on the market and provide information that allows them to base their purchasing decisions on lighting level, light quality, lamp, lifetime and total life cycle cost. That is what essentially is in this new statute.

So, in terms of today, we'll be talking about these different alternatives, things that the FTC should consider for the label. We prepared some examples here of different types of information and within that, some of the things to consider. This is not an exhaustive list. This is just examples for discussion purposes. We will be talking about these and more this morning, I imagine.

But one is the overall format of the label, should it use something like the Energy Guide logo which appears on other energy labels that the FTC does for appliances and heating and cooling products.

The next thing to consider is light output. Currently, it is in lumens. Should that be a number, should it be on a scale or something like that or in some other fashion or should it be the 60-watt equivalent which is often used or the watt equivalent which is often used in marketing now for, say, CFLs? That is something we will talk about today.

Energy use, that is something we will spend a lot of time right off the bat this morning talking about. There are lots of ways to describe this. Operating cost, some kind of efficiency measure like lumens per watt is a possibility. Life cycle cost is something Congress wants us to consider. So, we want to get comments on that. And there are other things that we will talk about this morning.

Life. Right now, it is in hours on the package. Should it be in years based on an average daily use or some other measure?

We will also be talking about color temperature and degrees Kelvin or should it be presented as a number on a scale or in terms of a color or some combination of that?

And, finally, color rendering index, and that's the same issue. Should it be in a number, should it be on a scale? And, also, with these issues, all of these for that matter, but particularly temperature and CRI, since they are not on the label now, is it something that should go on the label? Is it something that would be useful to consumers? That is kind of a big threshold question and we'll be discussing that today.

So, today, we want to, as I said, focus on the core issues, what should the basic energy descriptor be?

Should we include color temperature? We will be looking at different formats. We want to try to, if possible, start narrowing the kinds of things that we should look at. And, in particular, we have scheduled this meeting near the end of the comment period because we're hoping that it will help people with their written comments and help them focus their comments and get ideas for their comments. The written comments are due on September 29th.

So, we have three sessions today. We are going to start with energy descriptors and light output. I'll be doing that. And then Lem is going to work on color temperature disclosures in session two and then we'll have Rob Kaye come up and talk about format issues. And any follow-up things that we have not had a chance to cover, we'll cover in session three.

So, let's start with Session 1. What we want to do is we have several things here. If you would like to speak, we will have you put up your tent card like this. We will try to keep track of who has their tent card up and make sure everybody gets an opportunity to speak. We want to try to avoid long speeches. We would like to keep this moving along so we can cover as many issues as possible.

We also have some sample labels that have been

submitted by different panelists. These are submitted just for discussion purposes. There are PDF versions on the website that people can look at. We will have them also up here on the laptop and as we're going through the panels that have submitted those, we'll describe them and we can discuss them.

The other thing is we have this projector here and paper if people have ideas that they want to jot down. We can put them up on the projector and they'll be up on the screen. So, we've got paper and pens up here.

So, what I would like to do, you know, there are a lot of important issues here. But I would like to just start off with kind of the core issue, energy descriptors. Under the current labeling requirements, under the current statute, the FTC was tasked with providing information to help consumers pick the most energy-efficient bulb to meet their needs. That is kind of the core purpose of the current label. So, I'm interested in the views people have on the kind of things that we should consider in terms of energy descriptors.

So, I will just kick it off with whoever would like to start. It will be a short meeting if no one volunteers. So, I'm going to pick on Noah since you have submitted a sample label and it has different ideas about energy descriptors. So, why don't you start us off,

Noah.

MR. HOROWITZ: Sure, thanks, Hampton. I submitted a sample. Is it possible to put that up now? Thank you. That concludes my remarks. No.

(Laughter.)

MR. HOROWITZ: Thank you for coming, everybody. I am Noah with NRDC. We worked with our consultant, Ecos Consulting, to come up with a prototype or strawman label. We don't have all the answers, but we wanted to have something to jumpstart the conversation. Hampton asked me to talk about light output and efficiency, how could we communicate that.

So, if you go to the top line there, we thought, how do you communicate efficiency? In the lighting world, people think of lumens per watt is the right metric. Consumers don't know what a lumen is, they don't know what a lumen per watt is and should it be 20 or 60 or 100 and is a higher number or a lower number better. So, we thought that was a nonstarter. But we still thought it was very important to communicate efficiency.

We thought a one to five-star system would be the most logical and easy way for consumers to understand it. The more stars, the more efficient the bulb. This is called a categorical rating system. All around the

world, in both developed and developing countries, they use some sort of rating system to help consumers, whether it is one to five stars, A through E, one to ten. We thought this was very unambiguous, the more stars the better. So, that is how we propose communicating efficiency.

We also thought right now people buy based on power, which is wrong, in our opinion, and I think many other people. But we have to recognize that they buy a 40, a 60, a 75 or a 100 and we want to shift them to buying lights based on their lumen output or the amount of light. So, if they are used to buying a 60, that is about 800 lumens. We want them to be able to buy another bulb that uses around 800 lumens. We proposed a sliding scale there where there's the emphasis on light output. This particular sample, that lamp gives off 825 lumens. Below it is a way for the consumer, who is stuck in the way they are used to buying bulbs, we give them a reference. So, that's roughly equal to today's 60-watt bulb.

So, in the spirit of not making speeches, Hampton, why don't I stop there.

MR. NEWSOME: Since no one else has got their card up, could you give us a little detail about what's under the hood of that rating system?

MR. HOROWITZ: Of the one to five-star system?

MR. NEWSOME: One to five-star, yeah.

MR. HOROWITZ: Yes. Thanks, Hampton. So, things would be lumens per watt. The more stars, the more efficient the bulb is. So, we would propose there would be definitions for one, two, three, four and five stars and there would be equations, lumens per watt as a function of lumens. And in very simple terms, the most efficient CFLs that are on the market today and the future solid state lighting bulbs that will be in the 70 lumen per watt plus range, that would be a five-star, for example.

A four-star would be today's typical compact fluorescent lamp. Today's Bear Vanilla Incandescent would be two stars, for example, and the ones where you might have a cover that's making that even less efficient, that would be a one-star. So, it would be a sliding scale based on lumens per watt and it would apply to all technologies.

If you do go this route, which we hope you do, we want to make sure you don't make the mistake of saying one to five stars for incandescence, one to five stars for halogens, one to five stars for CFLs. This would go across all the technologies.

MR. NEWSOME: Joe?

MR. HOWLEY: Just an initial reaction to that proposal is we already -- the industry already tries to do a version of a rating scale through the EPA DOE Energy Star labeling system where we have an Energy Star label on the most efficient compact fluorescents and certainly an Energy Star label could be developed for the new LED sources as they become available.

It may be viewed as a simpler way to do it, but consumers, you know, you have to communicate to them in relatively simple ways. Energy Star labels has worked fairly well and is also another alternative approach to trying to communicate to a consumer what bulbs are the most energy-efficient.

MR. NEWSOME: And, Rich, you've got your tent card up. Could you, in addition to your comments, could you give a little bit of background on how Energy Star sets up their level and also the kind of binary approach that the Energy Star talks about which would be different from this -- is different from the five-star approach?

MR. KARNEY: Sure. Basically, Energy Star sets up the performance criteria based on what's available in the marketplace. Until recently, CFLs did not have a federal standard to apply to them. Now, we do. The Energy Star levels are based on a market percentage above what is in the field -- what the federal standard was we

set out. We basically do it on various performance characteristics, not only on efficacy or efficiency, but also on various other parameters which we'll get into speaking about later on, on color, on lifetime, warranties, things like that.

Energy Star is a binary system. You either qualify or you don't qualify for Energy Star. What I was going to do was to echo Joe's comment to parallel what we have in the Energy Guide label right now is that we do not have a rating system presently in the Energy Guide. But what we do have is an indicator of whether that product, and typically Energy Guide would be going on an appliance. If it does qualify for Energy Star, we will put that on the Energy Guide label to indicate to the consumer that that product is of the more higher efficient performing products of that category.

So, this basically provides the consumer with this information and eliminates any need for a categorical rating system.

MR. NEWSOME: Okay. Noah?

MR. HOROWITZ: Yes. We're big supporters of the Energy Star label and we're very thoughtful in coming up with this. We have another slide I didn't bring for today, but if the product is also Energy Star, the system is completely compatible with that and in the upper

right-hand corner could be the Energy Star logo.

So, this one to four-star system is just how efficient is the bulb. So, you could have a compact fluorescent lamp that's very efficient, but it does not meet other key quality criteria. It might have a slow start time, it might offer poor color and things like that, then it would not earn the Energy Star label. So, if it meets the efficiency requirements and all of these other requirements set by DOE then it could have the Energy Star label up there.

Also, some bulbs -- today, we have a 100-watt incandescent bulb. Not too far in the future the bulb that gives off, call it 1,600 lumens, might use between 10 and 100 watts. So, just having Energy Star or non-Energy Star is good, but how do we indicate to people, hey, this is a very inefficient bulb? We want you to think about that when you buy the bulb. That's why the bulb might earn one or two stars rather than five.

MR. NEWSOME: So, just to make sure I understand. You are saying that under this system that you are suggesting here, you could have a four-star bulb, but it may not be Energy Star because it does not meet the other program requirements for Energy Star, is that correct?

MR. HOROWITZ: That's exactly right.

MR. NEWSOME: Okay. John?

MR. FICHERA: Yes, I would like to make a couple comments on this. We have a label. I don't know if you want to show that or if we should keep this one up for the time being.

MR. NEWSOME: Yeah, why don't we get to that. Let's see.

MR. FICHERA: I just want to show you just one of the key differences.

Okay, what we thought, basically, we feel that we do need the light output, power use and efficiency in some way to be the leading descriptors of the lamp. The reason we would say that is because obviously we need to know light output. Right now, as very well put, people tend to equate light with wattage, which is not a good measurement at all. It is not a good representative.

So, what we do need is we do need to be able to show the power, obviously, because there are going to be reasons to know how much power you're drawing. Some fixtures or luminaires may have power limitations on them. So, that is a key piece of information. But the light output is definitely something we should communicate in lumens.

As far as efficiency goes, our thought was basically that we have already got the public to

understand what miles per gallon are. And I think we can do the same thing with lumens per watt. I mean, lumens per watt is the light output based upon the energy or compared to the energy. And it's the same thing we're doing with gasoline and mileage. So, I don't think it would be such a far stretch for the consumer to actually begin to understand that. If you see, we have laid out our label in such a way that we are not stating LPW for now. We want to actually describe what that is, so that people can get an idea of what that efficiency means. So, obviously, you are looking for the higher lumens per watt.

MR. NEWSOME: Now, just to follow up on that, have you thought about any concerns with using that efficiency number in terms of over-buying? Someone, if they're just focusing on that and they buy a very bright bulb, it may be an efficient bright bulb, but they're buying something more than what they need. Is there a way to address that?

MR. FICHERA: Well, I think that we did address that kind of in color appearance, in certain areas like that, you know, where you're looking at -- basically, if it's a warmer white, you can equate that in your mind basically to something like an incandescent lamp.

MR. NEWSOME: Okay. James, you have a

question?

MR. HILGER: Yes. I wanted to go back to Noah's label and point out or ask if you expect the categorical system as you have it set up now to be any more than just the indicator of which technology you have? Because, I mean, if there are five stars and, you know, three major technologies, incandescent, compact fluorescent and solid state with small modifications of the other technologies, is there anything to be gained in just having the stars versus just making it clear what the technology is? If people are educated through an education program, the differences between the technologies, then maybe that information is not very useful on the label.

And, also, again, I don't have the technical expertise and lighting, but my understanding is that there are slight differences between the efficiency within a technology, you know, within compact fluorescence or within incandescence, and then that information would be lost. There would be no competition within the technology.

MR. HOROWITZ: Sure. If I understood your question, I heard two of them. One, is the bulb an incandescent, a halogen, a CFL, an LED or something that we can't even foresee today, do you want to communicate

that on the bulb? Sure. I'm sure the marketing people would do that. If that became mandatory, we would not be opposed to that. But we need to be very careful here. Today's incandescents are very inefficient and everybody, I think, would agree with that.

My colleague here, Joe from GE, has announced plans to create a super-efficient incandescent that could even compete with the CFLs of today. So, we need to be careful not just calling the descriptor, this is an incandescent or a CFL, that that will indicate its efficiency. That's why we wanted a technology neutral system based on the lumens per watt. Five stars, extremely efficient. One, it's not performing well at all.

Does that answer your question?

MR. HILGER: Yes.

MR. NEWSOME: All right. Carolyn?

MS. KERR: First, a comment on the star system. I like the idea that it's very visual and I think our consumers need a visual representation. We're in a very low interest category here. The concern is that we've got a lot that we are going to have to communicate on this label. So, therefore, the redundancy of it, maybe giving up real estate for other information that I think others of us felt that we needed to communicate. It is

redundant in the sense on the label itself because you've already got a per year usage.

So, the consumer, from that dollar figure, can draw their own conclusion as to what the efficiency of that product is. They know how much it's going to use to operate it per year.

More important, I think, is the visual with it, give consumers an easy way to kind of follow through and understand the terminology, because the reality is, they're not going to take the time to educate themselves. And though I like John's approach in his label, I think that we need to stay away from terms like lumens per watt when we talk about efficiency and go back to -- what we tried to do was basically use that yearly usage number as the gauge to show efficiency and link that back to watts so that consumers understand that. The term they have been using in watts through the years is actually your energy usage. So, in the Phillips version, we simply used --

MR. NEWSOME: Do you want me to pull up your --

MS. KERR: You don't need to. I mean, it's X amount of watts equals this cost per year, so that, again, they understand that's your linkage. Your watts is going to be energy usage, and I think we need to bring those two together.

MR. NEWSOME: Okay. Well, what I would like to do is talk about -- we have these four samples that were sent in for discussion purposes. Every one of them had an operating cost figure on them, and I would like to discuss that and go into some detail. But before we go into that, does anyone have any other comments, observations on the kind of rating system that Noah has suggested here? Rich?

MR. KARNEY: I wasn't going to speak about Noah's rating system.

MR. NEWSOME: Okay, well --

MR. KARNEY: I was going to throw out one idea, which I'm going to contradict myself in the next session.

UNIDENTIFIED FEMALE: I don't think your mic is working.

MR. KARNEY: What I would like to do is just say that I believe we have found it to be very successful in the labeling of compact fluorescent lamps that we have a wattage equivalent on there, what the consumer is used to with the bare, base incandescent bulb that they have been buying for 100 years. The wattage equivalent goes a long way of showing to the consumer what this lamp, what this bulb will provide.

Now, at the same time, with the standards in incandescents being raised dramatically over the next few

years, going back to a base incandescent wattage equivalent may or may not have any meaning at that time. So, I know for today's case and for now, certainly with the CFLs that we have today, the wattage equivalent to the incandescent works. I don't know what's going to happen in 2011.

MR. NEWSOME: And I think that is certainly -- what we are talking about here in the first session, I think there are two big challenges in terms of looking at the label or two primary challenges. One is how best to communicate the energy use. I mean, currently, we are asking consumers to understand what lumens mean and pick out the kind of family of bulbs that they want that will provide the brightness. Then they have to look at the watts and find the lowest watts.

So, do we change that? Do we go to a different approach? What is that approach? Noah is suggesting like a five-star system. All of the other samples, including Noah's, also had an operating cost number on there. That's one issue.

The second issue is the one Rich is raising, which is a very important one, and that is, how do we communicate lumens? Currently, given the CFLs in the market, the common approach is to use this watt equivalent language. Is that something that we want on a

mandatory label in some fashion and how do we address the issue that Rich is talking about as the market moves ahead in the future how that kind of information becomes obsolete?

So, why don't we address that issue in a minute. Before we get to that, since we are talking about the energy efficiency and the rating system, there are no more comments on rating systems, let's think about operating costs, how that's communicated, whether that is a good idea, how that is derived. So, why don't we have people think about that.

Noah has his card up, so I'll go to Noah.

MR. HOROWITZ: If you could go to my second slide, please.

MR. NEWSOME: Sure.

MR. HOROWITZ: Thanks. I want to address Rich Karney's comment. I think there is probably consensus in the room, for better or worse, consumers are used to buying a 60, a 75 or a 100, and we need to meet them partway over the next few years and transition them away from that. So, on the left-hand side, we have one potential way of doing that and, again, we don't have all the answers, but we want to throw this out there as something to think about.

What if you had a little tab that would say 60

or 75 or 100, if it meets some lumen equivalencies? So, if we go that direction, we would encourage the FTC to say whether you can put a number like that up there or if you are allowed to make it as bright as the old 60-watt, that you have some minimum requirements like Energy Star does. So, between X and Y lumens, if you meet that, then you can make the 60-watt equivalency claim. So, that's what the idea of that 60 is on top. We were careful not to put the word W or watts there because people might think this is a 60-watt bulb. No, it's as bright as a 60. So, this is tricky.

Then another way to go about this -- right now, people buy batteries. They buy an A, a AA, a C or a D. Most people don't know how many volts that is and they probably don't need to necessarily. People buy a 60, 75, 100-watt bulbs today. What if we move them to an 800, a 1200 and a 1600 lumens, if those are the right numbers, for the future? So, give me an 800, give me a 1200. Maybe that is the world we are moving towards. These are just some ideas in terms of, I think, the challenge of consumers are used to buying a 60. How do we get them and lead them to the 800 lumen bulb?

MR. NEWSOME: Okay. Any other thoughts on this particular issue, the watt equivalent? I know I had mentioned operating costs, but there seems to be a desire

to talk about watt equivalent. It's a very important issue. Some of the manufacturers had addressed this issue and are currently addressing this issue on their label. So, do you all have any thoughts on that? Joe?

MR. HOWLEY: Just a comment on Noah's suggestions. What he's suggesting is we move to a number which becomes almost a model number versus meaning anything. The consumer already is used to the 40, 60, 75 and 100 kind of model numbers as a wattage. Moving them to 800 -- I presume, Noah, that when you say 800 it means a product that might have a lumen range between say 700 and 900. It is sort of an 800 model. Creating a new model number, though, seems to me would be harder to do than to simply use the model numbers that consumers are already used to since it just becomes a new model number that does not really mean exactly 800 lumens. It is just the model 800.

Conceptually, I understand what you are going for, but I am wondering if it just is going to become a model number if we choose to go that way, if it really is worth trying to switch them to some sort of new modeling metric at the same time as creating, why not use what they have already, just what they are thinking of already?

MR. NEWSOME: Well, Joe, let's say the FTC just

put lumens on the label and did not try to address this watt equivalent, we all know that currently manufacturers, on their packaging, are using that watt equivalence approach. Do you have any idea how long -- you know, what window are we talking about? Will that just remain -- will manufacturers continue to put that on the packaging? Do you have any guess as to how long that will take before it is phased out and we will just go to lumens?

MR. HOWLEY: Well, obviously, it would depend on whether or not it was mandated. Obviously, if you mandated a model number, it would maintain as long as the mandate was there. If it was not mandated, that is a good question as to where we would move to. We know, over the years, trying to communicate lumens to consumers is incredibly difficult. We have been trying to do it with the labeling packages since the mid '90s and still today if you do your consumer survey -- and perhaps a question for your survey might be, do you know what a lumen is? I think you would find most people still do not understand lumens equates to brightness. Wrongly or rightly, they equate wattage to brightness.

Do we want to go with their predisposition? Or do we want to try to totally reinvent the system? I guess it is more of a question rather than having an

answer to it. It just seems it would be easier to go with what their predisposition is. But if it was not mandated and we moved away from it, what we would end up with, I believe, is just a whole different series of wattages all over the place on these different technologies.

Manufacturers would try to figure out a way to communicate equivalent brightness across these technologies, but we might do it all in different ways. I am not sure what that would mean to the consumer. It would be a very interesting world out there with lots of different concepts and schemes.

MR. NEWSOME: Okay. Noah?

MR. HOROWITZ: Two quick things. We did talk about scope today. I am assuming that whatever system we are talking about would cover the whole range of technologies whether you're an incandescent, a halogen, an LED, whether the base is this big or this big. People should be provided this information on whatever the ultimate label is in terms of how much power it uses, what its light levels are.

There are a bunch of LED products coming on the market today. There is no information on the amount of light output that they provide. So, hopefully, that can be addressed later today. That was the main point.

The other thing is on the bulb itself, people look at the bulb and say it is 100. They may or may not take the bulb with them to the store, but they know they want to buy a 100. So, we're going to gravitate. There will be some information on lumens on the package and the details how to do it. What if we put on the bulb itself this is its actual lumens, whether it's 800, 10 or 1,000 lumens. You look at that and then you go to the store and say, I want to buy a 1,000 lumen bulb rather than a 100 watt bulb. I don't know if there is any consideration of placing the light level on the bulb and making that a requirement.

MR. NEWSOME: Have you considered taking the watt equivalent number and calling it something else in your proposal? If you have just the number 60, but if there's a different term that was applied to it, essentially I guess you could convert lumens to -- you could convert any brightness to that number by just dividing it by something. Is that something that has been considered by anybody? Joe?

MR. HOWLEY: We have not considered it, but, to me, it's equivalent -- Noah raised the battery concept before of A, AA, the different battery concepts, C, D. They don't really mean anything. The numbers don't mean anything in and of themselves. It's just a modeling

number that has attributes associated with it.

What you are proposing is, is there some other kind of modeling number scheme system that we could invent for incandescent bulbs? Although you could do that, you could probably do that in any one of different directions. I think our choice is either to do that or to stay with the standard, traditional consumer bias of 40, 60, 75, 100 and just go with their existing predisposition on wattages. It's a choice that we have. I don't know if I know the answer to that. But those are really the choices.

Either you have to invent something new or you have to stay with what consumers know right now and just reinforce that with a modeling scheme which maybe, like Noah said, wouldn't mean wattage anymore. It would just be model 60. But I think those are the two choices in front of us, either create something brand new or reinforce kind of their existing predisposition.

MR. NEWSOME: So the possibilities are lumens, just the number, kind of like what we have now; going with the 60-watt equivalent, saying 60 or maybe assigning some other term, new term to that; and another approach is this kind of A, B, C, D, E -- the approach you take with batteries by lumping brightness in terms of different categories and that would require creating kind

of a new lexicon for brightness.

Diane, why don't you jump in here.

MS. LINDSLEY: Well, I have a few comments on just the light output version. Our customers -- and you are right, for many years, watts is what they are looking at. But what are we looking at for the next 15 years? And is it going to be the same and is 60 really going to be a 60 anymore? So, if we stay in that format, like I believe Richard mentioned earlier, we would have a concern with that.

But the sliding scale is something that I do like. I like it to where the customer can quickly see a 60, which is what they recognize, and then we are training them early or we're training them now what a lumen is. So, seven, ten years from now, we may not have to put wattage on there because they already understand kind of where that scale ranks.

So, from my side of it, I like the sliding scale that Noah -- especially on the light output or maybe brightness or our conversation because I think what we have missed is educating the customer. If you just put 1200, I don't believe they're going to get it. If you put a scale to where they can see what it used to be, it will be very visual for them at store level to understand, oh, okay, this is where I am at, this is what

I am looking for, and do their own conversion.

MR. NEWSOME: Okay. Carolyn?

MS. KERR: I agree with Diane that I like the scale. My only concern and what I think we could work on is making the connection stronger between the lumens and the light output and kind of breaking that away from wattage, so it has the same lumens as this incandescent bulb using 60 watts of power. So, somewhere we need to make that connection or that link so that we can bring the consumer along with us in the education process.

MR. NEWSOME: So, are you saying the scale here in Noah's sample, to have more information about what that wattage equivalent number means for the consumer?

MS. KERR: Yes.

MR. NEWSOME: Rich?

MR. KARNEY: Just to perhaps help clarify the concerns that Diane and Carolyn have, I would also like to maintain, it was suggested by, I believe it was OSRAM, one of the companies, of having the miles per gallon, having the efficiency rating speak for itself. I believe having a lumens per watt and providing some education for consumers will help in the long run in showing that this is a more efficient product versus something else.

MR. NEWSOME: Okay. Yes, why don't you go up to the mic? And make sure you state your name so we can

get it on the record.

MR. CARSON: I'm George Carson with Phillips Lighting. One thing I see as a problem with the lumens rating and lumens per watt rating --

MR. NEWSOME: I'm sorry. That mic is not on. Could you just grab the one next to John and we'll try to get that --

MR. CARSON: George Carson with Phillips Lighting. One thing I see as an issue is the misapplication of lamps. If we look at strictly a lumens per watt rating or a lumens rating on a lamp, a typical A lamp used for general lighting will actually have a higher lumens per watt rating than say a reflector lamp or a par lamp. So, one of the problems I see is that people could see a lumens per watt rating and think that's more efficient. However, if they put that A lamp in a reflector or a recess can or a down light, they're going to actually have a much less efficient system.

So, I think that's one issue that we have to look at, the directionality of the light and how efficient is it in that application. Misapplication is a big problem for consumers.

MR. NEWSOME: Do you have any suggestions -- that seems to get into some complicated areas. Is there a way to address that in a universal label that would

apply to all?

MR. CARSON: Well, what I thought would be the best method for it would be to have a sliding scale for light output not based on strictly lumens, but also possibly have another rating for directional light sources, where the consumer really would not have to look at lumens or candlepower, which is the proper method of measuring light output in a beam, but just to have a sliding scale saying that this would be a more efficient light source for that application.

MR. NEWSOME: Okay. Rich?

MR. KARNEY: Well, just to add on what John mentioned, just using a luminaire efficacy which provides the consumer with the light coming out of a product, the total light coming out versus just the light source would go a long way towards that.

MR. NEWSOME: Okay. Any comments on that, this issue that's been raised? Okay, James?

MR. HILGER: I just wanted to go back to the sliding scale for one moment. It was mentioned earlier that the incandescent technologies were increasing in their efficiency currently. Depending on what time line you think consumers are going to be switching over from wattage concept to the lumen concept, using the sliding scale might be confusing if people are, you know, in

let's say two years, are already buying much more efficient incandescents. So, the 60 watt of today, not being the 60 watt of two years from now, might complicate having the model numbers remain 60, 80, 100.

MR. NEWSOME: Lem?

MR. DOWDY: Is it worth considering a straightforward disclosure on the label stating that watts is no longer an indicator of brightness and that lumens is the proper measure of brightness?

MR. NEWSOME: Okay. Alex, did you want to address that?

MR. BAKER: I think that lumens per watt has its advantages and disadvantages, but it does at least give the consumer a starting point for realizing that wattage has been a false indicator of light output right from the start. I also see that lumens per watt and some of these proposed lumens and wattage equivalent scales could be implemented in such a way that it is a phased approach. So that for now, perhaps, we have the wattage equivalent as a prominent number on the packaging. And then over time, that number becomes smaller and the lumens number becomes larger.

So, just perhaps for two years we have the incandescent equivalency number very large and in two years that becomes smaller and the lumens number becomes

larger.

MR. NEWSOME: Okay, thank you. Let's go to Noah.

MR. HOROWITZ: I want to reinforce what Alex said, and I should have said this earlier. This whole idea of wattage equivalence and maybe having the 60 on top, all this is transitional and the hope is that over time we would downplay wattage very much. We still need to have that power number on there from a safety point of view. Some fixtures are only rated to take X watts, so we're not going to pull it in total.

In terms of our preference, that box that says light output, there the lumens would be prominently shown and we have the wattage equivalences there to help people during the transition period. That is the part of the label we feel strongly about.

The 60 on top, that is just another way if people wanted to add on top of it to provide more prominence. We are not wed to that at all. What we're really strongly proposing is that sliding scale there.

MR. NEWSOME: Okay, thanks, Noah. Rebecca?

MS. HAMILTON: I wanted to also address the issue of the sliding scale. I think in this case it would be helpful for consumers because there is -- well, it seems to me -- I'm not educated in the design, but

that there would be a maximum brightness that would stay constant over time. You would necessarily want a bulb that was brighter than 4,000 lumens, for example. So, that scale would remain consistent.

And a point of confusion, it seems, would be that if you were talking wattage equivalence and also wattage in terms of power, the consumer would see the 13 watts here in terms of power, but they would see the wattage equivalent of 60 watts. So, that seems -- maybe there could be terms or definitions there to help consumers disentangle those.

MR. NEWSOME: Just in terms of the research you do on consumer perception, have you looked at these kinds of scales where you have several pieces of information? Is that something that has been -- if you could just give us a little background on that?

MS. HAMILTON: Sure. In some of my research, I have looked at how consumers process information given matrices or several pieces of information, and people do process in a more analytical way when they are given information like this and they tend to do more comparison across products when they're given information in a matrix form. So, I think all of these have the advantage of encouraging consumers to process across product and thinking on an analytical or more rational way rather

than imagery and imagining themselves using the product. So, I think these all have that advantage.

MR. NEWSOME: Okay.

MS. HAMILTON: In terms of making comparisons, it is also helpful to have these skills, you know, what's the maximum, what's the minimum. I think that would be helpful.

MR. NEWSOME: Okay, thank you. Well, let's switch gears and go back to the operating costs concepts that are on most of the sample labels. Before I pick on somebody who had a label that has operating costs on it, does anyone want to jump in and begin the discussion on that? Otherwise, if you don't mind, Carolyn, you all had some operating costs on your label.

MS. KERR: Sure.

MR. NEWSOME: If you could just go through what you were thinking the advantages of that would be.

MS. KERR: I don't know if you want to put it up.

MR. NEWSOME: Sure, I'll pull it up.

MS. KERR: Two things that we did maybe that were different than some of the examples, one was we did try to make the linkage between wattage and operating costs, again just to help the consumer in their understanding that watts is really linked to energy. So,

that's why we did -- in this case, it's an example of a 40 watt bulb. So, 40 watts equals $6 per year.

Now, of course, on the back end, we're all going to need to agree on a designated hours per usage per lamp. We'll typically -- at Phillips, we rely on our usage studies. So, by bulb, the type of fixture it's used in, we know pretty much how many hours per day the typical consumer will use that fixture. That's what our calculations are based on and we could come up with one common standard and then also, obviously, a cost per kilowatt hour that we would all need to agree upon and base all of this on in this case. Typically, ten cents per kilowatt hour and that would need to stay fixed.

We wanted to do that on the per year basis, not per life of product, because per life of product will give a disadvantage to some of those long-life bulbs, obviously, and per year is probably how a consumer may look at it and still have the value of that -- that dollar value have some relevancy. So, in this case, $6, which means something to me versus having a lesser number.

MR. NEWSOME: Okay. What are these numbers going to look like? Has anyone actually calculated the kind of range of what the operating costs are going to look like for the typical bulbs that are on the market?

Is $6 --

MS. KERR: This is an actual calculation on that product, based on three to four hours of usage per day.

MR. NEWSOME: Okay. So, this is a 40 watt bulb. And three to four -- is there a -- you said three to four hours per day. Is that a set -- that's something I also want people to weigh in on.

MS. KERR: Again, the fixture that this particular product was in.

MR. NEWSOME: Okay. Is there a standard number of hours a day that most people in the industry will use when they are calculating these?

MS. KERR: I think that we would need that set for us. But, again, we've got studies that show us by fixture how much you're going to use each product.

MR. NEWSOME: Okay. And it's usually in the three to four-hour per day range?

MS. KERR: Most of them in the three to four-hour. I mean, decoratives, you're going to find, obviously, in chandeliers and other fixtures like that last. So, that may be lower, closer to two. I don't see an issue coming up with one number for at least groupings of products. You want to be careful, obviously, of a decorative that's just not going to be used that much or

an outdoor product that's going to be on, actually, all night, you know, dusk to dawn, you may want to look differently at that. But, again, we've already got that benchmark of studies, fixture by fixture through the house that we --

MR. NEWSOME: Okay. So, your preference would be to try and group it -- the hours per day by some different types as opposed to having a uniform number?

MS. KERR: At least -- yeah, at least household type fixtures, and that would include recessed, probably outdoor type fixtures and decorative type fixtures.

MR. NEWSOME: So, I guess the alternative would be to just pick a number you apply across all lamp types --

MS. KERRY: Ideally.

MR. NEWSOME: -- and then state that on the label that this is based on --

MS. KERR: Yeah. I mean, you want it based on reality of the usage of the product, obviously. So, you don't want to go too far into coming up with one average. But we typically look at products in, as I said, like a household, three to four hours in some cases.

MR. NEWSOME: Okay, okay, thanks. Joe?

MR. HOWLEY: On operating costs, I think it is important. One, our thought is that this would be

voluntary to the extent that somebody wanted to show operating costs. But if somebody did put operating costs on their package, I think it is critical that we have a level playing field in terms of the numbers people are using to state an operating cost because there's a lot of -- I don't know if I want to say games played, but it almost seems like games played with people either projecting real long or real short operating hours. Depending on what the point is, they're trying to use real high or real low electrical rates. Typically higher gives you a higher number. It would be good to have some rules that if you are going to state operating cost that you shall use X amount of hours used per year.

Since this is general service that we are talking about, I think the decorative is a different question, but that is not really covered by this rule-making. This is general service and perhaps we can come up with one operating hour that everybody would use because it really is comparison for the consumers to compare against lamp to lamp to lamp.

The only concern I have is if we come up with an electric rate that is mandatory to use, the issue is electric rates most likely will increase over time as they have over the last 10 years. So, the FTC would have to have some sort of mechanism built in perhaps where

they could reset the electric rate that we could use every so many years as electric rates increase, so we're not stuck with sort of a 20 year-old electric rate because that's what the label says we have to use. So, I think a review of the electric rates, but certainly setting the hours used and setting an electric rate that everybody would have to use if you put operating costs on the package, I think, is critical.

MR. NEWSOME: Now, on the appliance label, the rule certainly sets the electric rate to be used. It sets -- the test procedure for the product usually has the yearly use in hours or cycles or what have you. And, also, what we are currently requiring is the rate will change every five years. So, the labels have to be changed every five years, trying to hit a balance between having some consistency in the information on the label and, at the same time, reflecting changes in costs over time.

Noah?

MR. HOROWITZ: I agree with a lot of things Joe said, in particular, on standardizing things. We need to agree with how many hours per year is this bulb being used. A typical number thrown out there is three hours per day per bulb or roughly 1,000 hours per year.

While I am sympathetic to what you said, I

think we need to be careful because while you may think this bulb is going to go in that sort of fixture, it may well go in the outdoor fixture that is on eight hours or the closet lamp that is used 20 hours a year. So, your mileage may vary, your hours of use may vary. So, let's come up with a standard number per bulb, and then if there's some very unique bulb that we know has very different hours of use, we can consider that. But I think we need to be careful.

I think one thing we had on our label, I need bifocals here, have an informational Web site. So, we suggested something like www.lightbulb.ftc.gov. We used an average cost of electricity of X cents per kilowatt hour. We assumed this many hours per day per year. All of that stuff can be on the Web site and you don't have to crowd this very complex real estate. That's one way to go about this.

Where we differ, respectfully, with Joe is we think it is essential that cost of operation information be on the bulb however we do it. And lots of consumers buy on first cost. We need to give them a good indication of how much is it going to cost for them to use this bulb. Whether you do that in the form of a one-year operating cost or a five-year operating cost or life over the bulb, we can figure that out. But I think it is

real important that we help them.

We heard the range three to four dollars. There's a much broader range. A compact fluorescent will cost four times less than today's incandescent. We might have better CFLs in the future or solid state lighting that's costing even less. So, we can easily imagine a factor of ten times difference. Sometimes the more efficient bulb costs more money as well. So, we definitely need to tell them, hey, you might be spending a little more, but you'll be saving a lot.

MR. NEWSOME: Could you go into a little detail about this consideration of a one-year cost figure versus a five-year cost figure and also taking into account the expected life of bulbs on the markets, as I understand it, some using the three hour per day metric would last less than a year? I may be wrong on that, but just some of the costs and benefits to considering those different time periods.

MR. HOROWITZ: I would be glad to. Today's typical incandescent is rated as 750 or 1,000 hours. There are some double life products that might be 2,000 hours. We are seeing some energy-saving halogens come to the market that are rated 3,000. The typical CFLs is a minimum of 6,000 hours. We are seeing some that are already rated at 10,000 hours. The solid state lighting

products, I'd defer to my colleagues from DOE, but we are 25,000, 50,000 or 100,000 hour claims. So, there's a huge spread.

So, one year operating cost is very simple. If we say it's 1,000 hours per year times so many cents per kilowatt hour, you'd give the number. If you did over a lifetime, you could be penalizing those really long-life products, even though they are very efficient, because they are rated to last 50 years. It will look like over its lifetime it costs a lot, but per year, it really doesn't. So, there's a tension there.

So, life cycle cost or total cost of operation, philosophically, that would be the best place to go, but we don't think it is realistic. What's going to be the cost of that bulb today? And different retailers will have different prices. That price could vary dramatically over the three years of the life. So, we had to take out the cost of the bulb. So, we're limited to how much does it cost to -- what's your electric bill for this bulb?

So, we would suggest considering either a one-year or a five-year operating cost. The downside of the five-year is many bulbs won't be rated to last five years. So, there is that tension there.

We think it provides a much clearer

information, though. The compact fluorescent that's going to last at least five years, that may only use, let's say, $7 over five years where its incandescent counterpart might be 30. That's a very compelling story. $30 versus $7 and the cost is a quarter versus $2. Hey, I'm spending a little more money, but I'm saving a lot of money. If you compress that to one year, it's not as compelling. So, we think it should be per year and possibly over five years.

MR. NEWSOME: Okay, thanks. Eileen?

MS. EATON: Thanks. The one thing that I wanted to bring up about cost is a lot of utilities are concerned that the kilowatt per hour ranges greatly from different regions. And I know that we would basically be using a national average, but they were slightly concerned with putting costs on for that reason, as well as if it is going to be put that those assumptions definitely need to be included on the label somewhere. That's very important to them. So, I just wanted to pass that along.

MR. NEWSOME: Okay, thanks. Rebecca?

MS. HAMILTON: I wanted to, in looking at this label, suggest that the fewer dimensions consumers need to consider, the better, of course. So, if we're looking at electricity cost, we've quoted that in terms of per

year cost and we've made assumptions about the number of hours per day people are using the lamps. Lifetime value or lifetime could also potentially be quoted in terms of years because we're assuming a certain number of hours per day. So, if you put life in one year, two years, three years, four years, five years and have that be consistent, that might help people understand that label better.

MR. NEWSOME: Okay, thanks. Carolyn?

MS. KERR: Actually, I have something a little off topic. Before I say that, I do agree with Rebecca. We have studied how do consumers best connect to lifetime and what terminology would they like to use, and years has always been the preference. Years, months, they can't connect to hours. What does that mean to me? So, definitely years would be a preference.

Secondly, and we can table this maybe for a little later discussion, is I would be a proponent of not only having this on our general service lamps, but also decoratives and really every consumer facing technology that we have out there. What we found when we introduced the label initially in our packaging were consumers felt either if it did not have a label and if it did not have that information we were either being deceptive or they were confused and they were looking for it.

So, again, I would be a proponent of, across the board, putting this out there. We do currently put it on products that are not required to have it.

MR. NEWSOME: Now, I see on most -- especially when on most packages where there's a claim about savings over time, there's usually a statement about what that is based on.

MS. HAMILTON: Right.

MR. NEWSOME: I see different electricity rates. Is that what goes into choosing that rate on the package for a particular manufacturer? I know that --

MS. KERR: I think to Joe's point, there's some marketing involved there. We like to use the average. Typically, we do, but there are others that will use a lower kilowatt per hour rate in order to improve the perceived performance of the product. So, we absolutely need to set that.

MR. NEWSOME: Um-hum, okay, a uniform approach. In terms of the estimate for hours per day that we were talking about earlier, Rich or Alex, I know that Energy Star, on their Web site, they have some calculators. Do you all know if there's a particular number that you use or approach or is that -- it's kind of a minor --

UNIDENTIFIED MALE: I forget which one it is.

MR. NEWSOME: Okay, that's kind of a detail,

but --

MR. HOWLEY: I believe it's based on three.

MR. NEWSOME: Three, okay. Is there anyone at the table that thinks it should be something other than three, other than this issue you have raised about different categories of lamps? And feel free to address that, too. Anyone thinking of something other than three? Okay, no one's saying anything on that.

Okay. So, one more issue in terms of the five-year, Noah, I was wondering if you all had -- and I get the impression that you think one year is probably cleaner, although five years is worth considering. The five-year, did you consider the discount issues, discounting the cost stream over time and whether that would be a problem in terms of consumer understanding?

MR. HOROWITZ: We assumed a simple five-year rate. Electricity costs will only go up, I think, for most people. So, that would come out in the wash with the discount rates. So, if we wanted to keep it simple.

MR. NEWSOME: Okay. So, your five-year does not have any discount rate built in.

MR. HOROWITZ: It does not. And towards your question or your challenge to us all at the meeting, I think this is one of the areas if there is consumer research, what do they gravitate towards in terms of

communicating? Is this a good deal for me? And is it confusing or misleading in terms of if you have five years, is that conveying to the consumer falsely that the bulb will last five years? We think if you have the lifetime clearly shown, that won't happen, but this is a subject for further research.

MR. NEWSOME: Okay. And your suggestion is to do this in terms of a single lamp as opposed to say kind of a household average number of lamps or some other -- I mean, are there any other things we should consider in terms of looking -- calculating operating cost?

MR. HOROWITZ: We think everything should be done per bulb. There are multi-packs and you will see claims on there -- and this is where the FTC can be very helpful. If you buy this product, you will save $150. Is that per bulb or per six bulbs? And companies do it differently. So, I would encourage all the claims to be per bulb. If you're doing it per package, then there needs to be a different way to state that.

MR. NEWSOME: Okay. Joe?

MR. HOWLEY: I'd just echo that it's probably cleaner to do it per bulb. Some people are selling 10, 12 packs. It's going to be very confusing to a consumer if you don't do it per bulb. I think it may be confusing if you're giving them a -- you're estimating the lamp is

going to last one year and then you're giving them the five-year operating cost. I think that would just be confusing.

MR. NEWSOME: Um-hum.

MR. HOWLEY: I don't really have an answer, but it just occurred to me.

MR. NEWSOME: Okay. Carolyn?

MS. KERR: Actually, I agree with that. The concern is if you're giving them a five-year with a product that's only going to last one or two, are you also factoring in the repurchase of more bulbs? Then that gets us back to the definition of at what price are you buying that next bulb at? If you're giving them a five-year rate, you're going to have to tell them, okay, in that time period, you're purchasing five bulbs as well. So, I'd be concerned about five years.

MR. NEWSOME: Okay, James?

MR. HILGER: And, of course, adding to this confusion is the fact that some of the bulbs will only last three-quarters of a year. So, people may be more confused with the one-year to three-quarters of a year than the five-year cost on the one-year bulb where it's pretty explicit that it's going to be one year because the differences are so big. But, again, that's something we are interested in doing research on. But it is

another issue.

MR. NEWSOME: Joe?

MR. HOWLEY: James, just a comment on that. The new energy laws starting in 2012 require a 1,000-hour life minimum. So, although today we have 750-hour life products on the 75 and 100-watt, that goes away in 2012. So, I think in the future every bulb pretty much will last a year or longer. So, that won't be as big an issue as it is in 2008.

MR. NEWSOME: Okay. And, also, related to that, since this rule-making goes through 2010, that period where you would have that issue would be fairly small because we are not going to have a new label tomorrow after this meeting or anything like that.

So, go ahead, John.

MR. FICHERA: I just wanted to add a little bit to the life question. We had it down here basically saying that we did not define the operating costs over life. We did use the year, but over life, I mean, as I think we found out during this discussion, it varies so at this point, you know. So, it seemed to be that we would just say, based upon what the average life is, and we're not going to state that. We weren't going to state that in this particular document.

I mean, that was just our input. We did not go

that far as to label what the life would be over that particular lifetime.

MR. NEWSOME: Okay. In terms of related to operating cost, this issue of life cycle cost that Noah, I think, you mentioned briefly, does anyone on the panel think that we should explore life cycle cost? Is this something that is doable? Is it worth the FTC spending time on to try to get something that makes sense on the label? We have been looking at this issue in the green claims area and there are different ways to do it. It is kind of an evolving science.

Rich, I don't know if you're going to answer that, but I'll go to you.

MR. KARNEY: I was just going to ask where the boundary is going to be drawn when you start talk about life cycle cost. Because, all of a sudden, if you start talking about disposal of the product, not only are you putting up red flags on the product itself, but I think you are opening up a can of worms on trying to figure out what a universal disposal or at the end of life product what the consumer is supposed to be doing or what he's paying for at the end of life. So, that, to me, just depends on where you're going to draw the boundaries on what you consider life cycle.

MR. NEWSOME: Okay. Brad?

MR. WILLIAMS: Thanks. As I look at this example, as well as the other ones, I applaud this one especially for being much more consumer focused and in a language that seems to speak to the customer more on their terms of understanding. I think it is important that whatever we propose that we are not leaving the customer behind in terms of the technology.

I have to ask, you know, in a very complex grid of information here on something of a very minor ticket in terms of the household spend on energy, is life cycle cost all that relevant of a metric that they need to be concerned with? As I look across all of the things that you would want them to be concerned with in terms of the equivalency of what they are more used to buying today, and as we try to convert the customer to a more modern equation, I think the fewer bigger concepts we can get across, the better off we're going to be.

MR. NEWSOME: Okay. So, life cycle costs may go beyond what the --

MR. WILLIAMS: I don't see the value.

MR. NEWSOME: Okay, all right. Thanks. Joe?

MR. HOWLEY: On life cycle, I would view it more as operating costs over the lifetime of the lamp. Limit it to the operating costs over the lifetime. Again, I would view this more in the optional category.

That if a manufacturer wanted to make a claim on the operating costs over the lifetime of the lamp, there should be rules as to how they should make that. And in much the same way that you have the annual operating costs, perhaps if somebody wanted to list that plus list the operating costs over the lifetime, that there be some requirement as to how many hours would presumably be the life rating of the lamp, but also a set kilowatt hour rating that they would have to use. But there would be certain rules as to how that is described.

So, again, perhaps in the optional category, but if you do it, it has to be done in this particular way. That might be a way to deal with life cycle cost simply limited to operating costs over the lifetime and not getting into the things that Rich was saying, such as disposal costs and other things, which get quite complicated. Keep it relatively simple.

MR. NEWSOME: Okay. So, there are some provisions in the rule related to energy representations for appliances that do tie those claims into certain types of -- the information from test procedures and also, if I am not mistaken, from using certain cost figures. So, that's the kind of thing that you are suggesting there. So, some uniformity in terms of the advertising that is made. For instance, now, for, you

know, you'll save $60 on this bulb. Is that what you're saying?

MR. HOWLEY: Right. And, again, on a voluntary basis. But if done, then they have to follow certain rules to make the claim.

MR. NEWSOME: Um-hum, okay, great. Thanks. Noah?

MR. HOROWITZ: As I stated earlier on life cycle, to do life cycle right, you have to assume a cost of the product, and if that bulb -- it might be at Home Depot at one price and Wal-Mart another, and today, versus 18 months from now, it's on sale at $2.50 a four-pack instead of $7, how do you keep that fresh? That's a huge challenge. So, to me, that knocks out life cycle even though philosophically it feels good.

Operating cost over life, I think, is a red herring and we need to be really careful. A bulb that truly is designed and will perform and last 20 years could be incredibly efficient, but when compared to the one-year incandescent, that very efficient, long-lasting bulb might have a higher operating cost over its life. So, when we talk operating cost, we need to do it operating cost per time, whether that's per one year or some other time. Otherwise, we're penalizing the efficient long-life bulb.

As part of this panel, I would encourage a little more open discussion, should the cost to operate the bulb, however it's done, should that be mandatory or voluntary? We are advocating that information must be on there and the language from the Federal Energy Bill, at a minimum, encourage the FTC to consider that. So, I'm wondering if there are other stakeholders, if they have a thought on the optional versus mandatory aspect of this?

MR. NEWSOME: Any takers on that? Well, let's go to John. People can think about that.

MR. BANTA: I just had a question about the cost of operation. I see $1.30 per year and I assume that would be on each different type of bulb. So, if you had an incandescent and a CFL, you'd have to just compare the two packages to understand the savings? Is that how it would be? It wouldn't make sense to put the cost of incandescent per year on there with the equivalent lumens or not? Just a question.

MR. NEWSOME: Was that directed toward Noah?

MR. BANTA: Whoever could answer that question. I'm just wondering if the cost of operation for incandescent versus fluorescent, would that make sense on the label?

MR. NEWSOME: To provide additional

information?

MR. BANTA: So that the consumer could see how much they're actually saving. Because I don't know that they know what the cost of an incandescent to operate per year --

MR. NEWSOME: So, some kind of comparative information on the label?

MR. BANTA: Yeah, I was just asking if that would be -- you know, otherwise, I guess you would just compare the two packages side-by-side. Is that what --

MR. NEWSOME: Well, since we have a couple of samples here provided by panelists, did anyone consider some kind of comparative range? We do that on the appliance label and it's been there for years. Carolyn?

MS. KERR: Yeah, I think we are pretty wary of the real estate that we have and something like that may be more voluntary and used more as marketing copy than it would be a requirement.

MR. NEWSOME: Anybody else on that? Okay. We have about 20 minutes left. This has been a very useful discussion. We basically talked about the energy efficiency disclosures -- oh, James, why don't you go ahead.

MR. HILGER: I also wanted to bring up one more thing with the operating cost is that you would have to

hold the brightness, the light output constant for it really to make much sense. You know, as I understand it, the different lumen output bulbs have different efficiencies and they would have different operating costs. So, you might be looking at a 60 model and a 100 model and you would not want someone to make their purchasing decision based on what has the lowest operating costs.

MR. NEWSOME: Carolyn, do you want to respond to that?

MS. KERR: I think you raise a really good point, because as we look at lumens here and it's just another decision and another factor, you're going to have to set up as part of the rules because is it lumens at the start of life, is that lumens at 50 percent life, is it lumens at the end of life? Lumens are going to gradually decline. So, we're going to have to determine specifically at what point in the life of that lamp are we measuring lumens so that we don't have one person doing it at one point in life and another at a different point.

MR. NEWSOME: Well, the current rule requires the average initial lumens. That was what was decided in the early '90s.

MS. KERR: I mean, as long as we continue with

that.

MR. NEWSOME: If things have changed or our thinking has changed, that would be something that would be good to put into comments and we can also discuss it here. Joe?

MR. HOWLEY: Just a comment on John's suggestion is I think that would be very complex to do, trying to compare any product with any other product because there are so many different products out there. Perhaps the more logical one to compare it to would be the traditional 60, 75 and 100. As they disappear, you're telling the consumer they can save X amount of money versus a product that they can't even buy anymore. It just doesn't make sense. It adds a lot of complexity and would be very difficult to do, to get into that comparison.

MR. NEWSOME: Okay, thanks. So, we did kind of dive into specifics here at the very beginning. But I wanted to make sure that we covered what I felt were kind of the core issues, the kinds of things that we are really going to need to look at and weigh various alternatives.

What I would like to do with the time we have left is try to cover at least two other issues. One is if anyone has any comments on the effectiveness of the

current disclosure requirements, of the current label, I would like to get that out now. And, also, I would like to have a little bit of discussion about placement of Energy Star information on the packaging, whether there are any other ideas about that.

Before we get into that, does anyone believe that the current label is fine and we should just stick with that? That will make it a very short proceeding for the FTC. Just wanted to throw that out there. Anyone? I don't see anybody.

Rich, did you want to --

MR. KARNEY: I would just like to emphasize the legislation that it gives the Federal Trade Commission the opportunity to provide more cogent information to the consumers from purchasing lighting products. I think instead of just saying, oh, what we have now is good, it's okay, I really think we should take advantage of this opportunity to really help the consumer.

MR. NEWSOME: Okay. John?

MR. FICHERA: Yeah, I'd like to go back to the education portion because we talked a little bit about that. Since we do all, I think, feel that wattage is not a good indicator of what the light output is, we probably should take this opportunity to make some changes because

I don't think that the current label will help us in that way.

MR. NEWSOME: Okay. Someone from the audience? Do you have a --

MR. CALWELL: Good morning. I am Chris Calwell. I'm representing PG&E this morning. Before you leave these topics, I just wanted to add a couple thoughts, if I could, because you've had a lot of great discussions here today. One of them would be that I think efficiency is relative to brightness. We heard a little bit about this earlier in the discussion, but it has not come up that much since then. So, the comparison was made to miles per gallon, which I think is certainly appropriate and people understand that.

But 30 miles per gallon is not an absolutely good or bad number for a vehicle. It is terrific for a bus, but it is a very bad number for a motorcycle. And it's a somewhat decent number for a four-person sedan.

So, similarly 15 lumens per watt, 20, 30, pick a number. If it's a very bright bulb, that might be not so efficient. If it's a dimmer bulb, that's quite good.

So, our team assisted Noah with the design of the label here and one of the things that just seemed to come up over and over again is we could not hope to educate people about the attractiveness of any one lumens

per watt value because it requires them to also understand the context of how bright that bulb is and it's too much information to deal with at one time.

So, I don't think we arrived at this categorical notion of star labeling in any sort of accidental or glib fashion. I think it was actually quite deliberate in looking around the world and noticing that whether it is the 27 countries of the EU, whether it's Thailand, Korea, Australia, or China, this is the system that those countries have arrived at after the same kind of deliberation that says, people need to know that a bulb is relatively more or less efficient. They don't need to be burdened with the science of how you got there. That's the point of a federal process like this.

Just one other quick thought, there was some discussion made about the analogy to battery category, AAA, AA, C and D. Those are measures of the physical size of a battery and whether it fits in a product, but they say nothing about its performance or capability, whereas at least with 40, 60, 75 and 100, it's a measure of power used. So, I would not go too far with that analogy. I sort of feel like the relevant value of it showing up on batteries now is their milling (phonetic) out power, you know, how much energy they actually store. That's where consumers have to get educated or a label

has to help them.

So, similarly with lighting, I think -- I agreed with Joe's comments that it would be hard to teach people what 800, 1200 and 1600 mean, but if you transition them from 40, 60, 75 and 100 to lumens as is shown here, over time the lumens get more and more prominent and the wattages go away and you've assisted a customer in a transition rather than either assuming they know nothing or assuming they know too much.

The only final thought I would offer is I think everybody would have a set of assumptions they would like to put on this label. Think really hard about the number of square inches you've actually got on a lightbulb and you are down to a handful of attributes that you can hope to convey and you've got to put the rest of the information somewhere else, either on a placard in the store or on a Web site, but it will not fit on the label.

MR. NEWSOME: Thanks. Chris, you've touched on what I call the overbuying problem, which someone overbuying lumens and the problem with the efficiency rating. This five-star system, could you explain how that avoids that problem just very briefly?

MR. CALWELL: Yeah, sure. The equations or curves that lead to those five stars are not flat. So, if I were to show you two different lightbulbs, one quite

dim, one quite bright, the efficiency would naturally rise between those two. So, those curves follow the same slope of lightbulbs today. That means they already take into account what is considered relatively efficient or inefficient for a given brightness range. Does that make sense?

So, I think Noah had explained the system before. A one-star bulb is less efficient than the average incandescent bulb today. A two-star bulb is more efficient than the average incandescent bulb today. A three-star bulb is similar to the technology Philips has introduced in retail stores with the halogen energy saver. So, it's among the most efficient incandescents of today. Four-star, a typical CFL that's Energy Star labeled, and five-star, an extraordinary bulb, among the best on the market today. All of those efficiency curves have a slope to them, so you've got to be more efficient as you get brighter to make it above that line.

MR. NEWSOME: Okay. Well, thank you.

MR. CALWELL: Sure.

MR. NEWSOME: So, that's a good transition. Let's talk a little bit about the Energy Star logo and just to go back to the appliance analogy, on the Energy Guide label, the Energy Star logo -- manufacturers can put that on the label itself. Here, we have obviously

got different packaging, different amounts of room. Noah has suggested in his example that perhaps the Energy Star logo could go on this label. So, I am interested in thoughts people have about where the Energy Star logo goes now and whether the FTC should consider incorporating it into the energy information label.

Another issue that people may want to touch upon again is the relationship between the five-star system and Energy Star, if there are concerns about that. That certainly was a very large concern in the appliance proceeding we had.

Jennifer, why don't you -- if you have some comments, come up.

MS. AMANN: Thanks, Hampton. I'm Jennifer Amann with the American Council for an Energy-Efficient Economy. I wanted to underscore, before I talk a little bit about this Energy Star issue, the importance of getting consumer research. I'm glad to hear that the Commission is considering pursuing consumer research on the label. I think a lot of the questions that we discussed today are ripe for better knowledge in how these would translate to the consumer.

I also think that it would be great if we could use that opportunity to do research specifically about the lighting label to also figure out what we might be

doing in the broader requirements under ISO to do more education of consumers about lighting and more efficient lighting and maybe in doing research on the label, we can figure out what else we could be doing in our education campaigns to make sure consumers are brought up to speed.

The issue with wattage equivalency, of course, is a very important one to learn more about how we can transition consumers to lumens. I think that's a very important issue, not only because we now have consumers buying on sort of the old models. We are going to have new models of more efficient incandescents hitting the market soon, but then over time even those will be transitioned out. And, so, not only do we have like a shifting baseline, but we also have a new generation of consumers coming into the marketplace. So, having them using obsolete wattage numbers that mean nothing to them is -- seems to be less than optimal.

I would say other issues in terms of the use of different terminology, I think the NRDC label is a great start. But everything from the use of shading in the label, I think, was something we need to -- if that kind of thing is going to be used, consumers can have associations with that that might also get them to overbuy lumens, another issue that you have talked about.

As far as Energy Star, I think that's another

great opportunity to do consumer research. I don't think adequate research was done on that specific issue in the appliance labeling proceeding. We did some preliminary research that showed that that was not an issue for consumers, that they liked having the Energy Star on the Energy Guide and that it could work with many different Energy Guide formats or labeling formats, including a categorical labeling regime. I think that is an area that is ripe for much better understanding for consumers.

So, first and foremost, I just wanted to underscore that all of these questions are very important and until we have the input from consumers, we really should not jump to too many conclusions. Thank you.

MR. NEWSOME: Okay, thanks. Any comments on Energy Star? Joe?

MR. HOWLEY: Just one, the Energy Star label, for those products that qualify for Energy Star, we feel that that should be prominently put on the front of the package. As the labels we are talking about here, they are getting quite lengthy, a lot of information on them. A lot of this information may have to be put on other parts, the side or the back of the package as we get into more and more detail. But the Energy Star symbol itself probably should continue to be maintained on the front of the package because you are trying to tell the consumer

this is a better product.

In my mind, it is similar to the five-star rating, it is just a different approach. The five-star rating gives you more specificity, but it is more complex. Consumers have a hard time digesting all this information as it is. At least the Energy Star tells them that if you want an efficient product, here it is. This is the one you want. Here's the label. It's right in front and it's very prominent. We still think, from a consumer's standpoint, it is simple, it works. It may be about as complex as you can get with the consumer going to this approach and trying to get them to understand what all that means is -- I think it would be difficult.

But the EPA and DOE have done a good job in getting consumers to understand what the Energy Star label means. I still continue to believe that's a good approach if you're just simply looking to tell the consumer this is energy efficient, this is not. Look for the ones with the Energy Star label.

MR. NEWSOME: Okay, thank you. Noah.

MR. HOROWITZ: To reinforce, we believe the Energy Star logo -- the system we're proposing is compatible not competing with Energy Star. So, within the Energy Star family, you could have something that meets Energy Star and then something even better, you

know, the best of the best. So, the four and five stars would enable one to distinguish between very good and excellent or whatever your descriptor is.

The thing that this system does that we feel is real important that Energy Star does not do is Energy Star is saying these things are very efficient and meet these other criteria, but it does not tell you which are the very inefficient bulbs. Without using the very not so complimentary term, we don't have an energy hog label. This is the way -- if something is one star then the consumer better look at it and say, hey, I'm buying this -- this is a flag saying, hey, this is a very inefficient product, do I really want to buy it? Then they continue their thought process. So, just relying on Energy Star does not take care of the other end of the spectrum, the very inefficient products.

We also want to be careful here. Energy Star today is for screw-based compact fluorescents. There is no Energy Star label for screw-based LED bulbs, although we hope that's coming. To the extent a super-efficient incandescent bulb comes out, there is no Energy Star label for those. So, in the ideal world, there would be an Energy Star that's technology neutral for all lightbulbs. That doesn't exist. So, be very careful if you're thinking the way to solve this is just with the

Energy Star label. We think this efficiency rating system makes sense and there is room to put the Energy Star label there, too, if it meets those specific requirements.

MR. NEWSOME: Okay, thank you. Rich?

MR. KARNEY: Well, let me just comment quickly on Noah. One would hope that when the screw-based solid state lights come out that they will earn your five-star label and they will not be the products that we presently see in the marketplace.

Getting back to what Joe has been saying about putting the label, I believe in consistency. I would hope that -- I would not hope, but my thought would be that for the label itself, since we already have the Energy Star on equivalent products, on appliances and on the Energy Guide label, that we have some indication on this label, also, that the product is Energy Star.

If the manufacturers wish to use Energy Star as a marketing accent to the products that they're selling, they can also still maintain it where they have it now, on the front of the package. But in my opinion, and some of my folks may disagree with me, the consistency, have it on the label, and if manufacturers wish to voluntarily use the label for advertising purposes and marketing purposes, of course, go ahead and put it on other aspects

of the package.

MR. NEWSOME: Okay, thanks. From the audience?

MR. FERNSTROM: Good morning, I'm Gary Fernstrom from the Pacific Gas and Electric Company in San Francisco. I have a comment on Energy Star. We are charged by the California Public Utilities Commission to operate energy efficiency programs for our roughly nine million customers in Northern and Central California.

Many of the rebate programs we operate now have incentive levels that are hinged to above Energy Star performance. This is because we have deemed that many of the products in the markets have achieved Energy Star specification levels and we want our rebates to be associated with products that are even more efficient or at the top of the performance range of those that Energy Star has already recognized.

So, I think, with respect to lightbulbs, a binary system is insufficient from our perspective. We very much support the greater differentiation that Noah and Chris Calwell from Ecos have suggested.

One other comment about Energy Star -- and I will get back to that later in the presentation. Thank you.

MR. NEWSOME: Thank you. Unless there are other comments, I think we're -- do you have a quick

comment, Alex? We'll end with you.

MR. BAKER: Just going on the previous comments that Energy Star is a binary level and obviously centered around a star symbol. I saw one of the other versions of the NRDC label where the Energy Star, I think, was adjacent to the five-star system. So, I think that raises some issues of confusion between the government's binary system and this alternative five-star approach which are not themselves linked.

MR. NEWSOME: Okay. Thank you. Very quickly and then let's wrap up.

MR. FERNSTROM: I recalled my other point. I find it odd that there might be a mandatory federal labeling requirement on a voluntary Energy Star program.

MR. NEWSOME: Well, the way it works with appliances, it's manufacturers that qualify for Energy Star may put it on the label if they choose. So, it is not the mandatory requirements. Obviously, the FTC labels are mandatory.

With that, we will try and catch up. If there are any other comments, we should have plenty of time later this morning. We have been here for a while, so let's take a break. We will start again at 10:50, in ten minutes.

(End of Session 1.)

SESSION 2: COLOR TEMPERATURE DISCLOSURES

MR. NEWSOME: Okay, let's get started. I'm going to hand things over to Lem Dowdy, who will talk about color temperature, color disclosures.

MR. DOWDY: This session we're going to talk about light quality and we'll discuss two systems commonly used to describe the properties of a light source, color temperature, which expresses the color appearance of the light itself, and color rendering, which suggests how an object illuminated by that light will appear in relation to its appearance under a common light source.

We'll begin with a discussion of color temperature, which is the color appearance of a light from a lightbulb. If anyone would like to improve on that definition of color temperature, go right ahead. Do you think we need to expand on that definition of color temperature?

Okay. Down to the basic question: Are the differences in color temperature of various lightbulbs significant enough to be noticeable and important to consumers? Does color temperature make a difference? Joe?

MR. HOWLEY: I guess I'll start. Color temperature in the past was not a major issue, especially

when we're talking about incandescent lightbulbs, because almost every incandescent lightbulb had the same color temperature, color appearance, some CRI. When people bought an incandescent lightbulb, they knew what they were getting for the most part. They got perhaps just a little yellower as they were longer life products, a little brighter as they were shorter life products, but all in all no great surprises when someone put an incandescent lamp into a socket.

As we move forward into this world of compact fluorescent lamps and LEDs, there is the potential for a wide range of color temperatures and color appearances. There's the potential for the consumer to become very surprised when they come home and they put that lightbulb into their socket. It may look nothing like the incandescent lamp they had before. I think as we move there, especially as we get into these products that are greatly dissimilar from the standard incandescent lamp, we have to somehow communicate to consumers how different they are and have some sort of a metric as to -- some process to describe the different color temperatures.

So, the answer is yes, it's important, on the newer compact fluorescent LED sources to describe color.

MR. DOWDY: Noah?

MR. HOROWITZ: On the question of color, I

think really what -- overall is, when people buy a bulb, do they like the way the light looks and the way things look underneath is? And there are two different parameters. One is the color correlated temperature, CCT. Maybe most of the people in the room know what that is and you could double that and that's how many Americans know what 2600 K or 5600 K is.

(Laughter.)

MR. HOROWITZ: Again, with the notion of let's limit things to the most important things. We've got very limited real estate. I would argue that CCT is not one of those things.

The other one is, is the light more whitish or bluish or yellowish? That's what CCT tells you. Then if you look under the light, if something really is cherry red, will it look brick red or a different shade of red? That's what color rendering index does, and that's a scale zero to 100. And, again, people don't know what CRI is and do I want a higher or lower number?

So, what I would suggest is -- and we're probably two-thirds of the way there. There have been discussions headed up by Energy Star with the industry and the Lighting Research Center, can we come up with common descriptors? So, if it's soft wide, daylight, cool light, let's come up with those. And underneath

that is an assumed color temperature. Let's come up with these standard descriptors and if a manufacturer wants to make a claim about the color quality or performance, they can use daylight or whatever the appropriate term is.

But we need to be very careful. The person that has an incandescent lightbulb today and wants the replacement bulb to look like it, they're seeking something in the range of 2700 K. If they bought the daylight bulb, which from their gut might feel better, that's a 5600 K and the bulb will look pretty stark to them. So, we do need these descriptors, and regardless of whose bulb it is, the descriptor means the same thing.

MR. DOWDY: Noah, if I understand you, you are saying that you think color temperature may be appropriate for a label but not color rendering?

MR. HOROWITZ: What I'm saying is, there can be something on the label. I would suggest it's optional. But if someone is making a color claim, the way to do it is to come up with three or so terms that the FTC defines with stakeholder input of what daylight, warm white and soft white, or whatever those terms are.

I'm not suggesting that we put color temperature on the package.

MR. DOWDY: What would daylight and the other categories have to do with color rendering?

MR. HOROWITZ: Color rendering is a separate parameter.

MR. DOWDY: I know. But I'm trying to understand, what are you recommending for the label in terms of color rendering?

MR. HOROWITZ: I would defer to other people. We are not suggesting color rendering is in that minimum amount of information that's conveyed.

MR. DOWDY: All right.

MR. HOROWITZ: If someone does want to make a CRI claim, they should be allowed to do so and you could provide guidance on how to do that.

MR. DOWDY: Any other comments?

MS. KERR: Sure. I totally agree we need to keep our technical terminology out of this. 2700 K means nothing to me as a consumer. Common terms, warm white, soft white, bright white, if we can associate them with a color temperature or define the parameter, what the color temperature is and label it as a word that's consumer-friendly.

At the same time, CRI means nothing to consumers. We had proposed a five-star system, in the same manner as you did with energy efficiency, but five stars looking at perhaps a one-star being a 70 CRI or a 60 CRI, then 70, 80, 90, 100, et cetera. What we need to

be careful of is consumers are going to be looking for two things. They're going to be looking not only for energy efficiency, but also the quality of the light that they're getting. If they look and purchase just on energy efficiency, they're going to be turned off when they get home and they don't see that same quality of light.

We're seeing it already with CFLI. When you get home and you have two varying different, a warm white CFLI and a brighter white CFLI, people are confused as to why the two don't match because they're not educated. They need some kind of a label to tell them that. We want to make sure that when technologies like SSL come out, LED lights are going to be very blue, they're much cooler than your typical soft white incandescent. So, when they purchase an SSL, let's educate them up-front and tell them that that's going to be what we'll define maybe as bright white so they're not turned off to the technology from the get-go. We want to encourage them to buy that energy efficiency. And by disclosing exactly what they're going to get in appearance and quality, it's going to help us to ensure that.

MR. DOWDY: Does anybody else have any comments as to the necessity of putting the brightness -- I'm sorry, the color of light on the label?

MR. HILGER: I have one question for the panelists. Is there a correlation between efficiency and the color temperature? Because if there is a relationship there, then I would feel more strongly about having the color temperature on the label.

But if there is no relationship, then the lightbulb manufacturers are probably going to want to use -- they're going to want to disclose the light quality to consumers, but people aren't making their -- it's not really an energy-saving decision they're making. And, so, it would be more of a product differentiation piece of information instead of an energy use piece of information. So, I would see it on the front of the package instead of the back. But if there is a relationship, then I'd see it being on the label.

MR. KARNEY: Well, for solid state lighting, presently, yes, there is an efficiency improvement on the cooler temperatures on solid state lighting. However, manufacturers are working to get more efficient warm light applications.

To get to your other question, I'd like to yield to Eileen because I know what she's going to say about having the color descriptor or color indicator on the packaging.

MS. EATON: Well, hopefully I'll say what

you're thinking. From the efficiency program community side of things, color is something very important and they would like to see that on the label. I think a lot of what Carolyn said, you know, it's really important that the consumer is satisfied with that product when they get it home.

And I'm a little concerned with just calling it bright white or, you know, all those -- I'm not sure our consumer knows what that means. And, so, I think whatever labeling system we would use with color, you know, you would really need to do some market research, which I know you are planning on doing. But I think that's important to be included in there. And, so, those are my comments on color.

MR. NEWSOME: Eileen, is it important that this information be put in the mandatory label under a, you know, mandatory system of measurement or is it something that manufacturers would have an incentive to provide anyway and something that would be provided anyway in a truthful way on the packaging?

I mean, just -- if there's an agreement that it's important information, the question I'm getting to is, is it something that has to be on a mandatory label or is it something that will just be provided to consumers anyway as a matter of course?

MS. EATON: I think I would direct the question right back at the manufacturers. If it's something that they're planning to include anyways, then I don't think we would need it on a voluntary basis. I mean, on a mandatory basis. It would be fine to use it voluntarily, but it's something that we would like to see.

MR. DOWDY: That sort of leads to my question, what are manufacturers doing now to communicate color temperature?

UNIDENTIFIED MALE: Well, Joe's the manufacturer.

MR. HOWLEY: Okay. Well, there were several things that were raised there. I'm trying to remember all the things now. In terms of the first question that James had with regard to color temperature and efficiency, there really isn't a direct connection when you're talking about incandescent or compact fluorescent sources. At best, it's minor, it's inconsequential. There may be a slight connection with LED, but I think for -- and that's going to be a developing technology. But for the products that exist today, there really isn't a direct connection between efficiency and color temperature. It's like saying, which is more efficient, if you paint the room blue or paint the room yellow? It's a color choice. It gives the consumers options.

In terms of whether it be mandatory or voluntary, I think with regard to CRI, that definitely should fall into the voluntary category as to whether somebody wants to provide that. Quite frankly, unless the CRI is high, it probably will not be successful with the consumer. CRI is the ability to render colors. If it's rendering colors in some really odd way, it may not be successful with consumers because color rendering is more of a -- that particular metric is more of a color quality kind of aspect. You see how, you know, Philips was trying to use five-star system with it, but it's a very soft kind of aspect and I don't think CRI is critical. If a manufacturer wants to state the CRI, that should be an optional requirement not mandatory.

Color temperature is something where if you're providing a source that is the same as incandescent, it's probably not necessary. That's what the consumer is expecting anyway is a source that looks like incandescent. It certainly isn't necessary for incandescent. People know what the color quality, look and feel of incandescent is.

If you are providing a compact fluorescent lamp or an LED source that looks just like incandescent, also probably not necessary. That's what they're expecting. But if you provide a CFL with a different color

temperature, it's much bluer than they're expecting, then, yes, we do try on our packages today to make it clear to them that this is not the same color temperature you are used to. If we call it something like daylight, then we try to make the package a different color. We try to call that out in some sort of major way so that people understand it.

And, perhaps, that could be something to consider in terms of a requirement. That if you are providing something that is not incandescent, it provides a much different color temperature, then somehow we need to let the consumers know what that is. On some basis, it should be consistent across the industry, and I'm not sure how we do that, but if we do it with some kind of common term, perhaps that's the way to do it. So that if you know if you're using daylight from one manufacturer, if you want to use that same color temperature again and you find it from another manufacturer in another store, that if you bring it home, you have some -- at least some chance it will match the products you're using already, that you expect to get.

If that's not on there, then it would be very difficult for a consumer to try to match up color temperatures if they're not using the standard incandescent kind of color temperatures. So, I think

that's -- in my mind, that's where it falls of you need to disclose it if it's not your standard incandescent type color.

MR. DOWDY: Well, you'd have to know what the standard incandescent color is. You'd have to have that on the incandescent package as well, I presume.

MR. HOWLEY: We don't do that today. It's just consumers know what that color is. So, we really don't have to make any particular claim about the color of an incandescent lamp. We call ours soft white. It's just a marketing term. And you could call a compact fluorescent soft white if you're trying to indicate to the consumer that's the same color as the incandescent lamp you're using. That's done on a voluntary basis today.

It's the higher color temperatures that I think we have the issue with. They haven't had these choices before. They're having brand new choices. There is no consistency in the industry right now with the higher color temperature compact fluorescent or the emerging LED sources.

MR. DOWDY: How do consumers know today how to match their incandescent with -- the color of their incandescent lamp with some of the CFLs that are being offered? Noah?

MR. HOROWITZ: I was going to respond to a

different point.

MR. DOWDY: Go ahead.

MR. HOROWITZ: Okay, a couple of things. People might be forgetting that the Federal Energy Bill ISA sets a minimum CRI, color rendering index, of 80. Within the lighting industry, it's assumed if you're 80, you're giving at least pretty good color rendering. So, I don't know if we need to put CRI on this limited real estate to make sure people don't buy a poor CRI product. If someone has a very good or a superior CRI product, let them put that on voluntarily, but I don't think that should be mandatory is the first point.

Some of the communication that's tried to be accomplished, warm versus cool, and the assumption is today's soft white is a warmish bulb and the daylight bulbs are cool. That's how -- industry has their own words, but that's how they've been doing it. But what's really frustrating, and it took me several years to get this, a higher color -- a 6500 K bulb is cooler than a 2600 K bulb, which is kind of counterintuitive. And that's why you need to be really careful with this topic.

I think we should have terms that help people know, my bulb is going to look this way or that way and we don't have consistency and I hope we get there.

I also want to point out that Philips did

propose a star system. They didn't choose what we believe is the more important parameter, efficiency, but they did think a star rating system for color would be good. So, I think there is bubbling up some interest for a rating system, it's just a question of what parameter you put it on.

And, lastly, I believe it's -- if you could go to the Osram slide, there's an attempt -- there's a new term here called color quality that I think we should take a look at. And that's very good. I think this is potentially a very subjective term and this one made me a little nervous. Let's have things that are very clearly defined and have definitions and measurement methods. I'm not sure how very good works on a quality system. Is that meant to suggest color temperature or beam spread? I couldn't tell.

MR. DOWDY: Yeah, we'll let John speak to that.

MR. FICHERA: Yeah. The situation there was -- and we have a spreadsheet that goes along with this that isn't being presented at the moment. And the situation there is that we agree that if we were to use a term like that, that there would definitely have to be calculations and limits built around it. So, if anybody used the term "very good," that it would mean the same thing across the board. So, it's not just something -- it wouldn't be

just our assessment alone.

MR. DOWDY: All right. Anybody else have any follow-up?

MR. KARNEY: I just wanted to add something that James had brought out about whether the color temperature or the color descriptor should be mandatory on the label. I believe it should be. If it's not, people may buy a bulb, a CFL or some type of product that doesn't match what they're used to or it doesn't match what they already have in their living space. This will defer people from buying that product again leading people towards buying a more inefficient product just to match the warm temperature or the 2700 temperature that already exists in their space.

So, I believe this helps to improve the efficiency of the purchase itself.

MR. HILGER: Right. Now, I definitely believe it's important that consumers get what they're expecting. The question that I have, which I could have reworded was, are there -- if the color temperature, if there's competitive reasons why someone would try to sell a low-quality light with a color temperature that consumers didn't want, if it was less expensive to manufacture or something like that, then you could get a situation where they'll put out this bulb and people will buy it and, you

know, people don't buy bulbs every day. They're a low-cost purchase. So, you know, there might be a vendor that sells lamps that have a low -- I mean, an undesirable color temperature.

But if the manufacturing cost isn't really related to the color temperature, then you'd expect that opportunity not to be there and the manufacturers would have their own incentives of putting the color temperature, the light attributes, the actual attributes of the light on the label. I definitely think it's important because you don't want a situation where consumers are getting something that they don't want and then they don't adopt that technology.

But the question is, you know, since there is such a limited space on the label, is that something that needs to be mandated?

MR. DOWDY: Joe, go ahead.

MR. HOWLEY: I think the biggest risk of that happening is probably in the LED world. Where at least to start it seems that it's easier to make the higher color temperature products, that's what we see out on the market, and they look a lot different than your standard incandescent lamp.

I believe this is something that could be technology specific. Certainly, there is no risk of that

in incandescent. So, there's no reason, perhaps, to have these kind of color metrics on the incandescent package because you can't really change the color temperature or the CRI of an incandescent very much because of the technology and people are used to it.

But if you're in compact fluorescent or you're in LEDs, those can have significantly different color effects and perhaps this could be a requirement that if you're going to market an LED source that's like an incandescent into that same application or market a compact fluorescent that is not like an incandescent bulb, that you somehow have to communicate that to the consumer for that very reason, especially with LEDs, which you just described perhaps could happen in the LED world.

MR. NEWSOME: Just real quickly, Joe, or anyone else. Is there a standard way to measure these color temperature or CRI for that matter for all technologies, especially LED? Has that been settled, how to measure this?

MR. HOWLEY: There is standardization describing those terms and how you measure them, yes. There is equipment that measures where those color points are. It could get quite complex, but there are standard measurement techniques around those metrics.

MR. DOWDY: Richard?

MR. KARNEY: Looking at compact fluorescent lamp technology for a moment, both energy source specs, the EPA residential light fixture spec and the compact fluorescent bulb specification bound various color parameters on various types of temperatures. We go from 2700 to 3000, 3500, all the way to 6500 K and we have boundaries put around where the lamp color must be in reference to the blackbody locus without getting into complications.

Each one of those bins, each one of those set temperatures has an ANSI designation for a descriptor, what this lamp might look like, warm white, soft white, daylight, whatever. We were originally going to have that in the CFL spec, but we took it out because the manufacturers really didn't want to be told how to call their lamps. Similarly, with the solid state -- with the LEDs, there are various temperature bins, also, that you can use from the standards measurements by ANSI.

What I'm suggesting, and I think Noah was leaning towards that, at least as far as the compact fluorescent lamp and incandescent technology, were to use standardized descriptors for what it should be versus putting on temperatures onto the packaging.

Myself, I happen to like when I see the 2700 K

or 3000 K on the CFL, but that's just me. I think most consumers would be happy with a warm white as the color appearance.

MR. DOWDY: Anybody else have any comments about using standardized descriptors? Sir?

MR. CALWELL: Yeah, I did want to commend the approach that Home Depot uses now in that regard. They sell a large number of CFLs under their private label. They use a red, blue and green packaging with color descriptors to go with it.

I think the panelists have accurately captured today the fact that the consumer does have a preference and that preference can vary by region, it can vary by the age of the person, it can vary by whether they're used to having cool white linear fluorescent lamps overhead or whether they have a modern or older wood-toned scheme to their house and any number of things like that.

So, I would echo Noah's comment not to use the very precious real estate you've got here for mandatory disclosure of color, but to standardize the terminology and let manufacturers who wish to make a claim make so in a standardized way, to look for what retailers and manufacturers are doing now for guidance as to a standardized way to do that.

And, then, finally just to be aware of the fact that there are all sorts of subtle color claims being made now with no rules or guidelines to how they're made. For example, I could buy a screw-based halogen today, which would most commonly make the claim, brighter, whiter light. It might not be any brighter than a standard incandescent at all. It is slightly cooler in its color temperature and that may or may not be a good thing. But this is your chance to get standardization and color claims for all types of lamps.

Similarly, modified spectrum lamps make different claims about the superiority of their color. It's a minor shift, but it's one that's being used for marketing purposes. So, let's standardize that once and for all, not just for LEDs and compact fluorescents, but also for the incandescent claims that are going to be made in greater frequency, I would argue, over the further years as we move to more and more halogen sources.

MR. NEWSOME: Just a quick claim, for those that want color temperature on the mandatory label -- and we're not going to have time to get into the details here. But in your comments it would be very helpful to identify the specific terms that you recommend, the specific procedures that should be used.

Generally, in these programs, we're looking at DOE test procedures for energy efficiency and it's pretty easy for us. And this area, where it's a very unfamiliar area for us, if there are consensus standards, there are terms, please identify them with specificity in your comments. It would be very helpful to us. Thanks.

MR. CALWELL: And I would just offer the thought that I imagine some of the folks around this table could sign joint comments regarding proposed wording for different colors. I think you're close enough that this group could come somewhat close to joint comments on that.

MR. FERNSTROM: This is just a little off the subject of color, but I think a good deal of confusion exists in the marketplace today around compatibility of lamp products with standard incandescent dimmers. So, at least for CFLs and LEDs, it might be useful to indicate which products are compatible with dimmers and make it clear those products which are not compatible with dimmers.

MR. DOWDY: Let's talk about color rendering specifically. What are the views of the group about the importance of color rendering to consumers? Are there differences? Are the differences enough that they are significant to consumers in making their purchasing

decisions? Richard?

MR. KARNEY: I agree with what's been said before, that we do not need CRI or color quality or whatever you want to call it on the label. My personal opinion is, I don't believe a manufacturer will produce a product with a poor CRI because he will not be able to sell it. So, I think, to me, that would just cut out a large number or a large potential for poor products coming into the marketplace. I'll let manufacturers discuss that.

MR. DOWDY: Joe?

MR. HOWLEY: I would agree with Rich that CRI is not required certainly as a mandatory element. I would leave it as a voluntary approach, if a manufacturer wanted to put that on there. But, in particular, because the new ISA law requires a CRI of 80 or higher, I think that mandates that all these new sources are going to have high CRIs. When you're up into that range, the consumer really can't tell a difference. It's a good quality light source. It's a good quality light source. And I really believe that is not a -- CRI does not have to be mandated. That should be completely voluntary if a manufacturer wanted to put that on there. It's covered in other ways, in other words.

MR. DOWDY: Any other comments?

MS. DAVIS: Hi, I'm Wendy Davis. I work at the National Institute of Standards and Technology. We're just over in Maryland. I just wanted to make the comment most of my work is around the CRI and research and blah, blah, blah. Something that we really do, I think, have to keep in mind, number one, is that all incandescents have a CRI of 100. So, when we talk about people's expectations, 80 is quite good. I'm not going to argue with the fact that 80 is quite good. But we can get a significant deviation from an incandescent with one of these lamps.

Another, I think, more important point is that there's really two things that are going to determine the energy efficiency of any source. One is going to be that conversion of electricity into light, which is mostly technology dependent. The other is the spectrum of the source itself. Our visual sensitivity is in a way that certain wavelengths we see easier, if you will. Because of that, that whole background is not really necessary.

There is more often than not a trade-off relationship between energy efficiency and color rendering. So, if our consumers only have energy efficiency as one of the labels proposed, and that's what people are going to base their decisions on, that and probably initial cost, they're always going to choose the

lower end color rendering type sources, and there's going to be times and places where that's not what they want. Not all times and all places, but certainly especially residential things, people are really willing to give up a little efficiency to get premium color.

And I'm all for energy efficiency. But I think that people still need to get what they want and not be manipulated into getting an efficient product, but really get the most efficient that will still give them the beauty of their paint colors and everything else that they want. So, thank you.

MR. HOWLEY: Just to comment on what Wendy said.

MR. DOWDY: Go ahead, Joe.

MR. HOWLEY: What she's suggesting, which is true, if you get into compact fluorescent or perhaps LEDs as well, as you cover more parts of the spectrum, you could have a lower efficiency associated with it. So, I'm reversing what I said before. But at the very high end where you're trying to perhaps get CFLs or some other source to some very, very high color rendering index, you will reduce the efficiency of that.

But I think if a manufacturer wanted to do that, wanted to make a lamp like that with lower efficiency, they would also market that lamp in some

special, unique way. But that should be voluntary for the manufacturer to consider how they might market such a product, such a premium color product. I don't believe it's something that has to have a mandatory requirement built around it. Even though that particular aspect of producing very high color rendering index compact fluorescent or LED generally does have an efficiency penalty associated with it.

MR. DOWDY: Any other comments?

MS. KERR: I'll just agree that I think we have to keep the consumer at the heart of it. And there are different reasons you buy lighting. Sometimes it is because you have a certain piece of decor and you want to highlight it. Sometimes it is just as a functional usage in which case energy efficiency is the most important thing.

But I would hate for us to only concentrate on the energy efficiency side, leaving behind all of those other desires and wants and needs of the consumer because what we'll find very quickly is, they'll be concentrating on lower level, less desirable light sources and color quality. And we'll end up, in the end, kind of turning them off to energy efficiency as the whole. So, let's give them the information that lets them make a very educated decision. And if we don't mandate that it be on

the label, let's at least make sure that we control the claims so that we're all on an even playing field and stating in the same terms and manners when something does have a high quality. Again, let's make sure our consumer is happy in the end with what they purchased.

MR. DOWDY: How would you do that with color rendering?

MS. KERR: Well, you know, we had proposed a five-star system. Color rendering has a very clear methodology of how it's calculated. So, we've got 60, 65, 70. There's a number associated in the industry. So, all we need do is associate now that number to whether it's a term, or a star, graphic representation, but let them know something's higher quality than something else.

MR. DOWDY: Noah?

MR. HOROWITZ: Can you put up the Phillips slide? You're going to like what I'm going to say here, Carolyn.

MS. KERR: Okay.

MR. HOROWITZ: So, I think what both Rich and I were saying in slightly different ways, but very much agreeing with each other, on the color there, one way to do this is Phillips is proposing four different terms. I don't know if these are the right terms, but this is the

direction I think some consensus is emerging around.

Warm white. Behind the scenes, the FTC could define warm white as 2500 K to 3100 K, white would be 31 to 4,000. I don't know what the exact numbers are. There are better minds than mine on this. But if we could all agree with three or four terms sounds about right and then try that with consumer focus groups just to make sure what technically works with people. Because I've seen some descriptors, the last one is bright light. So, all things being equal, do I pick bright or something else that implies dim, we need to be careful. Then they'll be buying 5600 K bulbs which are very different looking and, to some people, unacceptable compared to the 2700 K they're used to.

So, in short, I like the idea of categorizing things. If the FTC could lead us through the process of what are the bins and the names, that would be wonderful.

MR. DOWDY: Any other comments? We've reached the 11:30 hour which is the designated ending point for this session. We'll take a break now and we'll see you back at 11:40.

(Session 2 was concluded.)

SESSION 3: LABEL FORMAT ISSUES AND FOLLOW-UP

MR. KAYE: We take great pride in our on-time performance, whether it be lightbulbs or anything else.

Well, we've had some excellent commentary on the various considerations as to what should go on the label and I'm hopeful that we'll have some time to return to some of the issues that we've talked about that we may want to cover a little bit more on. But we want to start off this session talking a little bit about the formatting for the label itself because I couldn't think of a more exciting topic when I woke up this morning than the formatting of the lightbulb label.

(Laughter.)

MR. KAYE: But, obviously, it's extremely important in terms of both to manufacturers, to consumers and, also, I would think to retailers. You know, how big is this label going to be? There seems to be -- earlier in response to Hampton's question, there seemed to have been some consensus that there needs to be some changes to the label and the question is, should there be changes, should the size of this label be mandated, should the placement of this label be mandated? So, let me throw those questions out to the panel.

MR. HOWLEY: Okay, I guess I could start again as usual. Size and placement. As you've seen by these

examples, the label is getting to be potentially quite long or large. And with a label this long, this would be something -- I think most manufacturers, due to space, might have to consider putting on the side or the back of the package. Leave it up to our marketing wizards to come up with what they might want to put on the front of the package. They will ultimately ideally pick some of those elements, depending on how they want to market the product, but not all of those elements I would think they'd want to put on the front. They could choose potentially to do that.

What I would like to do now, though, is just show the GE slide. We've gone past it a few times, but if you could go back to that. Where we try to tackle this question of placement. I have -- Randy Young is with me from our packaging department and I would like to have him actually talk about his concepts of packages, since this is his world.

MR. YOUNG: Hi, I'm Randy Young from GE. What we're looking at is -- I mean, there have been some great proposals for these labels and we, quite truthfully, didn't -- you know, our proposal on the right is just a first look at it. I think the committee will do a great job of putting those together. But I think -- if you look at some examples, I mean, the battery was used as an

example, as a wattage example. But, again, it was more about the size, not about its performance.

But if you look at food as an example, and that's what the example on the light is, it talks about there's facts around food and it's nutritional and -- and I've noticed, this is an example of one product, but I looked at 100 of them and they're from three lines to 100 lines. It just depended on what the manufacturer wanted to talk about.

So, what it did was, it gave consumers -- and even five-year-old children have come home, Mom, I learned about this label on the side of packages. They know about it, they know how to read it, to some point. But it's in a consistent place, it's not on the front. But then in this case, the Triscuit manufacturers wanted to talk about fiber or something like that. So, they've called out that particular product, but they've marketed their product maybe more on its flavor and its taste and so on.

But it gives consumers a place to look consistently one place for the label and, again, the facts are -- I usually say in my examples, there's no sliding scale of fat content on the front of the label because, you know, that's a fact that people can read on the side if they wanted to.

And I just did a little show of, here's one package that has -- you know, we talk about daylight, 6500 K, and the data that's on the bottom now. If that went away, it would open it up. And as Diana said, she's going to make us make the package smaller and smaller to make it more efficient, you know, sustainability and more SKUs per square foot, if you will.

And really, the previous labeling really didn't change consumer's behavior. It was Oprah and $4 gasoline that really sort of changed consumer's behavior. So, if you're trying to change behavior, I'm not sure that this labeling is going to change behavior, especially since we're going to have -- we have to change their mind set on what 40 meant, which is now 800. You know, what energy level or how much it uses versus energy saved because there's not going to be a comparison anymore.

There's a lot of things that consumers are going to have to absorb. And I've been doing research for ten years before packaging and I can tell you what consumers say about it. It's just a lightbulb. That's their attitude and they wondered why that stuff on the bottom was there and it's like they never noticed it before. So, I know that it's not being noticed.

Like I say at the bottom, it's not a technical decision for consumers, it's more of an emotional. And I

think folks -- you were saying from Philips that it's really sort of a decorative -- it's more a decorative decision for them than it is a technical. So, we have to keep that in mind, that consumers go about this from a different direction than we do here.

MR. KAYE: Noah?

MR. HOROWITZ: Can I point to that and still be on the record?

MR. KAYE: Maybe if you grab one of those mics. I also wanted to mention that, obviously, we have all of the slides that have been provided that we can use as points of reference. We, also, for those of you who, like me, make excellent stick figures and are great artists, if anyone wants to draw anything, we can turn on the ELMO and just in terms of where you might place something, you're welcome to do that as well. Turn it off now, though.

MR. HOROWITZ: I'm not an expert on lighting design, lighting labels and placement. I'd defer to others. However, I think we need to be careful if the information -- whatever the FTC ultimately decides is on the back or on the bottom or hidden, if you will, we need to get this information into people's hands. So, if it migrates away from the front, then that's a discussion to have.

Let's take a look at what GE did. They're telling the ultimate power use of the bulb. There should be rules on things regardless of where it is on the package. If you're going to say the power used, then it's power per a certain test method measured at 100 hours or whatever. So, whether it's over here or over here, these should be consistent, right?

Similarly, they're making a claim, $36 saved. Inherent in that, is it 10 cents per kilowatt-hour or certain parts of L.A. where it's 18 and a half? What did they use? They should be using that consistent formula regardless of where it is on the package. Whether it's required here or optional over there, there should be consistency.

Again, they're continuing the 60 watts for better or worse. If someone is going to do something like that, a 60 must mean you're at least 800 lumens or something. So, regardless of where this label -- whether it's on the front or the back, if there's other information there, the same rule should apply is the first point that I think is really important.

If something is a multi-pack, I would argue there is more real estate. If it's a one-pack, you're really challenged. Perhaps you could say multi-pack it must be on the front; a single pack you can put it on the

side, something to consider there.

And if nothing else is on the front, shouldn't we require to tell how many lumens the bulb is using? We're trying to move people to buy bulbs based on the amount of light. If we're not showing it here, that's the first thing they -- one of the first things they should be looking for. We can have a friendly discussion whether it's okay just to have the label on the side or worse yet on the bottom. Let's at least tell them the light output level. Thank you.

MR. KAYE: Can I get them some clarification in terms of what we're looking at here about what the size of this package is and the size of this label in terms of maybe inches or as a percentage of the package?

MR. YOUNG: Are you talking about the label or the size of the package? The size of the package, I would say, is maybe four and a half inches tall by, you know, two inches square.

MR. KAYE: And what are we -- as we're looking to make our decisions with respect to a label, what is the minimum amount of real estate that we're considering in terms of the size of the ever-shrinking packages, which we know from our recent packaging workshop is the case? What should we be considering as the amount of real estate that would be minimally available before we

even get to the issue of front or back?

MR. YOUNG: Well, I would say that what we are required to use now, as they get smaller, even that is becoming burdensome. In terms of being able to fit that on there plus tell consumers the difference between brand A, brand C, brand D, one retailer versus another, even that amount of space, as the package gets smaller and smaller, is becoming a burden.

MR. KAYE: And how small does a CFL package get?

MR. YOUNG: This could be as big as the bulb. As long as there is some inner pack to keep it -- to ship it safely, I mean, it could be -- I'm trying to think of the size of a spiral, two inches by two inches by four inches. I mean, literally, it could be that small.

MR. KAYE: Go ahead, Joe.

MR. HOWLEY: I'd just mentioned that the products have been getting smaller because consumers have wanted smaller and smaller compact fluorescents so they could fit into the same fixtures as a standard household incandescent bulb. At first, the technology folks did not know how to do that if you go back five or ten years, but they've been working on it. So, they've gotten to the point now where they have these T-2 bulbs, it means the tube diameter is two-eighths of an inch in diameter,

about the same as a pencil now, and they've crunched that down and it's a very small bulb now, which is great for consumers because it will fit just about anywhere an incandescent lamp will fit.

Not so great for packaging folks who now have all this required information and they have to fit it on smaller and smaller packages. And we used to have -- and we still have these bigger blister packs we can get more information. But more and more, we have been getting requests to go to more of the boxes, more sustainable, more cardboard-based, let's show the lamp through this technique that you're seeing here, which means we have to cut away part of the cardboard.

And, again, we have smaller and smaller space to deal with, especially on the front, which is why we are suggesting if there is a larger label required with all this information, that we have the option to put it on the side or the back, which is necessary, becoming more and more necessary.

MR. KAYE: I didn't see who had their card up first.

MS. KERR: I do believe we should have a disclosure on the front, though, telling them to turn to the side panel just so that we, at least, are helping the consumer to understand that there is information that

they need to refer to.

On top of the issues of packaging size shrinking, though, also know that we sell a lot of these products in the same pack in Canada and the rules in Canada require us to also have equal prominence in French. So, everything I do on this label in English, I have to duplicate in French. Just to be aware, you're not just talking about doing it once, you're talking about doing it twice, double amount of real estate or, at least, duplicated in the language.

MR. KAYE: And you're fluent in French, right? You're our French expert.

MS. KERR: Oui, Oui. So, it just creates then another dynamic in the size issue for us.

MR. KAYE: Rebecca?

MS. HAMILTON: Research has shown that consumers have sort of a natural reading sequence for packaging so that first they look at the package and they try to determine what the product is, what product category it belongs to. Then they, as a second step, try to figure out why they should buy this one versus the competitors. So, reasons why to buy and that would be marketing messages. And then, third, they look for support for why they should buy this product.

So, in terms of whether to have these facts on

the front or the back, I think consumers would first orient towards what this product is and why they should buy it. Those kinds of issues would be resolved by looking at the front of the package, perhaps the why to buy, in support for that, should be more on the back of the package because that would be more natural for consumers, I think.

MR. KAYE: Diane?

MS. LINDSLEY: I agree with a lot of the comments. As we go through this, and Noah and I had a conversation during the break, when you look at the way the facts are being configured, it really is a look that should go on the back. It's not going to be pretty for the marketers that want all their nice information on the front. I mean, it's more of a design that we see on the back of boxes today.

However, the other points would be is that there are key categories that we have to have on the front that I think are very important. That goes back to the lumen output if we are trying to educate our consumer. I'm a true believer in the color temperature, not the 2700 K or the 65, but what are they buying? Because the customers are confused today and we have to help that confusion. So, there are some key points that have to make it to the front.

Is that particular energy fact layout going to be nice and friendly and what marketing's going to want on the front of a package today? No. But we have to have some of those key comments into the front to help the customers make their purchase.

MR. YOUNG: I think Diane makes a good point, but I think what Phillips did with their -- you know, if we could decide on those four terminologies and then that could be used as a marketing term. You know, then we're all saying daylight and daylight means the same thing to everybody, even though there's a range of -- you know, we're talking about a range of daylight.

But I think that would be something you would want to do anyway. I would want to do that as a package designer. I would want to tell consumers that this is this product and this is this product, so don't be confused. I mean, but to mandate the size and the format, may be, again, cumbersome, but to say that I should tell people that, that probably is not a bad thing.

MR. KAYE: Well, what I hear us transitioning a little bit towards, having talked about all these various criteria, is some element of prioritization. And that applies, I think, if you're talking about a cohesive label, whether it be on the front or the back or wherever

it may be, as some of the examples are. But, also, if you're going to do what Diane is suggesting, which is you have a label and then there's something else. It's not a label, I wouldn't call it that, but there's other information that's mandated on the front or in another place on the package.

What is that more critical information so the consumers are making the most informed and the best choice?

MS. LINDSLEY: Only one thing to add to that is that the critical information may be different on different types of lighting. So, where we may not be able to say one, two and three absolutely have to be on the front, because it could be a -- the marketing, and I'll defer that to the marketers for the manufacturers, but it may be different on CFL lighting or different colors of reveal lighting or natural daylight, that they would want different components. But there are key components on each one that would be important.

MR. KAYE: Well, let's accept that, but let's start with an even baseline. And let's say, in general, of the factors that we've talked about, there's a whole bunch of cards over here. Aren't you supposed to be tapping me on the shoulder when there's cards over here?

Let's go to Richard for starters.

MR. KARNEY: Just a quick sidebar. With respect to CRFLs, Energy Star has some mandatory information that needs to go on the packaging. And it would be good, at least with the CFL aspect of it, if we could work together on that so we don't repeat it and cause redundancy and cause manufacturer heartburn on the real estate of the packaging. So, we'll be sending you what we are requiring so you can just try to match it up or mesh it up.

MR. KAYE: Brad?

MR. WILLIAMS: Yeah, to kind of echo what Noah was pointing out with the designs on the board there, I think it would probably be best, you know, to be considered that there's some hierarchy of messages that do absolutely have to reside on the front facing of the packaging, the main customer facing of the packaging.

And then for the deeper dive, the deeper, more discerning customer who, to Rebecca's point, when you follow that sequence of the customer picking up and engaging with the package in the store, you know, front-facing being the highest priority, one to two, maximum of three messages, similarly located if not exactly located in the same location on the package, and then going into a more -- a very standardized and, again, hierarchy of messaging with some amount of voluntary

information for the products that are maybe in the higher range of color rendering and other more specific use bulbs where you would need that qualification on those bulbs.

But to try and force all of the ideas of the metrics, you know, to the front of the package would absolutely be restrictive. But just using that food labeling, and I kind of commend this approach because, you know, do the consumers really need yet another format to try to digest and discern from, you know, we have the yellow label that we use on appliances, we have this type of label which is on food products, and even as I noticed this pack of gum that I have here, even as small as it is, when we're talking about the size, it still has the nutritional facts on it, but it's much shorter.

So, again, there is a lot of priority hierarchy, as we call it, in our line of business. Honestly, being the guy that's charged with the responsibility within my retail environment of organizing and demystifying the shopping experience for the customer and getting that information to them more quickly, I can tell you the first line of defense that I wish were always in place was good packaging. It would make my job a lot easier and I could have a lot fewer signs and a lot cleaner environment.

MR. KAYE: John.

MR. FICHERA: Yes, I think that the information that we really need to know, we've already identified at least two of them, and I think that's the energy used and the light output. I think that those are the ones that probably need to have some predominance on the front of the carton. There may be others, but I think that basically talking about what we've talked about today, that we're pretty well assured that we also need to look at how bright the light is and how much power it uses. I mean, we want that information for efficiency's sake, we want it for power's sake, and we want it for the sake of the brightness of the product.

And I think the other things play very -- some of them are more important than others. And I like the energy facts label and I agree that, in some shape or form, it should be used. But I think the question originally was, are there predominant type indicators that we want on the front? And I would say that definitely we should agree that it's at least watts and lumens.

MR. FERNSTROM: I'd just like to make a plea for the Federal Trade Commission to be technically correct. Thirteen watts is not the energy used, it's the power demanded.

MR. KAYE: Are there any other perspectives or is there any agreement with John's sense that the light output and the energy are the two most important factors for consumers?

MR. YOUNG: I just have a question. You talk about energy demand. If, in however many years, it's all going to be -- are we looking at now a smaller and smaller improvement? Because we're talking about going from 60 -- encouraging 60 to 13 which the marketplace has sort of done by itself, it's already outpacing incandescent sales without leading them.

So, is that even that important to tell people or --

MR. KAYE: That was the question that I had actually. I think that's a great point. In 2014, when the only things on the market are either very high efficiency incandescents or other technologies that are extremely efficient, will the differentiation between the efficiency of the products be material?

MR. HOROWITZ: The Federal Energy Bill says today's 100-watt bulb, although we shouldn't be talking power, 100-watt bulb gets replaced by a 72. So, the new incandescent-ish bulb, it's called a super halogen for lack of a better term, it's in the low 70s, that will be competing against a CFL in the teens, and I'll call it

17 watts, and then the LEDs of the future may be in the single digits. So, there's almost a factor of ten difference that will remain.

The energy savings halogens are available on the market today. It's the 70 watt bulb replacing the 100, and that's competing against a CFL and that's not going to go away. There's some people, for the right or wrong reason, that won't buy a CFL and they'll buy that halogen or incandescent alternative.

MR. KAYE: Is that the consensus of the panel, that technology will not render energy inefficiency immaterial to consumers? The record will show many nods.

John?

MR. FICHERA: Actually, that was my point. I was going to say that you always have to -- I think we always have to display the energy used and the fact that, you know, we're always going to be looking for efficiency, we're always going to be looking for what type of power our products are using, and I think it's an important factor that we keep it out there.

MR. KAYE: James?

MR. HILGER: To Noah's question. Surely in the future there will be a wide variety of efficiency bulbs that consumers get to choose between. When they're making that decision, and if they're not -- you know, we

hope that the only thing they're concerned about is efficiency. But if they're concerned about other things, like light quality and how their home looks, what are those things? And will the playing field -- you know, will the technologies kind of all come together? Is there expectation that the future solid state lights will look like the incandescents of today? Then really the only thing that the consumer is going to have to think about is how efficient do I want my product if the products are going to be the same.

But if there are other things like the color rendering and all of these light output attributes that I don't really understand, I hesitate to say quality, because that's subjective, if those things aren't going to go away, the differences there aren't going to go away, what areas -- what are consumers basing their decisions on? And I'm sure that the manufacturers have information from focus groups for marketing and for research for their products that they might be able to share.

MR. HOROWITZ: So, lifetime will be something they'll compete. The minimum lifetime of the bulb after the new standards go in effect will be 1,000 hours. The energy saving halogens you're seeing now are about a 3,000-hour versus a six or a ten for a CFL, and solid

state lighting is going to promise more later. So, that's one thing they'll be competing on. Does that need to be on the front or another place? You know, that's a decision to be made.

In terms of what does the light look like, did I buy the light I want? That's really the color temperature. If you look up there, is it bluish, yellowish or harsh white for lack of a better term? No answer is right or wrong within the CFL family. All good bulbs, you'll be able to buy different flavors of that. Similarly with LEDs. So, if someone wants to buy a certain look of a lightbulb, then those four descriptors would be the way to get at that.

Does that need to be at the front? I don't know.

MR. HILGER: The reason I asked my question is, you know, you mentioned that some consumers are just going to buy the halogen, even though there is all these other options out there. And my question is, why are they just buying the halogen? Is it because they don't understand that there are more efficient options out there or what is it about the halogen? And we wouldn't want to -- one wouldn't want to, you know, mislead consumers to buying something besides the halogen if it's a unique characteristic about the halogen that's most

important to them and they may place energy efficiency lower down.

MS. KERR: And actually, James, we do have studies that tell us the purchase decision hierarchy of the consumer, depending actually on the application that they're using that product in and what they're looking for. So, it varies depending on how you're using the product. Not necessarily that we would want all of those things on labels because some of the number one things are pack size that are driving that decision. So, you certainly don't want to drive a requirement on pack size.

But beyond that, in detail, we can certainly share the specifics of what drives the decision by application, though, because it does change whether -- especially whether you're buying a reflector product or something that's a standard A-type bulb for a table lamp, et cetera.

MR. KAYE: That would be very, I think, very welcome and we would encourage anyone else that has any kind of focused research in terms of how consumers are making their purchasing decision, obviously that's a critical factor for us in determining which criteria should be emphasized in which parts of the label.

Is there -- you know, short of bringing all that data before us at this moment, and pouring through

it, which is why we have the Bureau of Economics to help us, among other reasons, are there any strong feelings here -- I mean, let me pose the last three criteria that were mentioned, the energy, the light output, the life. What's most important of those three? What's most important to highlight to consumers?

Go ahead, Joe.

MR. HOWLEY: Well, to answer a couple comments. I can talk about that, as well. But James asked the question, why does somebody buy a halogen versus these other products even though they use less energy, they're more energy efficient? In some cases, a consumer isn't necessarily driven by energy efficiency. With halogen, there is a certain color quality to it that is slightly different. It does have a sparkle that you can't get off a CFL or off an LED perhaps, although an LED you might get closer with the same kind of brilliance or sparkle that you could get off an incandescent source. And dimability, they tend to dim easier and they dim deeper, they dim lower. So, you have a different color quality there.

So, there's different aspects of incandescent that while we can get close with compact fluorescent and LEDs, we can't match exactly all of every single aspect. So, there are other aspects that may drive their decision

to go with a halogen bulb versus a compact fluorescent.

Because of that and because these technologies are so different and do provide the opportunity to address different consumer needs and wants and applications, that is why we're making the comment that this long list of items, perhaps consistently across industry, should be somewhere on the side or back. But for the front of the package, depending on what we're selling and why we're selling it to the consumer, let us decide what is most important to go on there.

As John said, most likely, we're going to put watts and lumens on the front of the package in most cases, but some other kind of metric -- in this example we put the fact that it's a daylight 6500 K source because it makes that unique and different than the other compact fluorescent products they're using. But each product that we sell may have some unique different quality to it that our marketing people will develop the right messaging for that.

I don't know that that -- that front part, we believe, should be left mostly open and open to the creativity of our marketing people or packaging people depending on what message they want to tell the consumer on the front. The back or side part with all these items is what should be specified as being unique -- or being

consistent across all manufacturers, so that they can compare manufacturer A to B to C across all these facts. That's my comment.

MR. KAYE: Any comment on that? I guess what I -- putting aside for a second the question of whether the space is left as a voluntary or as a mandated space, I guess what I really would like to get into a little bit more are some of the presentation methodologies. I mean, there were some comments earlier today about the effectiveness of the graphing, to show lumens as opposed to just putting a number on it.

I guess what I would like to know is whether the panel -- whether anybody has strong feelings about -- and it may be in the context of where it goes on the package because there seems to be some discussion here about, well, some facts need to be on the front and some need to be on the back. We have to make final decisions and want to gather as much information as we can about which factors should go where and how they should be presented.

So, any comments along those lines for any of these criteria and any prioritization between criteria would be very appreciated. So, I know someone's going to help us.

MR. CALWELL: Just a couple of thoughts in that

regard. I think if we were to take 20 lightbulbs off the shelf at random, the largest font size on the front of those lightbulbs would be reserved for their wattage. That's what you see today when manufacturers label the products. And I think it's a chicken and egg. I don't know if consumers started looking for wattage and then manufacturers gave it to them in the largest or vice versa.

We did do some historical research on why products started getting sold on wattage to begin with, which is interesting but beyond the scope of today's discussion. If a lightbulb's purpose is to provide light and not to heat the room or to be a long-lived paper weight, then I think the simple answer to your earlier question is the most important single factor is how much light do they provide, because they are light sources.

Beyond that, if you're stuck with a fairly small amount of real estate on the front, I guess the question I'd submit to you is, if there are no criteria about how prominent or how large the wattage information can be from the manufacturer, it might trump anything else you require to be there. Even though you say it has to be there, the rest of the real estate is available to be used as the manufacturers wish. So, it might be worth specifying that lumens be given the most prominence on

the front of the package, for example, or in some other fashion, telling consumers that's what this product is for. So, we'll give you wattage. Wattage matters, but it doesn't matter as much.

MR. KAYE: Carolyn?

MS. KERR: Yeah, actually, I had that same comment. If you do not set requirements on that front panel, what you will find is that you are just adding to the same thing that's going on right now. Wattage will become more prominent and we will have consumers still buying based on wattage. It happened in '92 when these guidelines first came out.

The guidelines initially said that wattage could only be in equal prominence with the other type that was on the front panel. And we found that as consumers were confused by light, lumens and wattage all being in equal prominence in one place, wattage suddenly had a secondary placement and it suddenly became more prominent without wattage mentioned.

So, we do need to look at the front panel and make sure that we're giving consumers the best guidance in buying the right energy efficient and light quality product, not just on pushing wattage again. Because we won't get them away from -- we haven't really helped them to get away from buying against wattage yet.

MR. KAYE: I don't want to put you on the spot, but is any of the focused stuff that you have done, does it agree with the common sensical sort of, well, it's a lightbulb and people are interested in how much light it gives out or have people been looking to watts for the energy as well or is it really more just the light output?

MS. KERR: What we see is -- and most of this is qualitative only, it's not quantitative. Our purchase decision hierarchy, sorry, is quantitative. But on the qualitative studies what we're showing is that people are looking at the label, they really are and they were from the beginning. They don't know what the terms mean, but they know that they should mean something to them. However, they're still basing their decision on 60 watts and what I'm used to buying, 60, 75, 100.

MR. KAYE: And what are they looking at watts for? Are they looking at it for the light output or are they looking at it for the energy?

MS. KERR: They absolutely view it as light output. They don't know that wattage means energy at all.

MR. KAYE: Noah?

MR. HOROWITZ: It's all incandescent equivalents. People are used to buying incandescents in

100, 75, 60 or 40. Those are the standard flavors. So, if I want a bulb that's as bright as my 60-watt equivalent, look how GE did it and they're no different than the rest, and this isn't a criticism. They've got the 60 number there. People want the bulb to replace the 60s, so they put the 60 and you see 15 watts in the bottom corner. There's no mention of the light output.

So, people are trained to buying a bulb as today's 60-watt incandescent or the 100. And the tradition we're trying to make is to have them buy light output.

MR. KAYE: Okay, one second. If we agree then that the light output is a primary, if not the primary consideration, what is the best way to explain the light output to consumers?

MR. YOUNG: That's where I would focus. Because you're right, I mean, how much legacy is there for the 40, 60, 75 and 100? A lot. I mean, there's billions of sockets out there and people have been buying them that way.

Now, can you change that? You and I were talking about metrification. When can you convert people to lumens? Maybe never. So, that's where I would focus my attention on.

MR. KAYE: So, if they -- oh, I'm sorry, go

ahead.

MR. CALWELL: Can we go back to the NRDC logo or label for just a second? I wanted to make one more point that we haven't highlighted before. Yeah, this one is fine. Okay.

My early training in this field comes from a person that a lot of you may have heard of, Edward Tuffta. He's an expert from Yale in how to convey quantitative information visually. And one of the things he said very early on in his first book that I've never forgotten is, if you make any graph, any chart, any table, it will fail if it doesn't answer a single question, compared to what?

So, don't just give me an absolute number, I can read that anywhere. Tell me compared to what.

So, notice that the lower third of this label is devoted to answering the question, "compared to what" in two ways? Which is how do lumens compare to wattage equivalents that you're familiar with and how does the brightness of this product compare to other products you might see? So, it answers compared to what in two dimensions.

And I'm not going to say to you that this is the only way to do that. In fact, one of the things I liked that GE had done is, Tuffta does this as well, you

have that solid black line with the little white triangle showing where you fall along that line. That's a very compact, nice visual way to tell that story. But either way, if lumens and wattage equivalents are placed next to each other in some sort of a line or triangle is indicating where you are. It tells the consumer compared to what in two key ways.

Finally, as wattage equivalents change under the new federal legislation between 2012 and 2014, that row of numbers can be replaced by a new row of numbers saying what the new wattage equivalence are, what does that get you if you're the consumer? You're used to buying a lightbulb where the lumens line appears at a certain place on that box. If those wattage numbers change, most of the consumers won't even notice. It's still in that relative place on the box where they're used to buying that lightbulb.

So, that's what we were after, at least, was a couple of those themes all at once.

MR. KAYE: So, Chris, where are your thoughts on where this goes? Because now we've -- in this session, we've all of a sudden complicated things a lot by looking at putting some information on the back, some on the front.

MR. CALWELL: Yeah. I mean, one of the

observations that comes to me from this session that I hadn't thought of before is it may be that it's actually a good thing if some of the information needs to appear on the front because you don't have to put all of this in all one large label. As the manufacturer said, it's hard to find that much dedicated real estate in one place.

So, what is the compared to what light output information went on the front, but that the energy operating cost and, if you will, the technical information went on the side or the back, then maybe, A, the real estate demands on the front are not so big anymore and, B, once we've told people which flavor of bulb to buy, if you will, low, medium or high brightness, we can get on to the secondary things that they need to make their final choice.

We heard great information from two of the panelists today on not just what attributes consumers use, but in what order they use them. I think we would find if we watched enough consumers in stores that the first thing they have to find is a bulb that's about the right brightness, then they figure out what technology or lifetime or efficiency or color flavor meets that basic need.

MR. KAYE: Brad?

MR. WILLIAMS: Yes, just reflecting on the GE

example. Not including the brand, there were six claims made on that front panel. And as some others within the group here have suggested, if at least the first two to three of those were mandated and the locations were mandated, I believe it would go very much into the favor of the consumer in terms of getting the necessary information out on the front of the package.

I would not be in favor of allowing that panel, the front-facing panel to be purely to the manufacturer's discretion. Because I think we would be back to a lot of cloudy definitions and a lot of shop-talk and marketing-speak in many cases when we really just need to get down to what are those two or three highest level of attributes that the customer is making decisions and basing their choices on and then allowing the more discerning customer to then dig into a deeper label.

MR. KAYE: With that in mind and to focus, again, just for a couple more minutes on the brightness, are there any other ideas concerning the way to express the brightness other than the straight lumens description, which a number of people have commented they didn't feel has been effective, and a comparative description of lumens?

MR. CARSON: I just wanted to look at some actual lumen values on a couple of types of lamps. First

of all, a 60-watt A lamp has approximately 830 lumens. But if you were to use a reflector lamp, a BR 30, a 65-watt, using more watts, actually has less lumens, 635 lumens. So, that's 635 versus 830.

What is the difference? Well, if you're using down lighting in a space, a consumer may think that an A lamp would do a better job. Lumens is really not a good measurement of the amount -- of what people are buying light for. What are people buying light for? To get light on their target, to do a task. They're not really concerned with the light output itself, getting light where you want it. We really haven't addressed any directional light sources with this information. Any questions on that?

MR. YOUNG: It's relative, though.

MR. KAYE: Can you come up to the mic?

MR. YOUNG: If I buy a 65-watt bulb down light, I know what that's going to get me. It's still kind of gut feel, a lot of this. You know, how much light do I need? Well, I need a 60-watt for the living room, but if my kids are going to read, I need a 100 or if I just want to create an ambiance for the hallway or something, it's a 40. So, I agree with you that the lumens are very different because of the way they're measured or the fact that they're focused or not focused.

But it really, to the consumer, is sort of a relative number.

MR. CARSON: Well, what I'm getting at is they may choose to misapply the bulb and that happens all the time. I do a lot of work in the consumer channel with Walmart and Home Depot and I see consumers buying A lamps to go in places where they should be using a lower-wattage reflector. If they look at the lumens on there, it looks like more light on an A lamp because an A lamp gives you light in all directions. That's what the measurement of lumens are. However, you get more light in a specific direction from a reflector type lamp. And what we're doing here does not address any of the reflector type lamps.

MR. KAYE: Well, is there an easy way to address that in a simple label? That's the question.

MR. CARSON: Well, I think we should have some area of brightness that maybe doesn't say lumens, but it would have either the candlepower value or the lumens depending on the type of lamp that it is. For general lighting, lumens is a great measurement, but for directional light sources lumens really doesn't mean anything. Because the light is not going in all directions, lumens is a bad way to measure light from any type of reflector lamp.

So, I think we really need to have, you know, some more information on there, you know, regarding these type of light sources, otherwise we're going to have a lot of consumers using a very inefficient A lamp where they should be using a reflector. It's difficult to, you know, find the best means to point them in the right direction. I'd like to look at, you know, maybe doing some studies on that.

MR. KAYE: John?

MR. FICHERA: I just had two comments. One is, I think that if you see a consumer purchase an A line lamp for a reflector purpose, I'm going to bet that he's buying -- that he's not doing that mainly for lumens, he's doing that because of expense. That's what I'm going to say.

The second thing is is that I also think that so far manufacturers have done a great job with their packaging in displaying what the application of the product is. I think that if you look at the packaging, there's -- many of them have pictures, they may even say, you know, for recessed lighting use, and I think that we do a good job, you know, trying to differentiate between the two. So, those are my two comments based upon that.

MR. KAYE: Before we move on -- I'm sorry, another comment back there?

MS. DAVIS: Yes, this wasn't totally related to any specific comment. But I know there was discussion earlier about you guys potentially doing some market research and kind of directions to go with that. It is actually in response to the critique of the phrase, energy used, and the use of the word "brightness." By definition, brightness does not refer to lumens, that's the way it is. That's metrology.

If you guys want to use brightness, I really don't care. I know that you have to go with what people understand. If they get two lumen values that are the same and one has a higher CCT, it's going to look brighter to them and they're going to kind of, maybe if they're thinking about it, wonder why those numbers are wrong. Anyway, back to the energy used. I know that it's traditionally people report power. And within metrology there's optical power, which down the road can become lumens, and then there's electrical power.

So, I always get a little bit confused when I see the word "power." And I can't help but wonder if part of this clinging we have to watts is I want a powerful lamp or I want a not-so-powerful lamp. There is something about the word "power" that is, I think, very ambiguous. I love energy used, even if it's technology wrong, which is another issue.

So, that whole kind of shakiness, I think looking at the words used and knowing what is technically correct and incorrect, a la energy used and brightness, and even being willing to make compromises on that because it may not be technically perfect, but so that people really understand. I don't know if your average consumer sees the word "power" and thinks electricity. I don't know.

MR. KAYE: Well, that's a great segue into discussing the energy disclosures in a little more detail. Let me just make one last final -- brightness is probably the wrong word I now know, one final pitch for any other ideas -- and I'd ask you to all consider it for your comments as well -- any other ideas as to how the light output descriptor here can be conveyed to consumers besides the lumens and the comparative reference to the watts of old or just using the watts of old number, as we've heard.

MR. YOUNG: I know there was some discussion about using a scale A as this brightness and I would tell you that it's all about how much energy you have for education. Now, you have to change a total different system. So, that's why, again, I come back to that's --

MR. KAYE: You're saying that it's used like an A bulb, a B bulb, there's a whole new type of descriptor.

MR. YOUNG: Yeah, I think that's going to be just totally foreign and impossible to understand for consumers.

MR. KAYE: All right. Well, let's move on to the much easier topic of the energy disclosure. I'd welcome -- just sort of open it up in terms of preference as to we've seen a number of methodologies here. We've seen a star-rating system, we've seen the miles per gallon type of description. I'd like to just, again, get some definitive preferences from our group as to what the best way to disclose the energy information is to consumers perhaps beyond just a wattage.

MS. AMANN: Just a couple of quick comments and then I apologize that I have to leave. I think it's very important that -- I want to reiterate the comments that Chris and others have made about having comparison ability. The information can be presented to consumers so they can make a comparison of the product that they're looking at versus other products so they're not picking up every package in the store. I think it's unrealistic to expect people to do that and those comparisons can be very important in driving people to make the best decisions to meet their needs for lighting, as well as energy efficiency.

And then, secondly, I think having the

operating cost metric as a back-up for the efficiency is very important, as well. So, thank you.

MR. NEWSOME: Jennifer, in terms of operating cost, do you think we should consider putting that on a small scale like we do in other contexts?

MS. AMANN: I think that's a question for more research possibly. I don't think that's as important in having on the scale as possibly efficiency. I like the -- using efficiency in the linear scale that NRDC has developed so that it takes into account the differences in efficiency over the -- for each technology over the light level. I think that's great. So, I would say our preference would be comparative information on efficiency over operating cost.

MR. WELCH: I'm Fred Welch. I'm a consultant. We have talked for a while and people have pointed out that there are some technical issues around energy and watts as expressed here. Most of the conversation has said, we should talk about watts and we should talk about light output.

I think we should consider whether we might be confusing people by saying, oh, this is a 15-watt product, but it's like a 60-watt product. What we're really talking about here, it seems to me, is how much light are you going to get and how efficient is it. So,

why don't we tell them that? And it could be with the star rating or we could use a number. We could talk about efficacy. But nobody knows what that is. But something like a relative rating of efficiency and how much light you're getting is what they want to know and it's, I think, what you're trying to do.

MR. KAYE: And focusing on the efficiency aspect of that, I know we talked about this a little bit this morning, but does anyone have a -- I know, Noah, you have spoken very forcefully as to the rating system. Is there anybody that would like to tell us sort of why we shouldn't do it that way?

Okay. Anything additional as to why we should that we didn't hear this morning?

Well, I'm going to keep you here till 1:00, so don't think it's going to be that easy. Go ahead, Eileen.

MS. EATON: I'm curious with -- actually, it's probably a question more for Noah about the system that they developed because for appliances, you know, we have been using the Energy Guide label and sort of the logic behind using that rating system versus that because I think that's another sort of similar option?

MR. HOROWITZ: I think the question is the yellow Energy Guide label that's on a fridge provides a

sliding scale of kilowatt hours per year in dollars. Did we consider that? We took a look at that. We felt it's even better to use the star system, it's very clear. There are still enough consumers who don't know whether they should be on the left side or the right-hand of the scale, unfortunately. So, we thought this was -- real quick, you can tell this is an efficient or an inefficient bulb.

But to be clear, we did not subject our prototype or a straw person to any sort of consumer research. We wanted to throw it out there and see what people thought and then that could inform further consumer research.

MR. KAYE: Are any of the retailers here familiar in other contexts that we may not be considering of these kinds of rating systems and how effective or ineffective they are in general in conveying information to consumers?

MS. LINDSLEY: I don't have a specific category to give you an example of. All I know is that for the customers, we have a very short window of opportunity to tell them information quickly. And we have found things versus reading the star, you know, as long as they understand one through five, and quickly, you know, five is obviously better than one, then they can make their

decision quickly. Because they are not at the counter for very long at a time. So, the star rating, I think, benefits our customers just for the fact that it's a quick decision to move on.

MR. KAYE: Brad, do you have anything to add to that?

MR. WILLIAMS: Yeah, I can tell you that we are very inconsistent in being able to deliver that type of compressed impression on the customer. Some manufacturers' packaging does it better than others using star systems and using good, better, best, or, you know, commercial to heavy to light duty ratings.

We struggle with those kinds of scales all the time as retailers. We always want to simplify it for the customer in anything like this.

We have been recently exposed to some research, particularly as it related to using stars as a rating system, and it seems to be the most universal in terms of, you know, value equation and quick read. And, so, you know, we would find that to be, you know, in keeping with the best of research.

MR. KAYE: Oh, I'm sorry, Richard?

MR. KARNEY: I disagree with Noah as far as having the one through five stars and everything. What I'd be curious to know when you conduct your research, if

you would be able to find from consumers, if you had a consistent label, you have the Energy Guide yellow label right now for appliances, if you applied a very similar design to the lighting products, if you would see the consistency would provide some synergy for the consumer? In other words, keeping it a parallel type label. That's one of the things I would pose for your research.

MR. NEWSOME: One question we forgot to ask on format was whether, if you have something like this facts label, if you had the Energy Guide logo across the top, whether people thought that that was something we should consider so you do create this consistent format.

MR. HOROWITZ: We took a look at the Energy Guide label figuring that that's working fairly well for white goods, why don't we just do that? Then it became clear, this is a different beast. The questions of color temperature, lifetime, light output, all those things. It's a single attribute -- or two attributes, it's KWH per year and dollars that's on the Energy Guide label. If we were to cut and paste that, it wouldn't work here we felt.

So, on the clothes washer label, you are not mandating things on cleanability or a lot of other things like that. So, here we're dealing with a lot of other things. The lifetime, the color, those wouldn't work on

the pure Energy Guide label. So, do we take the Energy Guide format and include some other things on that? I'm not sure how that would work, but that's a fairly open-ended question.

Kilowatt hours per year, when you're buying a lightbulb, you know, people buy watts now and might want to know what it costs. So, we didn't go the KWH per year route.

MR. HOWLEY: If you wanted something similar, I mean, we have -- I don't know if they are energy facts, but from a nomenclature standpoint, if you wanted to say something like Energy Guide just to be consistent in what consumers are looking for, they find similar energy information. This will be different, a different set of requirements, but the name could be potentially used, that same name that consumers are used to.

MR. NEWSOME: And that's what I was asking because, obviously, there are different types of information, but whether that's something we should consider is just using the name so that people see, oh, I've seen this on appliances, this Energy Guide logo, this is telling me similar information because it says Energy Guide on it.

MR. HOROWITZ: I think it's important people know it's government approved or from the government if

the word “Energy Guide” imparts that objectivity. That’s great.

MR. KAYE: Brad?

MR. WILLIAMS: I’m always an advocate of not trying to reinvent and I think that the terminology, as just pointed out, of Energy Guide, maybe it’s just terminology in color. We know, you know, from lifelong experience, as well as research, that black on yellow is the most recognizable and readable combination of colors. It’s certainly something that the customer has known to focus in on when they’re buying an appliance, to get their energy information.

So, regardless of what -- the fact that the terminologies and a lot of the equations don’t make, you know, the same correlation here on a lighting product, I think it’s fair enough to say, though, that it’s an easy transition for the consumer, in their mind, to make. This is an energy consuming product that I’m buying to put in my home, and I want to think about and make those choices with good information. And, so, why not just borrow from that and extend the look and feel of that label you’re using today on the appliances and reuse it right here.

I think this is a great first example. If this terminology, heading on this read, "Energy Guide," and it

was yellow, you'd be 80 percent there.

MR. KAYE: Joe?

MR. BANTA: I'm a little biased, but I know the five-level rating scale works very well. I mean, we've been using it since 1920. We have 30 million -- or three million readers, and I just wanted to mention that.

MR. KAYE: Well, when you get to 100 years, you let us know.

(Laughter.)

MR. KAYE: I'm sorry, go ahead, James.

MR. HILGER: I have a few questions for Alex and Richard, first, regarding the Energy Star. Now, is it possible that the -- what would receive a five-star on Noah's scale, wouldn't receive an Energy Star?

MR. KARNEY: Mainly because of various other quality issues that we've put into the criteria for some of our fluorescent lamps, it would not be an Energy Star product.

MR. HILGER: So, that would be one concern that I definitely encourage people in their -- if they have time to submit written comments, you know, to focus on that issue.

The second is something that Brad mentioned, about the categorical star rating being associated with value. And you know, one of -- you know, the categorical

stars in this case isn't supposed to be about value. It's supposed to be about energy efficiency and value would take other things into consideration like the -- you know, I don't want to say the wrong terms, so I'll just say light attributes.

You know, there are all these other attributes of the lighting which go into value and there are other categorical things you could do like categorical lightbulbs or categorical like A through E. But if the categorical stars are associated with value or quality, which our Energy Guide research also showed, that people associated stars with quality, you know, that would be -- or value -- that's something that I would welcome discussion and comments from people.

So, those are a couple issues. One, compatibility with the Energy Star program, which is a very good program to encourage the adoption of energy efficient products. And we wouldn't want to damage that process or at least I wouldn't. I don't know if -- and the other is this value thing. So, those are two things that I'd be interested in hearing about.

MR. BAKER: I would echo the same concern, that a consumer may confuse the energy efficiency rating, the star system with an overall quality system. I don't have the benefit of having been around for some of the

previous discussions, but talking with colleagues at EPA, they underscored two points. One, difficulty with interagency coordination around this because it's not simply something that you can set up and then walk away from. It would require coordination over the years. As technology improves, performance improves, the star system would have --

MR. KAYE: We just don't do that, Alex.

(Laughter.)

MR. BAKER: What qualifies for four stars, what qualifies for five stars would have to be adjusted over time. How do you coordinate that in a meaningful way between three federal agencies, potentially more?

And then the other item that I was told about from colleagues who have been around longer than I have is that I guess the star system has been explored in the past and that previous explorations have resulted in a conclusion that it is not a beneficial system. I guess it was entered into the Federal Register that this idea didn't seem to have legs. I don't know if that was under an expiration of the Energy Guide system or what.

MR. NEWSOME: Well, I can just clarify it. That was one of the designs that was tested with the appliance label over the last couple of years. The two primary concerns that came out about the categorical star

label was the interaction with Energy Star and whether it would confuse consumers and then there was some concern about quality. But that was discussed in detail there.

MR. KAYE: Noah?

MR. HOROWITZ: There's one huge difference that we need to be cognizant of. What works for a refrigerator or a dishwasher, may or may not work for lighting. I would argue that lightbulbs are a different thing. The Energy Star label for a refrigerator or a dishwasher or things like that, it's how much energy does it use per square foot or whatever. That's all it is. It's not how fast does it turn on, what's it color renderings and all those other attributes. So, the confusion between Energy Star and the star system resonates more with me with those products.

Here we're talking about, is it efficient or not, one to five-star, and the system we're proposing, the four and five stars would meet Energy Star requirements on the energy side, but there are all these other attributes. So, you could be a five-star from an energy efficiency point of view but not meet Energy Star's other criteria. Thus you wouldn't put the Energy Star label here. So, I just wanted to clarify that.

MR. KARNEY: And that's where the confusion starts coming in.

MR. HOROWITZ: Potentially.

MR. KAYE: I'm sorry, Diane.

MS. LINDSLEY: Well, to add to that, which I believe is just as important is on the other side of the rating which Energy Star does not -- I mean, not having an Energy Star label would imply that you're a one or a two. But for the customer to be able to see and know that an Energy Star label or a lack of an Energy Star label, the star ratings would show you that you're not as efficient if you're buying an incandescent.

I don't think that comes top to mind to a consumer, and if they saw that a CFL, there was a three or a four and it made them stop on an incandescent showing them that there's a one or a two, then that may make them stop which none of the labels were not going after energy necessarily, but it would make them stop and think versus a lack of or a label for the Energy Star.

So, Energy Star doesn't do anything for incandescent where the star or where the stars would show them that there is a differentiation between the two. So, I know there's issues on dealing with different divisions, but at least the star labels show you on the low side, why you may not want to be buying this item and convert you into an energy efficiency type item.

MR. KAYE: James? Your card was up

incorrectly?

MR. HILGER: Yeah.

MR. YOUNG: I would like to say, though, that I like the idea of -- and I know you don't do this -- but looking at combining some of this information among agencies. Because one of the things that happens is I joke around the office that are similar packages to everybody's. It looks like a legal document with a lightbulb inside. And I think you see a lot of that because we have to have a guarantee for them and we have to have a little mercury warning from Vermont and there's a way to combine that and simplify like, you know, something --

MR. KAYE: Well, I certainly would welcome anyone as part of their comments to let us know what kind of information you otherwise feel you're required to typically provide on these packages that you would want to make sure we didn't duplicate efforts or try to make our efforts as consistent as possible. As the FTC we are, of course, all knowing about all things, but that said, it really helps to have you all let us know what the specific issues you're dealing with like that that we can take into consideration.

We don't have a lot of time -- oh, I'm sorry, Richard, go ahead.

MR. KARNEY: And I will provide you that information. Not that I want to get into an argument with one of my other partners, but I would contend that by instead of having the star rating, you differentiate the incandescents from the CFLs from whatever technology comes to pass, that having the annual operating cost on that product would be able to provide that information to the consumer. That's similar to what you have on the sliding scale that you already have on appliances.

So, that's why I feel that having that number up and having the $1.30 versus the $6 on that product would show that that would be a much more beneficial product for the consumer.

MR. HILGER: Right. And one thing I wanted to point out on that, that would be more powerful in this lightbulb arena than with the appliance. Because in the appliance on the Energy Guide, it was within category. So, within refrigerators, there are different configurations for the freezer and auto defrost and all that.

So, if we were to do the operating cost on the scale of -- well, there would have to be some discussion of what your comparison good is. So, maybe keep lumens content.

And then the other thing I quickly wanted to

say, is it possible -- I mean, some consumers might have a valid reason for wanting an incandescent if the light attributes are such and there are Energy Star incandescents, are there not? No? Okay.

MR. HOROWITZ: The only lighting that Energy Star has for screw-based bulbs now have the spec is for CFLs. There's nothing for super-halogens, super incandescents and, today, nothing for LEDs. So, that's one of the reasons we want to go beyond just energy.

MR. KAYE: Joe?

MR. HOWLEY: Yes, I agree with what Rich said, with regard to his comments with Energy Star. I also think he made a comment before, and I just wanted to get this in before the time went out. But he made a comment before about how Energy Star compact fluorescent lamps do have a requirement for color temperature to be placed on them right now. And we would agree with harmonizing with that particular standard. It gets us halfway there on the color question.

I don't believe it's necessary to have a color -- mandatory color statement on incandescent or even probably CFLs or LEDs that have incandescent light color. However, Energy Star does require color temperature disclosure for all color temperatures, which is fine, even the ones that look like incandescent. If you

paralleled what Energy Star requires, but also required that for any LED source as well, which I think would be as important and perhaps I know they were looking at LEDs in the Energy Star program and perhaps they have the same system or maybe you have a slightly different system, I don't now.

But whatever they're proposing for LEDs right now for color temperature, Rich, do you know if it's the same as CFLs or is it slightly different?

MR. KARNEY: CFLs we have six bins and solid state we have eight. So, it's different types of measurement.

MR. HOWLEY: Okay. But we probably could deal with those within the six or eight. But if you paralleled what they're already considering, you may have your answer to the color question, to simply require the same kind of disclosure that they're requiring in the Energy Star program.

MR. KARNEY: But we don't have the descriptors as warm white, soft white, we just have bins and leaving the manufacturers to describe -- at this point, to describe what it is.

MR. HOWLEY: Right, and that's still -- it's a marketing question on the colors. I think it would be very difficult perhaps for the FTC to describe -- to put

down the descriptors. I mean, obviously people will have comments on that. But, right now, it requires, I believe, the color temperature. At the very least, people disclose the color temperature. People don't know what that means now, but it will become a model number for them in the future if everybody is required to do it.

The reason they don't know what it means today is we've never put it on an incandescent and there hasn't really been a real reason to put it on CFLs. So, people don't know about it because they've never seen it before. If everyone starts putting it on every CFL, and it will be on every Energy Star CFL starting in, I guess, December, a couple of months from now, and starts to put that on any LED, then people will learn what that means and they will start to treat it as a model number. Even though they may not technically know what it means, they will know that's a 4100 or 41 color and they'll start to read it as a model number eventually.

MR. KAYE: Carolyn?

MS. KERR: I do think you need it on incandescent and incandescent light, color temperatures only because it becomes your point of reference. So, if I've got incandescent at home, I'm trying to match it, I need to look from package to package and know what's the

same.

MR. KAYE: And how are you describing it in the quantitative terms or --

MS. KERR: No, I'm just saying in the language that we decided and there is a guideline on SSL and there's a guideline on --

MR. KAYE: I actually wanted -- this is a perfect transition because I think I wanted to spend the last couple of minutes, unless there's something you think --

MR. NEWSOME: I just had a quick point on test procedures. The current rule actually does not have, even for calculating energy use, it does not have a required test procedure, a specific test procedure. It says it uses the basic FTC standard that you have to have competent reliable scientific evidence. It identifies the IES procedures as safe harbors.

So, one question I encourage everyone to address in their comments is whether the rule should tie down the -- testing these products to perhaps the DOE test procedure. I think it's in Appendix R. I know that there's ongoing discussion about LED testing which hopefully will be resolved soon. But just remember that in your comments.

MR. KAYE: So, just to sort of take our last

couple of minutes, there was some reference during the color discussion in the second session about consumers going home with their new technology bulb, and plugging it in, and then there's screaming in the house at the person who bought the bulb. And, so, as we sort of sit here and try and get our priorities straight as to what information needs to be done, I want to get a sense, is that an anecdotal experience that one or two of us have had or is that a big problem? No?

MR. HOROWITZ: I don't have data, but that is one of the high level problems. People will buy a CFL. They bought the 5600 K, they didn't like it. If they have the 2700, they would have liked it, but they had no way of knowing that. From a process point of view, Phillips has a starting point of these four descriptors. I don't know if the FTC wants to lead the process, but however it's done, I think it would be great if the key stakeholders, primarily the manufacturers and anybody else, got together with retailers and other NGOs and said, we have to hand something to the FTC, when would you need that by to the extent you're willing to embrace these descriptors. Do you want to lead that process or would you prefer someone --

MR. KAYE: Well, we'd love input, we'd love if that input came in a joint form, we always like

everything yesterday like everybody does. We are going to hopefully be in the process very soon of planning consumer research and that may be an area that we'd want to do consumer research on. So, the more information we have when we're sitting down with our contractor, whoever that might be, to do that, that would be very helpful.

I think, Joe, I may have heard a little bit from you. But in terms of maybe not fully embracing the concept of having these qualitative terms, is there anybody else that feels that they want to be heard on the issue of the importance of having these kinds of terms or the relative importance of having these kind of terms?

Is there anything else that we have not covered today that anyone thinks should be considered by the FTC as we go through the process of meeting our statutory mandate on these lightbulb issues? Carolyn?

MS. KERR: Just some executional things. Because as we've looked at some regulations in the past, sometimes they will put the date that it needs to be put in place driven by what's at retail or what's in warehouse. We need to drive the standard by manufacture date. It's too much of a burden on the manufacturer and on our retail partners to have to control what's on the shelf at the time. So, as we put this in place if you can keep that in mind.

Also, we talked about color sometimes and we've talked about -- and we've shown you examples in black and white. The reason you're shown examples in black and white is because, in many cases, we only have that opportunity. We're dealing with high speed print presses, et cetera, and can't even sometimes do certain gradations of color or even a black. So, if you keep that in mind that you don't come up with an intricate system of colors to show color, that you don't absolutely require that the label be in yellow, those types of things would be helpful to us as manufacturers.

MR. KAYE: Alex?

MR. BAKER: Questions of application haven't come up and I don't think it would be appropriate for the FTC to necessarily lay out that this bulb should be used for this application, but it may be useful to examine what the Energy Star program has in place for requirements for labeling about which applications, for instance, CFLs should not be used in. And I think that is one other opportunity for labeling just simply to indicate when a CFL, for instance, should not be used with a dimming circuit, when it should not be used in an enclosed fixture or recessed canister. I think those are some of the problems that consumers are having that are steering them away from next generation light sources and

I think that that perhaps could be a labeling requirement of value.

MR. KAYE: Noah?

MR. HOROWITZ: I just want to bring back the topic of scope. It was touched on a little bit at the beginning, but are we talking about all screw-based bulbs within a certain lumen range, the diameter of the base matter? Right now, there are a whole bunch of bulbs that go into people's homes that don't have the light output -- you know, the three things that the FTC requires.

I was assuming it would be expanded or you're considering that. I don't know what the answer is.

MR. NEWSOME: Well, just -- not to get into details, the current scope is covered in the rules under the definitions, which some of them are quite long but worth looking at. Basically, the general service incandescents as they're defined under the old act, and CFLS, and then also some of these more commercial applications which we really haven't been talking about today. But there is also a new provision, in the statute, that allows us to label any consumer product if we determine that labeling would help assist consumers.

So, the LEDs were not specifically identified in the labeling amendments from the 2007 Act. But,

presumably, that catchall provision for consumer products would cover LEDs, too.

MR. KAYE: Thank you. Well, I want to thank everybody for coming. I think there's no question we've got a very useful record that will be of help to us. As Hampton said earlier, I want to encourage everyone to sort of take what was said today as food for thought as you prepare and finalize your written comments and with a particular eye towards helping us with our potential consumer research, and I thank you again for coming.

(The roundtable was concluded.)

C E R T I F I C A T I O N O F R E P O R T E R

MATTER NUMBER: P084206

CASE TITLE: LAMP LABELING EFFECTIVENESS

DATE: SEPTEMBER 15, 2008

I HEREBY CERTIFY that the transcript contained herein is a full and accurate transcript of the notes taken by me at the hearing on the above cause before the FEDERAL TRADE COMMISSION to the best of my knowledge and belief.

DATED: SEPTEMBER 29, 2008

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ROBIN BOGGESS

C E R T I F I C A T I O N O F P R O O F R E A D E R

I HEREBY CERTIFY that I proofread the transcript for accuracy in spelling, hyphenation, punctuation and format.

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ELIZABETH M. FARRELL