TRANSCRIPT OF PROCEEDINGS

IN THE MATTER OF:)
)
NOTICE OF PROPOSED)
RULEMAKING FOR GENERAL)
SERVICE LAMPS)
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IN THE U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY & RENEWABLE ENERGY

IN THE MATTER OF:	)
	)
NOTICE OF PROPOSED	)
RULEMAKING FOR GENERAL	)
SERVICE LAMPS	)
	)

Room 8E-089
James Forrestal Building
1000 Independence Ave., SW
Washington, D.C.

Thursday,
February 28, 2019

The parties met, pursuant to the notice, at 9:05 a.m.

ATTENDEES:

FEDERAL MEDIATION & CONCILIATION SERVICE:

JAVIER RAMIREZ
ISRAEL NUNEZ

U.S. DEPARTMENT OF ENERGY:

DANIEL COHEN
SOFIE MILLER
CELIA SHER
NAEEMA CONWAY

ATTENDEES:

MARY ANDERSON
JOHN AUGUSTINO
TIM BALLO
ALEX BOESENBERG
DANIEL BRESETTE
DON BRUNDAGE

ATTENDEES: (Continued)

MARK COOPER
DARIUS DIXON
JENNIFER DOLIN
RICHARD ELDER
DAVE GATTO
CHRISTOPHER GRANDA
JOHN GREEN
NOAH HOROWITZ
JOSEPH HOWLEY
RACHEL LEVINE
PHI NGUYEN
CHRIS PRIMOUS
KEVIN ROSE
STEVE ROSENSTOCK
PATRICK SAXTON
ANTHONY SERRES
CLARK SILCOX
BRYAN SILVERMAN
LOUIS STARR
JOE VUCKOVICH
MICHAEL WEEMS
SCOTT ZIMMERMAN

P R O C E E D I N G S

(9:05 a.m.)

MR. RAMIREZ: Okay, let's go ahead and get started. This is for the General Service Lamps Notice of Proposed Rule. Again, my name is Javier Ramirez. I'm with Federal Mediation. This is Israel Nunez, my colleague. We're going to be facilitating today and I'm just going to go over a few logistical things, review the agenda quickly, before we get started. I'll say again, I know Jack's already told you, but I've heard that these mikes really do pick up quite a bit, so make sure that you turn it on when you want to talk and turn it off. And even when it is off, the acoustics in here are pretty impressive, so just be warned.

A few things: Breaks, we hope to break for lunch around noon and we're going to play that by ear. Let's see how the dialogue goes, but around noonish and then we'll about a 45-minute break. And then as far as breaks throughout the day, we'll just kind of see how the group is moving and see what we need to do in order to take those quick breaks. I turned my Bluetooth off on my phone. I've also heard some rumors that the system could pick up your Bluetooth. As much I'd want to see your photos on your phone, you

may not want to show those photos on your phone. Be warned, if you don't need to have the Bluetooth on your phone at the moment, you may to consider shutting that off.

Let's start off with some introductions. And as far as the introductions go, at least for right now, because I was doing the math on this just to kind of get an idea of opening statements and then review the material and comments. And when you break it all down, the timing is very compressed. When we go for the introductions around the room, just give your name and your organization. We don't need anything more at the moment. So, Israel, I'll start off with you.

MR. NUNEZ: Israel Nunez, Federal Mediation Conciliation Services.

MR. BOESENBERG: Alex Boesenberg, National Electrical Manufacturers Association.

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

MR. PRIMOUS: Chris Primous, MaxLite.

MR. GATTO: Dave Gatto, Westinghouse Lighting.

MR. HOWLEY: Joe Howley, GE Lighting.

MR. BRUNDAGE: Don Brundage, Southern Company.

MR. ZIMMERMAN: Scott Zimmerman, Silas, Inc.

MR. AUGUSTINO: John Augustino, Honeywell.

MR. SAXTON: Pat Saxton, California Energy Commission.

MR. NGUYEN: Phi Nguyen, Energy Solutions on behalf of the California Investor and Utilities.

MS. ANDERSON: Mary Anderson, PG&E.

MR. BALLO: Tim Ballo, Earthjustice.

MS. MILLER: Sofie Miller with the Department of Energy.

MR. COHEN: Dan Cohen, Department of Energy.

MS. SHER: Celia Sher, Department of Energy.

MR. SILCOX: Clark Silcox, National Electrical Manufacturer's Association.

MR. GREEN: John Green, The Finally Light Bulb Company.

MR. SERRES: Anthony Serres, Signify, formerly Philips Lighting.

MS. DOLIN: Jen Dolin, LEDVANCE.

MR. GRANDA: Chris Granda, Appliance Standards Awareness Project.

MR. RAMIREZ: Let's go back here.

MR. BRESETTE: Dan from Alliance to Save Energy.

MR. ROSENSTOCK: Steve Rosenstock, Edison

Electric Institute.

MR. STARR: Louis Starr, Northwest Energy Efficiency Alliance.

MR. WEEMS: Michael Weems, American Lighting Association.

MR. VUCOVICH: Joe Vucovich, National Resources Defense Counsel.

MR. RAMIREZ: And, just let me do a quick check. Dave, how did that sound on the mikes for those folks in the back?

MR. GATTO: Good, they came through.

MR. RAMIREZ: Okay, and then I guess the first row in the back without the table tents.

MR. SILVERMAN: Bryan Silverman, Lubin Olson and Niewiadomski.

MR. ELDER: Rich Elder, Lubins.

MS. LEVIN: Rachael Levine, Energy Solutions.

MR. COOPER: Mark Cooper, Consumer Federation of America.

MR. RAMIREZ: And, was there anyone else in the back there? Is that it?

MS. CONWAY: Naeema Conway, Department of Energy.

MR. RAMIREZ: Okay, the folks that are in

the back that you don't have a mike, it sounds like it was picking it up fairly well. But if you are going to make any comments, just make sure that you speak up. As far as the role of the facilitator goes, when we're doing the actual regulatory negotiations, our involvement seems to be a lot more robust. As far as for today goes, we're really going to be managing time. That's really it, walking though the agenda, jump in every now and then if we need to figure out orders of things. But really, today, it's going to be time management. So I would ask that you all be very concise with your comments.

As far as ground rules go, all the ground rules are going directly towards that time management. Most of them are things that you should know already, right, and be respectful. Speak one at a time. The one thing I would ask, though, is that when you do talk, any time that you speak, most of you are professionals, you've been through this before. But kind of gets annoying that you have to say your name every time before you speak. But, we're going to ask that for the record. So, any comment at all, make sure that you state your name and then proceed.

As far as folks that are on the webinar there online, what I'm going to ask is that you raise

your hand if you want to make any comments. Part of what we're going to do is that we'll capture the folks here in the room. And then, periodically we'll look to see if there are any hands raised for the different sections. And that goes for opening comments, as well. If you are interested in making opening comments, raise your hand and we will do the opening comments, give you an opportunity to do so. Are there any additional ground rules apart from what was up on the list here, that you think that we would need to add?

(No response.)

MR. RAMIREZ: Okay, keep it simple, right? All right, so as far as the agenda goes, this first hour, we want to do all our little logistics here, but then also opening statements. Can I get an idea of how many folks plan to make an opening statement? One, two, three, four, five, six, seven, eight.

MR. NUNEZ: It's seven, it's seven.

MR. RAMIREZ: Okay, any hands online for opening statements?

FEMALE VOICE: No.

MR. RAMIREZ: Okay, so now I know we have, there's lots more people in the room. And if you do the math on that, ten people, approximately making

opening statements, that's going to be a chunk of time, right? So, what I'm going to ask is that you try to very concise with your opening statements. No more than five minutes. If you have additional information that you want to submit, you could give it to us, we'll put on the record or put it into the docket. We will make sure that information gets out there. The biggest challenge as facilitator that we're going to have is to make sure that everyone has the opportunity to contribute, those that want to contribute. We really want to give everyone that opportunity to give the comments. DOE wants those comments. But we also need to make sure that we get through the entire agenda and give everyone that opportunity. So, five minutes or less when we get to that point.

Then we have some overview slides. And then, the comment period, we're going to be mixing that up a little up between the overview slides and then some of the issue boxes that are at the end of the presentation. And then we're going to try to save the last 30 minutes for any general questions and closing remarks. As far as the comments go, DOE welcomes comments on data, information that are concerning the GSL's. There are going to be a number

of issues and once we get to the agenda overview, you'll see the different issues that are outlined. And then at the very end, there's a series of comment boxes. And if there are comments that are in addition to, or that may not be covered in one of those issue boxes, we're going to try to save time for just general comments that you all have that haven't been covered in the outline that we've provided. There is also, here's the information to submit any additional comments. And what we're going to do is, we're going to keep this slide up during the breaks, during lunch, and then at the end of the day. So don't feel rushed right now that you have to try and capture this information. We'll make sure that it's up there for you to do so.

Now, as far as opening remarks go, it looked like there was about ten hands and what I'm going to do, is I'm just going to go in order here. And you don't have to take the full five minutes. But if you need the five minutes, please do so. We brought the hooks, so we'll pull you in if we need to at the end of that time. So, Alex, I believe you had your hand up? No? Noah?

MR. HOROWITZ: Yes.

MR. RAMIREZ: Okay.

MR. HOROWITZ: Don't start the clock yet.

(Laughter.)

MR. HOROWITZ: Good morning, my name is Noah Horowitz, and I'm a senior scientist at the Natural Resources Defense Council, a leading environmental advocacy group with over three million members and electronic activists. I thought I'd start my comments by trying to put the impacts of the DOE efficiency standards for general service lamps or everyday lightbulbs into perspective. Quite simply, these standards represent the single biggest energy savings of any energy efficiency standard ever set by the Agency in the entire 40-plus year history of the Appliance Standards Program. The DOE's Notice of Proposed Rulemaking or NOPR, the Agency is proposing to withdraw the updated definitions of GSL's contained in the final rules published by DOE in 2017.

This will impede the orderly phase-out away from inefficient light bulbs that Congress required to occur by 2020. Should DOE adopt its' February 2019 proposal, it'll result in massive lost energy savings, consumer harm and damage to the environment. Per estimates from the Appliance Standards Awareness Project, the rollback will cost consumer $12 billion more on their annual utility bills, cause 25 more

coal-burning power plants worth of additional annual electricity consumption. And that will result in 34 million additional tons of climate-changing CO^2 emissions.

Simply stated, this is a bad deal for consumers in businesses, a bad deal for the environment, a bad deal for the electric utilities who are counting on these significant savings in their generation planning. And it's also a bad deal for the retailers and manufacturers who are harmed by the additional uncertainty DOE's actions and inactions are causing.

Besides being unlawful, as I will discuss momentarily, this action is completely unnecessary given the current wide availability, excellent performance and cost effectiveness of energy saving LED bulbs that easily meet the 45 lumen per watt minimum standard today. And as an additional point of reference, the European Union and its 28 countries, have already completed their phase end of inefficient light bulbs. And that ended in September 2018. And the scope is quite broad and includes exactly the type of bulbs that DOE's now attempting to exclude.

Why then, is DOE working so hard to preserve the ongoing sales in the US of such an inefficient set

of products? Nowhere else can our nation achieve such massive energy savings, almost overnight, when the new product uses four to six times less energy than the product it replaces. For example, the LED lamp that replaces the old 65-watt incandescent reflector lamp, uses less than 10 watts to produce the same amount of light.

While NRDC will be providing more detailed written comments and additional legal analysis to the docket, I thought it'd be useful to summarize our attorney's legal position of DOE'S NOPR at a high level. First, the backstop specified in EISA, has been triggered. And the minimum standard of 45 lumens per watt is effective as of January 1, 2020 as stated in the statute.

I also want to note that due to the unique structure of EISA, this is a sales prohibition, meaning retailers may not sell through their existing inventory of non-compliant products after that date. Secondly, DOE's proposed rollback of the 2017 final definition rules, is unlawful for the anti-backsliding provisions and for other reasons. Full stop. Should DOE proceed with the proposed rollback of the definition, NRDC and others will almost undoubtedly pursue litigation to overturn it. We are committed to

pursue all means available to defend the standards and to ensure they're being enforced.

A quick word about retailer impacts. Much of the language of the NOPR refers to retailer uncertainty and impacts. Make no mistake, DOE's proposal creates more rather than less uncertainty. Retailers who choose to keep buying incandescent and halogens that don't meet the 45 lumen per watt minimum are at risk of future liability if they keep offering them for sale after January 1, 2020. We also found it puzzling that the NOPR focused almost exclusively on retailer impacts, yet fails to discuss or ask any questions about the afore-mentioned energy in consumer savings, environmental benefits or impacts on manufacturers, many of whom have already invested millions in developing energy saving LED bulbs and they've started to ramp down their incandescent production. A rollback of the definitions will harm those manufacturers and retailers who've been gearing up with LED products for the January 1, 2020 effective date.

And to put all this into perspective, the proposed rollback of the updated 2017 definition impacts the bulbs that go into 2.7 billion sockets, or almost half of all the residential sockets in the US.

This is a very big deal, and not some semantical argument about definitions. The rollback impacts very popular lighting products commonly used for general illumination throughout our homes, including reflector bulbs used in recessed cans and track lighting, candelabra or flame-shaped bulbs used in chandeliers and sconces, round globe bulbs and three-way bulbs. Contrary to what you may hear from NEMA and some of its members today, these are everyday bulbs and not some sort of niche or specialty bulb.

In closing, we urge DOE not to move forward with its proposed rollback of the 2017 GSL definitions. And we appreciate the opportunity to provide these introductory remarks. Thank you.

MR. RAMIREZ: Man, did you rehearse that?

MR. HOROWITZ: I did.

MR. RAMIREZ: That's spot on, thank you.

(Laughter.)

MR. HOROWITZ: 5.01 minutes.

MR. RAMIREZ: Chris?

MR. GRANDA: Good morning, my name is Chris Granda and I'm a Senior Researcher Advocate with the Appliance Standards Awareness Project. For 20 years, ASAP has promoted mandatory minimum energy efficiency standards at both US federal and state levels. ASAP

opposed DOE's GSL NOPR published on February 11th, 2019 and I'd like to explain why in three brief points.

The first is that this proposal would be very costly to consumers. I checked on the Home Depot website earlier this week and the prices of LED bulbs have now dropped so far that in LED energy savings pays back the slight price premium over the equivalent halogen bulb in less than one year. Because LED's 15 to 20 times as long as halogens, this means that LED's are now much, much less expensive to own and use than halogen or incandescent bulbs. LED lightbulbs make lighting more affordable. But we know that without standards, incandescent and halogen bulbs will persist in the market for many years.

This market behavior is nothing special. It's well understood and applies to many types of products. And we will support our analysis of that in our written comments. If DOE withdraws this NOPR, ASAP estimates that by 2025 the 45 lumen per watt GSL standard will save the average US household about $180 per year. Now that's equivalent to about 12 percent of the average annual residential electricity bill.

There's six billon light bulbs in use in the US and the light bulb standards will put $22 billion back into Americans' pockets. There's also a large

cost to the environment, of course. This NOPR would cause the emission of an additional 60 million metric tons carbon dioxide.

My second point is that what DOE is proposing is an illegal change to regulation. This NOPR frankly is poorly conceived. And a final rule that seeks to implement these changes to regulation would be illegal. If DOE issues such a final rule, we believe that would eventually be overturned in court. Some of the other speakers this morning will describe this legal vulnerability in greater detail. The NOPR also lacks clarity, lacks transparency and contains errors in its analysis. As my colleague, Mr. Horowitz, mentioned perhaps the most serious flaw is that it lacks any consideration of the impact of the impact of the NOPR on consumers. We'll describe these shortcomings more fully in our written comments as well.

Third point is DOE's NOPR injects uncertainty into a lighting market that's already strained by rapid change. Written comments on this NOPR are due by April 12th. Based on past experience, we expect DOE to issue a final rule sometime in late summer or early fall. If the final rule is similar to the proposed rule as you've heard from two speakers so

far this morning, we are confident that the final rule will be quickly challenged in court. This legal challenge will not be resolved until sometime in 2020 at the latest, I'm sorry at the earliest. Retailers are deciding now about bulbs to order for early next year and must place those orders by around July. This means that retailers will not know whether the light bulbs they have ordered will be legal to sell when they get to the stores.

If DOE believes that it has a compelling rationale for rescinding the January 19, 2017 GSL Definition Final Rules, why did the Agency wait almost two years to propose this? This NOPR feels less like a carefully considered policy, than de-regulation for the sake of de-regulation.

If a court overturns the Final Rule or the 2020 presidential election results in a new administration, retailers could suddenly find themselves subject to substantial fines with warehouses full of non-compliant, unsellable inventory.

To recap, DOE's GSL NOPR will decrease the benefits from the transition to solid state lighting to consumers and to the economy as a whole, making lighting less affordable. This NOPR proposes an

illegal change in regulation that will be challenged in court and likely overturned. And the NOPR adds uncertainty in a rapidly changing lighting market, uncertainty that benefits no one. We ask DOE to withdraw this NOPR and to confirm that it will enforce the January 1st, 2020 compliance date for the 45 lumen per watt GSL standard. Thank you for your attention. We look forward to participating in the hearing and I'll also be submitting written comments.

MR. RAMIREZ: Okay, great, thank you. Who was next that had their hand up? Okay, yeah, go ahead then.

MR. ZIMMERMAN: Hello, my name is Scott Zimmerman and I have over 30 years and 85 issued US patents in the field of lighting and displays. I recently co-authored with Professor Reiter, Melatonin and the Optics of the Human Body, that just published in *Melatonin Research*. The work for the first time quantifies the distribution of free radicals generated in natural and artificial light sources in the human body. The sheer fact that I of all people would be the first to run such a model should be of concern to this committee. In a nutshell, the work indicates that visibly-only emitters, LED's, OLED's and CFL's generate much higher levels of oxidated stress in our

cells than previously thought. Not just because of what they emit, but mainly because of what they do not emit.

We now know that the human body uses the near-infrared in a series of amazing biological mechanisms to protect us from UV invisible that we need to generate Vitamin D into C. In nature we are always exposed to an excessive of near-infrared photons, compared to UV invisible photons. Unfortunately, visible-only emitters, LED, OLED's and CFL's do not provide this protection. It can be shown that the fetus' eye, skin and brain all use near-infrared in ways that have not been considered by the lighting industry or this committee.

Circadian represents only one of many bioloptical processes at play in the human body, the majority of which occur in the near-infrared. The optical design of the body collects in localized near-infrareds in the eye, brain and skin. The amniotic fluids surrounding the fetus has its peak transmission at 850 nanometers in the near-infrared. And research indicates that near-infrared expresses the same proteins and amniotic fluid that has been shown to increase the risk of autism.

The eye blocks UV attenuates visible and

collects near-infrared, such that 90 percent of the photons hitting the retina do not go through the pupil, but instead go through the eye in sclera. The cerebral spinal fluid surrounding the brain acts as a light guide to funnel near-infrared into the fissures of the brain, flooding the gray matter with near-infrared.

This correlates with daylight studies showing that children learn better under natural sunlight, which is predominantly near-infrared. In recent ABCD studies indicating a thinning of the cerebral cortex under visual only stimulation. In general research indicates that the lighting industry and this committee should take a step back and reconsider the liability, risks and the public health issues associates with visible-only emitters.

I am not suggesting that we abandon LED’s, but suggest that the lighting industry bears a responsibility to the public to make sure that this is not another good intention, incomplete science scenario. Like Roundup and Asbestos, the lighting industry and this committee bears an additional burden of proof that has not been met before we universally eliminate 70 percent of the spectral content from our lives.

For those of who cling to the absurd notion that artificial lighting is benign, please take the time to run the numbers in your models, most of which can be done in an Excel spreadsheet. Recent research supports the premise that a direct link exists between visible-only emitters, LED's, OLED's and CFL's and autism, myopia, AMD and dementia. This is supported by over 4,000 peer reviewed papers and the medical industry on the area of the near-infrared photo therapy.

I do not make this statement lightly as it carries huge health and legal consequences to the industry. As an inventor, I can assure you there are a multitude of solutions that include LED's, but also include low intensity, thermo, and near-infrared sources where we still attain lumens per watt efficiencies up to 100 lumens per watt.

However, this committee has become a roadblock to innovation based on its actions. I respectfully request that you consider that we may need to change course and allow alternate approaches to be used.

What the research indicates is that pregnant women, young children, elderly and certain ethnic groups are put at the most risk and warning may be

necessary for these groups. Ironically, for the last 60 years the negative aspects of fluorescents have been mediated by the widespread usage of incandescent bulbs in our homes. Mandating visible-only emitters widespread usage low heat glass blocking near-infrared in skin cancer concerns have created a perfect storm eliminating unfortunately all near-infrareds from artificial environment where we now spend 90 percent of our time. This is leading to unintended health consequences that the public does not deserve.

Thank you.

MR. RAMIREZ: Great, all right, I really want to thank everyone for being very good with the timing. I really appreciate that. All right, so who's next? Richard?

I'm sorry, Don did you want to give comment as well?

MR. BRUNDAGE: Just briefly.

MR. RAMIREZ: Okay.

MR. BRUNDAGE: Don Brundage, Southern Company, I'm supportive of the proposed NOPR. I feel that the previous NOPR expanding the definition of general service lighting was over-reached when Congress set the backstop rule. It was for general purpose lighting, as it was defined at that time.

Some of the things said by some of the other speakers today, I do not agree with, that -- for one thing, we're only talking about a definition study. We're not talking about the backstop rule and whether it would be implemented. That's a topic for another meeting.

And market forces are moving strongly towards LED. These claims of massive energy savings from a backstop rule, I suspect that the actual savings would be a small fraction of that because so much of the market has already gone to LED's because of the obvious economic advantages mentioned.

And as an electric utility, when you're saving coal burning power plants -- I'm not aware of any coal-burning power plants under construction anywhere in the country right now. And my own company is, in the past three months, made proposals to shut down nearly two million KW of coal-burning power plants. So a comparison of light bulbs to coal-burning power plants is simply a false comparison, thank you.

MR. RAMIREZ: Thank you. Patrick?

MR. SAXTON: My name's Patrick Saxton. I'm an electrical engineer in the Appliances Office at the California Energy Commission. We appreciate the

opportunity to provide an opening statement to the DOE's NOPR for General Service Lamps. The Energy Commission's the primary energy policy and planning agency of the State of California. The Energy Commission and DOE share many similar mandates. One of the chief mandates of the energy commission is to reduce wasteful, uneconomic, inefficient and unnecessary consumption of energy in the state by prescribing standards for minimum levels of operating efficiency for appliances that consume a significant amount of energy on a statewide basis.

Appliance standards mandating high efficacy replacement lamps such as CFL's and LED's are some of the most cost-effective regulations with the largest consumer and statewide energy and monetary benefits that California has ever adopted. The Energy Commission set the first standards in the nation per traditional A-shape incandescent lamps in 2006.

In 2007, the California legislature required the Energy Commission to adopt minimum energy efficiency standards for general purpose lighting in order to reduce average statewide electrical energy consumption by at least 50 percent for indoor residential lighting and 25 percent for indoor commercial lighting. Later that year, the Energy

Independence and Security Act, or EISA, set forth a mandate for the orderly implementation of increasingly stringent standards for light bulbs.

In 2008, the Commission adopted regulations that aligned with Tier I and Tier II lamp requirements in EISA, effective earlier than Federal standards as a result of preemption exceptions for California. The Tier II standards, which set a 45 lumen per watt performance requirement for light bulbs, became effective for lamps manufactured on or after January 1, 2018 and sold or offered for sale in California.

This standard became effective because the backstop provisions in federal law were triggered through DOE's inaction in setting standards for these lamps. The National Electrical Manufacturer's Association, or NEMA, initiated a legal challenge in 2017 to California's lighting standards, including the Tier II general service lamp standards.

However, after NEMA lost its motion for judgement on the pleadings, NEMA withdrew its complaint and the standards took effect as scheduled on January 1, 2018. The Energy Commission strongly opposes this NOPR to withdraw the definitions for GSIL's, GSL's and other supplemental definitions because the backstop provisions in 42 U.S.C.

6295(i)(6)(v) have been triggered, the proposed withdrawal of the definition is unlawful because it constitutes backsliding. The vast majority of lamps falling under the revised definitions are readily available with light sources that easily achieve a minimum efficacy of 45 LPW.

For any lamps not readily available, production of lamps achieving this minimum efficacy is clearly technically feasible. Hardly a week goes by without the solid state lighting industry introducing an innovative lighting product that combines an LED light source and novel optics or form factor. The industry is so good at this that the traditional form factors or lamp shapes could likely be eliminated except for consumers' desire for visual replication of traditional lamp shapes. Maintaining the revised definitions would save billions of dollars, billions with "B" of dollars on utility bills and avoid 27 quads full fuel cycle of electricity consumption. Nearly all of the lamps which would be treated as GSL's under the revised definitions, have extremely short paybacks, many less than one year.

Withdrawing the proposed definitions now, ten months away from the effective date of a standard, only serves to harm manufacturers and retailers who

dutifully planned for implementation and may now have to eat that investment because of fickle DOE policymaking.

It harms innovative industry leaders who invest in and manufacture LED products by forcing them to compete with industry laggards who will not adapt to changing times and who would be protected by DOE's backward policy direction. It harms consumers who are faced with a confusing lighting market that makes this high efficacy and energy-saving LED's with low efficacy cheap incandescent and halogen, with higher upfront costs for LED's that result from the regulatory uncertainty caused by DOE's inability to meet EISA's requirements.

The revised definitions that effectively expand the scope of the GSL Standard due to the backstop represent an immense financial and energy-savings opportunity for consumers that is technically feasible and extremely cost effective.

DOE should rescind or modify the NOPR seeking to withdraw the revised definitions of GSIL's, GSL's and other supplemental definitions on order to preserve these historic savings. To do otherwise reaches into the pocket of US citizens and takes money from them. The Energy Commission will be submitting

more detailed written comments by the April 12th deadline.

MR. RAMIREZ: Great, thank you. You were making me nervous there, Patrick. But you hit the mark. Okay, thank you.

Who's next? Oh, go ahead, Mary.

MS. ANDERSON: Hi, this is Mary Anderson with Pacific Gas and Electric. One of the utilities that has counted on these savings for our grid planning, I'm here to advocate for cost-effective standards and promote energy-efficient technologies in the interest of rate fares and consumers, especially those lower-income consumers that will be harmed by this NOPR.

This NOPR is overall counter-productive and sets damaging precedent that unlawful political and legal stalling tactics may impinge on decades of progress towards cost-effective regulations that lead to positive social and economic impacts that are beneficial to all US consumers. The proposal in this NOPR, if finalized and left unchallenged, would set a precedent for any DOE final rule in any product category or rulemaking that they are not in fact final. This would create perpetual uncertainty among stakeholders and damage any efforts for regulators in

the industry to collaborate.

When challenged in court, ongoing litigation will create further uncertainty. This NOPR is advocated by only a portion of the manufacturing community. This NOPR contains billions of dollars in consumer savings and channels a small portion towards manufacturers who will continue to sell low efficacy lighting despite the last 12 years of market signals indicating that low efficacy lighting will be phased out by 2020. While we do not represent or speak for manufacturers, we caution against accepting this short-sighted advocacy of one segment of the manufacturing community as representing either, one, the position of all manufacturers or, two, the best interests of American industry.

The definitions that the NOPR would roll back represent positive progress to consumers and other market participants. It diverts burdens towards consumers, retailers and utilities and rewards certain industry players at the expense of innovators. Congress mandated that any lighting used in general service applications be subject to a 45 lumen per watt backstop. The national ban on sales of low efficacy lighting by January 1st, 2020. Therefore, any activity that creates uncertainty as to which lamps are general

service and therefore subject to the backstop, puts retailers at risk of amassing inventory that can no longer be moved or sold. In this way, this NOPR creates an enormous economic waste. DOE should not adopt the changes proposed in this NOPR. Thank you.

MR. RAMIREZ: Great, thank you Mary. Tim?

MR. BALLO: Good morning, I'm Tim Ballo with Earthjustice.

Let me begin acknowledging the Department's choice to devote resources to this exercise. Since January 2017 DOE has missed more than a dozen energy conservation standards and test procedure rulemaking deadlines established by statute. Yet, rather than meet those legal obligations, or at least minimize the duration of its violations, the Department is misallocating staff time, attempting an unlawful rollback of a lawfully promulgated expansion in the scope of the energy conservation standards for general service lamps.

The proposed rule suggests this action could reduce uncertainty for retailers. That is incorrect. The lawfully promulgated definitions that the Department is seeking to change are not subject to further judicial review. The only petition for review challenging those regulations has been dismissed at

the Petitioner's request. In contrast, repeal of those definitions will likely be challenged in court. Pressing ahead with the proposed action will force retailers to gamble on that judicial outcome.

Moreover, the standard that all general service lamps sold at retail must meet, beginning on January 1st, 2020 is equally clear, 45 lumens per watt. The Department is without authority to apply a weaker standard to any general service lamp, to the extent manufacturers and retailers may anticipate receiving a free pass from the Department, please observe that Section 334 and 335 of the Energy Policy and Conservation Act provide for vigorous enforcement by states and indeed by any person.

Finally, I wanted to note at the earliest possible opportunity that the categorical exclusion determination for this action, perhaps the one that briefly appeared on the Department's website last summer and then went away, is not available at the internet address indicated in the Federal Registered Notice for this proposed action. Thank you for the opportunity to speak today. I'll provide further details in written comments.

MR. RAMIREZ: Okay, thank you Tim. If it's all right, I'll skip the Department and I'll just come

back at the end, in the back?

MR. SILCOX: Good morning, Clark Silcox for the National Electrical Manufacturer's Association.

NEMA appreciates the opportunity to make brief comments at this public meeting on the Notice of Proposed Rule. First, we support the Department's decision to align its definitions with the scope of the products directed by Congress to be regulated as general service incandescent lamps and general service lamps. It's no secret that NEMA believes the Department's January 1st, 2017 definitions were illegal and went far beyond what Congress intended. For this rulemaking through the text of the statute, we've given our reasons and our interpretation of the statute in prior comments and we will not take up further time here on the subject.

But on the topic of backsliding that might be triggered by this NOPR, I'll just add that the government cannot illegally backslide from a point that it could not stand upon in the first place. And that's what's going on here. So there is no backsliding.

Second, by getting these regulatory definitions right, the Department will reduce regulatory uncertainty, not only in the short run, but

in the long run. The tenor of the Department's notice showed that there was considerable anxiety in the retail sector about the lamp products in inventory. Approving the NOPR as a final rule resolved some of that anxiety. Third, NEMA's main ask during the rulemaking has always been that the DOE carry out what Congress asked the Department to do back in 2007, as reflected in the text of the statute. That remains our ask.

So that brings us to the issue that DOE has now stated it will address in the future, DOE's determinations on standards for various lightbulbs. DOE has not yet adopted any new or amended standards applicable to general service incandescent lamps, CFL's, general service LED's or other lamps. We have wanted DOE to get there sooner, both in the past and now. And we ask that DOE complete this rulemaking with all deliberate speed in accordance with the law. Just as the market needs clarity with respect to the scope of general service lamp standards for the definition, the market also needs clarity with respect to the standards themselves.

DOE proposed a few standards during this rulemaking back in 2016 and then got sidetracked when it turned its resources to redefine the general

service lamp. But a lot has changed in the market for general service lamps since 2016. Most of the energy savings that DOE might have envisioned from regulating general service lamps back in 2015 or 2016, has occurred in the meantime without federal regulation, and that trend will continue. Data from even 2015 is outdated and obsolete. In 2015 the general service LED lamp was way behind the CFL and halogen incandescent lamp in terms of shipments and installed sockets. In just four short years, this situation has totally reversed. And shipments of general service LED lamps far exceed the total shipments of the other two lamps combined.

DOE's technical support document issued in connection with its 2016 Standards NOPR, predicted that DOE regulations would make the general service LED lamp the dominant lamp in the general service lamp category in 2020. In reality, the general service LED lamp became the dominant lamp in that category in the third quarter of 2017 without any regulation. NEMA forecasted in early 2016 during this rulemaking that shipments of CFL's would fall significantly toward zero in the coming years and they have. And that's coincided with the dramatic rise of general service LED lamp shipments beginning in 2017 and continuing

significant decline in halogen incandescent lamp shipments. To give the public a rough idea of the magnitude of the general service lighting transformation, consider the following.

There were between 1.7 and 1.8 billion units of general service incandescent lamps shipped in the US in the year 2001. There was a very small number of CFL's shipped during 2001, under 100 million units, which was less than 6 percent of all general lamp shipments at that time. While we do not have final data yet for 2018, there is every indication that the number of general service incandescent lamps shipped in 2018, will be less than 15 percent of that shipped in 2001.

Since 2014, the number of GSIL shipments as a category has itself fallen by half. And there's no reason to believe these trends will not continue. Congress didn't see this coming in 2017 when it enacted EISA. And frankly, neither did the lamp manufacturing industry. Our best estimate right now is that the general service incandescent lamps occupy about 25 percent of the general service lamp sockets, maybe less. That's down from almost 100 percent to 2001.

So what this rulemaking will ultimately

decide is what should the federal government do about the remaining 25 percent of the general service incandescent lamp sockets? There are some who would argue the DOE should kill off that product next year. There are others who probably would argue just to let consumer choice in the market rule and will eliminate the GSIL on its own in a rapid period of time.

EPCA provides the Secretary with a number of regulatory options in between both of those two poles. Lighting manufacturers are first and foremost very competitive. And it is that competition to satisfy consumer demand that has been driving the market transformation I just described. Significant advanced notice of government regulatory action and planning is important to that competition.

There's also the fact that the general service incandescent lamp is still made in the United States and the two factories employing several hundred people in Ohio and Pennsylvania are working through this transition. One of those plants has recently begun producing LED lightbulbs.

As the Secretary of Energy considers its legal obligations under the statute, the Secretary should consider not only how far the competitive market has already come on its own, but the prospects

forward and adjustments to be made to rationalize continuing manufacturing in the United States. NEMA supports the nation's efforts to transition to the energy efficient lighting and our members are proud to have greatly contributed to that transition already. We will submit more detailed comments next month.

Thank you.

MR. RAMIREZ: Thank you Clark. Anyone else in the back? Okay, go ahead.

MR. COOPER: Mark Cooper, Consumer Federation of America.

MALE VOICE: Microphone?

MR. RAMIREZ: Yeah, I'm sorry.

MR. COOPER: Never had that problem before, but okay. Mark Cooper, Consumer Federation of America.

I'll make five points which we'll elaborate in our formal comments. The simple message is that the attack on efficiency standards is wrong, imposing billions of dollars of unnecessary costs on consumers and the economy. In fact, our analysis shows that this is single most important consumer pocketbook issue that most policy makers will actually face. It's a huge issue.

My five points: First, consumers have

benefited enormously from appliance efficiency standards. We estimate that past appliance efficiency standards save consumers $750 billion net of technology costs and environmental benefits. Current standards will save them an equal amount raising the total for standards that were on the books and implemented to $1.5 trillion. And our analysis shows that future standards could save another $1.2 trillion. That's net of technology costs and not including environmental benefits. Believe me, the single most important benefit is the consumer pocketbook benefit followed by the macroeconomic stimulants.

Two, consumers are well aware and understand that even those standards may, only may, raise the costs of energy consuming durables, the value of energy savings vastly exceeds those costs. And so our public opinion polls show they actually get it. They support standards vigorously every time we ask them. And we've been doing that for 12 years. To the extent that energy efficiency standards affect durable goods that are used in commercial and industrial sectors, these are consumer issues. Who do you think pays the burden of excess costs, the tooth fairy? No, the consumer pays the costs of wasting energy and

production and distribution.

Fourth, we described the approach to standards being implemented across all agencies in light of the passage of the Energy Independent and Security Act as command but not control regulation, that's really important. Our analysis of standards has identified six characteristics of command but not control regulations. They should be one, technology neutral; two, product neutral. They should be three, moderately aggressive and progressive setting targets that, four, are responsive to consumer needs; five, are responsive to industry needs. This ensures that six, they will unleash market forces of competition and innovation around the standards. Well crafted standards create the direction and certainty that the industry then grabs. And having those standards is extremely important. The fact that the industry exceeds it, is wonderful because that's exactly what well-crafted standards are supposed to do.

Fifth, we believe that because standards are so good for consumers, Congress has an active legislation that requires these substantial benefits to be delivered to consumers. In the appliance space, they've actually set timelines which the government has almost never adhered to. In many cases, the

attack on efficiency standards are simply illegal. In some cases, the attack on efficiency standards violates the administrative procedures. Illegal or not, in all cases, the attack on efficiency standards is immoral. The effort to roll back standards will cost consumers dearly and they will be rejected by the public, every time the public gets a chance to express its' opinion, not only in opinion polls, but also in the polling booth.

We have analyzed the full range of efficiency standards across all these consumer durables. We have shown in fact that each observation I made applies to lightbulbs. And in fact, in a certain sense, lightbulbs are extremely important and they shed a very strong light on these issues, pun intended. For the average consumer, about 10 percent of their electricity bill is involved in lighting. And these standards will lower that cost and you can tell me well, that's a small part. But it's all small parts that adds up to a very large, expenditure. The current definitions for general service lighting should be maintained. Therefore, the Department should withdraw its Notice of Proposed Rulemaking because that is in this interest of consumers, the economy and it has some environmental benefits too.

But the primary benefit is overwhelmingly for consumers and the economy. Thank you.

MR. RAMIREZ: Great, thank you Mark.

Anyone else in the back? Okay, Louis?

MR. STARR: Yeah, I assume everyone can hear me if I don't speak in a microphone?

MALE VOICE: No we didn’t.

MR. STARR: So, my name is Louis Starr. I’m with Northwest Energy Efficiency Alliance. We are an organization that represents 140 utilities and have 12 million customers. Obviously, we’re not in favor of the change in definition from the 2016 to the current version. We see three main problems that this is going to create. The Northwest does a lot of planning. We plan in 5-year terms through the future through our power plants. And so, you know, part of this definition and the savings that we get are in our power plant and built in there. And so if that definition changes, it changes how we’re going to do our planning and effects long-term planning for our energy use and where we’re going to get it from.

Another aspect of this too, is that things that we were going to spend on, incentives and basically investments in getting other kinds of products that have efficiency gains, we now may have

to actually go back and incentivize lighting, that last 25 percent in order to get those savings, that we otherwise could spend on more cost-effective products.

And the last thing I'll say is that the regulatory uncertainty, you know, there's the regulatory uncertainty of the manufacturer but there's also the regulatory uncertainty that this produces with utilities. And I would think DOE should look at that factor as well. Thank you for your time.

MR. RAMIREZ: Great, thank you Louis. I believe that was it, correct? Okay, my last check online, there was nobody that had their hand up. But they have plenty of opportunity if we need to come back, we can come back and do that.

So what we want to do next is to start reviewing the agenda. And these are the items that we're going to cover. And the way that I'm going to do this is that, actually you know what? I take it back. Did the Department, do you have some comments you want to make? Okay, so quickly, so we set this up. The way we're going to do it, is the Department's going to go through each of these sections. And then I'm going to pause at the end of each one to see if there's any comment on it. But the way I want to do that is I want to try to limit the first round, very

similar to like we did here with opening statements where, two minutes, right? No more than two minutes on comments. And then we'll go through. If the comments are quick and we have more time, what we're going to do is a quick one-minute round to see if there's any responses to comments. And if there's still additional time after that, then we could have some general dialogue if we need it, right? But this way we could try to get through the entire agenda. Is that clear for everyone? Okay, all right. Great.

Yeah. Dan. Okay, I'm sorry.

MR. RAMIREZ: I'm sorry, I'm getting my glasses.

MR. RAMIREZ: Yeah, no, we're good. You're good to go.

MR. COHEN: Morning, thank you all for being here.

MR. RAMIREZ: And Dan, I think everyone knows you, but, if you don't mind.

MR. COHEN: I'm Dan Cohen, Department of Energy. So, first I want to start by going over some of the history at play here and much of it has been touched on and in the opening comments, just to set the framework for where we are in the rest of this discussion today.

The Energy Policy and Conservation Act which is the authorizing statute under which we operate for this particular program, adopted the definition of general service lamp as a statutory matter. And it's the definition on the board behind me, includes General Service Incandescent, GSIL's, for short that we've all come to know, and Compact Fluorescent Lamps, CFL's, and two different types of LED's, general service LED's and organic LED's.

And then there is, and I guess this is the issue that we're discussing today, this last portion of the definition, talks about any other lamps the Secretary determines are used to satisfy lighting applications traditionally served by GSIL's. The statute also very clearly says what the definition does not include, and that is lighting applications or bulb shapes excluded from the GSIL definition. And we'll get to that in a moment. General service fluorescent lamps and incandescent reflector lamps, those are explicitly excluded from being GSL as a statutory matter.

The statute also directed that DOE conduct two rulemaking cycles to evaluate the potential for standards for general service lights. The first rulemaking cycle was to be initiated no later than

January 1 of 2014 and the two questions the statute directed that we answer in that rulemaking were one, whether standards in effect for GSL should be amended to establish more stringent standards, right? And there were certain standards that were already in place because of the statutory definition for lamp types that were covered by the statute. And two, the Department was directed to determine whether exemptions for certain incandescent lamps should be maintained or discontinued based in part on sales data, on lamp sales for those particular types of lamps.

And in addition, the statute made clear that the first rulemaking cycle, the one that began in 2014, wasn't limited to incandescent lamp technologies and had to consider this 45 lumen per watt standard for general service lights. So regarding question one, the statute says if the Secretary determines that standards in effect for GSIL's, not GSL, but GSIL's, particular type of GSL, if the Secretary determines that standards in effect for GSIL's should be amended, the Secretary has to publish a final rule not later than January 1, 2017 with an effective date that's not earlier than three years after the date on which the ruling is published.

So there's two parts of that. There's an "if then". If the Secretary determines that the standards in effect for GSIL's should be amended then the Secretary shall publish a final rule. And then with the number of comments here this morning already, if DOE fails to complete a rulemaking in accordance with that criteria, or the final rule doesn't produce savings that is equal to or greater than 45 lumens per watt, then a backstop requirement kicks in. That sets a sales prohibition for lamps that are not better than 45 lumens per watt.

Typically, when the Department sets energy conservation standards, what the Department is setting is either a performance metric, some amount of input for output, or a design requirement. "The product shall not have" if it's a gas product, let's say a pilot light or something like that. So that's what we typically said. And that is based on a manufacture date and product that's manufactured before the date can continue to be sold, even if it doesn't meet the new standard, because it was manufactured at a time when that standard didn't apply. But a product manufactured after the date must meet the new standard. This is different. This is a sales prohibition. So regardless of when a particular

product might have been manufactured, if it doesn't meet that particular requirement, it can't be sold, which is different from a standard. That is a pure sales prohibition.

So DOE initiated that first rulemaking cycle. We published a framework document in December of 2013. We published the proposed rule in March of 2016, which focused on the first question of the two that the statute directed us to answer. And that question was whether to amend standards for GSL's.

And we, in that particular rulemaking we analyzed and proposed standards that would have applied to bulbs other than incandescents. Why, because there was a statutory prohibition in place at that time that we refer to as the Burgess Amendment, I guess since he was the main sponsor, which prohibited the Department from gathering the information and doing the analysis and setting standards for incandescent lights.

So in some ways we were in a sort of legal catch 22. That we had a legal obligation to make a determination with regard to incandescent lamps, but we also had a legal obligation to not make that determination because we were prohibited by law from spending money on it. And this is not new ground.

This is throughout the history of this rulemaking, we have been very clear about that in all of the various documents that the Department published.

But that appropriations rider was not continued starting in the appropriations for Fiscal Year 2017 -- well, actually for 2018, I'm sorry. It was in 2017 applicable to Fiscal Year 2018 appropriations. And so as a result, that prohibition on our ability to do the work that was required of us for Question 1 of the two questions that we were directed to consider, was removed. And we actually started up that process.

We published a Notice of Data Availability seeking information on GSIL's and other incandescent lamps. And many of you provided data in response to that. And that's been very helpful. We also stated in that Notice that because we had not previously, when we did all of our prior rulemaking documents in this proceeding, because we had not previously considered that first question, because we were legally prohibited from doing so, that it might lead us to revisit the decisions we had previously made with regard to incandescent lamps.

So, to be clear on this, that decision, and we said this very clearly both in the Notice of Data

Availability in 2017 and the proposal that we're discussing today, that first determination, the determination as to whether standards in effect for general service incandescent lamps needs to be amended and whether it's a set standard for general service lamps. That's not a determination that has yet been made by us. And again, that's been clear throughout this process. We've made that statement many, many times.

But it is also a decision that we are still obligated to undertake. And we will, and what we're talking about today, is part of that process to figure out what is the scope of the lamps that would be subject to any standard, assuming we make a determination that standards needed to be amended. And as a result of that, because the statute has a predicate to the backstop -- the predicate being if the Secretary, which is a discretionary determination, if the Secretary determines that standards in effect for general service incandescent lamps needs to be amended, because that determination hasn't been made. The predicate for the potential for the backstop simply doesn't exist. And we couldn't have made that determination. I'm talking about the January 1, 2017 date here.

But the existence of the appropriations rider meant we couldn’t have made that determination by that date anyway. So as I said, there’s sort of a legal catch 22 that I think went backwards.

So let me now get into the particular lamps that we’re discussing here today.

MR. RAMIREZ: And Dan, just really quick, are there any questions on that, the overview so far?

Okay.

MR. BALLO: Tim Ballo with Earthjustice.

Imposed is an interesting choice of words because you're technically correct. The standard is not imposed until January 1, 2020 regardless of whatever DOE thinks about the standard. Imposed is not triggered. Triggered is the word that I -- would you use the words triggered there?

MR. COHEN: No. I would not use the word triggered there. It is not -- well, in the sense that we have not been triggered if that's what you mean. You could use -- I guess if you want to use the word triggered is whether that is a question as to if the predicate had been met and we failed to meet the legal obligation for the promulgation of the rulemaking, then, yeah, triggered, I guess, is a word I could use there. And the point we would have is that we have

not been triggered because we have not made the decision that would have triggered the concept of the backstop being legally operative.

MR. BALLO: Thank you for clarifying.

MR. RAMIREZ: There was a request to go back one slide.

MR. COHEN: I have one more. Sorry.

(Pause.)

MR. COHEN: Is there a particular question or --

MR. RAMIREZ: No. I just -- as I was listening to his question.

MR. COHEN: Mm-hmm.

MR. RAMIREZ: Okay. Great. All right. Thank you everyone. Dan?

MR. COHEN: Okay. Thank you. So let's go forward now. So the definitions -- this is all about definitions -- so the definition of GSIL is on the screen behind me and I'm not going to go through all the details of it. I mean, it's hard to read anyway and -- even for me. I can't get the screen far enough away from me to actually be able to focus on it anyway.

(Laughter.)

MR. COHEN: But I would point out a couple

of things from that definition.

So first, that definition of general service incandescent lamp has, as a statutory basis, that it includes a medium screw base. It sets certain lumen ranges for what could be considered a general service incandescent lamp. This is all before the exception, right? So the clear -- as a legal matter, what could even be considered as a general service incandescent lamp has to have those factors. And then the statute sets out 22 types of lamps that are not included in the definition of general service incandescent lamps. So the incandescent versions of those lamp types are not general service incandescent lamps.

Now, what we're going to talk about the rest of today is those 22 different types of lamps because the rulemakings at issue that were published back in January of 2017 was assessing whether those lamp types should, in fact, be considered GSILs.

So going through them, there were five lamp types, rough service, vibration service, three way incandescent, certain lumen range -- high lumen lamps and shatter resistant lamps that, by the rulemakings at issue today, that were promulgated in January of 2017, which we're proposing to now remove or withdraw, were included as general service incandescent lamps

for purposes of the definition. But those lamp types are also subject to a separate regulatory regime under the statute, under a different provision of the statute.

So the general service lamp rulemaking is being conducted under section 6295(i)(6). These five lamp types are subject to a regime that's under 6295(l)(4). So and what that regime does, is it sets up a process, and it did it back in 2007 at the same time that the amendments were enacted with regard to general service lamps. A regime where the Department has to, on an annual basis, monitor sales. Right? Again, the same thing about lamp sales, which is at play in the definition of general service lamps as well.

And the Department, as we were obligated to do back in 2007, published a benchmark survey that laid out what we projected would be lamp sales for those lamp types, and we monitor, on an annual basis, and if the sales of lamps exceeds that threshold by 100 percent, then the statute directs that the secretary would undertake what it terms as an accelerated rulemaking by a date certain, and sets up a different backstop requirement if the Secretary fails to complete that accelerated rulemaking. And it

depends on the particular lamp what the particular backstop might be.

And this actually occurred in 2015. There was a -- the sales thresholds for rough service and vibration service lamps exceeded that -- the threshold by the requisite amount and so the secretary was triggered to undertake a rulemaking and we didn't do it by the time it was required, in part, I think because the way the statute is set up, there's no physical way to actually have met that deadline given the way the sales tracking occurs.

So a backstop requirement applied and we have now issued a rulemaking to implement those two backstop requirements. And so those rough service and vibration service lamps are considered and dealt with in that rulemaking. So our view is that Congress, at the same time they set up a process for considering general service lamps and also this process for dealing with these five lamp types didn't expect that there would be double -- essentially double regimes applicable to those lamp types. Congress set up a regime for these five lamp types and we're applying that regime. And when it is triggered, we are, in fact, doing what is required under the statute.

So those lamp types -- well, whether

considered general service lamps for purposes of the rulemaking we're talking about that is still yet to come to consider standards, and even today's definitions rule. Regardless of the outcome of today's proceeding and that standards rulemaking, those lamp types are subject to a regulatory regime under the statute. That's not going to change. And in fact, that regulatory regime has been operative, and I think I've covered most of that.

So other exemptions, there were a number of -- I know my lighting friends here in the room are going to blanch when I say this, but I call them odd shaped lamps.

MR. RAMIREZ: Dan, before you get any further, any comments on the five exempt lamps? Yeah. Let me go. Is it Phi?

MR. NGUYEN: Phi Nguyen --

MR. RAMIREZ: Phi?

MR. NGUYEN: -- Energy solutions --

MR. RAMIREZ: Okay.

MR. NGUYEN: -- California IOUs. I just wanted clarification on this notion of double regulation so that I can understand this. GSILs are -- they have standards. They have maximum watts requirements. Yet, they -- the backstop 45 lumens per

watt applies to GSILs because they are defined as GSLs. So is that also considered double regulation?

MR. COHEN: So, no. That would not be double. That's -- that would still be considered under the GSL regime because Congress included those as GSILs as GSL.

MR. NGUYEN: How is that different from the five lamps? I don't follow.

MR. COHEN: Because the -- because that at first, the standards you're talking about were statutory and then, we're now looking to determine whether in fact the standards need to be amended. That's what Congress told us to do. That happens throughout this statute. Not just for lamps, but for any number of other products where Congress will set an initial standard and then direct the Secretary to consider whether those standards should be amended. In this -- the instance of these five, Congress set up the process by which that subsequent consideration for standards should be considered, and to say, those aren't GSILs. We want them over here. Right? Because they're excluded going back to the definition.

MR. NGUYEN: So --

MR. COHEN: So they're specifically excluded from the definition of GSIL.

MR. NGUYEN: Right. And so doesn't that relate to DOE's mandate to consider whether they are even excluded? Isn't that part of it?

MR. COHEN: Okay.

MR. NGUYEN: So wouldn't also be considered -- wouldn't GSILs also be considered double regulation, I guess, in that sense?

MR. COHEN: Again, no. That regulation was what Congress directed us to do for those lamps that are, in fact, GSILs. And it's a rulemaking that we are obligated to do or are in the process of doing.

MR. NGUYEN: Thanks for clarifying.

FEMALE SPEAKER: Okay.

MR. COHEN: Thank you. Patrick.?

MR. SAXTON: I'm going to come at Phi's. Pat Saxton, California Energy Commission. I'm going to come at Phi's question from the other direction. Since Congress also required DOE to consider if exemptions to GSILs should be continued -- discontinued -- excuse me -- I don't understand why you're describing those two actions to occur in isolation and in a specific sequence.

MR. COHEN: And I'm not. And I'm actually saying that our consideration is that those five lamp types, because Congress put them in a separate regime,

we don't believe that those should be considered as GSILs. That the consideration that Congress asked us to do about whether the excluded lamp types should be GSIL wouldn't apply to those because Congress, simultaneous with setting up that obligation, also put them in a different portion of the statute.

MR. SAXTON: Okay, thanks.

MR. RAMIREZ: John?

MR. ZIMMERMAN:: Oh, no, Scott. Yeah.

MR. RAMIREZ: Oh, Scott? Okay.

MR. ZIMMERMAN:: Scott Zimmerman, Silas. I'm kind of the lone wolf here. Again I don't want to feel like I'm being run over by a steam engine. But in our particular case, we are innovating a different kind of light. It's a hybrid system. It involves using an LED and an incandescent where the incandescent is run in a low voltage such that it actually outlives the life of the LED and it also controls the voltage on the LED itself, eliminating the need for drivers. That hybrid solution is dependent on the availability of incandescents. This is being done for high base. It's being done for a variety of different things.

How does -- I -- in particular, I know the gentleman who used to make in the US, the only

manufacturer of rough service lamps, incandescent lamps, got put out of business because of this particular situation.

And all I'm saying is is that, how does innovation allowed to occur when you're essentially taking away -- it -- what people don't understand is is that incandescent is providing 10 times the amount of near-infrared divisible, and natural sunlight is one to one. By adding just a little bit of incandescent, not only do you eliminate the driver and provide on the infrared that is compared to natural sunlight. But if you're taking away all my ability to get, other than to go to China, those particular incandescent bulbs, you are essentially squashing incandescent. And based on our research, may be the only solution to prevent a huge liability issue associated with visible-only LEDs.

If I'm right, fine. If I'm wrong, simply adding a little bit of incandescent to an LED -- this is a patent pending, you know, approach, novel -- yeah, with multiple filings and multiple people interested in that fabrication, but I need an incandescent to go along with my LED to make this happen. So how does a hybrid fit into this whole situation?

MR. COHEN: Admittedly, I'm unaware of your technology. So I don't know that I can answer that question here.

MR. ZIMMERMAN: But I'm just telling you that --

MR. COHEN: Right. Yeah.

MR. ZIMMERMAN: -- as a comment, you shut down one manufacturer in the U.S. based on this change, that same rough service bulb could've been used in our hybrid situation made in the US and now we have to go overseas.

MR. COHEN: So just to be clear though, with the shutting down comment you're making -- I just want to be clear on that -- that's with regard to the rough service and vibration service lamps where you're talking about now, not the definition rule that we're discussing here?

MR. ZIMMERMAN: I understand and I'm sorry if that's not the -- what you're trying to -- all I'm saying is is that, there is an implication by you doing what you're doing.

MR. COHEN: Right.

MR. ZIMMERMAN: And especially if you go in now and say that a bunch of these things that I can presently go and get are no longer allowed under the

exemption. And I'm making 180 to 100 lumen per watt hybrid systems because I'm simply using a little bit to match what we normally used to get in the summer.

MR. RAMIREZ: Okay. Scott, the two minutes are up. Let me go to Noah, then Chris.

MR. HOROWITZ: Noah Horowitz with NRDC. I'd like to focus, Dan, on the three-way incandescents and shatter resistant lamps. Assuming in 2020, as we have stated that 45 lumen per watt standard goes into effect, at that point, the motivation for manufacturers and retailers to further promote three-way incandescent bulbs and shatter resistant bulbs really goes up. So this could easily become a loophole. The consumer that used to buy a 100 or a 60 watt incandescent bulb, all they need to do is buy a 30, 70, 100 watt bulb. Two clicks, they have the equivalent of the 60. Three clicks, they've got the 100 watt and these are even less efficient than the original incandescents and aren't even subject to the 25 percent savings from tier 1.

Also, while there is a safeguard system in here, it takes a while for the tracking and it's unclear to us where that sales data is coming from and how accurate it is. And it takes a while for the fix to go into effect. And the fix in some cases is,

instead of using 60 watts, you only need to use 40 watts, when instead, we could've had lamps that used less than 10 watts for that same bulb. And shatter resistant is a very broad and very scary potential loophole. Take any lamp, put a cheap five cent neoprene coating over it, now you're shatter resistant. So you could put that on any bulb and almost overnight not be subject to the regulations. Thanks.

MR. RAMIREZ: All right.

MR. COHEN: All I'll say in response is that, you know, your comment is premised on the notion of a standard, which is a sales prohibition and one could question whether that sales prohibition is, in fact, a standard. That's a separate question. And second, you know, just our view is that Congress created that regime for a three way lens. If in fact, what you're suggesting were to occur, we would be monitoring the sales data and we would do what Congress directed of us to do. And if -- I hate to use the word loophole, because it's -- if it's some -- carries somewhat of a pejorative, but you know, the law says what the law says. If we -- if it were to be triggered, we would take the appropriate action.

MR. RAMIREZ: Okay. Thank you.

Chris?

MR. GRANDA: Thank you. Chris Granda. Two things briefly, first in response to Mr. Zimmerman's concern, I don't think there's anything in any of the existing or future standards that would prohibit any specific technology from being used to meet that standard. So as a technology agnostic standard, the product that you described, as long as the package was within, you know, that 45 lumens per watt threshold, should be just fine. At least that's my reading of it. My question is --

MS. MILLER: I think we're getting a little pickup. Scott, can you turn your mic off?

MR. ZIMMERMAN: Oh, sorry.

MR. GRANDA: My other question has to do with what seems to be a distinction, Mr. Cohen, that you're drawing between -- GSLs as defined in statute and GSLs as defined by DOE under authority provided to DOE in statute, are you creating a distinction between those two things?

MR. COHEN: No. What I'm saying is that we have undertaken a portion of what was required of us by law. We had two obligations, one to make a determination whether standards in effect for GSL's needs to be amended. And two, to consider whether

other lamp types that could meet general service lamps that were otherwise excluded from the GSIL definition should, in fact, be included. We did that. But we have now sort of rethought what we had done in that rulemaking and we have thought that maybe that wasn't as well taken as we had previously decided. So we're looking to withdraw that -- we're proposing to withdraw that prior rulemaking because for the reasons I was just laying out for instance for the five lamp types that are considered here for purposes of this portion of the slides. And we'll get into the additional lamp types that are at issue. We realize that Congress setting up that separate regulatory regime simultaneous with that obligation meant Congress really wanted those lamp types to be considered under that other regulatory regime and not part of the GSL rulemaking.

MR. RAMIREZ: Okay.

Phi?

MR. NGUYEN: Phi Nguyen again, Energy Solutions. Sir, I wanted to go back to double regulations so that I get this. Given that these five lamps, the backstop for those are maximum wattage requirements and the backstop for GSLs is a 45 lumen per watt requirement, two different metrics. Does DOE

still consider that double regulation even though it's two different metrics?

MR. COHEN: Congress chose the metrics for purposes of those five lamp types. We didn't. That's in a statute. That's the type of regime that Congress chose to comply with and we don't have control over that. That's just what the statute says.

MR. RAMIREZ: Okay. And I made a little mistake there. I should've made sure that anyone else had any comments before went back to Phi. So but, Tim?

MR. BALLO: Dan, I'm wondering if you can clarify for me what DOE believes is encompassed by the term exemption in the second subclause that -- if you look at the exemptions for -- from general service lamps. Part of the general service incandescent lamps I guess.

MR. COHEN: I think what we considered in the prior rulemaking is the January 2017 rulemakings were the 22 types that were excluded from the definition of general service incandescent lamp.

MR. BALLO: And that still is the issue -- thank you.

MR. RAMIREZ: Okay. Is there anyone else that hasn't yet made a comment that would like to do

so before I call on Patrick again? Okay.

Patrick?

MR. SAXTON: So there's been a lot of discussion of congressional intent and what they want they want DOE to do. I'll just say I find it confusing that -- because many incandescents did have prior standards and now, it's -- we're talking about the different standards for the five exempt types all at a much, much -- in fact, a radically different level than the rest of general service lamps, in which those same incandescents are included.

So, strange that Congress would leave an entire broad category of lighting. In fact, at the time 2007, the most populous category of lighting at a very low level and then say, CFL's which already met that level and LEDs which were just emerging, but expected to meet that level should Congress would prescribe something there, but not mean to and prescribe it over there. So thank you.

MR. COHEN: Yeah. All I'm going to say is we, you know, we can't -- we won't pass judgment on Congress's wisdom going one way or the other, it's just what the statute says is what it says. And but we hear you in terms of the confusion and we've heard that now from many corners, which is why we're

actually get engaged in this rulemaking. Our hope, goal and desire here is to alleviate that confusion.

MR. SAXTON: Okay. I need -- real quick, so I don't know the operative procedure for a federal agency. For a state agency in California, if there's a conflict in our legislature, we assume that they in fact, by law, we're required to assume that they understood that conflict and proceed. So in this case, if this was California, we would, by law, acknowledge the conflict. But they clearly meant to include GSILs.

MR. RAMIREZ: Before I call on Noah, I just want to make everyone aware that, we're not ignoring the folks online. I am checking with Naeema every now and then to make sure that there's any hands raised, and so far there haven't been any. So we are keeping them in account.

Noah?

MR. HOROWITZ: Thank you. Noah Horowitz with NRDC.

One additional point I meant to make is that, already on the market today, there is LED bulbs that are in -- three way LED products that are available from a wide range of manufacturers and they offer the same performance and they're also wildly

cost-effective as they last much longer and use a lot less energy.

And I'm also wondering, Dan, if you can help clarify if you think three way lamps are generally would fit the term here intended for general service applications as they're often placed in table lamps and --

MR. COHEN: Yeah. So I -- you know, I don't know, but I -- well, again, our view is that Congress created this other regime for them and we'll -- and that's where they should be appropriately considered.

MR. HOROWITZ: Thank you.

MR. RAMIREZ: Okay. Is everyone okay now with moving on to other exemptions? Phi?

MR. NGUYEN: One last one. Phi Nguyen, Energy Solutions.

In the January 2017 final rule, DOE stated -- I think it was Alan or it might've been one before, but they stated that the backstop for rough service is they considered that final rule to be the accelerated rulemaking that Congress intended. Is that line of thinking sort of changed or is there -- can you clarify what was the intent of that statement?

MR. COHEN: So you eventually have to give me the cites of that, because those rules were very

clear I thought. Although, in retrospect looking back, we were not necessarily a model of clarity, but in multiple times in the rulemaking, both are, there are two rulemaking's here. So for lack of a better term, I guess I characterize them as sort of the comprehensive rule and then IRL-specific rule. So throughout the comprehensive rule, the one that dealt with the greatest variety and didn't deal with IRLs actually, we said multiple times that we were not undertaking a standards rule and there was no standard that was there. So I'm just not sure what --

MR. NGUYEN: Sure. We'll submit --

MR. COHEN: Okay.

MR. NGUYEN: -- in the written comments. Yeah. Thanks again.

MR. COHEN: Yeah. Appreciate that.

MR. RAMIREZ: Thank you.

Let me just do a quick bio check here. Everyone okay or do we want to do a quick 10 minute break? Okay. I'm seeing a couple heads bobbing. So let's do this. I see -- I call them one function breaks, right? Where you do -- we keep it like five to seven minutes with one function. Either go to the bathroom and come back or check your messages and come back. You know, I'm not going to check the multitask,

so if you're checking your messages in the bathroom at the same time, you know? But the point is, let's keep it brief, right? Five to seven minutes and then we'll come back. Okay?

(Whereupon, a brief recess was taken.)

MR. RAMIREZ: Let's go ahead and get started back up.

MR. COHEN: Now I'm on. Okay. Thank you. So we'll go back.

I was going through the various lamp types that we were discussing here. I moved on to the next subject matter, which is incandescent reflector lamps. And you know, as I mentioned, we did two rulemakings in January of 2017, I'm terming them for purposes of today, the comprehensive rule which dealt with a whole variety of lamp types. And then, the incandescent reflector lamp, the IRL rule as a separate rule, which while the comprehensive rule excluded IRLs from the definition the IRL specific rule would've brought them back in. And you know, looking back at the statute, which we've done pretty carefully, IRLs are just exempted explicitly in the statute from being a general service lamp, and they're also excluded from being a GSIL.

We think it's pretty clear that Congress

meant for IRLs to not be GSLs. You know, it couldn't be any clearer. It's right there on the face of statute. The definition explicitly excludes IRLs. And so, our view is that IRL specific rule just could not have been authorized as a matter of law. I don't know if there's any -- Steve?

MR. ROSENSTOCK: Quick question, you said 2000 -- should I go to the mic?

MR. RAMIREZ: Yes, please.

MR. ROSENSTOCK: Sorry.

MR. RAMIREZ: Some people can hear, but not everybody can.

MR. ROSENSTOCK: Okay. Sorry. Thank you very much. Steve Rosenstock, Edison Electric Institute.

MR. RAMIREZ: Steve.

MR. ROSENSTOCK: Oh, okay. Thank you. Section 322 of EISA 2007 is titled, incandescent reflector lamp efficiency standards. So did that play a role in any of the decision-making process or how did that --

MR. COHEN: Not for this purpose, no. I mean, it --

MR. ROSENSTOCK: Okay.

MR. COHEN: -- this was simply just reading

the statute. I mean, I think --

MR. ROSENSTOCK: Okay.

MR. COHEN: -- we -- our view is that it just as a matter of -- pure matter of law.

MR. ROSENSTOCK: Okay. Because 322 had specific standards and timelines for --

MR. COHEN: Mm-hmm. Yes.

MR. ROSENSTOCK: -- reflector lamps, but without all of the other conditions of 321. So, okay.

MR. COHEN: That's correct.

MR. ROSENSTOCK: Thank you very much.

MR. COHEN: And as with the other, the five lamp types we were discussing a few moments ago, right, if Congress had set up the regime for those lamp types, it's not as if these various lamps are not subject to review by the department and --

MR. ROSENSTOCK: Yeah.

MR. COHEN: -- potential standards. They're just dealt with differently.

MR. ROSENSTOCK: Yeah. The only reason I asked that specifically for those lamps, there's a specific section in EISA 2007 as opposed to the three way lamps, et cetera. Thank you very much.

MR. COHEN: Just to be clear, Steve, there's the three way lamps are in 6295(l)(4). They're --

it's so much like IRLs, they are -- there is a separate statutory to --

MR. RAMIREZ: Okay. Let me get Noah, then Phi.

MR. HOROWITZ: Noah Horowitz with NRDC. We think reflectors are a really important part of this discussion. DOE was ordered through EISA to review the initial set of exemptions and we assert that reflectors are used in general service applications. There were over 800 million of these type of bulbs, or sockets out there, and this is growing. This is an increasingly popular lighting choice if you go in to remodel the new homes. And we went to the Home Depot website late last night, didn't have anything else to do because my testimony was final and there were over 850 LED reflectors on Home Depot's website

And I've got a few here just to show what we're talking about. Here's the incumbent incandescent reflectors. They're very inexpensive. You can buy them in large multi packs. For a few dollars more, you can get an LED version. Here's one by Cree, but they're made by GE, Philips, all the major manufacturers. The bulb looks and performs exactly the same way. The only difference being, this uses a fraction of the energy and lasts a whole lot

longer and it's much better for consumers in terms of convenience, lower bills and not having to climb up on the ladder. So these are widely available and these are used to illuminate our kitchens, our studies and our homes. These are very prevalent and we think they need to be included in the regulations. Thanks.

MR. RAMIREZ: Okay. Phi. Then I'll go.

MR. NGUYEN: Phi Nguyen, Energy Solutions on behalf of the IOUs, we don't agree that IRLs should be treated separately. As Noah stated, they are used in general service applications, and here's the reason why that's important. GSILs fall under GSLs. I think there's no dispute of that. LEDs also fall under GSLs. That -- GSLs is a technology neutral efficiency requirement. So eight lamps for example that are incandescents, they need to be 45 lumens per watt. The market can transform by adopting LEDs much more efficient as Noah pointed out, much better products for consumers.

When DOE looked at IRL standards in 2015, they did not consider LEDs. They just looked at better incandescent bulbs. So there's no mechanism for DOE to have a technology neutral efficiency standard for IRLs. So IRLs are used in general service applications. So that should be consistent

with other lamp types used in general service applications. It is just inconsistent to treat them separately. So we do believe that DOE was correct the first time in 2017 in discontinuing exemptions for reflector lamps.

MR. RAMIREZ: Okay. Thank you. David?

MR. GATTO: Dave Gatto, Westinghouse Lighting.

I guess two things, one, the first one I'll start with is, Noah, I agree with you. There are lots of LED options. That actually is part of our point. The marketplace is changing and a lot of people are putting them in, not just reflector lamps, Noah. Instead of a recessed can, you may find a flat laid LED that doesn't even require anything more than a junction box.

I do appreciate, you know, the efficiency advocate side of the equation. We are for efficiency. We launch lots of LED products. At the same time, I'm going to repeat what I said at the October 2016 meeting and then, my public submission of comments on the rule, IRLs are separate. They can be used, not in places where a traditional A-lamp would be used, because if you put a reflector lamp as I mentioned that, you know, when Noah and I were having this

conversation two years ago, then all the light goes on your ceiling.

So I recognize that there are different lighting options someone may used to light a room, but GSILs are what are referred to in the statute. And products that replace a GSIL, which is an omnidirectional medium based lamp within a certain lumen range, are what this particular regulation is about. There's an IRL regulation. If there's products that you feel that aren't being aggressively gone after, if there's a method by which you can petition the department to consider another product. But we're talking about a product definition that was consistent for more than a decade, including two and a half of a rulemaking, the rulemaking that we're still in, and then, suddenly, I'm not sure why, DOE chose to take a different direction. We objected to it, not because we're against efficiency or because we don't want to make LEDs, but because it doesn't make sense. So I understand that not everyone agrees with what DOE's doing. But just so that we're on the record, we do agree.

MR. RAMIREZ: All right. Joe?

MR. GATTO: I'm going to turn the mic off.

MR. RAMIREZ: Joe wants to speak.

MR. HOWLEY: So just to add --
MR. RAMIREZ: Just state your name.
MR. HOWLEY: This is Joe Howley from GE Lighting --
MR. RAMIREZ: Did -- okay.
MR. HOWLEY: It's still on.
MR. RAMIREZ: I'm sorry. And did you state your name?
MR. HOWLEY: Joe Howley --
MR. RAMIREZ: Okay. Sorry --
MR. HOWLEY: -- from GE Lighting.
MR. RAMIREZ: -- about that. Yeah. Go ahead.
MR. HOWLEY: Just to add to what Dave just mentioned, the reason that Congress explicitly excluded reflector lamps from this regulation was, the GSL regulation was designed to set efficiency standards for A-line lamps. And A-line lamps by their technical construction are more efficient than reflector lamps and that's because, with a reflector lamp, I have to put a reflector around a filament and it absorbs energy, perhaps 20, 30 percent of the energy. And therefore, if ever we wanted to consider a regulation for reflector lamps, they had to be considered technically on their own merits. What's

the highest efficiency for a reflector lamp versus what's the highest efficiency for a general service lamp?

That's why when Congress, in the 2007 EISA law, specifically said, do not regulate reflector lamps with general service lamps if -- it didn't say do not regulate them, they just need to be regulated in their own separate rulemaking with their own separate technical considerations. Thank you.

MR. RAMIREZ: Any other comments from the floor that we haven't heard from? Yeah. In the back?

MR. SILCOX: Clark Silcox with NEMA. I just want to make one comment on a phrase that's been used a couple of times today. And that's the -- that GSL is a technology neutral approach or a technology neutral regulation. That is something for which the department has discretion to choose that approach, but it's not the only approach that was recognized in the statute. It is one of the approaches because Congress directed the DOE to consider a 45 lumen per watt standard for all GSL lamps. And in that sense, as a minimum that might apply across all types of general service lamps, it is technology neutral in that regard. But another approach that the statute explicitly recognizes is that DOE can have separate

standards for a GSIL for CFL and general service LED and now my friend here, John Green's company, Finally Light Bulbs, they're a general service induction lamp.

And so, that blend of standards under the GSL umbrella is statutorily recognized and is not necessarily technology neutral. The only caveat that Congress required, that if DOE takes that latter approach, is that the energy savings produced by that collection of standards applicable to those different types of lamps produce energy savings that's greater than or equal to a 45 lumen per watt standard. So I just want to clarify that the statutory direction hereby Congress was not only technology neutral approach, but DOE has discretion to go either way based on its analysis.

MR. RAMIREZ: All right. Great.

Go ahead, Patrick.

MR. SAXTON: And on the second bullet where, again, we're talking about DOE's current viewpoint that certain lamps weren't supposed to be considered in the DOE direction to reconsider exemptions for certain incandescent lamps, which was congressionally directed to be both part of the 2014 rulemaking and the 2020 rulemaking. Can you tell us what DOE's current thinking of the lamps that can be included in

that review? We've only talked about the ones that you think know that DOE now thinks they can no longer think about. So which ones can they?

MR. COHEN: As the proposal makes clear, we are adhering to the statutory definition. So what Congress has included as general service lamps because they're either general service incandescent lamps, compact fluorescents, LEDs, organic LEDs, those -- which are the current definition in both the statute and as codified in our regulations, is the scope of general service lamps.

MR. SAXTON: Okay. I get that --

MR. COHEN: Separation in the rulemaking.

MR. SAXTON: I get that. But what about the direction to consider what exemptions should be maintained or discontinued? What's in the category that DOE's now thinking about maintaining or not maintaining?

MR. COHEN: Right. We are sticking to the statutory standard. The --

MR. SAXTON: So none?

MR. COHEN: The -- just the statutory definition.

MR. SAXTON: So you're only keeping the things that were originally in the statute and not

reconsidering exemptions?

MR. COHEN: No. Just the -- for purposes of today, the proposal is that we would stay with the statutory definitions.

MR. RAMIREZ: All right. Let me get Tim, then Phi.

MR. SAXTON: I'm sorry. One second. But that was supposed to be -- the reconsideration was supposed to be part of the 2014 rulemaking as directed by Congress?

MR. COHEN: That's right. And so that -- and our proposal is to maintain the statutory definitions.

MR. RAMIREZ: Okay. Tim, then Phi.

MR. BALLO: So I actually had a question already, but that prompted another one, that exchange. So just to make sure I understand, is the department intending to, at some point in the future, evaluate whether exemptions should be discontinued or is that -- is this a determination that there shall be no additional coverage?

MR. COHEN: So our proposal right now is the definitions that are in the statute. Of course, the statute as I described, shuts out two rounds of rulemaking. Did I write that?

MR. BALLO: Right.

MR. COHEN: The current round that we're currently in and then another round starting in 2020.

MR. BALLO: Okay. Thank you for clarifying. The question I wanted to ask, and I -- it strikes me as reading this that the slide behind you that describes the position on IRLs is that your argument is that the plain text of the statute unambiguously forecloses covering reflector lamps as general service lamps. Is that correct?

MR. COHEN: That is our view that the statute -- Congress explicitly said IRLs are not GSILs or GSLs.

MR. BALLO: Thank you.

MR. COHEN: I think they said it both places.

MR. BALLO: Thank you.

MR. RAMIREZ: Phi?

MR. NGUYEN: Phi Nguyen, Energy Solutions. Thanks Joe and David. I do appreciate feedback from manufacturers in this process. However, I feel like we've had this discussion before. So I just wanted some clarifications from DOE, right? So there -- the way I see it, there's two different decisions that DOE made in 2017. One is whether they could legally

discontinue exemptions for reflector lamps, and the other was whether reflector lamps were indeed general service lamps, certain general service applications. So you state here that you no longer adhere to the belief that DOE may discontinue exemptions, but are you also saying that these lamps are not used in general service applications?

MR. COHEN: So I don't think I said either of those things. I think what I said was that we -- in looking back, we think Congress was clear that incandescent reflector lamps are not GSLs.

MR. NGUYEN: So is DOE walking --

MR. COHEN: And they're excluded for GSLs.

MR. NGUYEN: -- back on whether reflector lamps can be used in general service applications?

MR. COHEN: It's not a question that we've looked at or answered in this process. The simple question is, whether they are defined as being GSLs or GSILs and the statute precludes that.

MR. RAMIREZ: Okay. John?

MR. AUGUSTINO: John Augustino, Honeywell. So if I'm understanding this correctly, you're saying that it's not that you don't think there should be efficient applications in these, that as a matter of rule or law, they should not be included. So if this

notice is saying they are not included, the question for the public is, what is going to happen to those? So if this notice is only identifying they're not included, as far as the industry is concerned, as far as the public is concerned, it is very clear what the efficiency standard is for the bulbs that are included. Is there any effort underway by DOE for efficiency standards that can be announced within the short-term as to what those efficiency standards for those bulbs would be? Or is the industry left to not know what's going to be available or the standard come 2020?

MR. COHEN: So separate out two things there. One, for purposes of 2020, number one, we don't think there is a sales prohibition that applies on January 1, 2020. But even if there were, that's a different question than what happens with respect to IRLs in our mind. As Steve Rosenstock pointed out, there is a statutory authority to look at IRLs and whether standards should be amended for those particular types of lamps. I don't recall off the top of my head whether, in our regulatory agenda, which is where we put out our plan for regulatory actions whether we have IRLs on the agenda coming up. I just don't recall. And -- but if -- that would be the

place to look where --

MR. RAMIREZ: Okay.

MR. COHEN: -- in our -- that comes out every six months as a government wide document where every agency puts out their plan for upcoming regulations.

MR. AUGUSTINO: But timing wise, allowing this NOPR to go into effect without having that stipulated is a huge gap that creates uncertainty in an entire industry for a significant -- to Noah's point -- for a significant amount of applications, which has multiple iterations of conditions that are uncertain in the market that we can't move forward without that being clear. So to do A without B is kind of disconnected.

MR. COHEN: So I appreciate that. I -- our job here or our intent here is to try to eliminate confusion and provide clarity. So to the extent that you can provide some data about that, that would be very helpful. And the point that we're making here is, they're not -- these types of lamps are not general service lamps and there isn't a backstop that applies. So we want to be clear about that in this rulemaking proceeding.

MR. AUGUSTINO: But if --

MR. COHEN: You know, if you can help us understand what the implications are for IRLs, just generally under our authority, that would be helpful.

MR. RAMIREZ: I have Noah and Dave. But before I loop back around to them, is there anyone else that has not yet had a chance to make a comment that wishes to do so on this topic? All right. Noah?

MR. HOROWITZ: Thank you. Noah Horowitz at the NRDC. Dave, I just want to respond to your comments and express our appreciation for all the innovation and the great LED products that are out there in here we're talking about the reflectors. You're really responding there. I want to speak to a comment you made that I think is incorrect. You said the regulations in the definition only apply to omnidirectional bulbs. Those words are never said anywhere there. So let's be careful there. Also, the European regulations cover directional and nondirectional lamps and we think that's the right thing to do. These are very common products in our homes.

And in terms of, yes, the market is responding. These are flying off the shelves, the LEDs. But the reality is -- well, I don't need to pull out my prop, but these inefficient products are

sold in multipacks at very low first cost. So for $1.50 or so, you can buy the incandescent reflector. And as you pointed out, 25 percent or more of the market is still buying the inefficient products and that's exactly why we need to have standards to remove the remaining inefficient products from the market.

Thank you.

MR. RAMIREZ: Okay. Just let me get Dave, then back to John.

MR. AUGUSTINO: A quick clarification on his point though, that 25 percent represents the entire bulb market. So when you take into account that A lines are the largest, that 25 percent could represent a very large percentage of the reflectors. So we've got to recognize the reality of the market segments when we're talking about that.

MR. HOROWITZ: I agree. The reflectors might even be a larger percent that are incandescents.

MR. RAMIREZ: And I believe that's some of the data that you all would like to receive?

MR. HOROWITZ: Mm-hmm.

MR. RAMIREZ: Okay. Thank you. Dave?

MR. GATTO: There's a lot there. So what I was originally going to just mention more, John, in case you're unaware, there's actually -- there is a

standard for IRLs. We had a rulemaking that I think ended in 2014 or 2015, but it comes back up again in the next year or so and it may -- Noah and I were talking about this earlier today -- being something that maybe ASRAC can take a look at since it may be something worth negotiating. But in answer to your question, I did not mean to misstate. However, I will say that what it does say very clearly, I think this text was up on the screen at one point, lamps that would serve to replace GSILs, it doesn't say anything about general service applications.

It doesn't say anything about different shapes or sizes. It says, the secretary may consider products that could be used to replace GSILs, not -- and a reflector, just from a technical standpoint, is a completely different lampshade. So if you were going to put a reflector in a table lamp, you will not get the result. I'm not disagreeing with you that there are other ways to light a room, but if I misspoke, it wasn't intentional. What I was really aiming for was, GSILs is what Congress pointed back at us with the Secretary was supposed to consider, not general applications, general service applications, general lighting applications, those don't appear anywhere to my knowledge in the EISA.

MR. RAMIREZ: Okay. Patrick?

MR. SAXTON: Okay. Pat Saxton, California Energy Commission. My personal opinion is that Congress was pretty clear they wanted DOE to look at a broader scope than what Dave just described. And I think it's not arguable that general service lighting applications, if you will, must include more than just omnidirectional lamps. It's very common in new construction for residential, for a long time that there's all manners of areas in a house that only have ceiling lighting. We'd all agree that in commercial applications, linear fluorescents called general service fluorescent lighting is lighting that comes from the ceiling. So in a room that only has downlights, it's literally the only light in that room. How is that lighting anything but general service lighting?

MR. RAMIREZ: Okay. If there's no additional comments, Dan, next one?

MR. COHEN: So next -- the next topic is the candelabra base lamps, and this is quite similar to the prior topic. If you remember earlier when we had the definition of general service incandescent lamp on the screen, the basic definition of a general service incandescent lamp had it required to be of medium

screw base. So just as a matter of law, a candelabra base is a different base. It is not a medium screw base. So and in addition, we saw the data that came in through the NODA that we published in 2017, which the premise of the rulemaking that we had published back in January of 2017 on the definitions assumed a certain level of sales of candelabra base lamps, which turned out to be wrong by almost a factor of two.

In part, that's because, of course, as I've mentioned earlier, we have this prohibition on being able to gather data because of the appropriations rider. So we were sort of assuming, based on the limited data that we had. So finding out that we were wrong was, I guess, not surprising. But when you combine those two, the fact that, as a legal matter, the definition of general service incandescent lamp says it has a medium screw base and that we were wrong in terms of the sales data. There was -- we didn't believe that continuing candelabra base lamps was in the definition of general service lamp was either authorized or appropriate.

MR. RAMIREZ: Okay. Any comments? Phi?

MR. NGUYEN: Yeah. Phi Nguyen, Energy Solutions on behalf of the California IOUs.

We don't agree with that interpretation.

Yes, GSILs typically have a medium screw base, but general service lamps are supposed to also capture CFLs, general sort of LEDs, OLEDs and those have more than just base types. So we think that's just a false calculation.

MR. RAMIREZ: All right.

Tim, did you have your hand up?

MR. BALLO: I did. Just to clarify, I think that kind of gets at it. But it seems that you're saying a lamp cannot be a general -- well, an incandescent lamp -- maybe that's what you're saying -- cannot be a general service lamp if it is not also a general service incandescent lamp. Is that accurate?

MR. COHEN: No. We're saying that what we were tasked with looking at was whether the exclusions from general service incandescent lamps should be reconsidered. But in order to do that, we have to take what Congress defined as a general service incandescent lamp, and that includes for purposes of that category only medium screw base, not candelabra base.

MR. BALLO: Yes. But the statute also authorizes DOE to cover additional lamps, general service lamps. So I'm wondering how you square --

MR. COHEN: So that's -- right. Again, it's the -- what we were directed to do was look at the definitions and the exclusions from general service incandescent lamps, and that says medium screw base.

MR. BALLO: Thanks.

MR. RAMIREZ: Chris?

MR. GRANDA: Chris Granda, The Appliance Standards and Awareness Project.

In drafting this NOPR -- well, first of all, let me step back for a second. The history of lighting energy efficiency regulation and the subsequent evolution of the lighting market has many examples of niche products suddenly growing out of proportion to their former volumes in the market in response to direction provided by regulation. I don't think anybody would disagree with that statement. Has DOE given careful consideration to what this -- what the NOPR -- the effect of the NOPR could be on candelabra base lamps, specifically because medium base sockets can be converted to candelabra base sockets, usually in one direction only. And then, you could have a result of dramatically inflated sales of candelabra base non GSLs if the NOPR is successful.

MR. COHEN: All right. So I'm not aware of the technicals of the second part of that. But in

terms of the data, you know, we put out that request for information in 2017 because again, with -- because of the existence of appropriations rider, we did not have data that was really fulsome or complete with respect to incandescent lamps. And what we got back with data suggesting that that movement, and you all have alluded to this, but today, the movement away from incandescents and towards more efficient lamp types was in fact happening a whole lot faster than we had previously believed.

So I don't know how it applies with respect to candelabra in particular off the top my head. But since everything seemed to be moving faster anyway, I will assume, but I could be wrong about this and I'm sure others may have better sense of the market data here, that the candelabras -- that what you're suggesting is not, in fact, happening in the market. It's just the opposite.

MR. RAMIREZ: Don, you're after Noah. So let me get Noah, Don then Dave.

MR. HOROWITZ: Thank you. Noah Horowitz with NRDC.

Like we did with the reflectors, again we assert that candelabra based lamps are commonly used in general lighting applications. There are several

hundred million of these already installed and they're commonly used in chandeliers and sconces and other places in the home.

The fact that the lamp has a flame shape and the base has a diameter that's this big instead of this big, that has no impact at all on the ability to make an efficient lamp. The inside's still the same. You have a very efficient LED light source inside and the fact that the cover is a little bit different shape should have no impact on whether it should be regulated.

I want to point to a few examples again and one thing I should've said earlier, the examples I'm providing today are meant to be illustrative. They're not meant to endorse or single out a particular company. And I tried to pick multiple companies here.

So I have a Sylvania double life, this is a candelabra base. That's a smaller diameter base. This is a 60 watt lamp that gives off 525 lumens, and the cost that's shown here, it's $7.23 per year to operate each of the lamps. There's a wide availability of LED replacements that use a small fraction of the energy.

This one is by Dave's company, Westinghouse. This only uses seven watts and costs $0.84, less than

a dollar a year to operate. So very, very quick pay backs and the same exact shape and form factor. And this also lasts a whole lot longer. And then Feit, another lighting company has a similar product here and this product is $0.66 per year to operate. So these products are widely available and very, very cost-effective and long-lasting. Thank you.

MR. RAMIREZ: Okay. Don then Dave.

MR. BRUNDAGE: I actually had a quick item on something Chris had said that I would somewhat question. He talked about easily using a candelabra base and a standard base. I believe he said 2007 forbids the manufacturer of the conversions between medium and candelabra base, those sorts of adapters. Thank you.

MR. RAMIREZ: Okay. Dave?

MR. GATTO: So, yeah. Don got there for me.

Chris, I appreciate that new fixtures potentially might have candelabra sockets that might be a replacement for a fixture that used to have a medium base. But since 2010, DOE's prohibited the sale of any adapter that would convert a medium base socket into really anything that would take an incandescent. We had been manufacturing those products at the time. We discontinued them in 2010

along with everyone else. So fixture marketplace changes like Patrick mentioned where maybe something different is getting installed during new construction, I won't argue that fact. But actually converting the socket, unless the consumers an electrician and has a lot of time, that's really not a risk that's possible.

And then the only other thing is that I know NEMA will provide some additional -- probably under NDA, Dan -- data similar to what we did in the NOPDDA (phonetic), but candelabra and specialty lamp incandescent sales are declining. They're not necessarily declining quite as fast as a, you know, an A line lamp.

But to Noah's point, there are products available. Consumers are choosing them and the sizes and the designs are getting smaller. I still feel from the very beginning that we've never argued that it's possible to make more efficient products. What I do argue is that it's necessary to regulate in a way where you can only make one.

MR. RAMIREZ: All right.

MR. ZIMMERMAN: Not to be the guy in the group --

MR. RAMIREZ: Sorry. State your name.

MR. ZIMMERMAN: -- but -- Scott Zimmerman, Silas. I just wanted to make clear that based on what the work we've been doing, there is no equivalence between the incandescent bulb and the LED bulb as far as its bio optical properties.

MR. RAMIREZ: Louis? Then I'll come back to Allison.

MR. STARR: So this is Louis Starr with Northwest. This is Louis Starr at Northwest Energy Efficiency Alliance and fortunately, I was -- the thing I need -- the props I needed to sit next to, I am going to. So I'm not a lawyer, but I'm trying to understand this stuff that's sitting at Noah Horwitz's table here. What is the value proposition for the market and for the economy that this inefficient product provides over this? I mean, what's -- why would you buy this one as opposed to this one? What value does that provide? I'm hoping one of the manufacturers can help me understand that. Thank you.

MR. RAMIREZ: All right. Alex?

MR. BOESENBERG: This is Alex Boesenberg from NEMA. I'm not going to answer Louis's question. Sorry. The point I would stress and my colleague, Mr. Silcox mentioned it already and it follows on with Dave Gatto's comment, we see at the end of a walk-

through in a rural, one of the topics other than regulatory action. And when it comes time for the standards for this topic -- so I'm slightly off-topic, but I'll be quick -- is that the market is already moving. We do not need regulation to put the nail in the coffin. These products are declining in sales with no indication that they'll suddenly surge and they'll dive natural accord in a way that the manufacturers are very well experienced at managing. Thank you.

MR. RAMIREZ: Okay. Before I go back to Chris, is there anyone else that hasn't had a chance to comment yet? Oh, that's two. Okay. The other Chris.

MR. PRIMOUS: This is Chris Primous from MaxLite.

Just to answer Louis's question, the value proposition for the consumer with those types of products that you asked about -- well, it's a couple of factors. One, aesthetics. So the product that you see versus the LED type, it looks different. The output of the light is different. The performance of it is going to act different as far as the beam pattern coming out of it. There's a heat sink in a lot of the LED products that were shown versus the

incandescent. The operation of it may be familiar to the consumer very different than they would operate the LED type. The dimmability of it is somewhat varied. The performance of it as it dims may cause a different color shift than the LED type. So there are number of things you can get from the incandescent as a valid proposition, just to answer that question. Thanks.

MR. RAMIREZ: Thank you.

Chris?

MR. GRANDA: Chris Granda with Appliance Standards Awareness Project.

I just wanted to address a number of the statements that have been made about the velocity of the market change. I think it's useful just to state that what we're talking about is an S curve of marketed option. Every new product that comes into the market follows this. We're probably somewhere in the middle of the S curve of adoption of LED lamps. I don't think that it's arguable that the adoption rate for LED technology and lighting will always continue at the same rate.

It will slow down unless a standard is imposed, and that is the function of standards, to eliminate that laggard section of obsolete product in

the marketplace, so unless you're also making the argument that there aren't six billion lamps out there, and that let's say 25 percent of six billion is less than 1.5 billion, we're still talking about a very significant amount of product, a very significant impact on consumers and on the economy at large and the environment. Thank you.

MR. RAMIREZ: Okay. I think we're good. Closing? Or I'm sorry. We'll have data.

MR. COHEN: We have data, so I will yield to my colleague.

MR. RAMIREZ: Thank you, Dan. While Sofie comes up, I do want to thank everyone for being very specific and targeted on your remarks. It's helping the process move alone. I think we're doing pretty good on timing so far, so thank you.

MS. MILLER: All right. A few folks have mentioned uncertainty so far, and I really appreciate that. That's something that we're hoping to be able to better analyze as part of this process, and to the extent that there's any data that's available to any of you at the table that would help us illustrate the scope of uncertainty whether we're increasing it as some have argued or decreasing it as we've been hearing from other quarters, that would be very

helpful to help illustrate some of the effects of clarifying the applicability of the 2020 backstop here.

So as laid out in the proposal, the way we put it is that we had been hearing there is significant uncertainty in the retail market regarding both scope of lamps that could be available for sale because we had failed to clarify this in previous rulemakings, and as a result, certain retail outlets were not able, as we were hearing, to plan adequately for any change of stock that may be necessitated in the future, and this uncertainty was creating costs for retailers to be able to fill potential open bays on their shelves or consider whether new products needed to be moved into those spaces.

And so any data or analysis that is in this NOPR is related specifically to that uncertainty, and we are looking for ways to fill that gap and would appreciate data and comments to that extent. There's a couple -- we have a couple of graphs going forward. Would you guys like me to proceed? Okay. So some of the data that we presented had to do with sales of incandescent and halogen lamps. Over time, we're looking at a brief amount of time here, and we were focusing on quarterly shipments in the consumer

channel which does capture over 90 percent of shipments of incandescent and halogen lamps.

And these are large categories that include a variety of lamps, many of which we're not necessarily talking about today, lots of different specific types of lamps as well, so just keep that in mind that this is not at breaking out different types of subtypes of lamps within those categories. It's more of a big picture view, but to the extent that we can break out those categories to the extent that you have available data that would enable us to do that, we do encourage you to submit it as well because that would be very helpful for this undertaking.

In the consumer channel what we're looking at includes primarily retail and department stores, club stores, drug wholesalers and retailers, hardware stores, home centers and online sales and other retail as well. I'll just give you one more nudge that additional data would be helpful. I have one other chart unless anyone has any comments. Yes? Yes, go ahead.

MR. HOROWITZ: I didn't mean to jump the gun. Noah Horowitz with NRDC.

Sofie, can you help us understand what type of lamps are covered? Are these just A-lamps or did

these also include the lamps we were just discussing like candelabras and reflectors, which weren't in the original definition?

MS. MILLER: It's a broad definition, so it includes A-line but not just A-line. It includes several other lamp types that fall within these broad categories.

MR. HOROWITZ: So it would be great if there could be more transparency on the source of this data, so we would like further confidence knowing do these include reflectors, do these include candelabras because as we discussed earlier this morning, that's about half of the sockets, and also, is there similar data being collected for LED lamps and CFLs, and if not, why not?

MS. MILLER: We did have data for LEDs, but they were reported in different unit categories, so unfortunately, we were not able to compare them in the same visuals. That is something that I was hoping to do, but I think we should be able to do that going forward if we're able to get that data reported in comparable units so that we don't have sort of apples and oranges comparisons.

MR. HOROWITZ: And lastly, if the data's being supplied by NEMA, which recognizes the leading

trade association for the lighting manufacturers, there are a lot of sales that are done by companies that are not NEMA members, so hopefully you can get data from them as well, or if it's only from NEMA, then please indicate that.

MS. MILLER: I believe that these data include not just domestic shipments, which would be NEMA members, but also a smaller portion as well, which are the result of international shipments.

MR. HOROWITZ: Thanks.

MR. RAMIREZ: Phi?

MR. NGUYEN: Phi Nguyen, Energy Solutions, California IOUs.

Can you clarify if this chart is supposed to be suggesting that lamps are switching out of incandescent and halogen technology into other technologies, or if overall shipments of lamps are dropping, for example, for integrated lighting or other sorts of lighting options?

MS. MILLER: This is not a graph that's meant to indicate any sort of causal relationship. It's just displaying the data that we're looking at, and part of the goal was to illustrate the scope of any potential uncertainty that we're dealing with now, and that's part of the reason why we're hoping to

indicate yes, these are going down over time. However, there still is a large chunk that's accounted for in shipments, and this will help us illustrate the scope of any potential uncertainty that some retailers may be dealing with.

MR. NGUYEN: I see. Thank you.

MR. RAMIREZ: Joe?

MR. HOWLEY: Joe Howley, GE.

I'd just like to add a comment that as you look at this chart, you'll notice there seems to be a slight blip up in the fourth quarter of 2017, but the fourth quarter is always a heavy lamp demand month because that is entering into the dark time of year when a lot of people need light bulbs, and retailers tend to stock up on light bulbs, and so you have to really compare quarter to quarter. So if you look at fourth quarter 2017 versus fourth quarter 2016, that's a way to look at this chart is quarter to quarter. But you see there is a dramatic decline of incandescents in those two years, and I can mention that decline now is continuing as we head into 2018 and 2019 as well. Thank you.

MR. RAMIREZ: Thank you.

MS. MILLER: Thanks. That's helpful. We did hear from certain retailers that they did tend to

place a lot of purchase orders in the fall, so that does comport with what we had heard, and we can keep that in mind for future data displays going forward.

MR. RAMIREZ: Okay. Let me get to Patrick and then Chris.

MR. SAXTON: Yeah, Pat Saxton, California Energy Commission.

Just clarification of the verbiage in the NOPR in the paragraph that precedes this graph. It says 2018 shipments, and then the graph has just 2018 Q1 and Q2, and the numbers in the NOPR seem to add up to just the Q1 and Q2. Can you clarify that?

MS. MILLER: We did not have access to -- at the time did not have access to the Q3 and Q4 shipment data, which is why it's not listed because it was not in existence at the time, but hopefully at the time that we are looking to be finalizing some of this analysis, we will have access to those as well.

MR. SAXTON: Understood. I appreciate that. I'm suggesting that the language, the verbiage in the NOPR then should say despite this decline in the first half of 2018 shipments equaled these or in Q1, Q2 2018, the shipments equaled these.

MS. MILLER: I understand. Thank you.

MR. RAMIREZ: All right. I have Chris, and,

Mary, did you have your hand up?

MR. RAMIREZ: Okay. Chris, Mary and, Noah, I didn't forget you. I'm putting you in the second round.

MR. HOROWITZ: I'm good.

MR. RAMIREZ: Okay. Good. Okay.

MR. HOROWITZ: Yeah, Pat asked my question.

MR. RAMIREZ: I'm sorry. Okay. All right. Mary?

MS. ANDERSON: So one thing to note in this graph that I think also contributes to this uptick in sales is also utility incentive programs because that's usually when, to be honest, we start to actually make our goal, so I think that's helpful to know. The other thing I think that's helpful to know is that most of those lighting incentives are going away across the U.S. because they're no longer cost effective, and I think that also could impact how this works in the market, so thank you.

MS. MILLER: And just as a follow-up, you were saying that's occurring in Q4 as well?

MS. ANDERSON: So usually the bulk of the incentive work usually happens end of third quarter, beginning of fourth quarter as far as the lighting incentives going away. Based on what I know so far, I

believe in California or at least for PG&E, we expect that our lighting incentives will go away in 2020.

MS. MILLER: Thank you.

MR. RAMIREZ: Okay. All right. I think we have one more graph?

MS. MILLER: Yes, and this is just to illustrate the breakdown of what we're talking about in the consumer channel. I already described what the definition of that is, but if we're looking at the specifics in terms of where are -- if we're thinking of scope -- which retailers or types of retail might be those most affected, and the majority are captured by home centers and discount variety and department stores.

This is probably not very easy to read. I apologize. With Federal Register, I think you can't publish in color, so sorry about that, but I think I could probably get you guys a color version if anyone would find that more helpful, so just let me know if you'd prefer that. I kind of hate grayscale.

MR. RAMIREZ: Yes, go ahead.

MR. AUGUSTINO: Just one point of clarification for going forward with this data to the point Mary raised. We're in an artificial environment here in that utility programs and other sponsor-based

incentive programs have focused very heavily on the lighting market, particularly the consumer lighting market, so when you're comparing the incandescent sales to the LED sales, when you're comparing the changes over time, it's not an accurate reflection to just look at that as the natural market because the market's being pushed, and there have been several studies that have shown significant backsliding when those incentives are removed, including one in the Northwest Efficiency Alliance, so --

MS. MILLER: Do you have -- I'm sorry. I didn't mean to interrupt.

MR. AUGUSTINO: I don't have specific studies. I can get you studies from third parties that do show back sliding when incentives are removed, but in terms of doing the analysis of sales, in order to have an accurate picture, you would have to show sales data in subsidized markets versus sales data in unsubsidized markets and compare them separately in order to see what the true organic market is doing.

MS. MILLER: Thank you. That's good to know and very helpful, and when I'm thinking through what you just said, I think it would be also helpful to know the presence of certain incentive programs in different states and when they were introduced such

that we could look to see if there are any changes, so keep that in the back of your minds if that's data that anybody has available or a study that somebody has seen.

MR. AUGUSTINO: If you're asking for data on where there are incentive programs, the ACEEE has a fairly extensive database, so --

MS. MILLER: Thank you.

MR. AUGUSTINO: That might be an easy source to get it all at once.

MR. RAMIREZ: Okay. Al, before I get you, Chris, I think you had something?

MR. GRANDA: Yes, Chris Granda from the Appliance Standards Awareness Project. I just wanted to add to Mr. Augustino's comments. I think that's absolutely true. In general, we're talking -- I think we're around $8 billion a year in total utility program budgets these days, and depending on the state, as much as 50 percent of that may go to lighting programs and a good portion of that to residential lighting programs, so we're talking about --

MR. AUGUSTINO: Up to 70.

MR. GRANDA: I'm sorry?

MR. AUGUSTINO: Up to 70 depending upon the

market.

MR. GRANDA: Up to 70 depending on the market, so definitely above a billion dollars a year in incentives going to CFLs and LEDs, primarily LEDs these days, and as somebody who has spent about 30 years working with those programs, the first programs of any sort showed up in the early 90s, but the innovation, that means that they've had this huge effect on the market, was the upstream buy down which kicked in the late 90s and has been the dominant program design since then.

MR. RAMIREZ: All right. Let me get to Alex and then Steve.

MR. BOESENBERG: Alex Boesenberg of NEMA.

We've stated before that NEMA does not collect sales data by state or region due to our distribution methods, so I'm making a suggestion that unfortunately I can't answer, but, Sofie, I think to your question our very area here that we live in might be a useful example if you're able to talk to retailers somehow. PEPCO has offered LED rebates in DC and Maryland for a long time, Dominion Virginia Power for whatever reason doesn't -- pretends they don't or it doesn't exist, so there are a few of us, I won't say it's me, who drive into DC to buy LEDs

sometimes if they want a more expensive option or a newer product, but for the average amount of sales, perhaps some of those larger retailers that I know you've spoken to might be able to give some clue as to that delta.

MS. MILLER: Thank you. I appreciate that.

MR. RAMIREZ: Okay. Steve?

MR. ROSENSTOCK: Steve Rosenstock, Edison Electric Institute. Again, if you're looking for incentive data, the Dsire USA database is a very good resource as well. Nothing against ACEEE database, but Dsire USA, they've been doing it as well, and they have a lot of good data if you're looking for something like that. Also with the incentive programs, yes, a lot has been on lighting, but remember, depending on the utility, again, there's going to be a significant split between commercial versus residential versus I'll say industrial/agricultural lighting depending on the region of the country that they're in.

So yes, utilities do spend a lot with incentive programs on lighting programs, but there is a definite break out between residential versus commercial in terms of what kind of impacts they want to try to have in terms of cost effectiveness.

Thanks.

MS. MILLER: And before you go, can you restate the name of that website, something USA?

MR. ROSENSTOCK: Yes, Dsire USA, D-S-I-R-E.ORG, I believe it is. .org. Yes, D-S. D-S-I-R-E, please.

MS. MILLER: I've got it.

MR. ROSENSTOCK: Thank you.

MR. RAMIREZ: I have Phi, Noah and Patrick.

MR. NGUYEN: Phi Nguyen, Energy Solutions on behalf of the California IOUs.

I just want to highlight one of the key take-aways here because this data, the pie chart showing those different portions. As several people have noted, it does not break down into residential verus commercial, lamp types --

MS. MILLER: This is all residential. This is consumer.

MR. NGUYEN: Okay. Okay.

MS. MILLER: So all of the data that's included in here is consumer and that's because 90 percent of the shipments or more than, depending on the year and depending on the product type of these halogen and incandescent lamps that we were tracking were going into the consumer channel, so by focusing

on that, we were able to capture most of the data.

MR. NGUYEN: Yeah, thanks for that clarification. It also doesn't capture which portion of these are really being incentivized, so I would caution DOE from using these specific proportions in determining which segments ware most affected by uncertainty.

MS. MILLER: Thank you.

MR. RAMIREZ: Noah?

MR. HOROWITZ: Yeah, Sofie, can you go back one slide please?

MS. MILLER: You bet.

MR. HOROWITZ: This is Noah Horowitz with NRDC again.

I want to reiterate our respectful request that there be a list published of the lamp types that are being included in this analysis. As it's presented here, it's simply a black box, and it's really hard for us to provide informed comments on that. Secondly, I'd like to reiterate the comment that Mary and others have made that while yes, LED sales have increased and halogen and incandescent sales have declined dramatically that a lot of the market dynamic is due to these sizeable rebates that are available for the LEDs.

Once those go away, incandescents and halogen sales in the absence of standards may well rise, nowhere near prior levels, but even more than the 25 percent minimum that's been discussed today. We're going to see more of those being sold. Thank you.

MR. RAMIREZ: Okay. I have Patrick, Don, Dave and Chris.

MR. SAXTON: So I just wanted to -- Pat Saxton, California Energy Commission.

We've talked a bit in this segment about incentives and subsidies. I would just point out those are almost exclusively funded by utility rate payers. Those are the same consumers who would benefit from these regulations and the energy savings here, so it's a double dip out of the consumers pocket, and to the extent that we want to talk about a split between residential and commercial incentive programs, assumably, the commercial problems are funded by a public goods charge, which adds to their utility bill which is then passed through the consumer who buys the goods and services from that business. These are consumer charges, and now we're taking away consumer sales.

MR. BRUNDAGE: We talked about a couple of

issues here.

MR. RAMIREZ: Don, could you just state your name?

MR. BRUNDAGE: Don Brundage Southern Company.

We're one of the larger electric utilities in the southeast, and in the past we have had some significant residential lighting programs. We have substantially reduced lighting programs and residential lighting programs for the simple reason that you can declare victory and go home. The market has taken over, and those incentives are not very necessary. I will also -- because I didn't know where else to put in this discussion, the discussion of candelabra bulbs, and it was easy to switch out and use LED.

I don't like to do anecdotal, but I think it's valid here. I bought some LED candelabra bulbs, and they would not work in my older candelabra chandelier because with the electronics and all, they get fat quicker, and you couldn't fully screw them into the bulb because their form factor is different than the incandescent. I don't know how common that is, but there are at least some older light fixtures you cannot use a standard LED bulb in. Thank you.

MR. RAMIREZ: Okay. I have Dave, Chris, then Louis.

MR. GATTO: So it's funny, I should sit here and say, Don, go ahead and answer my question, so I do agree -- Dave Gatto, Westinghouse Lighting. Thank you, Alex. That's why I'm always happier here.

So first off, Sofie, I would actually encourage you with the retailers you're working with, and obviously we can't provide that data, but we'll encourage our retailers to hopefully share some data to maybe get data from regions that do and don't have incentives. I do think that's valid to look at. I'm going to actually second what Don said. In markets where there is no incentive and in some cases has not been ever, particularly in the southeast where it just hasn't been common, LEDs are still outstripping incandescent lamps. Is the rate as fast? No, because you've got this distortion from incentive rebates in some places, but what I will tell you is that not just Westinghouse, multiple manufacturers have products on the shelf that are cost competitive with halogen without a single penny in incentive.

In the early days, we needed the help, and for specialty lamps, I think it's still needed to encourage consumers to make the switch, but for the

traditional, A-line type product, there are options available to consumers that are cost competitive with halogen without any incentive monies.

And then the other thing, Don, is more on the form factor, because if not, Noah or someone would probably say it, I think that's like a four gen old version of our lamp.

Over the last two years, the industry, not just us, has done a great job in getting where we can products to fit the form factor. So the traditional candelabra torpedo flame tip, most of us have a product that is almost exactly the same form factor. When you get into some of the other specialty sizes, especially smaller ones, it's tough, but the experience you had was common maybe a year and a half ago. I don't think it's as common now. I think that part of what happens is it takes a while for products to sell through on the shelf and then the consumer that goes in may not be getting the most recent technology.

MR. RAMIREZ: Let me get Chris, Louis and then Joe.

MR. GRANDA: Chris Granda, Appliance Standards Awareness Project.

First, a quick clarifying question and then

a comment. I'd like to add my voice to the request for more detail about the specific lamps that are in the graphics, but just to be clear, are both graphs talking about the same basket of products?

MS. MILLER: Yes. I'll just double check it. Let me say yes with a footnote. I'm pretty sure, and then let me double check and get back to you.

MR. GRANDA: Okay. Thank you, and then the other perspective, I guess, on utility energy efficiency programs, I think that Mr. Brundage represents the perspective of one kind of electric utility --

MS. MILLER: Oh, can I amend?

MR. GRANDA: Yes.

MS. MILLER: The pie chart is only incandescent shipments by retail type whereas the bar graph was incandescent and halogen.

MR. GRANDA: So does that mean that the pie chart dramatically under-represents A-type lamps because they would probably be covered by --

MS. MILLER: If I recall correctly, including halogen as well did not change the distribution significantly at all, so I don't believe that's the case.

MR. GRANDA: Okay. Thank you. Thank you

for that.

MS. MILLER: And I did interrupt you. Did you have a -- finish.

MR. GRANDA: Actually, I would like to cede my time on this question to Mr. Horowitz --

(Laughter.)

MR. GRANDA: -- who has a clarification to the clarification.

MS. MILLER: Granted.

MR. HOROWITZ: Thank you. Sorry about that.

MS. MILLER: I always wanted to do that.

MR. HOROWITZ: Noah Horowitz, NRDC. Sofie, is it right then that this pie chart does not include the sale of halogen lamps?

MS. MILLER: That's right.

MR. HOROWITZ: So with the first tier of EISA, the A-lamps that were incandescents have become halogens. It's illegal to sell the 100, 75, 60 and 40 so almost all the halogens being sold in the A-lamp form --

MS. MILLER: Oh, you know what --

MR. HOROWITZ: So have a look at that, and again --

MS. MILLER: No, no. You're right. This does include halogen as a subset. I apologize. I can

followup with a clarification because I think the title of that graph didn't translate over from our Federal Register notice, so let me followup with you guys just to confirm because yes. Yes, that does. Thank you. I appreciate that.

MR. HOROWITZ: So in general, just a list of assumptions where the data came from and a break out of incandescent, halogen, LED, reflector, candelabra would be hugely helpful. Thanks.

MR. RAMIREZ: All right. Let me get --

MR. GRANDA: Can I finish the comment that I had on the utility programs?

MR. RAMIREZ: I'm keeping an eye on you two.

(Laughter.)

MR. RAMIREZ: All right. Go ahead.

MR. GRANDA: Chris Granda. One of the tasks that ASAP has undertaken is to collect information on this DOE NOPR and the standards process regarding GSLs in general and communicate that to the energy efficiency community at large but particularly the program development and implementation community, and there is a great deal of anxiety at U.S. electric utilities, many of whom are still very dependent on their residential energy efficiency programs to meet their energy savings goals. The uncertainty that this

NOPR injects into their planning is profound, and we get that message all the time. Thank you.

MR. RAMIREZ: All right. Let me get Louis --

MS. MILLER: Any information that you have to illustrate the scope of that would be helpful throughout the comment process, so just keep that in mind. Hearing about uncertainty is helpful, but unless we know really what the scope of that is, there's not a ton we can do with it, so that would be extremely helpful if you could do so.

MR. GRANDA: So I gave multiple webinars and other presentations last year to groups of program developers and implementers. I have one on Monday next week and another couple in April. I can provide you information on all of that.

MS. MILLER: I'd like that. Thanks.

MR. RAMIREZ: Louis, Joe and then before I go back to Alex, I'll see if there's anyone else that has not yet made a comment.

MR. STARR: So this is Louis with Northwest Energy Efficiency Alliance.

So some of the things that you're talking about -- so NEEA has spent quite a bit of time about trying -- we sort of separate out the difference

between the program and what the natural occurring effect would be without incentives, and then we also track the -- we have some clever ways of tracking bulk cost with how they're priced, so we can get some general trends. And the other thing you know is that the cost of electricity in the northwest is more closer to what the national average -- probably eight, nine cents a kilowatt, so it tends to be more represented.

So I think maybe com of the protections of the information you could be -- I don't know exactly what the word -- project what's happening in the northwest as, you know, onto the rest of the U.S. So potentially we'll have to think about maybe how we could provide that information.

The other thing I would argue, so thanks, Chris, the other Chris -- Chris from MaxLite. One of the things he indicated that there's different performance factor for the incandescent version of the -- I think in this case it's candelabra bulbs, but one of the things I would suggest there that really -- most consumers are not going to know about beam angle.

They may know about color temperature and some things like that, but primarily a lot of the people are buying the product because it's cheaper.

And so to that point I would also say the idea that the market's going to transform itself and eventually nobody will buy the inefficient product, we have an example of T12 where that market is booming and the inefficient products is increasing with time, so as long as there's a bad product out there and it's cheap, people are going to buy it, so that's where role of DOE could have to help us out to get inefficient products out of the market such we achieve energy efficiency, so thank you.

MR. RAMIREZ: All right. Let me get Joe, Mary and then Alex.

MR. HOWLEY: Joe Howley, GE.

I wanted to just address a couple of statements. One was from a while ago. I think it was mentioned that somehow the market would go backward if this regulation was changed, and that is greatly overstated and inaccurate. The issue with this product, it's very long lived, so once these LEDs get into sockets, they're going to be there for a long time, which means there's a smaller and smaller market that we have available to sell incandescent technology.

We don't see any evidence it could possibly go backward, and as more and more products come out

that fit better and are even less expensive, all we see is the speed at which this is happening. The market is changing on its own absent of whatever regulation DOE may pass. It is moving towards LEDs. It's not going to go back to an older technology at this point. As Don mentioned, declare victory. We're getting there, and the market's going to move there with or without this activity.

The other comment -- I think you mentioned T12 fluorescent lamps. I can verify that the market is not booming. Our sales continue to decline rapidly, and there will be very few T12 lamps sold in the market we roll through the next few years. That market is small and declining rapidly. Thank you.

MS. ANDERSON: Mary Anderson, PG&E.

To address uncertainty, at least from the utility's perspective, we are currently planning our incentive programs. And as we plan, we have to understand what measures are available, what the industry standard practice is or what code is. And as we do this, if we don't know that it's really hard to create, first of all, an incentive program, and estimate some level of energy savings. So as we've been talking to our folks, I have shared with them my perspective that we believe the expanded definitions

should and hopefully will go through, but it has caused a lot of extra time and a lot of extra stress, and there has to be additional contingency plans just in case, and those additional contingency plans will likely cost our consumers another $50 million a year, which is significant. Thank you.

MR. RAMIREZ: Alex?

MR. BOESENBERG: Alex Boesenberg, NEMA.

I think a lot of us have spotted or heard something today that felt like role reversal from the ways we sometimes talk in proceedings just due to the way this rulemaking has kind of flipped on its head, I guess, but the one that I heard and loved and would echo is -- I wouldn't say love. That's a silly way to say it, but something I heard that I want to key on and reiterate is the desire to see more granularity or more clarification on the data and open up the black box and document all the assumptions so we understand how the analysis has been structured.

And I hope my esteemed colleagues to my left here will echo that a month from now in the process improvement rule meeting because industry's been asking for that at every rulemaking, and that's why it's in that rule for consideration now, and just have that ready to go. Thank you.

MR. RAMIREZ: All right. Let me get Phi first and then Tim.

MR. NGUYEN: Phi Nguyen, Energy Solutions on behalf of the California IOUs. I just want to address this one point in terms of declining incandescent and halogen sales, I want to know that we were speaking earlier today about 45 lumen per watt backstop. Congress was clear on the timeline for this. They set very, very specific timelines for when 45 lumens per watt should be imposed. So the whole argument that you know it's declining and it's going to get there eventually is the precise reason why Congress made this into statute, so I don't see how it's a valid argument.

The second point I want to make going back to this pie chart here, it does focus a lot on burdens of retailers currently selling what will be non-compliant products, but there is also a burden for retailers who have committed to selling LED products and more efficient products, so those retailers will also bear a burden, so I think it does pay off to have LED data in this as well.

MR. BALLO: Tim Ballo with Earthjustice.

Two quick points. First, I was struck by the remark by T12s continuing to decline. Ten years

ago, we were doing the general service fluorescent lamp rulemaking, and DOE was urged by the industry folks, some of them at least, not to even bother with T12s because the market was going to take care of those, and here we are 10 years later, and the market's still trying to take care of them.

The other point was to Don's point earlier about buying a candelabra LED that had difficulty with a fixture, I was also an early adopter. In 2014, 2015, I bought some candelabra incandescents from a manufacturer, who I believe is not a member of NEMA, and found that --

MS. MILLER: You mean LEDs?

MR. BALLO: I'm sorry?

MS. MILLER: Do you mean LEDs?

MR. BALLO: Candelabra LEDs, yes, and found that that manufacturer had also anticipated some problems with sockets, and so they packaged each lamp they sold with an adapter to use an incandescent lamp in a medium-based socket if you had trouble installing it in your chandelier. I'm not sure how common that is, but I've looked online, and it's very easy to find those adapters, so I caution folks about the idea that there's not going to be or that there isn't a lot of installation of candelabra in other sockets.

MR. RAMIREZ: David, did you just have quick remark on that because John was next, but is it a quick reply?

MR. GATTO: It is because it's actually a rebuttal.

MS. MILLER: Can you get your mic?

MR. GATTO: Dave Gatto, Westinghouse Lighting.

It's actually in reply to both Phi and Tim, so, Phi, first, just so I'm clear and it's clear on the record unless Dan wants to weigh in, Congress did a backstop in case DOE didn't do what they were expected to do, and I'm in complete agreement with that. Whether it's triggered or not is obviously something we're not necessarily in agreement on.

However, Congress did not set 2020 as a hard date. The statute actually calls for a new rulemaking in 2020 that potentially would go in effect in 2025, depending on what the Secretary decided to do during this rulemaking. So I don't agree that it was January 1, 2020, no matter what, and unless I misread the statute, I think that's actually what it says is that there's another round of rulemaking that we're actually about to start even though this one's not done yet.

In the case of the adapter, Tim, that adapter is illegal, so if you know who that is -- Laura was here earlier.

(Laughter.)

MR. GATTO: I would actually -- because we -- this is a challenge for manufacturers, this is where the Burgess Rider was a problem for us. We chose to follow the law while other people didn't, and that creates a competitive issue for legitimate, credible manufacturers, so whether we agree or not on what the rule should be, whatever the rule is, Westinghouse will follow it. If someone else isn't following it, and you're aware of that, I would appreciate it if you would share that with the Department because I know they will take action on it.

MR. RAMIREZ: All right. We have one person on the line, but we're going to get John first, and then we'll get the online and then Pat.

MR. AUGUSTINO: Okay. John Augustino, Honeywell.

A couple of points: one is to your point about the T12 sales going down. Regarding all of the inefficient bulb sales, it is the major manufacturers that exit the market first. That doesn't mean that the market is gone. That's where the kind of the

under market sellers go to work, so the fact that the major manufacturer sales is going down does not indicate completely that that market is going away. It just means that other sellers, cheaper sellers, are coming in to fill that void. The whole purpose of federal standards is to eliminate that.

The second point is: as much as we talk about light quality and all the other issues, people buy the older technology because it's cheaper, plain and simple, and if you look at who buys the cheaper technology because they have to, it's the low-income folks. So this program, by not having a standard put in place as aggressive as it can be, hurts them most because the price of the higher technology remains higher because the market saturation is lower, and the cheaper option, which they have to take, ends up costing them more in the usage.

That has to be factored into all this because there's an equity issue that's not being addressed, not being considered. We're worried about retailers who are business people who can adapt, and we're not focusing on low-income consumers who don't have an option to adapt, and the last part is Mary's point about the $50 million or other amount of money that's being impacted from uncertainty, that is her

utility. That is one utility of five in the state in 50 states.

There is a tremendous amount of anxiety regarding where these investments are going, and there's opportunity costs because this uncertainty means that that money is not going where it would be benefitting something else by being put into this tranche because of the uncertainty. So we have to look at the true costs here and who's paying those costs and how much cost is on one side versus the other.

MR. RAMIREZ: Thank you.

Okay. We're going to online to Kevin and then Pat. Kevin?

MR. ROSE: Yeah, hi there. Kevin Rose from National Grid. We are an electricity and national gas utility serving Massachusetts, Rhode Island and New York.

Thank you for taking my question. I put my hand up a little while, so we've moved a little bit from this topic, but I just wanted to provide what I hope is some clarity and, if nothing else, an alternative utility perspective on some points that were shared earlier about projecting the future market volume of incandescent and halogen sales vis-a-vis

utility efficiency incentive programs.

In particular, there seem to be some amount of misalignment between regionality of where incentives seem to be more or less impactful in driving market adoption of more efficient technologies, in particular LEDs, so I think it's worth making clear perhaps explicitly clear that while utilities are typically states or regions, the manufacturers of lighting products are often, you know, larger on that scale, national scale, and so it may not be appropriate to just use a state or even regional lens when trying to suss out what the impact of those incentives are.

To be clear, regions and states that haven't -- historically for a long time have incentivized higher performance have helped to give manufacturers the ability to invest in R&D operations and supply chain improvements that help them to reach our markets, but which buy down the cost to enter new markets, perhaps like the southeast which was mentioned by the gentleman from Southern Company there. So yeah, just trying to bring some alignment to what I heard is a difference of opinion on the impact of lighting incentive programs on moving the market and how we should be thinking about projecting

the evolution of this market.

Thank you.

MR. RAMIREZ: Thank you, Kevin. Pat?

MR. SAXTON: Thanks. Pat Saxton, California Energy Commission.

I just wanted to follow on the comment that said 2020's not a hard date and Congress set up two rulemakings. Yes, Congress did and my assumption is they expected some outcome from that first 2014 rulemaking before the beginning of the next one.

MR. RAMIREZ: Okay. I think that's all the -- no. We have two more. Okay.

MS. MILLER: I'll just remind you that lunch is pending.

(Laughter.)

MR. RAMIREZ: Nice. Let me get Jennifer and then Chris.

MS. DOLIN: Thank you. Jennifer Dolin, LEDVANCE.

I do want to address a couple points. One, the fluorescent lighting -- we are a very long-time manufacturer of fluorescent lighting in the United States. Our plant in Kentucky has been operating since I think the '40s, pretty efficient, takes a huge investment to manufacture fluorescent lighting, and we

recently announced publicly, it's not new, that that plant will be closing at the end of September.

That's not because of any other reason other than the market is declining. I don't think anybody can make -- maybe a couple of our colleagues can make, fluorescent lighting more efficient. Going to other manufacturers overseas, not necessarily as efficient. The market is declining. That's why plants are shutting down. As far as the incentives and the regions, agreed that -- can you still hear me? Yes? The regions, all the utilities, they do their rebates differently.

I acknowledge that, but a couple weeks ago I was down here for another meeting, and at the last minute I thought, shoot. I don't have show and tell, so I went to my local grocery store, and on the shelf, four-pack of halogen, Sylvania brand, which is our brand. LEDVANCE is the maker of Sylvania brand, and a package of four-pack LED. The LEDs with no incentives at all were a dollar cheaper. So the whole notion of one-size-fits-all, I think, really needs to be considered when you're reviewing the comments, and lastly, sorry. I am going back a little bit farther to the comments that were made by Noah and Chris.

And we've known each for quite some time,

and we've been in very similar conversations, and one thing that I've noticed throughout these more than 20 years, and in particular today, you're oftentimes looking at what could happen, the one-offs, the what ifs. I respect that you are tasked with looking at a topic or an issue from one very specific perspective, and I just ask that all perspectives be considered. Noah, your examples are Sylvania incandescent candelabra, and then you've taken the other manufacturers, so it's almost like you're looking at hero versus villain when, in fact, we all make everything.

And the reason that we make everything is because there's a complex decision-making process between manufacturers, retailers and consumers about what the needs are of those end users, and we're all working to meet those needs recognizing that the market, as you've heard here, is declining. LEDs are taking over for incandescent, but as I think Dave had said, we don't need the regulations to rule out one or basically require consumers to buy one technology or one particular thing. It is a consumer choice. That's how we've operated for decades, for centuries, and that's all we're asking here.

MR. RAMIREZ: Okay. Thank you. Chris?

MR. PRIMOUS: Chris Primous from MaxLite.

So this slide that we've been on 40 minutes --

(Laughter.)

MR. PRIMOUS: I'm just trying to read it. Do you have the numbers for those seven since it is in black and white and we can't quite decipher it. Can you tell us the numbers for those seven?

MS. MILLER: Yeah, I can grab it from my Excel sheet in my office and tell it to you guys after lunch.

MR. PRIMOUS: Okay. Thank you.

MR. RAMIREZ: Yeah, I thought data was going to be the easy stuff. All right. So 45 minutes for lunch. Did you have anything else on data before we break?

MS. MILLER: My data is that 90 percent of the people in this room want to eat lunch.

(Laughter.)

MR. RAMIREZ: All right. Don, you realize what you're doing there?

MR. BRUNDAGE: Yeah.

MR. BOESENBERG: Okay.

MR. BRUNDAGE: Well, I'm just wondering. It looks to me like we're -- what all do we have after we

come back from lunch? It looks like we're pretty much through with the slides.

MR. RAMIREZ: Yes, that's correct. We are, and so if you look at the -- well, the slides as far as presentation of the issue. Now we have the issue boxes for discussion, so during lunch, you could take a look at those issue boxes or let me pick on this a little bit. Are you saying that you've shared everything that you've wanted to share or let me ask the DOE. The issue boxes that you had on there, was a lot of that conversation covered this morning?

MS. MILLER: Many of the issue boxes pertain to very specific data that I don't think people in this room have accessible to us at this point. However, please correct me if I'm wrong on that?

MR. RAMIREZ: Okay.

MS. MILLER: But I also don't want to rule out if people have additional comments that were not covered by these slides. We could also cover that at a later point.

MR. RAMIREZ: Right. I want to make sure -- when we were coming, I mentioned I wanted to make sure that everyone that wants to have an opportunity to make comments could do so. If we need to take a few extra minutes here to button it up and boogie, I'm

okay with that, right? But I just want to make sure everyone has that opportunity.

MR. BRUNDAGE: Yeah, that was my point because most of the remaining issues looked more like homework assignments for the manufacturers where they're going to have to do some research. It won't be something that comes through discussion.

MR. RAMIREZ: Yeah. Sofie, I tried, right?

MS. MILLER: Yeah, it's homework. If you've got it, I want it.

MR. RAMIREZ: Okay. David, do you have something?

MR. GATTO: No.

MR. RAMIREZ: No? Okay. Is everyone okay then -- let me make sure the folks online as well if there's no other additional comments, and if the Department is comfortable that everyone's had the opportunity to share and you've covered everything that you had in your agenda, then maybe we can conclude, but, Jennifer, you have a comment?

MS. DOLIN: Yeah, I just had a quick comment on the questions that DOE is asking. I mean, are we not coming back to those? Because my question is that this is very specific to the retailer and the movement of lamps through the retailer shelves, and I'm just

wondering if DOE wants comments about the rest of the supply chain and the timing, so should we read that as retailer/anyone else?

MS. MILLER: I think that would be helpful, and also from the utility side, since we've been hearing about uncertainty there as well, if these questions are applicable to that sphere, then, of course, we're interested in those data.

MR. RAMIREZ: Okay. Joe?

MR. HOWLEY: So if we're buttoning this up, I guess -- Joe Howley, GE. I would like to make one final comment if we are closing this out?

MR. RAMIREZ: It appears so, so yeah, go ahead.

MR. HOWLEY: Okay. So just -- I mean, during the course of the day, I'd like to thank DOE for explaining why the five exempt types are not covered, why the reflector lamps are not covered, why the specialty incandescent, including candelabra-based lamps are not covered. I'd also like to thank DOE for making it clear to manufacturers and retailers that although the backstop has been triggered for vibration service and rough service lamps, at this time the backstop has not been triggered for general service lamps. This clarity will help greatly with lamp sales

planning in 2020, so thank you.

MR. RAMIREZ: Noah? Okay. Go ahead.

MR. BALLO: Tim Ballo, Earthjustice. I just want to express my disagreement with the contention that DOE has provided clarity. DOE, I think, could provide clarity if it said that the backstop has been triggered and we are prepared to enforce it. DOE cannot provide clarity that the backstop has not been triggered. A Judge at some point will provide that clarity, and I think it's irresponsible for the Department to take this position because you are forcing retailers and manufacturers to decide, in the words of Dirty Harry, do I feel lucky? Thank you.

MR. RAMIREZ: Thank you, Tim. Let me go in the back over there. Please state your name?

MR. ELDER: Yeah, Rich Elder, Lubin Olsen.

So I had a couple of questions for Dan or some points that we'd like to try to clarify. Dan, you spoke about what you described a legal catch 22 relating to the Burgess Rider. Do you remember that? And do I understand correctly that it's the Department's position that the Burgess Rider precluded it from expending money to consider whether to amend energy conservation standards for general service lamps, including GSILs?

MR. COHEN: No, that's not completely accurate.

MR. ELDER: How is that inaccurate?

MR. COHEN: The Burgess Amendment, as we stated multiple times throughout this rulemaking proceeding, prior versions of this rulemaking proceeding, prevented us from looking at incandescent lamps. They were specifically directed towards incandescent technology, so it wasn't GSL's writ large. It was just incandescent lamps, and as a result, the proposed rule that we published back in March of 2016, which made that point multiple times, only really focused on -- in terms of the data that was analyzed -- LEDs, CFLs and those technologies.

MR. ELDER: All right. So it's the Department's position that the Department was precluded from or unable to consider whether to amend energy conservation standards for GSILs. Is that correct?

MR. COHEN: I mean, I think it's the exact words because -- if you give me just one moment I will find the precise words out of the --

MR. RAMIREZ: So, Dan, why don't you take a moment. Noah, did you have something? Yeah, go ahead.

MR. HOROWITZ: Noah Horowitz with NRDC. I've got a couple of points related to these questions as it seems like we're going to do that now, right? So if that's the right time and then a quick closing statement. I understand the agency's looking for additional information to help quantify the impact on retailers, but we think the Agency's being remiss by not also requesting information and taking into consideration the consumer savings and benefits and also the environmental benefits.

Secondly, a lot of the questions like No. 6, what are the opportunity costs associated with an open bay? That could be a potential benefit to the retailer, so right now retailers are stocking up to four different types of light bulbs, incandescents, halogens, CFLs and LEDs. When the incandescents and halogens are no longer on the shelf, that provides them the opportunity since they already have LEDs on the shelf to use that shelf space to sell other products that will provide revenue, and I'm hoping that information could be provided and that's considered.

And a question I have for you, Sofie, before I close up my comments is the Agency's requesting all this data on retailer impacts, and what is the purpose

of collecting that data? Is it for Executive Order 13771? Can you help us understand that?

MALE VOICE: I'm sorry. Can you repeat that?

MALE VOICE: Yeah, Dan was doing the homework from the previous questions.

MR. HOROWITZ: Sure. I'd be happy to repeat that. So a lot of these questions are tailored to retailer impacts, and I suggested we encourage you to collect information on the other impacts, but why is this retailer information being focused on? What's the purpose of collecting the data? Is it for purposes of Executive Order 13771?

MR. COHEN: The purpose of those analyses and the data that we have presented here is try to quantify what we have heard is the uncertainty presented by our lack of clarity on the application of the backstop and what lamps are included or not included in the definition. That's the purpose of that analysis.

MR. HOROWITZ: And what do you plan to do with that information? How would that change whether or not a product is exempt or that the backstop has been triggered and all these other issues?

MR. COHEN: So they are separate issues. We

are trying to just understand what the world is out there and what the impacts are of what our prior actions were.

MR. HOROWITZ: Okay. And I've got a closing statement.

MR. RAMIREZ: That's fine. Dan, I'll let you -- you can go back, so go ahead to your comment then.

MR. HOROWITZ: Okay. Thank you.

I appreciate the opportunity to participate here and for ongoing dialogue. I want to reiterate the statements we made earlier, and we can't be more clear on this. The backstop has been triggered. The standard of 45 lumens per watt as we understand it goes into even 1-1-2020 and that it's illegal to roll back the definitions.

We've also heard a lot of comments from the manufacturers saying the market is shifting. Let the incandescents and halogens continue to have their sale erode, and the market will take care of it. We don't need standards.

There isn't an option here. Congress already wrote the law. The law says there will be standards. We can argue and have debates in terms of what exactly is in the scope and what the stringency

is, but it's not an option to just have the market take care of things. I just want to make that crystal clear. Thank you.

MR. RAMIREZ: All right. Dan, how are you doing there?

MR. COHEN: So unfortunately the statement that I was looking for was actually from the March 2016 proposal, but in the proposal we're discussing today, we refer to it, and we paraphrase it, so it's a little bit of a -- it's not precisely. And we can get you the exact words, but it's pretty close to this, and I'm reading now -- this is from the Federal Registry notice on February 11, 2019, so it's on page 3122 in the left-hand column about halfway down where we say in the March 2016 proposed rule proposing energy conservation standards for GSILs, DOE stated that it would be unable to undertake any analysis regarding GSILs and other incandescent lamps because of a then applicable Congressional restriction, i.e. the appropriations rider, on the use of appropriated funds to implement or enforce 10 C.F.R. 430.32(x).

MR. ELDER: Rich Elder again. That's a helpful clarification, so it's correct then that it's the Department's position that the Burgess Rider precluded the Department from expending monies to

consider whether to amend any energy conservation standards for GSILs. That's correct?

MR. COHEN: That is correct.

MR. ELDER: Okay.

MR. COHEN: In the statement we made multiple times in the earlier iterations of this procedure.

MR. ELDER: All right. And for that reason, the Department did not make any determination that the standards for GSILs needed to be amended prior to January 1, 2017, correct?

MR. COHEN: That is correct. As I stated earlier, we were given two tasks. That was one of the two tasks, and we stated that in the proposal in March of 2016, and I believe we also said that in the January 2017 comprehensive rule that we could not have made that determination, that in fact had not made that determination as of the date of that final rule.

MR. ELDER: Okay. And that goes to the next question that I had, which is that the Department did not complete a rulemaking regarding GSILs prior to January 1, 2017, to amend those standards, right?

MR. COHEN: As I said, our position is we were legally prohibited from making the determination with regard to incandescent lamps and general service

incandescent lamps.

MR. ELDER: And as a result of -- sorry.

MR. COHEN: And that is a rulemaking we are still obligated to do, and we are, in fact, engaged in that rulemaking.

MR. ELDER: But that rulemaking was not completed before January 1, 2017, correct?

MR. COHEN: We were legally prohibited from engaging and making a decision.

MR. ELDER: All right. Is there anything about the Burgess Rider that the Department believes permits that rulemaking to proceed now after January 1, 2017?

MR. COHEN: The Burgess Amendment no longer exists.

MR. ELDER: Okay. So is that a no?

MR. COHEN: Please restate your question.

MR. ELDER: Yes, is there anything about the Burgess Rider that you believe authorizes the Department to complete that rulemaking now after January 1, 2017?

MR. COHEN: Because we are no longer prohibited from spending money as was the case under the Burgess Amendment, we can in fact collect data and make that decision that we are obligated to make, and,

in fact, that was part of what we did earlier in 2017 where we -- I forget the exact date, when we published the notice of data availability seeking data to help inform that obligation.

MR. ELDER: Is there anything in the text of the statute that you believe provides that authorization to the Department specifically? Authorization to conduct a rulemaking now after January 1, 2017?

MR. COHEN: So the statute obligated us to make that decision, and we believe we still have that obligation imposed upon us.

MR. ELDER: Even now after 2017.

MR. COHEN: Yes.

MR. ELDER: Even now after January 1, 2017?

MR. COHEN: Yes.

MR. ELDER: And can you point to any specific statutory language that you believe provides that authorization?

MR. COHEN: Well, again, 6295(i)(6) tells the Secretary to make that determination.

MR. ELDER: Prior to January 1, 2017, if they're going to do it all, correct?

MR. COHEN: No. What the statute says is if the Secretary determines that standards in effect for

general service incandescent lamps should be amended, then he shall issue a rule and that date is present there, but there's a predicate for that requirement, which is the determination which we were legally prohibited from making.

MR. RAMIREZ: Rich, you good?

MR. ELDER: Yeah, that's all I have at this time. Thank you.

MR. RAMIREZ: Okay. Yeah, Dave?

MR. GATTO: Sorry. Just real briefly. Dave Gatto, Westinghouse Lighting. It's the room, Alex. The new room has just thrown me off. I took years to get used to doing that.

Just so I'm clear, and I guess I'm probably partly speaking for all of industry, but just specifically for Westinghouse, Noah, we're not saying that there shouldn't be any standards. We've been a proponent of strong, reasonable national standards all along. What we're objecting to and what we objected to in January of 2017 and what we're a proponent of now is that the word reasonable still applies, so I do appreciate that if it sounded like, and I may have made it sound like we don't want any standards. That's not accurate. Yes?

MR. RAMIREZ: Yeah, Noah?

MR. HOROWITZ: Just want to -- let me pull this up.

MR. RAMIREZ: Noah Horowitz.

MR. HOROWITZ: Thank you. Noah Horowitz with NRDC.

Sofie, there was a lot of discussion on the slides and some uncertainty as to where the data came from and seeking more clarity. Can you tell us when we can expect that data and will it come through an email or the Federal Register? Thanks.

MS. MILLER: I'm not sure how we've done that in the past, so I'll defer to what past practice has been like just chatting with other folks offline, but I could see it taking either one of those forms. I don't know what you guys think would be more convenient. We could post something in the docket and then email you about it. Do you envision something specific, or what would be the most helpful here?

MR. HOROWITZ: Just as long as the data's widely disseminated and thorough. Any of those vehicles sounds great, appreciate your followup.

MR. RAMIREZ: Tim?

MR. BALLO: Tim at Earthjustice.

This is obviously more an issue for the folks on the efficiency advocate side that are

technically knowledgeable, and I am obviously not, but I just want to make the point that we do really care about seeing that data, and if we don't get it until, you know, I don't know how long, but at some point, we're going to need an extension of the comment period to adequately comment on that data.

MR. RAMIREZ: Do you have even a ballpark of what might be reasonable for you to have that to analyze?

MR. BALLO: I'm going to put that in Noah's -- make that his problem.

MR. RAMIREZ: You know, the only reason I'm questioning is that, I mean, and I don't know what type of turnaround, but if it's a quick turnaround, there may be no need to extend, right? So that's why I'm trying to engage how much time we think you would need with the data to see if there's any consideration that needs to be given to extend that deadline.

MR. HOROWITZ: Noah Horowitz, NRDC.

Let's see the data, and then we can tell you if it's complete and whether more time is needed. I'm sorry. I can't --

MR. RAMIREZ: Yes. Chris?

MR. GRANDA: Chris Granda, Appliance Standards Awareness Project.

I'd like to formally request an extension of the comment period.

MR. RAMIREZ: Okay. At 12:04, I thought Don was going to be the villain for asking a question. I think he's the hero now because I believe we're done. Are there any -- Patrick?

MR. SAXTON: Pat Saxton, California Energy Commission. We, I think, thankfully didn't go down too much road to day on if the backstop is or isn't triggered. There's been a couple of pretty positive assertions here towards the end by some folks that hasn't. I'll just say that on the EISA scope of general service lamps, California's been enforcing that for over a year on something that was contingent upon it being triggered, so we would strongly disagree.

MR. RAMIREZ: Thank you. Mary?

MS. ANDERSON: So Mary Anderson, PG&E. I just wanted to make a closing statement. As large utility companies with a long history of running energy efficiency programs, we have invested significantly for many years into high-efficiency lighting and with other stakeholders here today, and we plan our program efforts out several years in advance and make business decisions based on our

analysis of the regulatory conditions for any given market. With respect to general service lamps, we have already made our future plans for 2020 and beyond based on the clear regulatory environment, which is that the expanded scope products will be general service lamps and will be subjected to the 45 lumen per watt backstop.

Despite the proposal of this NOPR, we are continuing to plan on all of these lamp types being covered as GSLs in 2020. We do not believe there is any legal basis for DOE to roll back the definitions adopted in January 2017, and we do not see any legal basis for DOE to proceed with the proposal in this NOPR. If DOE proceeds in a final rule with this proposal, DOE will be challenged by any number of litigants, and we believe DOE's proposal in this NOPR will be overturned and the January 2017 definitions will be withheld.

For these reasons, we continue planning for 2020 with that understanding and our recommendation to other stakeholders, to other utilities, to manufacturers and to retailers is that they also continue to plan these expanded scope lamps being covered in 2010. We believe that any stakeholder who makes business decisions based on this NOPR is taking

a significant risk.

Specifically, we believe retailers or manufacturers who make plans to continue manufacturing or selling halogen or incandescent versions of these expanded scope products past January 1, 2020, will put themselves at risk for selling non-compliance products or being stuck with a significant stock that cannot be sold. We therefore believe DOE's proposal in this NOPR only introduces uncertainty and risk to these key market actors. In this way, the proposal is disruptive to the market and will result in additional added burden and financial cost to the industry.

Thank you.

MR. RAMIREZ: Great. Thank you, Mary.

Anything else before we adjourn? I really want to thank you all for truly being professional and concise and targeted, and hopefully we'll get a chance to work again. Thank you, everyone.

(Whereupon, at 12:30 p.m., the meeting in the above-entitled matter was concluded.)

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REPORTER'S CERTIFICATE

DOCKET NO.: --

CASE TITLE: Notice of Proposed Rulemaking for General Service Lamps

HEARING DATE: February 28, 2019

LOCATION: Washington, D.C.

I hereby certify that the proceedings and evidence are contained fully and accurately on the tapes and notes reported by me at the hearing in the above case before the Department of Energy, Office of Energy Efficiency and Renewable Energy.

Date: February 28, 2019

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