

*Linda Sandahl:*

Welcome, everyone. I'm Linda Sandahl with Pacific Northwest National Laboratory, and I'd like to welcome you to today's webinar, A Manufacturer's Guide to the Interior Lighting Campaign, brought to you by the US Department of Energy's Better Buildings Program. This particular event is intended specifically for manufacturers and distributors, and I know some of you are already signed up as a supporter to the Interior Lighting Campaign, so you probably know a fair amount about it already. We've also invited representatives from companies who haven't signed up yet, so you folks may be learning about this for the first time, and hopefully, we'll sign you up to join our cause.

Here's an overview of what we'll be covering today. First, a background on DOE's Better Buildings Initiative, to see how you – so you can see how the Interior Lighting Campaign fits into that overall program, and I'll also talk a bit about the LEEP campaign, which is the Lighting Energy Efficiency campaign. It's a related initiative that focuses on exterior lighting, so parking lots and parking structures, and the focus for today is gonna be, again, the Interior Lighting Campaign, and we'll be going over technical product requirements for high-efficiency troffer systems, what's in it for you, and then how manufacturers and distributors can get involved in this effort. And for example, we'd really like to work with you to identify and sign up your high-efficiency troffer solution installations that represent significant energy savings, and by doing this, you'll help the Interior Lighting Campaign reach its goal of a million troffers.

And then the what's in it for you piece, you and your customers could be recognized for exemplary performance as part of a national awards ceremony that's gonna be happening later this year, and also, award winners will be documented in case studies, ideally. Felipe will explain this in more detail in a few minutes. And then we're gonna follow up with a question-and-answer session after the presentation, and Felipe will be available, as well as Andy Mitchell of the Department of Energy – he's the Better Buildings lead for the Interior Lighting Campaign – as well as Michael Myer of PNNL. He's been involved in the technical – in a technical role on this campaign as well as the LEEP campaign. Again, send your questions sooner vs. later, and we can get those in the queue. Next slide?

This is just some background on the Better Buildings Initiative. This is a voluntary initiative launched by President Obama in 2011, and it's now representing over 250 partners and allies, over 3.5 billion square feet, \$5-plus billion in private financing, and

over 650 manufacturing plants. A few key goals: One certainly is to make commercial and industrial buildings and multi-family housing 20 percent plus more efficient in the next 10 years, save \$80 billion for US organizations, create American jobs, improve energy security, and mitigate impact of climate change, and I think we all would agree those are great goals. And again, we'll have Andy Mitchell on to answer any questions you might have about the Better Buildings Initiative. Next slide?

Okay, I wanted to talk just a little bit about the Better Buildings Alliance, since it is a key program in the present Better Buildings Initiative. Organizations join the Better Buildings Alliance when they – and when they do so, they are put into one of the – or they line up into one of the sectors that are listed at the top of the slide there. And these organizations represent about 20 percent of the square footage in these different sectors, so you probably would recognize a lot of these organizations. They choose to participate in one of six technology teams and/or market solution teams, and each of the teams is led by a subject matter expert, and Pacific Northwest National Laboratory happens to lead the lighting team, so we coordinate with these companies to identify target research activities and resource development, those sorts of things. The lighting team is one of the most popular technical teams because of the high-profile nature of lighting upgrades, as well as the attractive financial returns that lighting projects often provide, and the Interior Lighting Campaign arose out of interest by the lighting team, so that's why we have pursued this initiative. Troffer lighting is of very high interest to these companies, again, because they see the financial returns and because it's so visible. Okay, next slide?

This is the – a slide on the LEEP campaign, so Lighting Energy Efficiency in Parking. This was one of our first initiatives out of the Better Buildings Alliance. It encourages high-efficiency parking lots and structures through adoption of advanced lighting and lighting controls technology. And like the ILC, there's recognition and awards for exemplary performance efforts, and we're close to 500 million square feet of high-performance lighting that's been documented through this campaign. Our goal for 2016 is 750 million square feet, and the awards are gonna be held at the International Parking Institute Conference and Expo in May of this year. And we've worked with a number of manufacturers, probably some of you on the phone, as part of the LEEP campaign, but if you're not aware of it or wanna get more involved, go to the [LEEPcampaign.org](http://LEEPcampaign.org) website and sign up as a supporter, or you can follow up with us after the webinar, and we can chat more about that campaign as well.

All right, with that, I'd like to introduce our speaker, Felipe Leon of Pacific Northwest National Laboratory. Felipe is an electrical energy with 14 years of experience in concept and product development, project management, test engineering, and product management. He joined the laboratory in 2014, and he's been assisting in the Interior Lighting Campaign since before its launch, which was last May at the Better Buildings Summit. Prior to joining PNNL, Felipe worked for organizations involved in the development of OLED and LED lighting products, so we've drawn a lot from his experience as we look for ways to partner with the manufacturing community, so with that, Felipe?

*Felipe Leon:*

Thank you, Linda, for that great introduction, and thanks for providing us with that excellent overview of the Better Buildings Alliance and the LEEP campaign. So LEEP has been a great success story, and one of the main reasons for this for us will be discussed in this section. We're gonna be talking about the Interior Lighting Campaign, and at times, I'll refer to it as the ILC or the campaign, so please know that I, as I mentioned, that I'm referring to the same thing. As Linda noted, feel free to send your questions, and also, some of you may have some suggestions about things that we could do to better engage manufacturers and distributors. Send 'em throughout the webinar today, and at the end, we should have enough time to go over these and address any questions or suggestions you may have.

Similarly to LEEP, the ILC is a recognition and guidance program designed to help organizations take advantage of savings opportunities from high-efficiency lighting solutions, whereas LEEP was for exterior parking, recognizing that interior lighting can be composed of various types of luminaires, utilizing different types of lamps, lamp technologies, some of which are already well in transition to high-efficiency products. The ILC is focusing the first year on troffer lighting solutions, so a lot of you already know, troffers are pretty ubiquitous in commercial spaces, and they offer tremendous savings potential in regards to energy as well as financial returns. Yet, we know that these are just the beginning of the adoption curve to higher efficacy as well as higher lifetime products.

Shown here are the average site annual potential – annual savings potential and the national annual savings potential if the existing troffers were converted to meet the ILC minimum efficacy requirement. We'll discuss the efficacy requirement in the next slide, but we know that with today's high-efficiency troffer

technology, it's possible to achieve savings up to 60 percent over standard troffers on a one-for-one basis. These savings can be improved upon through the use of controls, which the ILC encourages, it credits, and it also recognizes through the overarching best use of controls award. It's actually a separate award that is gonna be given at the awards ceremony. The potential savings controls can reach up to 75 percent. For the first year of the campaign, the goal is, as Linda mentioned, to replace or install 1 million high-efficiency troffers by May of 2016, and this would result in electricity savings equivalent to 5,500 homes.

So talking about the troffer requirements, the ILC established 85 lumens per watt as the minimum luminaire efficacy for consideration as a high-efficiency troffer in the campaign. It also encourages participants to go maybe a little bit further and to apply the latest version of the Better Buildings Alliance high-efficiency troffer performance specification, which was published in April of 2015. You will notice on the board here that the BBA specification requires a higher performance requirement than the ILC, at 110 lumens per watt. However, the ILC requirement of 85 lumens per watt still applies for the campaign. The BBA spec also establishes some requirements and some options for lumen output, color, quality, and warranty. The ILC leaves this decision on these factors to the customer's discretion.

So we're gonna be talking about participants and supporters, so the ILC solicits the involvement of two types of entities, participants and supporters, and we're referring – when we refer to participants, we're talking about those entities that are the end users or the owners of the high-efficiency troffers, so a few examples of participants are noted here. Supporters, on the other hand, are those entities not directly related to the operation or management of the lighting, but rather provide crucial services, products, or support to participants. Some examples of supporters include utilities, engineers, designers, architects, and of course, manufacturers and distributors that are well represented on this webinar. Many of you have already taken the steps to demonstrate your support by having registered as a supporter of the ILC, and I wanna thank you for that, and again, if you haven't, I'd encourage you to go to the website, check it out, and consider joining.

This next slide – and there's a link down at the bottom for a list of all the supporters, but this is just a partial list of the ILC supporters, and it does not include at this time manufacturers and distributors. Here, you will notice various utilities and energy efficiency organizations. Many help drive energy efficiency

improvements through lighting upgrade incentives and the commissioning and financing of case studies for high-efficiency technologies, including lighting. The ILC encourages all supporters to be aware of incentives and case studies developed by these and other organizations to help improve the economics of high-efficiency troffers and to better deliver the message to customers regarding the benefits of high-efficiency troffers. Again, if you'd like to see a full listing of categorized supporters, please visit the website.

So we'll now discuss some of the benefits and features of the ILC as it relates to supporters, and we'll focus primarily on manufacturers and distributors. One of the key benefits of joining the campaign is the inherent exposure to participants as a supporter of the ILC and its goals. The ILC website includes links to your organization's main webpage and to another link of your choice, such as a direct link to your high-efficiency troffers or your main products page. Manufacturers and distributors are also encouraged to create a micro site or landing page specifically for the ILC, but we would encourage you to include information such as products that meet the ILC requirements, lighting controls for troffers and other lighting solutions, case studies, product comparisons, testimonials, and any other relevant information that's specific to high-efficiency troffer solutions. This will become a one-stop shop for participants that may be interested in some of your company's products.

An indirect benefit is that we're in this together, helping to inform participants, or in your case, customers about the benefits and viability of high-efficiency troffers and controls. The campaign does this via success stories published as highlights and case studies, some possibly featuring your products, as Linda mentioned. From your perspective, connections made with participants may lead to better informing them about the options for their particular lighting projects and how your products and services can help meet their lighting project's needs.

Here on this slide you'll see that there is a web-based tool named the lighting project evaluator, and that's linked on our site, and it may serve to help you estimate the potential savings of a lighting upgrade to share with your customers, and this is also the same tool that's used by participants to input their data and submit a project for ILC consideration. The tool provides an estimate of energy savings based on existing and new luminaires and any control strategies applied. One other indirect benefit of the campaign is the recognition that your customers may receive for

their projects. In cases where one of your customers receives an award for exemplary performance, your company's products will be recognized. Lastly, manufacturers and distributors may work with ILC organizers on a customized outreach strategy.

So what can you do to help the campaign? This slide shows some of the things that you can do to help the ILC reach its goal, as we mentioned, of 1 million troffers. To help promote the ILC, we would encourage you to inform your clients about the ILC and your role in it. We've created a website button that is available upon request to supporters to provide a visual way to demonstrate your support. Supporters are encouraged to use this button on your website and in marketing collateral. We've also created a few presentation slides that are appended to the end of this presentation that you're encouraged to use to communicate some of the motivations and specifics of the campaign. You can use those either in full or in part, and you can use that internally to communicate with some of your employees, or also externally, to communicate with your customers.

Beyond getting the word out, please encourage your customers to join the campaign. Just to give you some background on what we're looking for here, we're seeking participants having completed projects between January 1st, 2013 and May of 2016. So if you supported an installation that you're proud of within that timeframe, feel free to reach out to your contact, encourage them to join the campaign as participants, and in that way, your products and your company may be represented at one of the awards ceremonies or in a case study.

Furthermore, you can help by making it easy for participants to access troffer-related information, and this is noted in the first two bullets here. You can also provide us with the okay to make available to participants your contact information upon their request. Having been there, I know that timing is of the essence in the business world, and we'd like to make it as simple and as fast as possible to respond to participants' requests related to supporting companies and their products. And we do respect your privacy, and we are not planning to publicly post your contact information, but on the occasions where participants reach out to us and say, "We wanna know about a certain company's product portfolios or get in touch with the person that is connected with the ILC," we'd be able to then quickly turn around and provide that information. Lastly, helping to communicate the benefits of high-efficiency troffers through case studies and product comparisons is something many of you are already doing. The campaign would encourage the

continuation of this practice as this transition picks up the pace, and more customers will be looking for – to find out what's in it for them, so case studies and product comparisons are a great way to do that.

So I mentioned the set of slides that you could use, and the following slides were developed for ILC supporters to use in communicating about the ILC. Feel free to use one or more of these slides in your presentation. You're welcome to copy and paste them or to export this as an image. You may request a slide by contacting me at the address noted here, and you'll also be provided it at the end of the presentation, in case you don't get a chance to capture it right now.

So the first of this set of slides provides an overview of the distinction between standard fluorescent troffers and high-efficiency troffer solutions, noting the pros and cons of each. Standard fluorescent troffers have a long history in commercial spaces and have become ubiquitous in some space types. This has resulted in a relative ease in specifying their use, and manufacturers and distributors are easily capable of anticipating and meeting customers' needs. However, these luminaires generally have low system efficacy, have limitations when certain controls are applied, and require periodic replacement of lamps.

Today's high-efficiency troffer solutions are capable of delivering efficiencies 50 to 100 percent higher than standard troffers and typically perform very well when controls are applied. Many of these are essentially maintenance free, resulting in labor cost savings for the end customer. However, the first cost has been a barrier to more widespread adoption, and the seemingly infinite options of troffers, retrofit kits, lamps may be overwhelming for some customers and specifiers. Also, some retrofit solutions may suffer from installation and performance concerns. All of these cons and barriers may be addressed through effective communication with your customers regarding the options and benefits, both direct and indirect benefits, of high-efficiency troffers and controls. We'll discuss some of those on the next slide.

So we discussed on an earlier slide some of the quantifiable benefits of high-efficiency troffer solutions. Those are the first two sub-bullets you'll see here. This slide builds on those by pointing out the savings resulting from reduced maintenance requirements of lamp-free long-life products, as well as the potential incentives that may be available from utilities and other organizations. Those are direct financial measurable impacts, but all lighting projects are

unique, and the financials don't always work out to favor the high-efficiency option. Sometimes, it's the unquantifiable benefits of a lighting project that may tip the scale. Some intangible benefits that have been attributed to lighting in general in commercial spaces including increased worker productivity and increased sales volumes. There are generally not considered in financial cost/benefit analyses and are often overlooked.

Also, another indirect benefit is that enabling companies to achieve their green targets or certifications, such as LEED, can help them. In some locations, choosing green may carry some financial benefits, such as innovative financing mechanisms, tax credits, expedited permitting, and other such benefits. So the intangible benefit of being green is a perception by a company's customers of being an environmental steward.

So while most of the focus of the campaign appears to be on high-efficiency troffer solutions, this slide reinforces the campaign encourages the use of controls as part of its strategy. The ILC provides an additional credit when calculating energy savings in a project where controls are used, and through the use of controls, your customers can save even more than with troffer replacements alone, and studies conducted by the US General Services Administration, the green proving ground, have demonstrated and helped quantify this potential for some of their sites. For example, one site found that 33 percent energy savings were achieved through the use of advanced controls alone. Another site demonstrated 69 percent overall savings through the implementation of advanced controls and an upgrade of fluorescent luminaires to LED luminaires. Other studies related to high-efficiency troffers and controls are available on the GSA website and may be found by visiting the link noted at the bottom of this slide.

Now, controls have come a long way since the basic wall dimmer. Advanced lighting controls are becoming smarter, more integrated, and easier to commission. Wireless functionality, for example, can make it more cost effective to incorporate a control strategy in some spaces where none used to exist. The integration of sensors within luminaires are creating new paradigms, helping buildings become smarter about their energy use, operations, and occupant safety.

The last of the manufacturers' reference slides provides a quick overview of the BBA and the ILC and its goal of 1 million high-efficiency troffers installed by May 2016. It also provides a partial

list of some of the participants that have already demonstrated their commitment to the campaign, and they also have plans to submit projects for consideration. We hope to see some of your customers join the list, so we hope those slides will be useful in your communication, and we welcome any feedback you may have. This slide provides my contact information, and it also provides a link to the ILC website, where you may find out more information about the Interior Lighting Campaign and how to join, and if you have any questions about the campaign, again, please contact me.

So we've reached the question-and-answer session, and of course, we'd also like to hear your suggestions, and I'd like to introduce the panelists for this webinar. The panelists are myself and Mr. Michael Myer of Pacific Northwest National Lab. Michael is a senior lighting researcher and is the technical lead for the Interior Lighting Campaign as well as the LEEP campaign. Mr. Andrew Mitchell, US Department of Energy, Andrew is the project manager for the US Department of Energy's Better Buildings Alliance and is the key DOE liaison for the Interior Lighting Campaign. Mr. Myer has been keeping an eye out for your questions and suggestions and will moderate the Q-and-A session. Michael?

*Michael Myer:*

Thank you, Felipe, and for all the attendees on the webinar, first, thank you for coming to the webinar, and second, as we go – the option was not available for an open phone line, so feel free to put any more questions in the question pane. One of the ones we had received was about how do non-troffer-type products participate, or are they eligible to participate, specifically tubular LEDs or retrofits? If a manufacturer makes that product, are they eligible to participate in the Interior Lighting Campaign?

*Felipe Leon:*

Thanks for that question, Michael. The answer is yes, both TLEDs, tubular LED products, as well as retrofit kits can participate. The end requirement of the luminaire efficacy, of 85 lumens per watt, still applies, and we apply a series of calculations that explain how to determine that value, but in short, TLEDs and retrofit kits would need to meet, based on our calculation for efficiency of the luminaires, about 118 lumens per watt.

*Michael Myer:*

Good, okay. So we have another question – I'm gonna try to rephrase this as best I can – similar to that, so a manufacturer's saying is this really more about, I guess, power density or equipment efficiency? What about controls? They mentioned that controls can save a lot of energy, and why only 85 lumens per

watt? So I guess, can you expand upon how are controls treated within the Interior Lighting Campaign?

*Felipe Leon:*

Thanks again, Michael. That's an excellent question, that we spent a lot of time trying to really wrap our heads around and develop a strategy for it. So I should say two things: The lighting project evaluator provides an excellent way for you to calculate the control savings for a project, given the input that you feed it, so there's a lot of opportunities to input spaces, dimensions, some of your lighting, some of your windows for each space, so if you're taking advantage of day lighting, for example, if you have day lighting controls. It's capable of giving you a lot of great detail and a lot of accuracy for your projects.

However, we wanted to make it as simple as possible for people to join the campaign, so we've made it so that when you input a project to us, you're able to input both a detailed list of your spaces and all the details about your building, or basically just provide us a quick overview of, "I had 100 troffers, and I applied to 50 of these a certain control strategy, and to another 50 a different control strategy," and basically just submit that as a very basic input. So given that, that we try to make it easy for everybody to join, what we've done is we've established a set of control credits, and they are a percentage added onto the savings from switching over to the luminaire, so – to the luminaire, so that's the way we apply the control credits. And I still encourage, especially if you're a manufacturer trying to encourage your customers to apply a certain type of control, to go through the steps of developing space types and being more – inputting as much information as you can to have it give you a better result in the lighting project evaluator.

*Michael Myer:*

Thanks very much, Felipe. Another manufacturer here asks about – it says here they're a manufacturer themselves and says can they – they work with other sites – can they sign up a given site, and is there a process of, I guess, referring a site, or how can they, working with their end users, get their end users to participate or sign up for, I guess, directly for the Interior Lighting Campaign?

*Felipe Leon:*

Okay, great. So a third party certainly can fill out the form for a given site, but when the ILC reaches out, it will be reaching out to the person connected with the site, so the ILC just needs to confirm that the site has signed up and that they're aware that they're being signed up, because they'll be our primary point of contact. However, a manufacturer or any other third party can go through the steps of inputting the data in for their project.

- Michael Myer:* Perfect, okay. Another one just came in here: What are the guidelines for the Interior Lighting Campaign to discuss manufacturer-specific brand solutions? This person, or persons, assumes specific endorsements can't be made, so how will the Interior Lighting Campaign advocate for manufacturers, which is I think a concern that multiple people probably have, and is a great question?
- Felipe Leon:* Okay. I –
- Linda Sandahl:* This is Linda. Oh, go ahead, Felipe.
- Felipe Leon:* I was gonna say I'm not sure I understood the question. Linda, did you understand?
- Linda Sandahl:* Yeah, I think so. We do list manufacturer supporters on the website, so if you join, we – you'll be listed there, and as Felipe explained, you can include a website or a link from your site to products that qualify for the ILC, so that's one way that you can help direct people that go to the ILC site looking for solutions to your products, but you're right, we can't advocate for any particular solutions. And I will also say if one of your sites wins an award, you would be listed as the supplier or manufacturer of the lighting equipment for that site, so that's a way to get some visibility for your company as well as your customer.
- Michael Myer:* Thank you very much, so that answered that question regarding what can manufacturers get out of it, and actually more about not what do they get out of it, but the possible branding and advocates for one single manufacturer. We have a question here – let's go back to Felipe here – about what about non-troffers or other fixtures? So if a manufacturer doesn't make troffers, are they eligible to participate in the Interior Lighting Campaign?
- Felipe Leon:* So I think the focus of the campaign, at least this first year, is on troffer-related products, so a troffer, either LED or fluorescent, a retrofit kit or a TLED would qualify for our first year of the campaign. However, we are looking into other technologies that we might incorporate into the future year, into year two, so I would encourage you to join the campaign, and you'll already be learning about the campaign and seeing how it works when we do year two, and maybe you can help us think about some of the technologies that might be a good idea to incorporate into the second year of the campaign. But we felt that troffer-related items, troffers were the ones that needed a little bit more of encouragement to get people to transition, and we felt that through the case studies that we're doing

and through this recognition campaign, that we could do – we could help it, so we wanna keep our efforts focused.

Along the same lines, there's also the lighting project evaluator. I think that it's capable of taking in different light sources, so if you're already putting together a project for someone, and you have down lights or any other light sources that are available in there, you can start putting those in and develop a more thorough estimate of the potential savings for your project. However, when we receive it, we would only be looking at the troffers. Thanks, Michael.

*Michael Myer:* Perfect. Thank you very much, Felipe. We have two more questions coming in right now, and I'm trying to read them as quickly as I can, so I'll pause to – an earlier question that I saw was asking about cobranding with Interior Lighting Campaign. Is there any cobranding of materials that is an option?

*Felipe Leon:* Okay.

*Michael Myer:* Okay, so I'm gonna – we'll come back to that one, so here's another question: Can the Interior Lighting Campaign provide any more specific data on density of installed base of legacy troffers would help to direct sales efforts and increase penetration? I can actually give you a break, Felipe, in answering questions, so ultimately, the person is ultimately asking about installed legacy troffers. We have some data. It is through publicly-available sources as well as some other reports. In terms of what we know, roughly about 360 – somewhere between 330 and 360 million fluorescent troffers in the United States.

I think the percentage of non-fluorescent, non-LED troffers is astronomically small. There are a handful of HID troffers, but they're almost possibly a handful in the United States, and in terms of the dataset that we have seen on fluorescent technology – or I'm sorry – non-fluorescent LED technology, there are a small portion of dedicated LED troffers at this point. As of, I think, 2015, it was in the few tens of thousands, is the dataset that I've seen being estimated for the US, and then you have more commonly retrofit kits, larger in size than dedicated LED troffers, but not entirely that much larger, so my understanding, again, is the LED kits are more numbering in the tens to hundreds of thousands, and then you get into the tubular LED situation. Those tend to be more common in terms of some of the things we're seeing.

My understanding is that the barrier still is that the cost of labor to replace an entire troffer is one of the still larger barriers, so sites that are short on cash or have a very tight payback – simple payback scenario are opting for the tubular LED scenario. Other datasets that we have in terms of the installed legacy troffers, they are more commonly now in the two- and three-lamp scenarios. There are not that many four-lamp troffers out there anymore, and they pretty much are everywhere. It's by far the – roughly the majority of major commercial fixtures installed anywhere, and it is representing about 50 – a little more than 50 percent of all fluorescent fixtures.

And the general rule of thumb, if you need a density dataset – maybe that's what the person was asking – was there's roughly a troffer every 200 square feet of installed space, so that's kind of what we have. I guess if the person's looking for a more specific dataset, as in the datasets that we culled from, I guess you can always reach out to us, and we can try to point you to more specifics, but we'd definitely like to try to work with manufacturers to help increase the installed base of more efficient technology. And at this point, I have a – I'm going to ask Andy Mitchell from the Department of Energy, who is gonna just give an overview of the Department of Energy's role in support of the Interior Lighting Campaign.

*Andrew Mitchell:*

Thanks a lot, Michael. I really appreciate everyone joining us today from the manufacturing side, and your support in whatever capacity you're able to lend us. Just a little back story on how we came to take this route, we do an objective analysis on an annual basis of high-impact technologies. So we consider hundreds of different measures that are out there, in terms of both the amount of energy they have the potential to save in an absolute sense, so a light saves X amount of watts times how many lights there are, but also on a more, I guess I would say realistic perspective, and that incorporates in the market capacity. Are there manufacturers out there for this technology? Are there viable customers that would actually buy it? Is the price reasonable? And when we do rank order those hundreds, the troffer lights with sensors and controls come out if not in first place, in the top three every time. Kind of no matter how you slice it, this is a really important issue, so that's how we ended up launching this campaign.

The reason we settled on the campaign is because the technology is out there, as you all know. It's established. It's reliable. It's cost effective and reasonably priced, so it's not up to DOE to prove that it exists. You've already done that. What we're doing here is just

throwing our weight behind the concept of installing high-efficient troffer lighting, and hopefully, that is – enhances all of your efforts at sales. I've heard quite a few questions on sales, and what is the advantage for manufacturers, and ideally, that is it. You can go to your customer and say, "Well, I'm here from Andy's Light Company, and I think you should put this in," and they might say, "Well, of course you would say that. You're the manufacturer. Who else says it?" And at that point, if you can bring up some basic literature on Interior Lighting Campaign and say, "Well, look, it's not just us. It's the Department of Energy also," and hopefully, that will be that extra little nudge, maybe, that gets that potential customer, that prospect, to sign at the bottom.

Again, we don't endorse any particular brand or even specific technology. What we do is support the concept of saving energy through addressing your interior lights in general, and hopefully that is a lucrative support for all of you. Hopefully, it saves energy and money for your customers and ultimately returns that capital back into the US economy so it can be reinvested in American innovation and workforce and all the good things that we would like to spend our money on if we weren't sending it up a smokestack somewhere, so that is the basics of our input in it. Again, I appreciate everyone's time today, and I hopefully will follow up with each of you at some point on potential projects that could be included. I guess I'll send it back to you, Michael, if we have any more questions.

*[Crosstalk]*

*Michael Myer:* No. Oh, go ahead, Felipe.

*Felipe Leon:* I kind of wanted to think a little bit about the cobranding, and I think you caught me off guard with that, 'cause it's a bit of a mixed bag. So I mentioned earlier that we have developed a button, and we certainly would encourage the use of the logo on your website to show your support for the campaign, and also put it in your marketing materials, especially your high-efficiency troffers, control solutions. Those are places where you could use it. However, the ILC itself doesn't have a logo. It doesn't have a brand, and it's also not doing any certification, such as what the Design Consortium does for some of your products. However, please feel free to refer to the ILC website as maybe an endorsement of the use of high-efficiency troffers, and feel free to include that website button and that button on some of your marketing collateral. I hope that answers the question that might've

been thinking along those lines, about cobranding materials with the ILC.

*Michael Myer:*

Great, hopefully. The questions are always open to interpretation, so it's great that we're answering them, and I think rather than saying, "We wanna say we wanna recognize them through the materials," and the – I'd also like to, at this point – we haven't received any other questions, but if you do have any more questions, please – e-mail addresses are all – actually, they're still on the screen, so you can reach out to us there, and I'm gonna thank you for attending the Interior Lighting Campaign webinar. Just as a reminder, the webinar is a joint venture sponsored by the Department of Energy Better Building Alliance; the US General Service Administration, which if you're not familiar with is the largest essentially land management – or retail – or space management entity in the United States; BOMA, the Building Owners and Managers Association; IFMA, the International Facility Managers Association; and also lighting – the lighting bodies such as the Illuminating Engineering Society of North America, so they're all supportive of trying to transform, as we said earlier, these less efficient technologies into more efficient spaces. So thank you for attending, and if you have questions, please feel free to reach out to any of us. Thank you.

*[End of Audio]*