

*Holly Carr:* Hello everybody. It is a little after 2:00, and I think we're ready to start. Thank you for joining us today. Kat, please let me know if you can hear. Let's just make sure that our sound is good before we in.

*Kat:* Yes. I can hear you. I hear you clearly, Holly.

*Holly Carr:* Great. Okay. Thanks to everyone for joining us today. I'm Holly Carr with the U.S. Department of energy, and I'd like to welcome you to our Better Buildings Alliance Open House Webinar. As you know, the Better Buildings Alliance exists to support our members in reaching their energy efficiency goals. Today, our goal is to provide an overview of our recent and upcoming activities across the alliance. We hope that this perspective will introduce you to research that can be of use, and help you determine what Alliance activities you might like to participate in over the coming year. This forum is also an opportunity for you to provide feedback and ask questions. So, let's go on to the next slide, Kat, if you would. There we go. Lots of faces.

So first off, let's put some names to all these faces. These are all the folks who support the Better Buildings Alliance, many of whom you will hear from today. I'm Holly Carr, and I work specifically with the retail folks, and also more broadly across all of our partnership programs. Cindy Zhu is new to DOE. Many of you have met her by phone, and she heads up our commercial real estate work with partners in the Alliance and the challenge. Andy Mitchell heads up work with Hospitality partners, and also works very closely with many of our tech teams. Sultan Latif works with food service, healthcare, and higher education partners. And then, the folks on the bottom line, from ICF and JDM also support those sectors. So Cara's supporting food service and grocery. Zach Abrams, supporting retail. Jake Dowling, supporting commercial real estate. Sam Stafford, supporting healthcare and hospitality. And last, but not least, John Jameson, supporting higher education.

So, you'll hear from all of your account managers, today, telling you much more detail about what our various sectors are doing, and then Andy will tell us a lot about what's happening in the tech teams. And Deb, we didn't get your picture up here, but Deb will be talking to us about the market solutions work that's happening in the Alliance. Next slide, please.

So the plan for today is to provide an overview of the Alliance and its structure, and then each of our sector account managers will spend a few minutes to update you on recent accomplishments of

their sector teams, and the priorities for 2016. Andy Mitchell and Deb will provide some information on the tech and market solutions teams, and we'll close with a few announcements, and some time for Q&A. We certainly encourage you to take advantage of the chat box, which you should see in the lower right hand corner or your webinar screen. Please take advantage of that to ask us questions as we go through some of these updates with you, and also to provide your feedback. We're really looking for your thoughts about the sector priorities we're putting forth, and the work that the tech teams are doing. Where do you see need? Where do you see additional areas that you could use some support from the Department of Energy? So, please use that interactive option, there. Next slide, please.

So this is just a reminder that the Better Buildings Alliance, way up there in the upper left hand corner with the Better Buildings Challenge, is a part of a much larger initiative, the Better Buildings Initiative at large. And the work that the Alliance does is really our work to engage with you all, in the trenches, who are doing energy efficiency in the market, who are leading the market in energy efficiency. So. Next slide, please.

Drilling down a little bit to the structure of the Alliance, as you can see we're kind of a matrixed organization. We've got an X and a Y axis. So, we have our sector teams across the top. One exciting thing you'll hear a little bit more about today is that we now have a separate hospitality sector that has split off from the commercial real estate group. And then, down below, we have a number of technology and market solutions team. These tech and market solutions teams are open to all members across all sectors, and are indeed enhanced by the cross sector sharing, I think, that we get. You'll be hearing more from each of these teams in just a moment. Next slide, please.

So a quick overview of the Alliance, today. The Alliance boasts 199 members, representing nearly 10 billion square feet of commercial building space in the U.S.. And together we are over 10 percent of the total U.S. commercial building space. The Alliance offers more than 60 energy saving activities and resources for your commercial buildings. And if you are listening and you are considering joining the Alliance, you could be the 200th member. That would be very exciting. So, send us an e-mail if you're ready to join and be the 200th member of the Alliance. Next slide, please.

I would like to welcome our new members this year, as you can

see. New members represent both building owners and managers, as well as affiliate organizations. These non-profits and trade organizations are partnering with us to take the message of energy efficiency to their memberships, and we hope, exponentially, increase the impact the Alliance can have. We look forward to engaging with all of our new members this year. Thank you for joining. Next slide, please.

So, each sector group has as sector chair, or chairs, co-chairs in some cases. These chairs make up the Alliance steering committee, which helps to guide the sectors and the work of the Alliance each year. I'd just like to offer a special thanks to our steering committee chairs this year, Susan Cory, at the University of Maryland, for higher ed. Chris Magee and Ray Hobbs at MGM Resorts International and Kelco Management, in hospitality. Eric Duchon at Cushman & Wakefield for our commercial real estate sector group. Kyle Wilkes from JC Penny for our retail, food service, and grocery group. And Corey Zarecki at Gunderson Health, chairing the healthcare sector group. Thank you very, very much. Next slide, please.

All right. So, all of these sector groups who we just met, all the chairs, everybody got together over the last month and really tried to help us set the sector priorities for each of the sector groups. We're gonna move right into, now, the sector overviews, and commercial real estate is first. So without further ado, I'd like to go ahead and pass the baton to our CRE lead, Jake Dowling ... or, account manager, sorry... to provide an overview of the new resources through commercial real estate, upcoming work in this sector, sector priorities. Jake.

*Jake Dowling:*

Great. Thanks, so much, Holly, and hello, everyone. Just a quick overview of the commercial real estate sector. We currently have 52 members participating in the Better Building Alliance, which account for more than ... or nearly 6 billion square feet of commercial floor space, which we are really happy about. And collectively, it's about 35 percent of the sector's floorspace in the U.S. market. Our membership is pretty diverse. We have national and regional owners and managers of office, retail, industrial, and multi-family space. So, we are excited to work with each of our organizations to affect each of their unique problems. And this year we look forward to getting a little bit more involved with some of the regional and local owners and operators to drill down our focus a little bit more.

In 2015 we had a pretty successful year. Last year we identified

two priorities for the sector. One was stakeholder engagement, and we attacked that in a few different ways. The first was we encouraged all of our members to attend an Energy Star webinar on tenant engagement at the end of 2014 that presented a series of case studies on successful tenant engagement in the market. We presented a panel discussion at the 2015 BOMA annual convention on engaging asset managers, another stakeholder. And then we also worked with the Appraisal Foundation and their competency guidelines on appraising and valuing green buildings to review and offer comments on that document.

A second priority that we had identified was co-generation and CHP, and there was a summit session that focused on that for interested members. And then we had a dedicated discussion at the Better Buildings Summit in 2015, talked about theory, trends, challenges and opportunities, a little bit more of what you will hear about in a later slide. And then the exciting news that Holly already mentioned, hospitality reached their critical mass to venture off on its own. So CRE is now its own sector and steering committee, which allow us to provide a little more focus to what we are prioritizing each year.

Two new resources that Andy, I believe, will tell you a little bit more about later, that I wanted to mention, the Solar PV Decision Guide is for specifically implementing solar photovoltaics in leased buildings. And then the EMIS Specification and Procurement Guidance document that the EMIS team would also be very relevant to CRE members that are on the phone.

And then, finally, for the next year, 2016, we identified with our steering committee a couple of key areas to focus on. One is understanding and communicating the connection between sustainability and building value to financial decision makers, to try to make investment a little bit easier. The next is identifying and evaluating skilled engineers. As building automation systems and EMIS become more and more complex, making sure that the staff in the building know how to operate those systems and make smart decisions with their buildings is really important. We'd like to focus on that a little bit more. And then identifying and supporting industry efforts to engage and train commercial brokers. Brokers are a key connection between tenants and landlords, especially as we try to build demand for high performance space. And so, that is an issue that we'd like to focus on, as well. And I think that about covers it for me.

*Holly Carr:* Great. Thanks very much, Jake. Next up, from Zach Abrams and Cara Bastoni, an update on the retail, food service, and grocery sector. Again, I encourage folks to share any questions or feedback you have through the webinar interface on the chat box, and let us know what you think, what you'd like to see, and so forth. Thank you. Zach.

*Cara Bastoni:* Actually, I'm gonna go first, Holly. This is Cara Bastoni. Can we go to the next slide? Great.

Hi, everyone. This is Cara Bastoni with ICF International. I'm the food service and grocery account manager, based out of the D.C. area in Fairfax. And I'll start off this overview section, and then hand it over to Zach Abrams, the retail account manager. The retail, food service and grocery sector has 47 members, currently, accounting for 2.7 billion square feet of space, and 19 percent of the sector's floorspace in the U.S. market. Some of our members are listed here. I especially want to call out our new members, CEFCO Convenience Stores, and Luxottica. Welcome. We also have a few new members on our steering committee this year. Luxottica is one of them, as well as a representative from Arby's and CKE. Our contact information is on this slide for both Zach and myself. If you're interested in joining, you can e-mail either of us. Next slide, please.

A quick review of what we've been up to for the past year. We've been working on several focus areas. One of them is EMIS for retail, food service, and grocery. Specifically, we had an overview webinar last fall with best practice examples, and a listing of resources that are currently available. And that is recorded, that webinar. And slides are available at the link listed. We've also been looking at the business case considerations for proactive roof top unit replacement. We had presentation on this topic at the Better Buildings Summit, which is the business case for replacing RTUs with efficient models before they fail and emergency replacement is needed. You'll hear a little bit more about the resource that's coming out later in this presentation. We've also been focusing on the topic of retrofitting refrigerated display cases with doors, which is a topic we've heard is of interest to a lot of members, specifically showing their energy savings there, without an impact on sales. We are still working with members to develop some data that we can share publicly from an organization. Next slide, please.

We wanted to call out a few resources that have come out relevant for this sector, a few case studies here. The first one is with Hannaford Grocery. Trans-critical Carbon Dioxide Supermarket

Refrigeration Systems, which documents performance of their trans-critic carbon dioxide refrigeration system compared to a conventional system in a similar store. And two case studies on RTU replacement, one from Target and one from Walgreens. Next slide, please.

To talk about our current priorities and upcoming thoughts and activities I'll hand it over to Zach. Are you there, Zach?

*Holly Carr:* Cara, it sounds like ...

*Cara Bastoni:* Perhaps on me? *[Laughs]*

*Holly Carr:* The slide might be yours. *[Laughter]*

*Cara Bastoni:* Okay. All right.

*Holly Carr:* Zach may be having technical difficulties. *[Laughs]*

*Cara Bastoni:* Okay. Sure thing. Sure thing.

So, a few of the topics that we are going to look at this year, one of them is green leasing for small box retail and restaurants, which we've heard from members, is an area of interest when it comes to tackling the split incentives between tenants and landlords, when it comes to making improvements and seeing energy savings. One thought we had on that was to possibly develop some resources that small box retail and restaurants could grab and customize for their organization. Another topic is of interest, is analysis paralysis, is what we've been calling it. Making data actionable, the vast amounts of data that organizations are collecting. Making decisions about what to monitor, how often to evaluate that data to make changes to building systems. And the third area of interest that we're looking at is partnering with your utility on incentives, on making incentives work for you, possibly with the Technology Performance Exchange tool, which is a web portal that DOE has developed for listing energy performance of different building related products. So those are our thoughts for the upcoming year. I think I give it to the next slide.

*Holly Carr:* Okay. Thanks, Cara. And, with our higher education updates, we have John Jameson on the line, I hope.

*John Jameson:* Yes, I'm here. Thanks, Holly.

*Holly Carr:* All right. Hi, John.

*John Jameson:* Hi. We can go on to the next slide, please.

Okay. So, taking a look at the higher education sector, you can see we have 27 members, comprising about 16 percent of the sector's square footage. And I want to give a shout out to our newest member, who isn't actually included on this list, here. That's Northwestern University. They just joined two weeks ago. So, we'll have to add them, here, and we look forward to working with them, as well. I also want to mention two new affiliates that joined us in the past year that aren't listed here. That would be APPA, Leadership in Educational Facilities, who work a lot with facilities management staff. And also, NACUBO, the National Association of College and University Business Officers. So we look forward to working with both of them, on looking forward. Next slide, please.

So, here we see a few of our accomplishments in the last year. And pardon that first bullet, that should be December, 2014 peer exchange call on recruiting and retaining skilled staff. So we held a peer exchange, and discussed different strategies that UC Irvine, University of Virginia have both looked at for bringing on skilled staff. We did send out some resources afterwards, as well. If you'd like to look more at those, just e-mail me after this, and I can send those out.

As I just mentioned, we also have some new affiliate partnerships, and Sustainability Endowments Institute also joined in late 2014. So, we're already underway working with them.

And last bullet here, we convened a session of the Better Buildings Summit in May on industry benchmarking, particularly I'm looking at a new tool to use, which I will mention on our next slide, please.

And here you'll see the higher education sector priorities that were determined by our steering committee recently, a few weeks ago. The first on that I just mentioned before, facilities benchmarking, actually it's at the bottom, here. But the new tool is building performance database, operated by the Department of Energy. And this was appealing to us because traditionally, the higher ed campuses have trouble benchmarking because they either have a diversity of space types, not only on the campus, but also within buildings. And so it's hard to classify as just office or just classroom. You might have a laboratory space mixed with a gymnasium, mixed with something else, all in one building. So it creates a very difficult benchmarking situation. So, neat thing

about this tool is, it allows you to break your building up by percentage space type. So, the outcome of this is that there's a call being held in January among Second Nature, USGBC and other organizations, and lots of potential for using this tool moving forward. Our ask is that you stay tuned. And following that meeting we're gonna look to develop a list of data metrics that our members would find useful to have in this tool. So, stay tuned on that for now.

Working our way up, addressing campus growth was also mentioned during the call. And one of the most common challenges we hear is that energy efficiency gains on campuses are complicated by campus expansion, especially in research facilities, where it can be very energy intensive. So, we'll be setting up a peer exchange call in a few weeks on issue that different campuses are facing, especially among different types of colleges, and how we can go about addressing those. So, potential fast forward include improving space utilization, facilitating more equipment sharing, especially energy intensive equipment, and building energy efficiency into public/private partnerships, which can grow a lot of the growth. So, stay tuned. I'll be sending out dates and times for that, if you're a higher education member.

And lastly, the first priority up at the top here, was most talked about in our steering committee call. That's continuous commissioning and controls optimization. And specifically we'll be looking to find some success stories among other Better Buildings members, because this was mentioned across the different sectors. So, we will be looking for those success stories, writing up a case study, and promoting those out to the membership. So with that, if you are on this call, and you have a particularly good case study that you'd like to push out there, we would love to feature it and share with members, and share the good work that you're doing. So, please let us know if you have a great fault detection story, controls architecture, and we'll work with you. And, I think that's it for me.

*Holly Carr:*

Okay. Great. Thanks, John. And that really is part of the beauty of the Alliance is to be able to share best practices, not only between folks in a sector, withing healthcare or within higher education, but also to share those success stories more broadly across sectors. And, as John mentioned, we are seeing some cross sector priorities around energy management systems and so forth, and we'll try to capitalize on that this year.

So let's take a look at the healthcare sector, with Samantha Stafford.

*Samantha Stafford:* Great. Thanks, Holly. Hi, everyone. This is Samantha Stafford. I am both the healthcare and hospitality account manager, and I work with JDM. So, as Holly was saying, we definitely did find some cross sector priorities between higher ed, healthcare, and hospitality in regards to EMIS. But I'll get into that in just a couple minutes. So, backing up, here's some information on the healthcare sector Alliance members. We are at 29 members. We just were joined, actually, by the University of Utah Health Care, who joined us just recently. And they joined make 29, and we have about 0.3 billion square feet, which is about 7 percent of the healthcare market, currently.

And looking back some of the 2015 accomplishments that we've had so far in healthcare have been a series of peer exchanges and also conference presentations. So last year the sector priorities in healthcare included identifying best practices on ventilation setbacks. And, in regards to that, we held a peer exchange on ventilation setbacks for healthcare facilities. And additionally, there was another priority about identifying benefits of energy efficient beyond cost savings. And we held another peer exchange on that, which was very successful. Both of these peer exchanges, they're actually available on line, both a transcript and the slides. So if you're interested in seeing those, feel free to reach out to me at my e-mail that was on the previous slide.

In addition to those peer exchanges, Better Buildings presented at both HFMA and CleanMed in conjunction with members. Both presentations were about financing energy efficiency projects, specifically really engaging with your CFO to make the business case, not only in regards to energy efficiency, but the other gains that you have by these projects. And then, as all the other account managers described, we recently had our steering committee call with our healthcare members. And we have identified new priorities for this upcoming year, which, as I just mentioned, one of those priorities is really evaluating the offerings of building controls analytics, and EMIS from all the different options out there, as well as to manage that information that you are getting from your system, to take action and make improvements.

Additionally, as it was last year, optimizing air exchange rates in hospitals has been a really big priority. And we are going to be doing even more work on that in this upcoming year. And then, last but not least, another priority we've selected is managing the

energy consumption of central plants and related equipment. Unlike a lot of building types out there, hospitals are unique in the fact that they oftentimes have central plants, district central plants. And really identifying the opportunities inherent in those.

And then, why don't we jump right into the hospitality sector? So, as Jake mentioned earlier, CRE and hospitality, which used to be joint sectors, are now separate. So this will be the first year that hospitality is its own sector. And we just had the first ever hospitality steering committee call this past month. And we were excited to talk about new opportunities to really focus in on opportunities in the hospitality sector. So right now we have 10 members, which account for about 23 percent of the floor space in the U.S. market right now. And during the steering committee call, a lot of topics were discussed. And again, EMIS was another one that came up. And so we feel that there are a lot of opportunities this year. So please make sure you communicate with us if you have ideas for opportunities or activities that you think would be really beneficial for you, whether you're hospitality, healthcare, higher ed, we're really open to that.

Additionally we are looking at evaluating and financing solar PV at hospitality properties. So we are actually just about to finalize an on-site, commercial solar PV decision guide, specific for hospitality properties. And we're gonna be having a webinar discussing the guide, and also going through a case study from a property that installed solar PV on their carport. And that's gonna be on November 10. And if you're interested in getting involved in that, feel free to e-mail me. Again, my e-mail was on the previous slide.

And also, as was mentioned with higher ed, hospitality's interested in having more opportunities to have peer benchmarking, industry benchmarking. So that's something we're gonna be looking into this year, as well. And that just wraps it up for healthcare and hospitality.

*Holly Carr:*

Great. Thanks very much, Sam. To our audience, just a quick note that we will be ... we are recording this session, and we will be posting an archive of it. Additionally, you've had ... you've seen lots of e-mail addresses fly by you on these slides. All of those will be available at the end of this presentation. They'll be available on the archives. And they will be e-mailed out to you, along with a link to the archives, so you have direct connections to all of our DOE leads, and all of our account managers for the sectors, and easy access to us.

All right. With that, let's go ahead and turn it over to Andy Mitchell, first, to tell us about the work of the tech teams this year and coming up.

*Andy Mitchell:*

Great. Thanks, Holly. Just to review a little bit, Holly mentioned earlier that the structure of the Better Buildings is a bit matrixed. And so, recall that we went through the sector teams. Well, everyone who's affiliated with a sector team is grouped according to the industry they're in. So you're just put there de facto. But once you're a part of the Better Buildings Alliance, you have the opportunity to join a technical team, and you can focus on whatever is of interest to you, whether it's lighting, space conditioning, and so forth. And so you'll see each of those six teams listed here. I'm just gonna go through what we've done in these teams over the last year, and what we're gonna look forward to in 2016. Each team is led by a subject matter expert from either one of our national labs, or Navigant Consulting.

So what do these teams do? What they do is they meet regularly for short team calls, and they discuss relevant issues that fall basically along the lines of what I call the big three. And those are the big three reasons that anyone joins Better Buildings Alliance. That's access to objective experts, peer to peer learning, and recognition opportunities. These teams also preview and comment on new resources, and participate in the technology campaigns that we operate. The content of each team. So, for instance, what aspects of refrigeration do we focus on? Or, what aspects of renewable integration do we focus on? That is done by a balance. We take input from member interests all the time. We want to know what you're interested in, what you're working on, what issues are coming up, what calls you're getting from sales reps, frankly. And then we also perform our own objective research here at the Department of Energy to identify high impact technology. Next slide.

Just a quick overview of what's happening in 2016. There were two more teams that were not on that list. And, in an effort to streamline things and make them more ... a little bit more intuitive, we're gonna wrap the food service technical team into the food service sector team. So since that group's meeting anyway, they can discuss technology as needed. There was also a laboratory technical team. We decided to wrap that up for a number of reasons. And one of them, probably the best and most important, is that there's already a fantastic group called the International Institute for Sustainable Labs, which provides wonderful resources

on energy efficiency in labs. So we encourage everyone to get involved with them if you have energy efficiency lab issues.

Finally, for 2016, we're gonna focus on getting the word out about existing resources and increasing use of those. Next slide.

I mentioned earlier that we do our own objective research, and we also take input from you all, our members, and the public at large. So, along those lines, we're going to have an opportunity to get your input on what technologies are important in your industry, in your work. And you'll see two times listed there, one later this week, one next week. Those are open conference calls. They're hosted by Collin Weber at Navigant Consulting. His e-mail's there. Again, that will be available at the end. And if you have input for us, we would appreciate getting it at that point. Amy Jiron is the Hit Catalyst director. And her e-mail is there, also. You can also get in touch with me. I think we made the point, we're all very reachable, looking forward to getting in touch with all of you, as needed. Next slide.

I'm gonna go through these teams real briefly, and just try to give the overview of what we're working on. The lighting and electrical team's focus this year is on the interior lighting campaign. So, occasionally we're able to put the crosshairs on one specific technology, and say, "That's what we're gonna approach, that's what we're gonna discuss, and we're gonna find a way to make a big impact on the market." So that's what the ILC's goal is. We started off with a goal of replacing 100,000 troffers, the ubiquitous hallway fixture in many commercial and other applications, buildings. And what we realized quickly is that we were gonna blow that out of the water. And so what we did was upped our goal from 100,000 to 1,000,000 with some help from some great partners, as well as some organizing partners listed at the bottom there, BOMA, IFMA, Illuminating Engineering Society, among others. For more info on that there's a link. You can also contact Linda Sandahl or myself.

Next slide is ... Oh, I guess this is just another opportunity to brag about the success of this, so far. We blew past 100,000 and multiplied by 10.

On the next slide, don't want to neglect our ongoing campaign with the lighting and electric team, the Lighting Energy Efficiency in Parking campaign, or LEEP. In 2016 we're going to facilitate the hand off of this to our friends at Green Parking Council, and our other organizing partners. And they will carry the torch.

Obviously, parking lots are often light 24/7. And most people aren't too picky about the lighting in there, as long as it's secure, and they're able to operate. So, it's a great opportunity for energy efficiency, and the LEEP campaign has a host of resources available. Next slide.

Okay. The space conditioning team has focused on the advanced roof top unite campaign. And Sam mentioned that there are a number of resources that are available out there for ARC. ARC is the unseen opportunity, rooftop units, that is. They're out of sight and out of mind, at least till they break. And when the do they can be expensive, and they can be incredibly inconveniencing. So, a lot of what ARC does is focus on that proactive replacement. So don't wait till they break, particularly if they're running inefficiently for sometimes years at a time. It's a great opportunity.

The next slide, you can see some of the activities that we had from ARC in 2015. We've saved almost \$9,000,000 or, I should say, our participants have, with 43,000 rooftop units being retrofitted or replaced. In 2016, we're gonna up that goal to 75,000, and provide some more systems view of central plants and ventilation guides. Michael Deru is the leader of that team. Dr. Deru is based out of the National Renewal Energy Lab in Golden, Colorado, and his contact info is there, if you have any questions.

Next up is the plug and process load team. This is led by Rois Langer, also from NREL. Her contact info's at the bottom. In 2015, that team focused on creating a specification for advanced power strips, as well as a real simple how-to guide, 'cause although that is a great opportunity, it can be confusing for the typical user. A lot of what we do is try to make these technologies accessible, for every person in the nation. And so that how-to guide is an opportunity for that. There are also utility incentives snapshot and some more products coming soon. In 2016, we'll do a case study on zero energy buildings and plug loads, and a comparison of desktop versus cloud computing.

Next up is the renewable integration team. Renewables team is led by Jay Paidipati, from Navigant Consulting. And, next slide, please.

In 2015, what we've done so far is taken a longer PV installation guide that we generated last year, and broken it into sector specifics. So, instead of having one long guide that applies to everyone, we broke it out. And they're pretty quick. They're, I think, about eight pages of content, some case studies wrapped in

there. Very useful for healthcare, hospitality, and commercial real estate. We co-hosted a webinar on PV for healthcare. We're gonna do that again for hospitality, and probably for commercial real estate in the new year. There are also ten case studies that go along with those. So, in 2016, we'll keep responding to the member needs, focus on these guides in getting the word out, and also talk about energy storage, which we've just heard is increasingly on the radar of energy managers.

Next up, the energy management information systems team, EMIS. So this is a new technology, most people agree. And, as such, the goal of this team has been a little bit more base level. The products that we generate are introductory. The discussions that we have are just comparing different organizations' use of EMIS, where they've had success, the challenges that they've had, and making those successes available for everyone. So, also in 2015 we published an EMIS procurement guide, with the draft RFP. I've seen this myself, that a lot of organizations don't even know where to begin purchasing a system like this. They can be expensive. They can be difficult to use. So, getting these ABCs of EMIS out there is very important. We also finalized the EMIS primer. This is forthcoming, but it's basically a holistic introduction to the use and adoption of these systems. We mentioned earlier, analysis paralysis. So if you have an EMIS system, you might be generating thousands of lines of data. But what do you do with that? This EMIS primer takes a look at that, and gives some suggestions on how to make that information useful.

Also, in 2016, I should mention that we're going to launch an EMIS campaign. We'll actually get rolling in that in 2017, but we'll launch probably at the summit coming up. So, anyone with input on energy management information systems, or an interest, please get in touch with me or, of course, Dr. Jessica Granderson is at the Lawrence Berkeley Lab, in Berkeley. And Jessica's e-mail is at the bottom, there, also.

The next slide, the refrigeration team had a pretty interesting 2015. What we did is took member feedback for what the biggest problems are out there. And the answers that we got are the performance metrics. It's the business model for refrigeration and utility incentives. We broke off in two teams to try to solve those problems. And they're tough problems. So we got a lot of information, and that is available as people encounter those issues. In 2016, we'll focus on the high impact technologies, refrigeration doors, and the ongoing project with Whole Foods on alternative refrigeration. Food service tech team, I mentioned that we're gonna

wrap this into the sector tech team. Sorry. Next slide.

In 2015 we did a summary of walk-in coolers and freezers, and a guide for demand control kitchen ventilation, which is just in the final stages of being edited. It should be out very soon.

Next slide is for the laboratories technical team. I mentioned that we decided to wrap this up for next year. But the 2015 activities are still available. We updated an ultra low temperature freezer specification, and created a tool for measuring savings. And, of course, our work with the International Institute for Sustainable Labs, I2SL, has been a big focus. So again, I encourage folks to pursue I2SL with questions.

With that, I'm gonna hand it over to Deb, to talk about market solutions and accelerators. Deb.

*Deb Cloutier:*

Thanks Andy, and good afternoon, everybody. The Better Buildings Alliance is continuing to support the green leasing efforts which attempts to assist the owners and the tenants to align through the commercial lease, energy efficiency and other attributes of sustainability. So, in conjunction with the Institute for Market Transformation, the Better Buildings Alliance is continuing to promote the Green Lease Leaders program. And in 2015, we are very pleased to share out that we recognized over 800 million square feet of owners, managers, and brokers for engaging in green leasing activities. And this team is currently working on the application for 2016. And we anticipate that that will be available later this year, in December.

Turning to the Energy Data Accelerator, which has, for the last two years, sponsored collaboration among almost two dozen city and utility payers, to make access to energy information for the purposes of whole building benchmarking. And this White House level initiative will be wrapping up at the end of 2015. The group will be publishing a number of resources and best practices for others to leverage and build upon the good work that that group has been doing.

Further, the Better Buildings Alliance has continued to focus on demonstrating the value of energy efficiency. So we have several activities underway this year. There is a new training called, Energy Matters!, that is directed towards the appraisal and valuation professionals. It is being piloted in Washington, D.C., on November 17. And then there are subsequent offerings of that training that'll be taking place in Atlanta, San Francisco, and, we

believe, Chicago, in the upcoming couple of months. And then, in conjunction with the Lawrence Berkeley National Labs, we are working on a scoping study that's underway on sustainability mortgage underwriting. So we will be able to share more information on that later, early next year. And we are drafting a feasibility study on energy efficiency improvements that are directed at the design and construction phase of new tenant spaces. And this is in response to the legislation that was passed earlier this year, the Energy Efficiency Improvement Act of 2015. So stay tuned. We anticipate that study will be published about mid April, 2016.

And then, lastly, we have ... still supporting the workforce development efforts. This is a voluntary national set of guidelines to improve the quality and consistency of credentials for energy related positions. And the certified energy manager is the first of these credentials that is being recognized, and is adhering to the new workforce guidelines. So with that, Holly, I turn it back over to you.

*Holly Carr:*

Thanks, Deb. No Better Buildings webinar would be complete without a mention of the Better Buildings Challenge. And so, let's head to the next slide real quick. I want to make sure that folks on the line, whether you are an existing Better Buildings Alliance member, or you're thinking about joining the Alliance, that you know about the Better Buildings Challenge, as well. The Better Buildings Challenge is really the leadership circle of our engagement with market leaders. And we had a question, actually, very germane to the Challenge from one of our audience members a little while back, asking about specific goals, energy efficiency or carbon reduction goals, and how we work with people to track those. And really, the challenge is how we do that. So, with our Alliance members, we encourage all of our Alliance members to set an energy efficiency goal. Sometimes that goal is, "I just want to track my buildings in portfolio manager, and understand what I'm using across my portfolio. And sometimes those goals are quite aggressive. We do work with our alliance members on an annual basis to get a report out from them on how they're doing, and how DOE can be helpful. The Better Buildings Challenge steps that up a little bit, and we ask folks who step up to the Challenge to set a goal of 20 percent or greater energy savings across their portfolio, and then to report annually to the Department of Energy, and work with us to share your best practices. So, this really is a recognition program. It really is an opportunity for our leaders among leaders to share what they're doing more broadly with the market. And next slide, please.

This is a pretty good sample of our Better Building Challenge partners. You can see it's quite a list of folks. Over 200 partners who have joined, over 10 billion ... sorry, not 10 million [Laughs] not 10 billion. 2 billion square feet of space. And lots and lots of excellent case studies and examples of what's working out there in the market. A lot of these partners are starting to hit those goals. So, ... and hit them early. So this is really the portion of our Better Buildings program where we do track goals very closely and publicly with our partners. Next slide, please.

What's in it for you? Just a note that, joining the Better Buildings Challenge requires executive sign on to the partnership. And so it really does serve to elevate energy efficiency to your company or your organization's leadership. DOE also works side by side with you, to look through energy data that is provided to us on an annual basis, and provides some validation of the energy reporting that you're doing out to the public. DOE can stand next to you and say, "Hey, yeah. They really are at 12 percent energy savings. We saw the numbers." This is a White House initiated program, and we continue to have interest and attention from the White House. And so, White House recognition events happen on a fairly regular basis, which is really fun for our partners. We also love to do media events with our partners at your location. So, in your stores, in your classroom buildings, across the country, we love to get out there with DOE leadership and really talk about what you're doing, and see in person.

And finally, as we mentioned earlier in the presentation, we also love to get out and speak at conferences with our partners, write articles about their best practices, and get those stories out there in the market. So lots of opportunity for partnership in the Challenge. And I encourage you, if you are interested in the Challenge, feel free to reach out to me directly. Contact information will be provided at the end. Next slide, please.

So, I mentioned all those solutions over and over again. You've seen, from all of our sector AMs, as well as from Andy and the tech teams, all of these resources and solutions, they're now, finally, available to you in the HQ for the Better Buildings Program, which is our new solution center. Please stop by and check it out. It's very searchable. We hope it's user friendly. You can search every which way. Search by your sector, search by type of solution, search by barrier that you're experiencing to energy efficiency. So if you'd like to see all of the financing solutions in retail, you can look at them that way. So, please check that out and

let us know what you think. Next slide, please.

This is your personal invitation to join us this spring, May 9-11, here in Washington, D.C., for our annual in-person meeting of all things Better Buildings. The Better Buildings Summit will be held at the Washington Hilton this year. So please get that on your calendar, and look for more information about registering for that event very shortly. Next slide, please.

And this is a slide just letting you know all of the different ways that you can be in touch with us, throughout the months, and throughout the year. We have a new blog, which came out this summer, our bulletin that goes out once a month, get involved e-mails that come out monthly to let you know about all of the ways that you can get involved with this program, webinars, events, peer networking calls, and so forth. We have a monthly top 10 solutions that looks at the most popular hits on our Better Buildings Solutions Center, as well as our monthly webinar series, which takes place the first Tuesday of every month. And then, our newsroom, where we post all kinds of things from our partners, where our partners are receiving kudos and doing great things in energy efficiency. And, of course, way up there at the top, all of our social media information, Twitter, LinkedIn, YouTube. Next slide, please.

All right. So, we do have some questions coming through from the audience. I mentioned one about time lines and goals for carbon reduction and energy efficiency. We also had a question about the peer benchmarking that was mentioned for both hospitality and higher education, and whether or not that was independent of Energy Star. And yes, it is independent of Energy Star. What we are looking at is the possibility of using the building performance database, which is developed here at Department of Energy, as the method for allowing building owners who have very specific and very individual buildings, to look at a comparison more broadly. So, for example, in hospitality, you might be able to say, "Show me all of the hotels in a climate zone in the Southwest, that have conference facilities and have this number of rooms, approximate number of rooms," and really start looking in more detail, and comparing in more detail hotels that really do look like yours. And, I should mention, that this is really just very early foray into looking to see if the building performance database could serve the needs of folks in hospitality and higher education. So, definitely encourage audience members who are interested in this to reach out to Sam Stafford or to John Jameson, and learn more.

Also a question, how do I officially join the Alliance? And, is there a cost to join? A very helpful question, and no, there is no cost to join, and it's very easy to join. So, you can either contact any of us that you'll see contact information for at the end of this presentation. Or, you can go to the Better Buildings Alliance website, and there is a join button, and a join form. Takes about two minutes to provide us your basic information, and we will take it from there. This is a program of your tax dollars at work. So there is no additional cost to join this program, no additional cost to participate in the activities. And, even if you don't participate as a member in the Alliance, all of these resources that you're hearing about are completely free, and available for you to download and to use, from our website.

And a final question that I'm seeing here, regarding sector priorities, and can they change throughout the year. So you heard a lot about our sector priorities, as informed by our steering committees, and our calls that we do twice a year with all of our members, and yes, certainly those sector priorities can change. Those are really driven by our membership, and we take pride in working closely with our membership to direct this organization so that it's most useful to you. So I do encourage all of our members to keep in touch with your account managers, and with your DOE leads in your sector, and let us know what you're hearing in the market. You have your thumb on the pulse of energy efficiency, and that's what's so wonderful about this partnership is that we can really learn from you, and adjust the organization as needed.

With that, Kat and others, if we don't have any further questions, I think we are about ready to ... why don't we go to the last slide where we can show folks contact information for all of these sectors. So you see here both the DOE lead and the account manager for each of the sectors. And then your DOE lead and your account manager can certainly put you in touch with the right folks for the tech teams and the market solutions work, as well.

So, with that, I'd like to thank all of you very much for taking an hour out of your day to be with us today. I hope that you've gotten a good sense of what the Alliance is up to and will be up to. Please feel free to contact any of your DOE leads or account manager directly with your feedback on the work of the alliance. And I do encourage you to follow us on Twitter, and LinkedIn for the very latest on what's happening in the Better Buildings Initiative. As a reminder, you will receive a notice via e-mail when this archived session is available online. And you'll be able to follow all of the

links and e-mail addresses that are ... Thanks again, and have a great afternoon, everyone.

*[End of Audio]*