Leslie Zarker: Hello everyone, and welcome to the Multifamily Meet-Up. My name is Leslie Zarker with ICF, and I'll be your moderator today. I'm happy to see so many of you, to see your smiling faces here. If you're not already doing so, we invite you to share your video feed so we can see you and interact as much as possible.

Female: *[inaudible comment]*

Leslie Zarker: First, some housekeeping notes. We're recording today's session. You'll be able to find the recording and slides on the Better Buildings Solution Center in the coming days. Your audio lines are on mute. We ask that you remain on mute until we get to breakout rooms. In the meantime, we'll be asking you to use the chat box for your questions and comments, and more on that in a moment.

Let's go ahead and pull our agenda up on the screen for a moment. Great. Today, we'll first hear from Josh Geyer, the Multifamily Sector lead for the Better Buildings Challenge, about the progress our partners have made in the program this year. Next, we'll hear from Ted Toon of HUD's Office of Multifamily Programs, who will give us an update on several multifamily-focused programs, including the Green MIP Reduction Program.

Then, we're looking forward to hearing from each of our four Better Buildings Challenge goal achievers this year on how they've achieved their portfolio-wide energy saving of 20 percent or more.

Then, in the second half of the meet-up, we want to hear from you. We'll be holding breakout sessions to discuss key topics faced by multifamily housing organizations. Then, we'll join back together as a large group to review your comments and your feedback.

Let's go back and see everybody's happy faces. Thanks. Normally, the annual Multifamily Meet-Up is, of course, a face-to-face live event where we hear from you and exchange ideas. So, we're gonna try to make this session as interactive as possible within this virtual platform. I encourage you to use the chat box throughout out time together, and to keep it open throughout, to see what others are saying.

You can find the chat box by moving your cursor to the bottom of your screen and clicking on the "chat" icon there in your dashboard. As panelists are speaking, when you hear something that really resonates with you, go ahead and share it in the chat box. If you have a comment, you can add that to the chat box. Of course, if you have questions for the speakers, please write those in the chat box, as well. We'll try to get to as many of your questions as we can.

To help us all feel comfortable using this chat box, I'm gonna ask you to do a little chat box exercise with me right now. Please go ahead and write into the chat box your name, your organization, and what you are doing during social distancing to keep your spirits up at this time. We're gonna drop that question into the chat box now so that you can see it. But again, it's your name, your organization, and what you're doing during social distancing to keep your spirits up.

In my case, it's a daily jog in the park with my dog Leo. Let's see what others are doing. For Caitlin, I just missed it, Caitlin. I'm sorry. For Tim May, they just bought a pool. Becky Schaaf, she's cooking, doing a lot of cool cooking. Ruchi Shah, lots of yoga and good food. I hear that. Tabetha, she spent three weeks on Martha's Vineyard. Tabetha McCartney at 2 Life Communities.

I just want to go through some of these. They're fun.

Carl Getz from Vermont Energy, getting onto his bike, going out cruising on the bike. Kim Goldbreath from Wesley, spending time with her daughters and taking a ride with friends. Motorcycling in the mountains, very cool.

All right. Well, thank you, guys. This is awesome to hear.

We know that with technology, despite all of our prep, things don't always go as planned, but that's okay. If you're having technical problems, please do take your problem into the chat box. We'll do our best to help you. By the way, in the chat box, there is a drop-down menu and you can choose to individually message certain people, such as our hosts, our tech hosts today. Or, you can message everyone.

Let's go back to our slides for a second. Okay. A bit about our upcoming multifamily sessions. On Wednesday, we'll hear a multifamily financial roundtable with some great panelists. There, we'll also want to hear from you in another breakout session. Later on Wednesday, we'll have an expert set of panelists on maximizing performance in affordable housing new construction. So, we hope you guys can make those. Next slide.

We encourage you to share your experience on social media. Here are the Better Buildings Twitter hashtags and LinkedIn URLs for you.

Great. Here we are, with our first speaker. Our first speaker is Josh Geyer, the Multifamily Sector Lead for the Better Buildings Challenge from HUD's Office of Environment and Energy. Welcome, Josh. Are you off mute, Josh?

Josh Geyer: I am now, yes. Thanks.

Leslie Zarker: Thank you. All right.

Josh Geyer: All right. Thanks, Leslie. I want to welcome everyone to the meet-up, both old friends and folks that are joining us for the first time, perhaps due to the fact that we're all holding this summit remotely this year. Today, I'm going to give a quick overview of the Better Buildings Challenge Multifamily Sector and highlights of what our multifamily partners have worked on this year.

The Better Buildings Challenge Multifamily Sector is comprised of 92 partners with properties all over the country, the vast majority of which are affordable housing providers. Almost half, or 45 percent, of the more than 678,000 units owned or managed by our partners are public housing, due to the fact that our partners include seven of the ten largest public housing authorities.

Partners who own or manage multifamily assisted housing account for 31 percent of multifamily sector units, and include nine organizations with nationwide portfolios and all 13 members of Stewards of Affordable Housing for the Future, which is an industry-leading industry organization that we really are grateful to have joined us together. Next slide.

One of the core functions of the multifamily sector is providing technical assistance to partners to help them benchmark their properties' utility consumption. This is so important because of the many unique barriers multifamily housing providers face when collecting data for all of their utilities, what we call the homebuilding utility data.

As this chart shows, in 2016, only 15 partners out of over 100, represented by the green bar, had successfully benchmarked their portfolios. By 2018, the story had been reversed, with 61 partners, in green, meeting their benchmarking commitment and only 39 partners, represented by the blue bar, not yet benchmarking. This year, despite the enormous additional challenges to benchmarking during a global pandemic, 69 partners still succeeded in benchmarking their portfolios. Kudos to them.

A lot of these gains resulted from a surge in TA in 2017 and 2018, during our year of data, but we have also implemented several policies over recent *[break in audio]* help partners clear hurdles and cross the finish line to successfully benchmark the portfolio.

Each year, we work with our partners to create annual plans that outline their goals for the program and the steps that they will take with their account manager over the next 12 months to reach those goals. To help some partners who are making progress, but are not yet on track to reaching their 20 percent energy savings goal, we've held a series of workshops, led by Becky Schaaf of Stewards of Affordable Housing for the Future, in which she walked them through how to use a spreadsheet-based planning tool to lay out a detailed strategy for reaching energy and watt reduction targets portfolio-wide.

Also this year, we adopted a revised standard for assessing partners' portfolio-wide energy savings to account for persistent challenges in collecting whole building data. This resulted in a marked increase in energy data being reviewed, and included in partners' final energy savings assessments in the program, ultimately giving them better insights into their energy savings progress.

As a result of these efforts, and our partners' persistence and commitment to sustainability, I'm proud to report that across their 678,000 housing units constituting 650 million square feet, since 2013, our partners have cumulatively saved over $136 million and 14 trillion BTUs, which is enough energy to power over 300,000 multifamily homes for a year. I'm also proud to say that we've now had nine multifamily partners achieve their 20 percent savings goal, including four organizations we're recognizing today.

Beyond the work of installing energy- and water-savings measures across their portfolios and documenting their savings, a critical part of partners' commitment is to provide leadership to help move their entire building sector toward greater sustainability. A major way to do this sharing stories and replicable strategies with your multifamily housing peers through the showcase projects and implementation models that document successful approaches to portfolio-wide savings. All of these can be found on the Better Buildings Solutions Center. You can check it out at betterbuildingssolutioncenter.energy.gov. Overall, 64 percent of BBC multifamily partners have published their stories so far. That includes 66 showcase projects and 31 implementation models. These are incredible resources, so please keep them coming.

For our part, HUD has created a number of key tools for multifamily organizations looking to save energy that we want to make sure you know about. One is the multifamily utility benchmarking toolkit, which has a step-by-step guide to benchmarking specifically for open family housing providers. An increasing number of cities and states have ordinances requiring multifamily benchmarking and on the national level, Fannie, Freddie and FHA are all building benchmarking requirements into their financing products. The benchmarking toolkit includes a wealth of information that can be used to meet those requirements. To check it out, use the search term HUD and utility benchmarking toolkit.

The other key resource is HUD's multifamily energy and water efficiency resource library on the HUD Exchange. This is chock-full of great tools and guidance for multifamily providers on retrofit planning, green O&M, and getting residents in energy-saving activities and more. You can find it by searching for HUD and BBC.

Thank you. If you have any questions, you can contact me at the email on the screen.

Leslie Zarker: Perfect. Thank you so much for that overview, Josh.

We are not going to hear from Ted Toon. Ted is a senior advisor to HUD, MFHA. He directed FHA's multifamily mortgage division for many years, and also created HUD's first green building program, the Green Retrofit Program. He's been a real leader in developing strategies for increasing the resilience and sustainability of multifamily housing, and he's gonna give us an update today on the green mortgage insurance premium reduction, the CNAE tool, and RAD. So welcome, Ted.

Ted Toon: Thank you, Leslie. Glad to be here with you. You may notice a major difference between the shots that's showing on the screen versus what you see today. Josh Geyer at HUD is my spirit animal and with a few more weeks, I may actually catch up with him. So, thank you for the inspiration, Josh, and thank you all for being here today.

I did want to update you on three things related to multifamily housing. The first is the Pay for Success program. Many of you are aware of this program, reaching back to 2015. There was legislation passed that created authority for HUD to run a Pay for Success program on up to 20,000 units affordable housing.

Effectively, it would allow us to work with owners who would make investments in their properties to improve the energy and water efficiency of those properties if they can demonstrate that in fact they achieved savings. Those savings could be used to repay the investment, and at some point down the road, after those investments were paid off, there was a shared arrangement where the owner and HUD both shared and those savings, going forward.

This is a very simple concept. With thanks to Josh Geyer and others at HUD, we did *[break in audio]* together. We had it more or less ready to go when there was a change of administration in 2016-2017. The new team coming in, of course, wanted to review all new programs. It took a while to get that prioritized. Once we did, and once we had it through our clearance process, we published it for Paperwork Reduction Act purposes, which is a whole new thing that we had to go through for a new program.

Essentially, the clock ran out on it. So, we ended up not publishing the Pay for Success program, and our statutory authority for that program in fact has now sunset. So, we will not be rolling that program out, unfortunately. I do think there may be an opportunity in the future to run such a program, but it would take legislative authority to do that.

I will make a couple of notes for those who were following this closely. I think there were some challenges built into the legislation itself. It was a very brief section of the legislation. There were a number of things in there that caused us challenges. We built the best program we could, given the limitations.

One of them was, it provided a 12-year payback period for investments which, as those of you who are working in the space know, 12 years is breakeven for some things and not quite enough for really deep retrofits. Secondly, it was not clear when that 12-year clock started. So, there was, even within HUD, disagreement about but that timeframe should be. So, any kind of legislation we see going forward, we would want to have an opportunity to weigh in on that and, as you all know, allow for the longest payback period, at least a 1:1 payback for components.

Secondly, one of the challenges we ran into was whether this constituted new business with HUD and whether it therefore triggered environmental reviews of all properties. Even, again, within our own organization, there was disagreement about whether we should require environmental reviews or whether, for example, putting solar panels on would not drive that. So, I think some clarity in any future legislation would be very helpful in terms of clearing up that.

I'll move on to a second topic. As Leslie mentioned, I want to talk briefly about the rental assistance demonstration, the RAD program. The RAD program, as most of you probably know, is the conversion of public housing onto the Section 8 platform, which historically has been a more stable funding platform for subsidy. At the same time that the properties are converting, they also are being allowed to leverage debt generally for the first time in the history of those properties. Many of those properties across that portfolio, there was about $30 billion worth of backlog, by some estimates, of capital needs and physical needs of properties.

The RAD program has allowed public housing authorities around the country to be very innovative and do once in a generation types of renovations or, even in some cases, demolition, mixed-use, mixed income, dedensification, new construction, all kinds of very innovative things that are fundamentally reposition the portfolios.

I mention in the context of Better Buildings Challenge because through this, many of the public housing authorities who are doing this work are teeming with developers to do tax credit work, for example. The program to date has leveraged $9.5 billion worth of capital to do renovations and/or new construction of what was public housing, now Section 8 housing.

Much of that work, because it's using tax credits, and as you know, the tax credit program, most of the states' QAPs have a fairly high bar, either as a bar for entry or, in the competitive points, more green building sustainable building. We feel like a good majority of the properties that are going through the rental assistance demonstration program in fact are ending up being very efficient, very sustainable buildings not because the program itself requires it, but because so many of them are using tax credits.

Currently, there is authority to convert 455,000 units of housing from the public housing portfolio. That represents about 40 percent of the entire public housing polio. To date, about 135,000 units have been converted. Obviously, a long way to go just within the current authority.

Every time that we've bumped up against that authority, having a waitlist of public housing authorities that want to participate, there's been broad bipartisan support to expand the program. So, we would expect that pattern to continue, going forward. Again, this is a great opportunity to partner with public housing authorities as they go through the rental assistance demonstration program. So, keep your eyes out on that program.

The last thing I want to talk about were a few things within FHA on the multifamily side, on the financing side, that we think are really beneficial in terms of promoting sustainability and green building in that portfolio. The FHA program finances on average about $15 billion per year in multifamily mortgages.

Back in 2016, we rolled out several things. One was what we call the CNAE tool. It's the Capital Needs Assessment Tool that we use for all projects that are being funded with FHA. What was different about the CNAE tool than earlier versions of the capital needs that we were doing was for the first time, it required that an energy audit be completed for all properties. It required that the energy audit, and the findings and recommendations coming from that energy audit, be fully integrated into the capital needs, not only for immediate short-term repairs, but also for long-term replacements of components.

As part of that, the tool also looks at what the costs and cost savings are for using various levels of efficiency in the placements that are being proposed for the property. So, it allowed an owner who was looking at this to look at the cost-benefit analysis in real time and make decisions about what they were gonna build into their property. We think it's been very beneficial.

Secondly, we also rolled out in 2016 what we call our map guide, and that is our guidebook for the FHA lending programs. What that did for the first time was explicitly recognize the future benefit savings that will be realized through energy efficiency improvements. Whereas before, you had to make a pretty strong case for what future savings would be, now we explicitly will recognize in the underwriting future savings anticipated from energy efficiency improvements. That frees up cash flow at properties to pay for those investments.

The third and final thing that we rolled out in 2016, as Leslie mentioned, was the Green MIP. The MIP is our mortgage insurance premium. We charge mortgage insurance on all of our FHA lending. In 2016, we reduced the mortgage insurance premium to 25 basis points, 25 BPS, for properties that met a green standard. What that means is they have to meet one of 12 recognized independent green building standards and get the certificate from those independent organizations. That includes Enterprise, Green Globes, LEED, and several others. In addition, they'll have to continue and maintain a 75 or better score on their portfolio manager Energy Star going forward.

The program has been very successful. Program to date, we have insured over 900 loans and more than $25 billion in mortgages. We feel really comfortable, really good, and really positive about that. Also, you'll notice that both Fannie Mae and Freddie Mac have rolled out green mortgage products in some ways similar to ours. They are each doing $20 billion annually. So altogether, the three of us together are doing an enormous amount of work and really incentivizing your financing tools sustainability across our portfolio.

I'm gonna leave it there. We're open for questions a little bit later in the session. Thank you for your attention.

Leslie, I think you're on mute.

Josh Geyer: Hi, this is Josh. While Leslie is getting off mute, does anyone have, we're looking for any questions for either Ted or me from folks who are listening. Please enter them in the chat box and we will try to address them.

Leslie Zarker: Perfect. Thanks, Josh. And thank you, Ted, for that great status update.

I did receive a question earlier, Josh, that I wanted to give you right off the bat. What are the eligibility requirements, the basic question, for multifamily housing organizations to join the BBC?

Josh Geyer: Right. First of all, you need to be an owner or manager of multifamily housing. You need to have a portfolio, at least two or more buildings that are multifamily properties. Beyond that, it's about making the commitment. Being willing as an organization to commit to achieving at least a 20 percent energy reduction and, in some cases, a 20 percent water reduction, which we encourage strongly, over ten years. Then, do what comes along with that, as I mentioned when I was speaking earlier, collecting data, benchmarking, and writing up best practices.

Other than that, we just want people to know that as you come to the program, bringing your commitment and your willingness to work with us, we will come from our side with technical assistance and other resources so that you will always working in partnership the whole way through, your whole energy savings journey.

Leslie Zarker: Great. Thank you, Josh. I have a couple of questions here for Ted. First from Ruchi Shah, are you seeing carbon reduction being an aspect in many of these programs you talked about?

Ted, I'm not sure if you're on mute.

Ted Toon: Yeah, it's a great question. The short answer is no, we are not. Because none of the green building programs that we look at explicitly recognize or require a measurement of carbon per se, we're not measuring carbon reduction. I think I could certainly see, at some point, a green building standard that explicitly requires tracking and getting credit for reduction in carbon, and I think that's the way we would capture it. I don't feel like we have the technical expertise within HUD necessarily to do that. But I think to the extent that one of the independent green building standards moves in that direction, I think that we would, as well.

Leslie Zarker: Okay, great. Also, Ted. Can you share any of your current thinking on ways HUD can support resilient housing?

Ted Toon: Yeah, another great question. I will say resilience is our new buzzword within HUD around sustainability. Obviously, they are cousins and they are closely related issues. So, the answer is yes, we've been in discussions with FEMA and are looking at how we can incentivize resilient housing, so what gets built, how can you fortify existing housing, how can you get credit for that?

In 2016, I was doing some work, I went over to the White House for a detail to work on exactly this issue, where we also worked on the financing piece. How can you look at and how can you use reductions in insurance premiums for having more resilient housing, similar to the Pay for Success model? But we have seen models where insurance companies will give a future reduction in insurance premiums for more resilient housing, and those future savings can be capitalized to make the resilience improvements today.

We're not ready to roll anything out yet, but it is a hot topic of discussion. I think it will be the next wave of what we attempt to accomplish on the sustainability front.

Leslie Zarker: Great. One more question here. Regarding the Green MIP program, how is the affordable sector performing relative to the market rate sector?

Ted Toon: Performing, I'm assuming, the question is regarding the financing side. I don't have a breakout of that. Actually, I may have it and I can pull it up maybe during the next speaker. But I think that there's been a combination. I know that we've seen a lot of projects, for example, that are coming in for financing and doing a low income housing tax credit financing already being driven to a high level of sustainability and a green building standard, in many cases. So, those are often taking advantage of the Green MIP, as well.

But I don't have a breakdown off the top of my head how that $25 billion breaks out affordable versus market, I'm sorry.

Leslie Zarker: No, that's fine. Thank you. Thank you for those, for the other answers. We'll get back to that one. I know there's several other questions here. We won't be able to get back to them right at the moment, but we are gathering your questions and we will respond as soon as we can later, in written form.

I wanted to move it over and give the podium to Josh, the virtual podium, to welcome in our goal achiever.

Josh Geyer: Thanks, Leslie. The highlight of our year in the Better Buildings Challenge is celebrating the success of our goal achievers. These Better Buildings Challenge partner organizations have met or surpassed their goal of 20 percent energy savings across their multifamily housing portfolios. They are leading the industry by facing daunting challenges, and finding and implementing solutions to overcome them. Next slide. Oh, you got it.

Our first goal achiever we'll celebrate today is Trinity Housing Corporation of Greeley. Led by property manager Richard Maxfield, Trinity has saved 20 percent energy at its Greeley, Colorado property. Welcome, Dick.

Leslie Zarker: Let's make sure he's off of mute.

Richard Maxfield: Mute.

Leslie Zarker: Yeah, we hear you now.

Richard Maxfield: Oh, okay. So, at Island Grove Village Apartments, we go by, let me think, I'm gonna stop here just a minute.

Leslie Zarker: Sure.

Richard Maxfield: Let me go back here a page.

Leslie Zarker: No problem. Take your time.

Richard Maxfield: We're okay. So, at Island Grove Village Apartments in Greeley, Colorado, we really began our commitment to energy conservation with a state and county weatherization program in 1992. That is reinsulating the common hallways to all of our resident buildings.

Since then, we have been making small and often innovative changes and modifications. But the opportunity to participate in the Better Buildings Challenge six years ago helped us to ramp up our efforts to meet the BBC 20 percent reduction goal. We have now moved from 60 to 86 Energy Star Score, and we are at – I'm looking at my notes here, sorry.

Leslie Zarker: Not at all. Take your time.

Richard Maxfield: Okay. So we've now moved from a 60 to 86 Energy Star score and have an application in progress to become an Energy Star certified property. In addition, we are participating in the city's partner and energy community collaboration formed in late 2019 with our investor owned utility, Xcel Energy. They're anxious for us to share our experience with other multifamily properties in our community.

Let's see, two. We've made many changes, small and large. But I'd like to talk to you briefly about how we are able to make these things happen, rather than the specifics of what we did. The bottom line is, we had a whole lot of help, beginning with our incredibly supportive board of directors. We also received a number of grants, a few gifts and bargains here and there, and even low-interest unsecured loans from our local bank.

We were able to switch to efficient LED lighting in all our interior and exterior areas with a grant from Energy Outreach Colorado, a nonprofit whose simple mission is to support, stabilize and sustain Coloradoans. A great organization and a terrific group of people to work with. They also funded our installation of 97 percent energy efficient furnaces sitewide. Quite an effort.

We replaced all of our boilers with 91 percent energy efficient units through an unsecured loan interest loan with a local bank we work with through the Community Reinvestment act, or CRA. It's a resource that many of you can benefit from in your own communities. Most recently, we replaced kitchen and bathroom aerators and showerheads with low-flow ones through a grant from the International Center for Appropriate and Sustainable Technology, or ICAST.

We've done some pretty fun and innovative stuff, too. In cooperation with the city of Greeley conservation initiatives, a couple of computer boards now control when and how much our lawns should be watered based on satellite information about current and recent temperatures, humidity, and when it last rained. After 15 years of refusing to give up, this past year we were finally able to add solar to our property by participating in a community solar garden. While we're still in our first year, we are on track to realize a savings of $12,000.00 to $15,000.00. All in all, it's been fun and challenging to experience and reach our goal.

But with the terrific support and help from DOE, HUD, and especially the top-notch staff at Better Buildings Challenge, we made it. Congratulations. We all made it to 20 percent. Thanks.

Leslie Zarker: Yay!

Josh Geyer: Thanks, Dick. Thank you and congratulations again.

Our next goal achiever is Corcoran Management, which has recorded 23 percent energy savings across its portfolio of 1,300 housing units in New England. Jonathan Owens is Corcoran's energy efficiency manager. Welcome, Jonathan.

Jonathan Owens: Hi. I guess I'll just talk a little bit about how we got here. Our success is largely attributable to Corcoran Management Company's commitment to make all buildings as energy-efficient as possible.

In 2014, CMC put together a committee that included the expertise and experiences of our director of maintenance operations, executive vice president, and director of development. This committee established a full-time position for an energy efficiency manager who had access to the most senior levels of management, allowing him to make tremendous progress on the energy efficiency front. This individual has moved on and Corcoran Management Company continued the commitment to energy efficiency by maintaining the position and bringing me on board in 2017.

In addition to creating the committee and energy efficiency position, Corcoran Management Company also began training all property managers and maintenance staff in finding energy management opportunities. Every maintenance manager participates in a training once a year that has a significant energy efficiency component. The commitment from senior levels of management has resulted in a company-wide energy conscious culture. Everyone at all levels, from site personnel to senior management and ownership, has done their part to impact a significant reduction of our energy footprint.

We have found opportunities in lighting, heating, and in the building envelope. While properties have made the switch to LED lighting, we have also found opportunities in adding and adjusting occupancy centers. Many buildings have occupancy centers, but just as important as having them is making sure they are adjusted and working properly. We save a significant amount of energy simply by changing occupancy center settings in two of our parking garages to a shorter lights on time after trigger event. There's nothing more efficient than off.

We have upgraded many of our central boiler room boilers to high-efficiency condensing boilers. We also found that retrofitting all electric heaters with actual scalable thermostats saved a surprising amount of energy. Many electric heaters claim to have a thermostat, but if a person does not know what it's set at, they tend to put it either too high or too low. We found that thermostats showing actual degrees Fahrenheit allow maintenance personnel the confidence to set the thermostat at a low temperature, rather than play it safe at a midrange temperature.

Lastly, we are always on the lookout for rebates and incentives. Programs like Mass Save have helped us with improvements to our building envelopes through insulation and air sealing, as well as incentive for lighting and heating equipment upgrades. That's it.

Josh Geyer: All right. Thank you so much, Jonathan. Our next goal achiever is Preservation of Affordable Housing, or POAH, who reached 20 percent savings across his portfolio of over 11,000 multifamily housing units in 11 states and the District of Columbia. The efforts were led by Julie Klump, POAH's vice president of design and technical services. Welcome, Julie.

Julie Klump: Hi, everyone. Thanks for being here. I have to admit, I was a bit skeptical when we made this commitment. Not because we were not actively pursuing energy efficiency, water efficiency, and the occasional new construction project that we could really hammer home energy efficiency. But we made a commitment of 6,000,000 sq. ft. and I'm not even sure how many square feet we have now. But the portfolio is growing.

So, we would make a lot of efficiencies to our own portfolio, and then acquisitions team, development team would add some dogs, and we would have to start all over with those. So, it was a real challenge, but I guess my point is, eventually we got there. We got there with our development team. The sites indulge us with our energy-efficient upgrades.

When I started at POAH, I soon realized that lenders wanted kitchens and baths, and not enclosure upgrades. I finally don't have to say as much, we can't do enclosure upgrades on turns, and we're really able to tackle enclosure upgrades, renewable energy, and any kind of heating and cooling upgrades to get us there. Next slide, please.

How can you affect what you can't measure? Early on, POAH decided to, because of the number of units, use a third party software platform company that would collect all our utility bills, create an accounting file, and have that sent to our accounting offices in Kansas City. We used that raw data in other platforms that helped us with normalization. You can see in the slide, there's a lot of overlapped platforms, visible ENGIE’s in the back, that's our accounting software, and obviously in the front is portfolio manager. Next slide, please.

Two or three times a year, we take the data and we run what we call our priority list. What it does is for every system, water, fossil fuel, electricity, we run a priority. We run all our sites through this spreadsheet so we can see which sites have really come to the top and might need some special attention.

The image in the back is the overall. The image in the front is the zoom in. So, you can see the highlighted green. That's what we're sorting by. Then, in the measure notes on the side it's some of the efforts that we're taking on.

What we like to see is when we run this two or three times a year, that we like to see properties that have had work done start to fall on the priorities. Then obviously, there'll be some new ones. It's really highlighted for us boiler control issues that we needed to address. Maybe some resident education. It also focuses our attention for utility incentives that we like to chase. Next slide.

Then, one thing that we started doing with the data post-rehab is that we like to look at what measures were completed and what the savings was. This tool has been a fantastic effort for our development team because they can really see what worked. It informs their pursuit of the next project in terms of what efforts they might take on. We also do this for more discrete energy or water projects, and share those with the sites so they can see that indulging us can really lower their operating cost. Next slide, please.

As a way to empower our site staff and inform our outside consultants, designers, architects, engineers, we created a web-based platform that's available to anybody. It's basically systems and materials standards that we want everybody to use as a baseline for POAH projects. Next slide.

With standards for systems and materials, we can attempt consistency and quality for long-term stewardship. It saves a lot of time for our site staff because they don't have to look at ten different bath fans, they can just pick the one we want them to use. It highlights training opportunities for us for our site staff. There's cost savings because of a potential bulk purchase. These are some of the sections that affect energy that I'm highlighting on this slide. Next slide.

This has been a real collaboration. We couldn't have done it without ICF, especially a shout-out to David Ruggiero for helping us really understand how to use our data. Our fellow developers who motivated us; they know who they are. And our development team and site staff. Thank you.

Josh Geyer: Thank you, Julie. Again, congratulations.

Finally, we want to celebrate the achievements of our fourth goal achiever today, Mercy Housing, which has achieved 24 percent energy savings across 23,000 housing units nationwide. This remarkable effort is led by Caitlin Rood, Mercy's national environmental sustainability director. Welcome, Caitlin.

Caitlin Rood: Thank you, Josh. Thanks everyone for being here. Mercy Housing is one of the largest affordable housing nonprofits in the United States. We have a commitment of about 21,000,000 sq. ft. of properties that we own across the country.

When we embarked upon this, as Julie mentioned, there was skepticism in our organization and our leadership with this feeling that can we really achieve this goal? We decided to proceed with that the best of intentions, but a lot of question marks about would we ever achieve this high goal. So, we're really excited about this moment.

I've kept my remarks really high level, and I think later in the summer – you can go to the next slide, Becca – that the Better Buildings program is gonna have other meetings to dive in a little bit more, so you can learn more about some of the things that we've been doing. Because we're all going over quite a lot in a very short amount of time.

I have boiled down what I think are the elements to success for Mercy Housing into four primary areas, those being benchmarking, staff, and meditation measures, and partners. Starting with benchmarking, of course we have to measure the progress in order to do the Better Buildings Challenge in the first place. So, it's baked into the process. But along the way, benchmarking ordinances have come along. So, we were all set up for complying with those national benchmarking ordinances with our data being in here.

Then, something else about behavior change that is notable is that when there's a scoreboard, people play differently. There's an element to that about competition that is meaningful to people, and you can find that in your properties when you compete properties against properties. It has something to do with social norming.

That would be something that we're all very familiar with right now because a few months ago, nobody was wearing masks, even though in other parts of the world, it was very common for people to wear masks during times of illness. All of a sudden in this country, it has changed, and that's because of the social norm. That really relates back to the benchmarking, for me. That's the first step, and a really important step, of course, of achieving this.

The next one I want to highlight is that this only works if this is someone or someone's responsibility. At Mercy Housing, we have a team of three members. It has grown to that size over the past seven years. We're all dedicated to the responsibility for implementation of efficiency across our portfolio and to note that it doesn't work if you count on people to do it within their jobs.

But, you need all of those people to have your achievements. You need the residents, and the maintenance managers, and the property managers, and the asset managers, and your internal and external partners. They're all necessary, but you also have to have dedicated staff.

Next, on implementation, we tapped into a number of processes to get to implementation. We would start with pilot projects and show success within the organization, and then build on those successes to move to large-scale implementation. We took a perspective that within a property, you had to look at the whole property and when it's within a portfolio, you had to look at the whole portfolio, and use different wins in different areas to build upon one another. We did this in existing properties, in new construction, in rehabilitation, and all across the map.

Then, we used partners for implementation because different people have different skills, and we couldn't do all of it. We couldn't bring the money, and the expertise, and write the scopes, and collect the bills, and deal with the rebate programs, and everything else that was required. Then, we found different financing partners because very commonly, we didn't have the money to achieve these projects without other partnerships.

One of which that was very important was Affordable Community Energy Services Company. We'll be diving into the barriers and more of this in a roundtable in the Multifamily Efficiency Financing Roundtable on Wednesday at 11:00 Eastern. But we use these partners to help us bring money to help get to our goals. Next slide.

Through all that, we were able to leverage $6.3 million in rebates over the course of the past several years. Through 2019, we had $3 million in savings and that was just among about half of our projects that we were able to actually measure through our benchmarking service. We've implemented more than 240 projects. We've seen a 30 percent water decrease and a 24 percent EUI reduction.

All of this is thanks to our many, many, many internal and external partners. It was a true collaboration and a massive effort, and we're proud to be sitting here today. Thank you.

Leslie Zarker: Thank you so much, Caitlin. Thanks to all of our goal achievers this year, not just for your energy savings achievement, of course, but also for your leadership in the sector.

We are now gonna take questions from all of you, the attendees, for the goal achiever panelists. Please go ahead and enter your questions into the chat box. We'll get to as many of them as we can. The first question I have is for any of the goal achievers. How did you get tenant buy-in for energy reduction? For example, community room, workshops, maybe you held competitions amongst your tenants? Any tips for success there?

Caitlin, do you want to grab that one first? I put you on the spot. I can also ask Julie.

Caitlin Rood: I think tenant buy-in is a really hard one. What I always point back to is what I was talking about with regard to the social norming, that when people believe that this is something that their society expects of them, that's when they start to make changes in their behavior. That's the mask example that I just gave.

Normally, I give a different example of hotels that tried three things. One, if you don't wash your towels every day, it'll save the environment, two, it'll save money, and three, the third message was most people who stay in this hotel don't wash their towels every day. By far, message number three was the reason that caused the most people not to request their towels to be washed every day.

When you think that this is what society expects you to do, that's when you start changing your behavior. One way to achieve that is by competition. You can compete properties again properties, floors against floors, regions against region. Something that you can do to create a sense that this is what as expected of you. Also, people are competitive.

Leslie Zarker: Thank you. Thank you so much. Yeah, and there's lots of cheering going on in the chat box for what you're saying here, Caitlin. And to Dick, Julie and Jonathan, as well for all of your great work. Just wanted to let you know that.

I have another question, again, for any of you, but also maybe for Dick. We were curious to know how long it took to secure financing for your renovations. For some of you with large portfolios, maybe you could give us an average of how long it took to secure financing for your projects. Then Dick, for your financing or grants, how long did it take you?

Richard Mayfield: Hi, this is Dick. In the beginning, mostly we worked off of VIN grants, the energy conservation that the state was doing back in the early '90s was weatherization. The Energy Outreach Colorado, we were familiar with that when the DOE came to Denver. I think that the time maybe that BBC was starting, our governor at the time was Governor Ritter, and I went to a conference and learned about BBC. So, we started in that effort.

Then, out of Energy Outreach Colorado, after an audit, we were awarded a grant to replace all of our furnaces. It was 108 units of all 96 percent efficient furnaces. We've also used one particularly, through our bank we had a long track record of really successful audits.

I learned many years ago about a program called CRA, which would be Community Reinvestment Act. It's kind of like radio stations have to do PSA, the banks are required to do some community good. I think they used to do art exhibits and coffee cups. Later on over the years, they wanted to be more involved in affordable housing or something.

So, I just made an inquiry of our bank and boy, they jumped on it. They're unsecured loans; we couldn't burden the property with a HUD loan. So, they were unsecured, and off we went. For five years, we paid it out of our art as we went. We've done that three times. It's just been wonderful.

Leslie Zarker: That's great. Thank you so much. Anyone else want to answer about on average, how long it takes for you to secure financing?

Julie Klump: This is Julie. I guess it depends. If we're using utility incentives, that can happen what I consider pretty quickly. A lot of our efforts are funded through tax credit projects that we do. So, obviously that's a finance closing process, which takes a long time. But to the extent we can get our energy efficiency dollars into the project, that creates spaces for those projects and allows us to do some good work during rehabs.

Leslie Zarker: Got it. There's a question for Jonathan here. Since you deal with affordable and market rate housing, how do you see the interest of both segments in energy efficiency?

Jonathan Owens: I'd say they're pretty much the same. I'd say the difference really is by age group. It seems like the older communities are a lot more interested in saving energy. You leave the light on because you want the place to look lived in when you're giving a tour, and one of the senior residents will walk by and shut the light off. So really, it depends on the demographics of the community more so than whether it's affordable or market rate.

Leslie Zarker: Great.

Josh Geyer: I'm gonna call out the next question. This one is for Caitlin. What share of the rebates were for tenant-paid utilities, if any? If so, did they impact your utility allowance calculations, or did you get rebates for common area utilities? You can just take whatever part of that you want to...

Caitlin Rood: I didn't track the difference between whether it went to a common area or residence, but we definitely got rebates for both sides. When we were implementing efficiency for the residents in an existing portfolio situation, not in a rehab situation. Because of the obvious split incentive, we didn't have the ability to invest in efficiency for our residents because we don't have the payback. Any time we did anything in the residential units, it was 100 percent paid for by some form of free money, usually a utility rebate.

Whether or not that came out in the utility allowance depended on in its cycle, if they looked at the exact building and did a comparison to the region, or if they just took the PHA number. But I've never personally been involved in a scenario where we implemented efficiency and then we tied that directly to a utility allowance adjustment. Although it's certainly been a thought that we've had throughout the years.

Julie Klump: I'd just like to also throw in, 'cause I think this is a really big deal because if we're gonna replace cladding on a building, we're gonna add insulation and a rain screen, and make it as airtight as we can possibly do. If the residents are paying heating in that situation, which we have that project, the utilities are gonna go way down. We have data to show that. It's 35 percent down. But the utility allowances can't be changed by any more than ten percent or some small amount of money every three years.

So, it's a real... Despite, or even with the split incentive, any opportunity for us to really affect the utility allowance is something that we should really try to figure out because it sure incentivizes us to do things that reduce... We're never gonna see the money, but at least we wouldn't walk away from doing projects that improve the residents' bill and ultimately HUD's bill.

Josh Geyer: Great. All right. Our last question for this segment is going to be the following. There's a 20 percent portfolio-wide target for savings. The questioner is asking what average savings was achieved in each building that was modified, and what percent of the buildings did you need to retrofit? Really good question. This is for any of the goal achievers.

Leslie Zarker: That's a hard one.

Julie Klump: That's a hard one because the list of buildings is, and we had some that had huge savings and we had some that had very small amount of savings. Some buildings, we weren't able to make any sort of upgrades that would have affected energy or water. So, it's a hard question. It can be answered if we had a little time to go through the report and average what the savings were. I don't have it right now.

Josh Geyer: I can imagine that's a very difficult question. Also, I think it's key to understanding how, going forward, folks are actually achieving what they're achieving because I think that there's a lot of different paths and maybe people are taking all of them. It's something that I'm interested in looking at going forward.

Leslie, you want to go ahead with the next piece?

Leslie Zarker: Yeah, let's do that. Thanks, Josh. Thank everyone for your questions for the goal achievers. We're gonna be turning now to our first breakout room discussion. We look forward to hearing from all of you, and in the breakouts, you'll be able to take yourselves off mute.

Josh, can you give us a bit of context for the first question we'll be discussing in the breakout?

Josh Geyer: Sure. We know that financing green measures is a perpetual issue for multifamily property owners for a variety of reasons, and doubly so for many owners of affordable properties due to regulatory barriers and double-split incentives. At the same time, money is as cheap as it's ever been, while technological and financial innovations continue to produce more ways to invest in efficiency.

The questions we've been trying to answer are to the extent that financing challenges can be separated from challenges with data collection, commissioning, design, tenant behavior, et cetera, what are the pertinent financial gaps? Why do they persist? What can we do about them in the context of the BBC?

We'll be discussing this more during a financing roundtable session on Wednesday, as Caitlin mentioned, and we hope you can join us. But we're taking this opportunity today to get a rough idea as to whether we're covering all of our bases.

Leslie Zarker: Perfect. Thanks, Josh. Let's go back to see the rules of the road for these breakout rooms. In a moment, you'll find yourself with a group of six or seven people. We ask that one person in the group volunteered to take the lead and kick off the conversation. That would be super helpful. We also ask for another person to volunteer to be the notetaker for your discussion.

Later on, when we get back together as a large group here, we'll be asking all of you notetakers to distill those notes down to their essence, to the top three or four points that your group made in your discussion, and to write those three or four points into the chat box so that Josh and I can call them out.

When you get into your groups, you'll have a quick round of introductions. Maybe just your name and your organization for brevity's sake. We'll have about ten minutes in the breakout rooms, and then we'll all come back together and rejoin the main meeting. Our panelists will discuss the barriers and the solutions that we're gonna bring up onto the screen in just a moment. I know it may be a little haphazard, a little messy; that's okay. If you have problems, please do reach out to the host in the checkbox and we'll try our best to help you.

Let's move onto the questions, Becca. Here are our questions today. The first question is, what are your biggest barriers to funding energy efficiency retrofit projects? Barriers such as access to capital, cost of capital, HUD-funded program requirements maybe, or third-party funding complexities. The second question is what financial mechanisms have you tried? What has succeeded? What has failed? Finally, what solutions do you suggest to overcome financing barriers?

Let's go ahead and break out. We're gonna paste these questions into the chat box. Thank you, Becca; they're already there. You will see these questions in your breakout rooms, so don't worry that they're not there. Just go ahead and enjoy your discussion. Thank you so much.

Welcome back, everyone.

Richard Maxfield: A lot of red Xs. Okay.

Leslie Zarker: If you are not on mute now, I'm gonna ask you to put yourself back on mute. Welcome back. I hope you all had a good discussion. We are gonna move now to trying to hear a little bit about that discussion, to the best of our ability. I'm gonna ask notetakers if you could look at your notes, distill them down, boil them down to the top three or four points that your group made. It doesn't have to be perfect. Don't worry if you don't capture everything. Just do the best that you can.

Josh and I are gonna call these out as you write them into the chat box. But first, let me ask Caitlin and Julie if one of you could give us a high-level overview of your group's discussion?

Julie Klump: Yeah, I'm happy to go first. Interestingly our session, some people had some audio issues and a couple other people never got off the mute button. I got the benefit of having Rachel from Fannie Mae and Manzie from DCSEU. They explained what their programs, how they worked in terms of educating lenders about helping us overcome barriers to financing. So, we talked a lot about the mortgage side of things and how you see programs always fill in the gap.

Leslie Zarker: Great, thanks. How about you, Caitlin? Were you guys able to have a discussion?

Caitlin Rood: We were. We had a nice discussion, albeit brief. It was nice that we had some perspective not just from my side of the fence, but lenders side of the fence, or people that are helping get money from lenders. They had experienced lots of different groups trying to get money for their measures, and saying that after you've gotten all the free money that you can, that people feel that they don't know or understand where they're gonna get the rest of their money from.

Or, borrower inaction in that they're very busy people and the primary reason that they don't move forward is that it's so complicated and there's so many moving parts, and there's so many things to know and understand, that they just never do anything.

Then, something else higher priority comes up, and then they focus on that instead.

One of the solutions to that that we've seen across the country is when we make it a responsibility of the service provider to help bring the funding to the deal, or orchestrate that process of the funding so that that burden isn't on the Mercy Housing, and the owners, and that sort of thing, which I think is really important.

We also talked about loans being secured on equipment, which I think is important, and that when we can find opportunities for someone else to take the capital burden and bring an ESCO or an ESCO-type model, where we pay from savings over time, that that's very helpful.

Leslie Zarker: Definitely. I'm gonna call out a few of these notes. Thank you all, to those of you who are taking the notes and putting them into the chat box. From Neil Paradise here, his group talked about the barriers of the split incentive problem, of course. Difficulty of adding on financing to complicated capital stacks. Then, difficulty of getting partners to understand how paid from savings financing works.

Some of the financial mechanisms that your group tried was 100 percent incentives for tenant paid measures, big rehab opportunities, getting energy efficiency underwritten and into loans. Then, green financing has been a big draw, especially Fannie Mae's financing.

Let's see, Josh, are you seeing some comments that jump out at you?

Josh Geyer: I'll say from my room, which included one of Julie's colleagues, he was talking about a lot of internal barriers. No, not barriers. Over and above or in addition to all of these issues of complexity and accessing capital, you're competing... I know some of what this is like when you're internal of HUD. You're always competing with multiple other groups for a limited pot of funding.

So, you need to make sure that your proposal for whatever you're gonna fund in terms of energy and water conservation is gonna look like the best possible investment for your organization relative to all of the other possible priorities. You need to make sure that energy can be a top priority, it is not just relegated because it's challenging. So, making sure to say that the energy investments have multiple benefits across a number of different domains, including tenant health and comfort for instance, and including decreasing O&M over time, that sort of thing

Leslie Zarker: Got it. Thanks. I've got a comment here from Tawe at SAHF. Barriers you guys discussed included finding additional funding to do deep retrofits during major rehabs. Of course, new construction. Another barrier is just meeting local green building codes. Then, how to apply Mercy's ACEE model, EPC model, to other HUD-assisted properties.

I just want to give a shout-out that on Wednesday during our financing roundtable for affordable housing, we're going to be discussing that ACE model that Mercy has worked with in much more detail. So, everybody come to Wednesday's financing roundtable session for the multifamily sector, and we'll hear more about that.

Another group talked about access to capital seems to be the biggest barrier. For some, affordable housing operators, access to a revolving loan fund to make improvements outside of the typical funding cycles might help more action for cost-effective opportunities. Thank you guys for these comments.

We only have a few minutes left, so I think what I'm gonna do is first of all, I want to ask the notetakers for one more favor. We're going to be pasting a link to a Google doc into the chat box right now – it might already be there – in just a second. We're asking that if you could click on the link now. Whenever you have time today, paste your full notes into the Google doc.

We'd love to see everyone's feedback and think about how to incorporate that feedback into the program in terms of TA, in terms of training, in terms of webinars that we do, things like that. If you could click on the link in the chat box to the Google doc, and then paste your full notes into that doc at some point, we'd appreciate it. Thank you.

Now, we are not going to be getting to the second breakout today. We are running out of time. That topic was going to be about integrating healthy housing measures into your energy efficiency retrofits when you're doing energy efficiency work. But we are gonna be doing an entire webinar on that topic, led by Michael Freedburg, senior advisor to the multifamily sector of the Better Buildings Challenge. We'll be doing a webinar in July that we had planned as a summit session at the full face-to-face summit, but now we're gonna be doing the webinar in July. So, look out for communications about that webinar, please.

Just the slide on the screen here. We would like to invite you to attend our summer series, our summer webinar series, starting in July. We'll be discussing some of the most pressing topics partners are facing, and sharing best practices and innovative new ways to approach sustainability and energy performance. To register for the summer series, just go to the Better Buildings Solutions Center and click on the 2019-2020 webinar series.

With that, I'd like to thank everyone, first of all our panelists, so much for being here with us today. Also, a big thank you to our Zoom hosts, Becca Curry and Marissa Shatz. Thank you guys for supporting us so well today. To you attendees, if you have follow-up questions, please do reach out to our panelists. Their contact information is up on the screen.

Before we go, we're going to play a short video on the Better Buildings Solutions Center and all of the resources available for you to take advantage of there. Have a look at that. Thank you so much for being here today.

[video plays]

Leslie Zarker: That concludes our session today. Take care, everyone. Bye bye.

[End of Audio]