Roadmap to 20 Percent Energy Savings: A Quantitative Tool to Plan Your Strategy, 2-21-18

Julia Hustwit: Good afternoon, everyone. This is Julia Hustwit from the Department of Housing and Urban Development in partnership with the Department of Energy, and manages the multifamily sector of the Better Buildings Challenge, which is a program that has been ongoing since 2013.

I believe that most of you on the phone are partners with us in the Better Buildings Challenge. If you're not, you're still welcomed to be here today. We invite you to join us and learn about what we're talking about and even to consider joining the Better Buildings Challenge after you've heard our presentation today. What we're going to be talking about today is the Roadmap to 20 Percent Energy Savings.

As part of the Better Buildings Challenge, you have made a pledge to reduce your energy consumption on a portfolio-wide basis by 20 percent over the course of 10 years. Since we started in 2013, those partners that we have who were our first partners in the program are actually about halfway through their commitment at this point and time, but even though that's true, a lot of partners -- most of our partners do not necessarily have, and we'll find out a little bit more about this today, a quantifiable actionable plan for how they're going to get to 20 percent reduction and that's for a lot of reasons. It takes some time to start to understand your portfolio, to get your data in order and understand what your energy consumption baseline is and then to start to understand what retrofit opportunities you might have.

But what we want to do today is really encourage everyone to stop, take a minute to think about that pledge that they made and start to put onto paper exactly how you're going to get to that goal not in a freewheeling way where we're sort of doing retrofits and we're doing conservation activities, but we don't know exactly how much we're getting out of each one, but knowing exactly how we're going to get there and having that written down so that we can follow it to our successful conclusion of the program. We did do this webinar of sorts. We talked about this topic and presented the tool that we're going to be talking about last year in May at the Better Buildings Summit in Washington, D.C.

We wanted to reprise that information, update it, present the tool to you guys again, make sure that more people who were at -- them -- those who were at the summit are able to access the tool and take advantage of it and for that reason, we decided we would host this webinar, have our experts come back on, talk about the tool, demonstrate how to use it and talk about its value to you as a partner and to all of us as a group of folks who are working together towards these goals.

As Chantel said, I'll just remind you there are a few housekeeping notes. Your phone line is on mute. If you have questions, use the chat box on the right side of your screen to enter your questions. We will be doing questions and answers at the end of the presentation.

We're also going to talk at the end of the presentation about an opportunity to join some workshops where we work with you in pairs to actually develop and utilize the tools, develop your action plan in much more sophisticated detail than we're going to be doing today during the demonstration. So make sure you stay on the line to hear about that opportunity. We hope that you'll sign up for it. And before we get started, before I introduce the panelists, we're just going to do a quick poll question to get a sense of where everyone is who is in the audience. And so the poll question you'll find on the right side of your screen -- and the question we're asking is has your organization carried out a planning exercise to achieve a 20 percent energy savings goal across your portfolio?

Have you done that yet or no? And I'll give you a second to answer that question. I think I've given everyone enough time to answer that question and I do have the results of that question here. It looks like 18 percent of our attendees have said, yes, they have engaged in a planning exercise and know how they're going to get to 20 percent energy savings. That is fantastic to hear. We also have 29 percent of you who have said, no, you have not done so. The other folks, I think, are still taking this minute here to answer the question, but I think that's some good information to give us a baseline for where we get started here today.

And with that, I am going to pass the mike over to our panelists right after I introduce them to you.

We are going to have three presenters today as follows. Jared Lang is the assistant president of Sustainability of the National Housing Trust where he's responsible for integrating sustainability and renewable energy into affordable housing projects.

After Jared, we're going to hear from Becky Schaaf who's senior vice president for Energy at Stewards of Affordable Housing for the Future. She leads the SAHF's energy and water conservation initiative, including The Big Reach, SAHF's collaborative effort with its members to lead the industry in long-term preservation of affordable housing by reducing energy and water use portfolio-wide by 20 percent by 2020.

And finally, we're going to hear from Caitlin Rood, who's the national director of environmental sustainability at Mercy Housing. She's responsible for environmental aspects of all of Mercy's Housing operations, including development operations and maintenance, resident services and office practices. And at the very end of our conversation, we'll hear from Leslie Zarker, who's with ICF International. She's going to walk us through our questions and answers and talk about the workshops that we'll be doing following this webinar.

And with that, I'm going to hand over the mike and get us started on our presentations. Jared, you're up. Jared, are you having some technical difficulties? We can't hear you.

Jared Lang: Oh, I'm sorry. Yes. I was on mute. So hello. I'm Jared Lang with the National Housing Trust. I've been asked to join the panel to sort of give a brief intro on the tool and our experience with it. I'm not going to talk long, but I just wanted to kind of talk through a little bit of how it's helped us.

I work mostly with the National Housing Trust. We have NHT Enterprise Preservation Corporation as an affiliate of The Housing Trust and that's our entity that owns and operates affordable housing along the East Coast. We have about 40 properties at this point. We've been picking up maybe three to four a year. So we've been growing and as we grow, we have to figure out how to integrate those into our efficiency efforts.

So we started using the planning tool in about 2013. It's been a while now, actually, and I had to kind of dig back and think about some of our experience with it. I remember making the goals and thinking about how big the task was across 40 properties, to have to go through each of these upgrades and it's a pretty daunting task, but I think it's really worthwhile. So we laid out a set of strategies, energy and water efficiency strategies and I don't have to go over those, I think folks on the call kind of can imagine what those are, lighting and high-efficiency toilets and low-flow showerheads and stuff like that.

So it was hard at the time, I think, for us to kind of predict the work that we would do. We had to kind of throw some darts at the wall and I understand if there's some hesitancy in the group to sort of do that -- to go through that process. It's definitely a challenging process, but I think it helps to set the goal and to really kind of stick with the goal. So at this point, I would say that we've accomplished probably about 70 percent of what we set out for, maybe 60 percent and then there's still a lot of other work to do and we've added a lot of other work with our new properties.

So I'd say the biggest challenge that we've faced is getting the resident energy data. It's really -- that was really a difficult process and because we own Solar -- or sorry, we own properties in -- we own Solar too, but we own properties across a lot of different states, it's challenging to work with all the utilities. I know some of the housing owners on the webinar maybe localized, which is kind of nice, you're lucky in that way in that you can work with a few utilities.

But we had a broad cross-section of utilities. So I would say do your best to estimate the resident energy data based on utility allowances or whatever tools you can and then go from there. And remember that methodology and you can repeat that methodology in several years. It might not be perfect, but it's helpful to compare the usage relatively.

So the other thing I think to note is that we've added a lot of properties and we kind of needed to figure out how to integrate them into our commitment and we've recognized that as we add new properties, we're savvier now about energy retrofits and it's actually sort of helped us bring -- get closer to our goal if you look at kind of our average energy use intensities and water use intensities are going down as we add more efficient properties that we're doing significant retrofits on.

So today we're about 12 percent of the way toward our 20 percent goal and we've kind of given ourselves until 2023. So 10 years from 2013. We feel pretty good that we're going to hit the goal and as we continue to add properties, like I said, it gets easier for us.

So I'd say although we've definitely veered from our original work plan, it was a really good exercise to go through. We've gotten a lot of the work done and if things have fallen out, we've kind of made it a point to fill in in other places, other projects. So I think that's my intro. I'm happy to pass it off.

Becky Schaaf: All right. Well, thank you, Jared. This is Becky Schaaf with SAHF and I went through this work plan with many of the SAHF members when we launched The Big Reach. So -- and then with the team, adopted this for the Better Buildings Challenge. So as soon as I am able to share my screen, I'm going to switch over to looking at the tool itself and then we'll walk through all the details of this spreadsheet. So you should be able to see now the work plan that you can download from the HUD website that's going to lead you to 20 percent by 2020 or by -- in a 10-year period goal.

The first thing I want to point out is that there are two sheets in this Excel workbook. It opens on a sheet where you enter baseline information and it calculates a savings target and then the second sheet is where you actually develop a 10-year work plan. So running through the first sheet, it first asked for some very basic portfolio information, your company name, name of the person completing the form and the current units in your portfolio. It then asks for your anticipated net acquisitions or [inaudible].

So as Jared was mentioning, it's kind of tricky to think about making a plan for the portfolio you will have 10 years from now, but that is the goal of this exercise is to think about all of the units that will be in your portfolio at the end of the period and what's the plan for getting that whole set to a 20 percent reduction.

So in this case, I've just imagined that my company, BBC Housing, has a strategic goal of increasing our portfolio 25 percent in 10 years. So adding another 500 units. And that's really the basic information. The next section is about what is your current baseline and there's two options here, you can use the BBC preferred method, which is to use your actual BBC baseline to pull that information from portfolio manager, but for those of you who are still in the process of studying your baseline, there's an alternative of using national averages that's available in this sheet just for planning purposes. So we want to, at this point, move to our second polling question.

I think it's on the next slide where you will see the question itself. And the poll is actually in the lower righthand side of your screen. So the question's on the screen here, has your organization set a baseline year and collected utility data for that year? So would you be able to pull this from portfolio manager? We're going to give people just a little bit of time to answer the question.

And we have some results. So it looks like of the respondents, about two-thirds have been able to set a baseline and one-third are kind of still in process for that. So that's a good mix and we will go through both of the options for setting the target in this tool. As soon as I'm able to share my desktop again, I'll go back to the tool.

So for the majority of you who have entered your measured baseline through portfolio manager, maybe you even have a data display, who knows, that would be great, you would just pull this information from portfolio manager. So it will tell you your total source energy use in KBTU per year and you may also be able to pull water use from portfolio manager in kilogallon. The worksheet is set up to have goals in energy and a water goal. The Better Buildings Challenge is, in the first place, about energy. So you can do this just totally ignoring all of the water metrics. You don't have to fill in the water stuff, but maybe you have an internal goal and maybe you have signed up for the water challenge.

But in any case, you pull information from portfolio manager, enter it here. The worksheet automatically converts it to the units used in this workbook, MMBTU, and millions of gallons. And if you'll note on line 22, there's this highlighted instruction. If you're using this method, you would now take these numbers on line 24 and enter them on line 33.

I'm just going to manually override the numbers here, make sure I get the right number of zeros, and that would be the end. The tool takes your baseline consumption, shows it to you in some different units, just for informational purposes, and then calculates what is 20 percent reduction of that number. This is what you'll use in the work plan to come up with a plan to achieve that level of saving.

For those of you who don't have these numbers available to you through portfolio manager, this sheet is set up to use the number of units entered at the top and per unit national averages. This number, 45 MMBTU, is drawn from the 2009 Residential Energy Consumption Survey, the number for multifamily. And then the National Multi-Housing Council did a study that showed 52 gallons per person per day as average water consumption in multifamily. We have certain averages here for people per bedrooms and bedrooms per unit. I'll have to actually calculate this water number.

If you have portfolio-specific numbers, you can override these or just use the averages. But if you're using this method, you don't have to put in anything, except your basic information and just look to the bottom where it calculates the savings target. So the work plan document pulls in those numbers, your total number of units and your savings reduction and then it has three sections.

The real heart of the workbook is here at the top, the 10-year work plan, where you'll come up with that comprehensive how to get to 20 percent in 10 years. The second section is a saving ramp-up where you say how much savings are you going to achieve each year to get to your 20 percent and then a section for annual work plan that just mimics the 10-year work plan format at the top.

So let's dive in to this 10-year work plan. It's got a number of different sections. First of all, our measures or I sometimes call them savings pathways, ways that you can get savings at your building through rehab, a variety of retrofits, O&M, resident engagement, solar, lots of different options for how you would get to your 20 percent.

It then asks you enter a percent of units of your portfolio, which is typically the preferred approach for organizations that have large portfolios. It's easier to think about a percent of your portfolio there. If you're a smaller organization or otherwise find it easier to just think about a number of units that will go through any specific pathway, you can just hard code in a number of units as well. That's another option.

Then the table has energy and water savings as a percentage on a per unit basis and here I'd like to give a shout-out to the Vermont Energy Investment Corporation, VEIC, which actually helped us develop this whole work plan, but was especially helpful in coming up with these numbers.

So their consulting arm does resource manuals for utilities, helps them figure out how much savings they're going to get from different things and they really helped us come up with how much could we expect to get from different measures in our portfolio. And then it calculates the total savings, the number of units times the per unit savings and at the bottom will sum your total savings across pathways and finally, compare it to your target.

So if you're trying to get to 22,500 MMBTUs per year, this plan has you at 30. So this comparison number is black, you're doing well; you've exceeded your goal. If you didn't meet the goal yet, it's going to show up in red. You'll know you have to go back and change things here. So let's dive in a little deeper to each of these pathways and think about how do you come up with a number of units; right? That is the hard part and it usually takes a team of people at an organization. It can be quite an iterative process. We do recommend going to the measure list in the order here, because some of them are a little bit mutually exclusive.

So the first thing you want to think about is how much of your portfolio is going to get really deep savings through being newly constructed and maybe adhering to a standard, like LEED or Enterprise or being rehabbed and hopefully adhering to some pretty high standards there as well, but getting to a whole lot of the energy systems, including the envelope [inaudible] in a case like this.

In this example portfolio, I thought first about those 500 units we were adding and I thought, okay, if we're going to be doing some kind of rehab or those will be new construction units, we'll take all 500 of those in this category and from the remaining 2,000 units of our existing portfolio, maybe another 500 will get some influx of [inaudible] that we can do a major rehab or be refinanced and go through some kind of rehab too.

So that comes to about 40 percent of the portfolio, pretty substantial block of savings. Next up are retrofits, which are upgrades to equipment that happen outside of capital events. So not when you're getting a new mortgage or building a new building, but just replacing equipment when nothing else is going on at the property.

And we've categorized these in deep medium and light and that, I think, is actually the most confusing part of this whole sheet. We have gone over this a lot, but I'm just going to talk through kind of how I think about it. So for deep energy retrofits, you're trying to get a 30 percent savings. That's really going to take probably some substantial grant funding.

So the way I would think about this is if you have a property where your state energy office is trying to do some pilots looking at maybe a near net zero property, you're going to need some substantial grant funding to get here. For this example, I just put maybe one medium-sized property as being able to get this level of retrofits. Your medium efficiency retrofit is a little more achievable.

We're looking at a 15 percent energy savings, which is physically achievable through like weatherization programs or an EPC, some other kind of financing method where you're looking at savings from a package of measures and kind of using the savings from all of the measures to pay for the bundles.

Here I've put in just about 10 percent of the portfolio, being able to take advantage of a method like that. Light efficiency retrofits are more like if you're able to say, paper and LED upgrade with your property reserves or use the utility program. This will depend a little bit on your geography or how well-funded your properties are.

So maybe you should be able to get to a broader set of properties with a method like that. And similarly, on the water side, it could be your reserves or it could be a group like eConserve, [inaudible] that'll go for a pay from savings approach to a retrofit for water. Here is where I'd like to pause and address that mutually exclusive issue.

So we don't want to double-dip properties. If a property maybe participated in a utility program, got some light retrofits and then later went through a rehab, you probably won't get 44 percent savings, you're probably still only getting the 40 percent savings.

So I'd like to check here and make sure that all of my properties getting retrofitted or rehabbed, the percentage is not over 100 percent. That would indicate some double-dipping. Here we've got about 72 percent going through one of those. So it's okay. And then similarly, looking at the water side, 87 percent. So this is an ambitious plan. We're getting to a large portion of the portfolio, but frequently through a fairly light [inaudible] measure.

And then the last piece about equipment is appliance upgrades and I like to think about this as you're not going through the whole building and doing appliances all at once, but over time, as appliances fail, they're getting replaced with an efficient option. You have a procurement policy that calls for Energy Star or otherwise has performance specs.

And I typically put in here like pretty much the rest of the portfolio that's not covered by something above there. So if we had about over 70 percent, I just stuck in another 20 percent, getting some appliance upgrades. Next, we're moving onto some more behavioral categories. So operations and maintenance. We have two levels here.

The basic level you can think about as if you have an operations and maintenance manual that your staff are following that includes some energy checks. So the manual that Enterprise Green Communities calls for otherwise taking into account having maintenance staff, you look for opportunities for savings. That's something that can be implemented on a widespread basis. It gets fairly modest savings, but once you do it across the portfolio, it kind of adds up.

The higher level of operations and maintenance savings is when you're bringing in a third party and doing a more intensive approach. Maybe you have central systems that are several years since you put them in, but not yet failing, but you bring in someone to look at it, review all the settings, maybe add some controls just to improve the efficiency of your systems and that can get to pretty substantial savings.

So here I, again, am avoiding double-dipping. So 100 percent of the portfolio are either getting that more intensive piece or going through and having routine inspections. We similarly have a couple different levels for resident engagement.

The basic level is probably a more informational or just advocacy campaign from your property staff, resident services coordinators or property managers putting up posters, sending out newsletters, inserts, things to get residents thinking about their energy consumption and that, again, can get pretty modest savings. The more intensive idea is if you are holding maybe a competition at your property or bringing in some consultants to look at a community-based social marketing approach.

In that case, you can get more substantial savings. And I have put that here as zero not because I don't recommend it, I definitely recommend it, but mostly just to show that you don't have to use every pathway to get to your 20 percent savings goal. You can leave some of them blank.

And then the final two, solar thermal and solar PV I just added 10 percent. So about 500 units for the portfolio having solar by the end, about half of everything that gets newly constructed or rehabbed, not that it has to be, though. And you can see here that we're quite in the black. So we're exceeding our goal with this plan, which is great. You could back off some of these things if you wanted to set it at a goal that was more evenly met.

So slowing down, these other ones become fairly simple, setting an annual savings target. You could just do 2 percent every year. In this case, we started out more modest and scaled up our savings goals, but however you do it, you want to make sure that the cumulative savings in year 10 equal or exceed 20 percent.

And then finally, you have annual work plans. So it's the same setup as we just went through above, but it compares you both to your 10-year goal to see what progress you've made there and to an annual goal using that savings ramp-up chart. So you want your plan here to at least exceed this number on line 64. And you can do year one and come back in year two to do year two or you can do one for each year and recalibrate them, however you prefer.

So you've got one for every year. So you get down to, finally, year 10. We ask you, did you reach your goal? We're doing that comparison for the 10-year goal to the 10-year cumulative savings and if it's showing green like it is here, you could pop your champagne bottle or however you want to celebrate.

So that is the work plan. And with that, I'm going to turn over the presentation to Caitlin Rood from Mercy Housing to talk about how she has used the tool.

Caitlin Rood: Thanks, Becky. That was really, really great. Thanks for presenting that to everyone. My name is Caitlin Rood and I am the national environmental sustainability director from Mercy Housing. And Mercy Housing is an affordable housing nonprofit headquartered in Denver, but we're a national organization with about 325 properties across the country.

And like Jared, we went through this process with this tool back in 2013. And so I'm just going to tell you a little bit about our experience in using this tool and just sort of how it played out for us in the experience we had. So the first thing that we did is that we were faced with whether or not Mercy was going to commit to a 20 percent reduction goal.

And that was, as Jared mentioned, kind of hard to get our heads wrapped around, whether or not that was something that could be attained. So we selected a small group of people to go through the process of this tool and see where it got us. And so the people that were involved in that process from Mercy Housing included me, the sustainability director, to represent that perspective and kind of bring the knowledge of some of the more technical sides of the ability to do this to the table.

We also included the head of procurement for Mercy Housing and the reason for that was that a good deal of the implementation had to do with what is the normal cycles of replacement of products through the procurement process and also their opinion on the ability to implement cost effectively more efficient products through the procurement process.

And then lastly, we brought in a person who was a high-level maintenance person. We have regional ones in Mercy Housing that are very experienced on the ground doing maintenance and now they're regional managers and we had one of those people in there as well from the technical perspective trying to figure out what they thought could be done.

So the three of us sat down together where we went through each measure on the planning workbook page and considered over the course of 10 years what percent of their units we thought that we could reasonably cover during that time. And then we would take a break and do additional research and come back and talk about things more.

And after a few meetings, we were through the process of using that spreadsheet and what was really interesting to us was that there was definitely a feeling within Mercy before that that we weren't really sure about our ability to get to 20 percent and when it was broken down on that per-measure basis and we approached it not as can we get to 20 percent, but what can we get to, just putting in the numbers that we thought were realistic, possibly a little bit aggressive, but definitely what could we actually do during a 10-year period and when it was broken down into these manageable chunks, we were able to think about it in that way and that really changed things for the group of us to get from the big 20 percent number to this breakdown.

And in the end, it seemed like we could get there. And so what we did then was -- the one other thing I wanted to mention was in that process, we knew that over the course of 10 years, there would be opportunities that would impact efficiency that we didn't know about at the time of the forecasting. We knew that over the course of 10 years there would be things like incentives, and funding approaches, and technologies, and regulations that would impact our ability to improve efficiency in our portfolio, and that has, of course, turned out to be true. There have been incentives in funding approaches and technologies and regulations that didn't exist in 2013 that have significantly impacted our ability to implement in our portfolio.

So we knew that when we had that thought in the back of our minds when we were sort of forecasting some of these measures. Once we were satisfied with our estimates, we took our thoughts to the senior leadership team at Mercy Housing and then the executive leadership team for their consideration and approval and that process really interestingly did not generate terribly many questions, because the breakdown made it very digestible, again, for those people. And whether the folks we were talking to were very high-level or if they were detail-oriented, it met all of the needs.

It was able to speak to a high-level thinker and also, to a detailed-level thinker. And so with that, we got to the place where we could feel comfortable making the commitment and that's what the tool did for us as a planning tool and then as an internal approval tool. And I think that's all that I have for today and I think Leslie is next.

Leslie Zarker: Yeah. Caitlin, thank you so much. Thanks for sharing that experience with us and a big thanks, also, to Becky for walking us through this valuable tool and also, to Jared and Julia for introducing the tool to us. I want to talk a bit about the Roadmap to 20 Percent Workshop that HUD will be offering as the natural next-steps following this webinar.

The workshops are for current BBC multifamily housing partners and the purpose is to help you build your own roadmaps to energy savings. We know that some partners are in that position where they've completed retrofit projects and maybe reached 9, 10, 12 percent energy savings, which is great, but now they're asking what's next, what can I do to reach my 20 percent goal.

So these workshops will be working with partners looking at your actual baseline data, what your organization's accomplished so far to map out a tangible strategy based on what's possible and what Becky's walked us through today and then you can take this roadmap that you've developed -- it'll be much more detailed than what she's showed today.

You can share that with your boss, you can share that with decision makers at your organization to help your organization make the energy savings a reality. So these workshops will be led by Becky Schaaf who walked us through the tool today. The workshops will be online using the GoToMeeting conferencing app. Becky will be assisting to BBC multifamily partners per workshop and she'll work with each of the partners to schedule the workshops independently.

So we'll be scheduling those over the next couple of weeks. And to make these workshops as productive as possible and as meaningful as possible, we want you to be using your own actual utility data in the spreadsheet. So we do have a few prerequisites to the workshop, which you can see on your screen today.

We're asking partners to either attend the webinar today or to listen to the recording, which we'll post soon and we'll send out soon. You'll need to set a baseline year and have the baseline utility data available and you'll need to be, of course, currently benchmarking your portfolio's energy consumption. So that's it. If you're a BBC partner, we hope you take advantage of this technical assistance.

You can do so by contacting your BBC account manager. That's myself, David Ruggiero, Blakely Jaret [ph], Scott Ledford or Chris Laveli [ph]. That's the BBC multifamily account management team. Just reach out to one of us. We'll also be sending out some announcements via email about these workshops that you can reach out to us about, but just let your account manager know that you're interested and your account manager will connect you with Becky. And before I open up the question and answer period, I wanted to mention some other resources that are directly related to this tool today that will help you reach your energy savings goals.

So I'm going to ask to pass the screen to me so I can show you -- these resources were actually just launched by HUD on the HUD Exchange yesterday and I'm just going to show you really briefly -- I'm going to -- the quickest way to get there is really in your browser to type in "HUD+BBC+multifamily" and I just want to mention that if you don't enter the word "HUD," you may end up on the Department of Energy Better Buildings Challenge page, which is a great site that has also a lot of great resources, but they're not specifically for the multifamily sector. So hopefully you guys can see my screen.

I'm just going to click through to the Better Buildings Challenge multisector homepage. I'm going to scroll down to the new energy and water efficiency resources page that was just launched yesterday over here on the right-hand side. Now we're on this library, which is chalked full of tools and resources, specifically designed for multifamily housing providers. And this is the landing page.

You'll find tools in each of these sections on utility benchmarking, building product standards, retrofit planning, operations and maintenance that Becky talked about a bit today, resident engagement she talked about a bit and retrofit finance. In the retrofit planning section, scrolling down, you'll find this Roadmap to 20 Percent Energy Reduction Workbook, which is what Becky was working with today.

So again, you can find that by going to the HUD Exchange, going to the BBC landing page and then clicking through to this energy and water efficiency resources and going to retrofit planning to find the tool we worked with today, the Roadmap to 20 Percent Energy Reduction Workbook.

Now I'm going to switch the screen back to Chantel and we can move onto the next slide. If you do want to work with the tool right away, this is the long URL to get there, where I just showed you on the HUD Exchange. We also created a short URL for you to quickly type into your browser right now, a Bit.ly link roadmap 20 to get there. So now I'm going to open up our Q&A session in just a moment.

On the right-hand side of your screen in your WebEx dashboard, you'll find a Q&A box. Go ahead and type your questions in there and we'll cover as many as possible. So I'm going to look at that.

So our first question today, "If I don't have 100 percent complete utility data for my portfolio's baseline year, can I still do the workshop?" Why don't we have Julia answer that question?

Julia Hustwit: Sure. So we do want folks to come to the workshop prepared with a baseline number and that does mean that you have established that baseline number by utilizing whole property data;but when we say whole property data in the context of the Better Buildings Challenge, that does allow for the use of sampled tenant data so long as you're getting enough of a sample of your tenant data to be able to establish what your whole property energy consumption looks like. You can establish that baseline number and then you'll be prepared to participate in the workshop.

And if you have any questions about whether you meet that requirement, just let your account manager know and they'll help you determine whether you have met that requirement or not.

Leslie Zarker: Great. Thanks, Julia. Another question here, and this is for all panelists, you guys can choose who would like to answer or more than one of you, " Do you recommend getting building managers and facility managers involved in this kind of a planning process?"

Becky Schaaf: So this is Becky and I would say it a little bit depends on your portfolio size. What I would recommend for a medium or a larger-sized portfolio is if you have a facilities manager or someone who your property staff reports to, having that person involved. I definitely do recommend involving property staff in the overall initiative making sure they're aware of it, understanding kind of what resources are available to them, what expectations there are of them, having them be aware of company policies on energy and water efficiency, but for this portfolio level two, unless you have a kind of small regional portfolio, I would focus on kind of more corporate staff being involved.

Jared Lang: Yeah. This is Jared. I think that's probably fair. You know, I think it's great to involve as many people as you can, but for the most part, I think we find that the asset management team can represent the property management pretty well. When it gets down to sort of implementing some of the nitty-gritty of this and how things play out on the ground, I think it's really important to work with the property staff, but in this kind of high-level planning exercise, I think you can work with asset management.

Leslie Zarker: Great. Thanks. I have a question here. "What's the difference between work plan versus completing the roadmap tool?"

I think they're one in the same is the answer to that question. Julia, correct me if I'm wrong. It might be referred to as a work plan on the BBC resources page, but this is one in the same, the roadmap tool is what we're referring to.

Julia Hustwit: Yeah. That's right. And I think that's what the person who asked the question is referring to. If it's not, send us another question and we'll try to clarify.

Leslie Zarker: Great. And I -- there was a question about downloading the tool. I did put the link -- the short Bit.ly link directly to the page that this tool is on into the chat box in the Q&A session. So again, you can get the Bit.ly link "roadmap-20" and then scroll down on that page to click and download that tool. So I don't believe we have additional questions.

So I want to, again, thank Julie, Jared, Becky and Caitlin for this session. It's been really great and we've learned a lot. And I want to thank all of you on the phone for joining us today. Within a few days, you'll be able to access the recording of today's webinar and we'll be sending out more information about the workshop. So please look for those. Thank you, again, and have a great afternoon.

Jared Lang: Thank you. Take care.

Caitlin Rood: Thank you.

(END)