



Final Transcript

HUD-US DEPT OF HOUSING & URBAN DEVELOPMENT: Predicting Energy Costs Accurately

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SPEAKERS

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PRESENTATION

Moderator Ladies and gentlemen, thank you for standing by. Welcome to the Home Energy Score and Predicting Energy Costs Accurately conference call. At this time, all participants are in a listen-only mode. Later, we will conduct a question and answer session. Instructions will be given at that time.

[Operator instructions.] As a reminder, this conference is being recorded.

I would now like to turn the conference over to our host, Virginia Holman.

Please go ahead.

Virginia

Thank you, and welcome to today's webinar that's hosted by the Office of Housing Counseling and presented by the Department of Energy. I'm going to give you some very important information that will help your clients save money on their energy bills. Before we get started, I wanted to go over some logistics.

As the operator said, the audio is being recorded. We're going to provide the playback number along with a PowerPoint and a transcript probably in about four or five days, and those will be posted in the archive section on the OHC page on HUD Exchange. We'll also send out a Listserv that tells you when that posting has happened. All your lines are also muted. I did send out handouts this morning, but they're also available for download on the control panel on the right-hand side of your screen under handouts.

We are going to have a short polling question. So please respond to it, because the people from DOE really want to understand who you are. We may have live questions, but at this point, we're not planning on it, but you know how things change. Your questions are really very important to us, so there are a couple other ways that you can ask the questions. Again, on the control panel on the right-hand side of your screen there's a box labeled questions. If you just write your question in there, we have staff

that are monitoring those questions, and we'll get back to you as part of the presentation. If after the webinar is over and you think of a question or a comment, please send it to our mailbox at housing.counseling@hud.gov and just put "energy rating" as the topic in the subject line. We'll get it back to these folks at DOE so they can help us answer your question. Should we open the lines, please mute your phones so we don't have a lot of background noise.

There's going to be a brief survey at the end of the session, if you would just take a few minutes and fill that out. Your responses are really important to us as we continue to improve our presentations and our webinars. You will also be getting, within 24 to 48 hours, an email from GoToWebinar, and the email is going to say this is your certificate of training. Please note that there is no attachment, it is just that email. So print that out and save it for your records so you have that record of attendance.

At this point, I'm going to turn it over to Joan Glickman at DOE, who is the Home Energy Score Program Manager, to start the presentation.

Joan

Thank you so much, Virginia. We really appreciate your invitation to speak today. As Virginia said, we're going to do a quick poll to ask you what kind of organization you're with, because I know it went out to a lot of different kinds of people, and I want to make sure that we try to address your interests as much as possible.

While you're answering this question, who's in the audience, I'm just going to mention a couple other things which is that as Virginia said, we're really happy to take questions. If you type them into the chat box, we've divided up the presentation into four different parts. We'll take questions after each part to break it up a little bit, because I know 90 minutes is kind of a long time to sit here and listen to me, which is why we also have broken it up in terms of who's presenting.

Today, I'm going to be presenting. As Virginia said, I'm Joan Glickman with the Department of Energy. I manage the Home Energy Score Program as well as we have some accelerators. There's one called the Home Energy Information Accelerator, which is a partnership between real estate entities and efficiency groups. With me are members of our team. Madeline Salzman is an ORISE Fellow here at DOE. Maddie Kohler is with CSRA and works a lot in the real estate side and in other

areas of outreach. Glenn Dickey, he's our technical lead, and we might have him do a presentation at the end, like a demo depending on level of interest and also your areas of interest in particular and timing.

With that, I guess I will get started. Did people, maybe Maddie, you can tell me if people wrote in.

Maddie

Yes. I can tell you the results of the poll. So 5% of people said that they were energy efficiency program implementers, 74% said housing counselors, 11% said housing program implementer other than a counselor, and 11% said other.

Joan

Okay. Great. So I'm guessing that the folks who said they're energy efficiency groups are actually our partners with the Home Energy Score Program, and we appreciate you being on the call. The reason we invited our partners to call in, I'm sure it's all of them but a few have called in today, because they're really some of the groups that it would be great for housing counseling groups to work with in the field, particularly obviously if they're in your area. So, we have a map of those later in the presentation, and of course you can get in touch with us or go to our website to find out if there is a partner specifically in your area. Even if

there isn't a partner in your area, you can still make use of the information we're giving you today because it's a national program.

What we're going to talk about today is why we think your homebuyers and homeowners should care about energy efficiency. I'm sure you already are aware of some of that, but we're going to state the value proposition one more time here and hopefully bring up some things that you might not have thought of or might not know of specifically and then, focus a lot of the conversation today on Home Energy Score, which is a rating program that the Department of Energy developed with some of our national laboratories about eight years ago. With that, I'm going to advance to the next slide.

Again, value of home energy efficiency, the basics of the score, how to get one, and then also some additional resources because we know that you're going to be telling homeowners and buyers not just about the home energy score. We want to make sure we can direct you to other resources that might be helpful to you as well.

Thinking about the value of energy efficiency, well we all know that obviously energy efficiency is basically getting you to use energy more

effectively in your house or in other places, and therefore, it can help reduce your costs. I think that most people don't realize that on average, energy costs for a homeowner are actually higher than what they pay in either property tax or insurance or property insurance I should say.

Now, that's not going to be true, obviously, it's just an average everywhere. Some places have really high property tax rates or other insurance issues that they're dealing with, but that's still pretty remarkable that paying about \$2,000 or \$2,200 a year in energy costs is actually higher than what people are already thinking about when they buy a house which is property tax and insurance. We all think of that as part of our mortgage, but people rarely consider the fact that they're going to have this monthly cost that's pretty unavoidable, except if you're willing to make some investments to improve the home.

Efficiency investments can not only reduce your cost but can also just make it easier to have a stable bill that's coming year round, so you're not just kicked with a huge bill in the summer if you have extreme heat—not that it will completely help you avoid that, but if you have a tight home, an efficient home, one that's not leaking cooling and heating out to the outdoors, you're obviously going to be having a much more stable

environment if you do experience extreme weather events like really cold fronts or hot fronts.

We have also found and there's research that shows that investing in energy efficiency is actually a really smart investment, not just because it's going to save you money right now, but because it actually gets a pretty good high rate of return. If people are aware of what's been done in the house, a remodeling report that was done by the National Association of Remodelers along with the National Association of Realtors found that home improvement projects found that attic insulation had the highest rate of return of all. They also are among the cheapest upgrades. That's not to say that every energy efficiency upgrade is cheap, but some of them can really pay off in a very short period of time.

Energy investments can be extremely lucrative in terms of giving you a payback on your investment if people are aware of what's happened in the house. There's a lot of studies around the country that show that if you have a green home or an energy efficient home, whether it's new or old, if you've made the improvements, that those homes can sell faster and for more money. Again, you can't generalize entirely, but if you look at these studies that have been done across the country and you can see that they

are pretty well spread out, and this is just a few of many that have been done, you can find that people are finding somewhere between a 2% and a 6% premium on the sales price where you have highly efficient homes.

They've also found that not only do you have that premium, but as I said, you can sell homes much more quickly if you either have improved the home or even if you're just making that information available. So Chicago did a study where they looked at if you gave people information about the former utility bills in the house, those that showed the utility bills sold about a month and a half faster than those that didn't. I think it was one and a half, I guess they call it terms or whatever. Even if there were higher costs, it's just the fact that it was giving people some certainty that they didn't feel like they had when that information was not available.

In addition to being a smart investment and helping save money, energy efficiency if done properly, can really just improve how much you enjoy your home. It can certainly make it more comfortable. There was another study that, the same study actually, the National Association of Remodelers did, found that they did this interesting metric that they came up with which was a joy factor, that was their term. They found that the things that really paid off for people, not just in terms of rate of return in

your investment but in terms of joy were things that made the home more comfortable like attic insulation. So people really enjoyed it while they were living there and then also were able to find value in that investment when they went to sell.

You hear people frequently say, you know, I don't know, I'm going to make an investment in my kitchen, because I'm going to be able to enjoy it and then also I'm going to make this money back when I sell, which can be the case and cannot be the case depending on where you live and what you've invested in. But, frequently people are sort of saying well, energy efficiency I'm not sure how long I'm going to be in the house, and it's a pain, and I don't want to deal with it, and I'm not going to make my money back. Well, that's true if you don't make people aware of the fact that you've made those improvements. If you do, you certainly can very much make some of that money back or all of it back, particularly in certain markets.

We've also found that energy efficient homes, and there's much more research that's coming out to show that this can really make a big difference in terms of air quality and therefore, really reduce some of the difficulties that people have in homes that are either fraught with mold or

are too tight and don't have good circulation, etc. Asthma, hypertension, allergies have all been shown to be able to reduce that if you fix the home properly and benefit not just from the savings but from these other things that people value.

People want to feel comfortable. They want to feel good about it. This obviously is not the most efficient way to heat your home, but it does make people feel, it's sort of a warm, good feeling. People don't see that because efficiency is something that's just kind of invisible. You can control how your home uses energy, it's not just something you turn the thermostat on and give up any control. If you make the decisions about how the home is built or how it's been renovated and what kind of equipment you're using, you really can enjoy your home much more easily, save money, and also give you piece of mind with a consistent bill across the year or more consistent than you would have if you have a really leaky house.

Then, although, maybe when you're buying a home you're not thinking about this, people really do like to make a difference. As we're seeing with more and more difficult events that are affecting I'm sure the buyers and homeowners that you deal with—in fact, I was talking to Virginia

about this before the call, dealing with massive disasters like Harvey and other things that have affected this country this year and in the past, and those events are not going away. So people do want to make a difference, but if you say hey, would you like to do something about climate change and they say yes, but they say do you know how to do it, people will tell you no, we have no idea how to do it.

Well, there are ways you can do it. You can make a personal difference by making choices. The main ways that an individual can make a difference is where they live and how they decide to get around in a vehicle choice and whether or not they use public transportation or walk, etc. Residential buildings, homes around this country use 21% of our energy for the country. Most people feel like you could easily save a quarter of that if not 50% or more if we made investments in energy efficiency as well as move to use of solar where it makes sense.

We also, although one individual can't make this difference, just like one individual can't make a singular difference, obviously we all have to work together, but everybody can make some difference on climate change and also on electricity grid stability, because we all have had, I'm sure, some instance where we've lost our power, it's a hassle. I've lost it for a week

during times that were really terrible with storms, but people also lose it just because it's too hot in the summer. I know there have been deaths and all sorts of things have happened where you have a tremendous load, but if you have a more efficient building, you're obviously not going to need as much electricity to get you to a comfortable state, and therefore, you can mitigate the risk of outages that we've all experienced over time.

I think that might be my last slide on the value of energy efficiency so kind of making the case why people should care about it. Next, we're going to talk about the score, but before we do and I pass it on to Maddie Salzman, are there any questions that have come up?

Maddie

I was going to say we did get a few, and they are mostly on things that we will be covering shortly. So I'll leave those for the end just in case we forget to cover something. Then, I did see a comment saying that the slides aren't the same as what you guys may have received before. They are slightly different. We've updated the slides since they went around. So, the ones that Joan are going over are the most recent ones, and they should be seen on your screen.

Joan

Thank you, Maddie. I should have mentioned that at the beginning. I apologize. We sent Virginia a draft, and then we realized that it was 90 minutes and not an hour, so we added some more information. What you have is still accurate, but it's just not as extensive as what we're showing today. Virginia said that the final presentation is what will be going up on the website, and if there's some way for us to get that to you sooner, we're happy to send it out. There's an email at the end where you can send us a note if you'd like to receive it sooner than just getting it downloaded from the website. So, I apologize for that. I hope you guys can see the slides that we're showing right now.

If there aren't any other questions or we're going to answer those later, please continue to send them in, I will pass it on to Maddie, who's going to tell you a little bit about how the Home Energy Score can help you figure out how to make your home more efficient.

Maddie S.

Thanks, Joan. This is Maddie Salzman. I'm a fellow at the Department of Energy, as Joan mentioned earlier. Joan kind of set up the overall value of efficiency and why we think that this is something important, not only for DOE to work on but that a lot of members of the US public would have interest in and particularly if they knew how to implement it in their own

lives. Next we'll go over how Home Energy Score can help connect the dots for people.

One thing that we find is that we know that energy information can be confusing. There are lots of different things available in the marketplace, different certifications and programs, and ways that you can categorize a home's performance. There are also lots of different energy features, not just a certification. You might get that certification for your high insulation value, or your heat pump, or your windows, or what have you.

We see the Home Energy Score as a way to help clarify this marketplace. It can be used in coordination with lots of other information. For anybody who would like more information, they can certainly still have access to that, but DOE wanted to enter the space and create a tool that could be used for any home in the existing market to help people understand it. To show how these things connect together, there are three different major types of home energy information that a homebuyer could gain access to when they're thinking about purchasing a home, or any homeowner could get to better understand the home that they live in. We've wanted to go over these three major types just to clarify how Home Energy Score fits into this space.

The first one on the list is green certification. These are homes that achieve standards of energy performance or have green features of some type in the home. Some things people might have heard of are zero energy ready homes, passive homes, LEAD certified homes, these types of programs.

The exact programs that are popular can vary by market. There are lots of things that might be popular in one part of the country and then another part of the country, and we're happy to help clarify after this call what things might be popular in your area. We compare all of them to items in the food industry just to make sure we're all on the same page about how these play in the marketplace. Green certifications are like getting a USDA organic sticker on your food. There are standards that have to be met, and then if those standards are met, then that item gets the sticker, and it's a sign to the market that it's performing well.

The second thing on the list, the second type of green verification to show energy information are energy labels. These are things that are applicable to any home and compare homes to an accepted standard. This is really where we see a product like Home Energy Score fitting in. We compare

this to the nutrition facts label. Any piece of food can get a nutrition facts label to better show in a standardized way what its contents are and what that means to people. We see the Home Energy Score as something that can function like this in the marketplace.

Then the last one are verified energy improvements. These are things that will show that a home has undergone certain upgrades, that we've improved the efficiency of our water heater, or we have new windows, something like that. It clarifies the differences that home has with homes that might seem comparable to the untrained eye. When the home appraiser comes through, they might think it's a very similar home to one in the neighborhood, but then they can see oh, it's different because it has these upgrades as well.

Comparing it to the food industry, we like to compare this to a reduced fat label. It shows that it's a new-and-improved version from a previous version of that house, but it doesn't necessarily show that it meets organic standards. It could, but it shows something a little different. As you can see on the bottom here, this information and lots more is available in a document called *The Home Energy Information Guide* that was put out by the Council of MLSs.

We worked in coordination with the Council of MLSs, the National Association of Realtors, and the Real Estate Standards Organization to put out this document to help clarify this information and improve clarity and consistency in the market and the real estate market across the board. We'll give you all links later in this presentation about this resource and other resources that might be helpful to people in your market and your community.

Really quick, I'm hoping this will work okay. We're going to show a video of Home Energy Scores—that's my email—and hopefully, you guys will be able to hear this okay.

[Video shown]

Cool. So hopefully that worked okay. I'll get back to the presentation. Yes, so that's a video that we put together a few months ago just because we really wanted to have an easy, short way for us to explain to consumers the value of Home Energy Score. If you want to share that with anybody, please feel free. It's available on YouTube.

To get into the meat and potatoes of it, Home Energy Score is like a miles per gallon rating for homes. In the way that cars get a fuel economy sticker that says how much energy that car is likely to use under standard driving conditions, the Home Energy Score gives very similar information about a home. It gives potential homebuyers information about a home's energy features and estimates the cost, and then it can also provide new homeowners guidance on energy improvements that can make homes more comfortable and less expensive.

For us, we really see the value in a few ways in the score. One, we tried really hard to make a tool that can be completed very quickly. It takes less than an hour in most homes, and it can also be provided as part of a larger home inspection. If that's the case, then it only requires about an extra 15 minutes of data collection in the home beyond what the home inspector was already going to do, and then it can just be a report provided at the time of the home inspection.

We also wanted to make sure it was something that was affordable, so provide all of the tools, and training, and resources on our website for free so that we can really help keep costs low. Of course, it is not a free resource in most markets in the country for homeowners to get, but we do

feel that it's the most affordable thing in the market to get a similar type of accurate energy assessment.

We also wanted to keep it really simple, so we'll go into a little more about what it looks like, but it places each home on a one to ten scale based on its energy use. We created it over years of robust testing and analysis, so we really feel it's a credible tool for homeowners to use. We also tried to provide it through various programs and software to make it fit well with home inspectors, or energy contractors, or nonprofits working in this space around the country. One thing that it is important for us to note, it is only applicable for single family homes and townhomes.

Mobile homes and stacked apartments are not able to be scored through the tool just because of the energy modeling going on in the background.

We tried to give the information in Home Energy Score to the audience in a really easy-to-understand way. The report, this is an example. The first page of the report shows you your score today. This house is scoring a three today, and also shows the score with improvements. We'll go into that in just a moment, but if the home were to undergo all of the recommendations that the report suggests, then that's the score it could have at that point. Like I said, this is the first page of the report, and it is

followed by five pages of home facts and cost-effective recommendations for energy efficiency improvements, so that like that nutrition facts label, people can really understand what the contents of the home are, and what's going into the score.

Overall, like we say, we try to keep the score really simple. The less energy a home is expected to use, then the higher its score. A score of one is considered to be a more inefficient home. If you were to compare it to a miles per gallon, it would be a car that has a really low miles per gallon rating, so a home that is expected to use more energy than 85% of US homes will score a one. By contrast, on the other end of the scale, a score of ten is a very efficient home, so a home that is expected to use less energy than 90% of US homes will score a ten. Then right in the middle is a five, or homes that use an average amount of energy compared to other US homes. The scale does adjust based on local weather conditions, so it's not like all homes in Alaska score really poorly, and all homes in really temperate climates score really well. It is adjusted for that local area so that it is more comparable across the country.

The score itself is based on a home's energy-related assets. That's the word we use to describe everything in the box of that Home Energy Use

Pyramid you can see on this slide. Everything from the number of stories, the local climate like I said, the age of the home, the size of the home are all building attributes. Those go into the score, the building envelope as well, the foundation, windows and skylights, insulation quality, attic and roof, and then the equipment—the heating, cooling, hot water equipment, and then the ducts that might be around the house.

The Home Energy Score does not include things like the electric load and the behavior of the residents. The reason for this is because we try to include things that are really going to convey with the home at time of sale. That way, if a house is either being occupied only half the year or less than that as a second home, all the way to a home that has eight people living in it, and they each have their own television set on all the time, things like that, we try to take that out of the equation. This really isn't a score for how well a resident is using their home, but how well that home performs as an entity of itself.

This really allows for an apples-to-apples comparison between homes. It doesn't matter if the home has been uninhabited recently or was recently built, or foreclosed, or anything like that. We can still compare the bones and structure of that house. We also feel that because of this, it's better at

predicting costs and bills of prior occupants, just because we're really looking at what the home is doing and taking out the variables of resident behavior.

As I mentioned before, the report comes with a last page of recommended improvements. These are divided into two sections. The first is repair now, so things that can be done relatively quickly; and then the replace later, so things that maybe you want to plan for, so that when your water heater breaks you know that you can improve the water heater of your house, or maybe you can start setting up a fund to be able to afford that. These are ones that the tool automatically has produced in this particular example score report. The way it does that is it will figure out the score for the house, and then it will run all of the improvements that are available within the tool, and any improvement that it models to pay back in ten years or less will be added to the list.

Sometimes we have home assessors that want to include their own recommendations, maybe because there's a local rebate that the tool does not know to take into account, or just some other reason they know the homeowner would really like that type of upgrade. They can include that as well, and then the upgrade score, or that score with improvements on

that first page will adjust to include to include or exclude whatever improvements are included on the last page. Yes, and they can also add comments to show more information to that homeowner about the recommendations coming from the assessor.

Okay, so that's the overview of the Home Energy Score tool itself. I'm happy to take any questions on that before passing it back over to Joan.

Maddie

We did get a comment from the audience. Somebody in the audience named Wendy said that she's interested in the link to the MLS from the Home Energy Score, so if there's anything you want to add to that, feel free.

Maddie S.

Yes, for sure. Joan mentioned at the very beginning that another program that she works on is called the Home Energy Information Accelerator. That's also a program that I work on, and that is really working to try to build out that connection really strong between Home Energy Score, as well as all the other energy information we mentioned, and the MLS. In particular, that *Home Energy Information Guide* I mentioned goes into a lot of detail about how to make that connection work, but Home Energy Score fits into the green fields that the Real Estate Standards Organization

has put together in that in order for an MLS to achieve silver certification and include green fields, they would have to have it set up in a way that would allow for Home Energy Score to be entered. We can talk about that offline for anybody who's interested after the fact, and I'm happy to chat more—you'll get my email at the end.

Joan Anything else, Maddie, Kay? Any other questions?

Maddie That's everything so far.

Joan Okay, great. I'll just add a comment to Maddie's response there. As I said, some of our partners are on the call today, and obviously a number are not, but a few of our partners are working to set up these clearinghouses of information; they're like centralized databases that pull together reliable information like the Home Energy Score, or HERS rating, or LEAD, or whatever into one common data building registry. Then what they're doing is trying to automate, so you can auto-populate the information into the multiple listing services.

The ones that are getting off the ground relatively soon are in the Northeast through the Northeast Energy Efficiency Partnership, and their

project is called HELIX. I can't remember what that stands for, but it's basically an exchange of information. Then there's one in Oregon, starting with the city of Portland, and I saw that Roger, from the state of Oregon is on the call. Then Build it Green in California is building a similar registry. There might be a couple others, but those are the main ones that we're working with right now.

Hopefully, it will get—I think the key is you want to be able to give your homebuyer or homeowner reliable information, not just something that someone pulled out of a hat. You really need to know that it came from a reliable source, and that's why we really encourage people to get the score, and there are other ways to address this as well, as Maddie said.

You don't want it just to be what the—not that you can't trust the seller, but you don't want it just to be a list of attributes that the seller says the house has, because it's very hard for anyone, even a professional to understand what all that stuff adds up to in terms of how the house is going to use energy. Let's say you have a really efficient heating system or cooling system, but your house has no insulation, or very little, or it's been installed poorly, it doesn't really matter in the end, it's just not going

to perform well, so that's what can be misleading if you don't look at the whole house.

Okay, so next slide, How to get a Home Energy Score. There are a few times, really you can get one any time, but the times that it probably makes the most sense are when you're buying. Home inspectors can do the score as part of home inspection, and I think Maddie might have mentioned it can add as little as 15 minutes to a home inspection because they're already collecting a lot of data that you need to score the house. They do have to be qualified assessors, which we require all of the folks that give a Home Energy Score go through our training and testing, and have to pass it before they can get access to the tool that scores homes.

You want that information when you're buying, but if you didn't get it when you're buying you can certainly do it after you've moved in, or lived in the house for a while to inform what kind of energy improvements you should make. What we found was that when people see a full score report versus just get someone to come in their house and chat with them or give them, change out some light bulbs, if you ask them afterwards, "What are the things you think you'd make investments in," the people who received a score report—at least in the study we did in Wisconsin—were much

better informed, so they picked things that actually were much more sensible for the home.

They would pick things like insulation or air sealing or duct sealing, as opposed to the things that just everybody might think of more commonly, like oh, I better get a more efficient heater. That's fine, it's good to get a more efficient furnace if that's what you need, but it's also good to, or it's even better if you look at the house as a whole unit, because that's the way it works. Then obviously, if you've made improvements to the house, and the folks you're working with have made these investments they should make sure that they showcase those investments when they're listing the home.

The other times that you'd really want to get a score to inform what you're doing is if you're renovating, if you're adding on to a home, as I think we talked about earlier, Virginia Holman mentioned that many of you are working with distressed communities and people who have either lost their homes, or homes have been damaged. Obviously, it would be a great time to get a score, or get a full energy audit, or other energy expertise if you're going in and rebuilding. Those are times that it makes a lot of sense, because it's a lot easier to make improvements when you're already

making the improvements, than to go back in and try to fix things after you've done it—not so well. There are things like even if you're adding new siding to the house, you'd want to do it—and this is where Glenn could pick up—you'd want to put in insulation, or I've forgotten what you put in there exactly, but basically you'd want to add stuff that would improve the functioning and the effectiveness in terms of energy use of that siding, not just put it on for ornamental purposes.

One of the other reasons to get a score is that more and more, we are coming up with ways that the financial markets can value energy efficiency. We saw at the beginning of the presentation I talked about how it's somewhat valued in the markets, and that there are a lot of studies that show that, but it has been hard to consistently value it, and that's because there's just not a score on every house, and there's not this information on every house.

That's why we worked really closely with FHA to come up with a policy that allows someone, if they get a score, to either use the score to already allow them to borrow more money and do a 2% stretch on a debt-to-income ratio for a borrower who's buying a home that's a six or better, because it's going to use less energy than an average home. As Maddie

said, five is average. Or, if you're willing to make improvements when you're buying or refinancing, you can also get qualify for that 2% stretch on your debt-to-income ratio if you show that you're making the improvements, and then they just have to be verified to get to a six or higher after you finance that.

Fannie Mae, about—I don't know, maybe close to two years ago I think—came out with a HomeStyle Energy Mortgage loan, which allows folks to finance up to 15% of the home value of the home after improvements and use that money to make improvements. It's still kind of a complicated system, and so we're working with them to improve the way that works. Then there are a lot of state and local options, some more than others obviously, but I know that Connecticut has a really good green bank, I think New York does as well, and then there are others around the country. Or there might be rebates through your state or utility that folks should find out about that they can use to make these improvements.

As I said, we're trying to work with Fannie and Freddie to make sure that not only are there policies and loan products that are out there, but that people are more ready to use them. Fannie Mae and Freddie Mac are under this—you guys are probably already familiar with this—but they're

under a regulation called duty to serve, which is calling on them to more actively and more effectively serve underserved markets, like low income affordable housing, manufactured housing, rural housing, I think those are the three areas.

They're planning pilots with us, certainly Fannie is, we're still in the process of talking to Freddie, but Fannie Mae and DOE are going to be working together to pilot test different loan products and different incentives that could be tied to Home Energy Score more readily, without having to go quite through so many hoops, because as I'm sure you all know, it's much easier to just go with the current system of lending and underwriting, and people are disinclined to try to do extra stuff. We have to make it basically streamline it into the mainstream products that people have, and that's just not out there yet. Even though the FHA 2% stretch is part of 203K and 203—I've forgotten the other 203 product, but—I think 203B, so it's mainstream in that sense, but it's not currently allowed under automatic underwriting; it's only allowed under manual underwriting.

Not to get into the gory details of all of this, but we basically need to make it a lot simpler, and we're really trying hard to do that. Part of making it simpler is making sure there's demand for these types of products, so

that's part of the reason we're really excited to talk to you, because you are a link to the consumers, who we really are not talking to directly.

If your folks that you're talking to want to get a Home Energy Score, how can they do that? Well, we have over 500 trained assessors who are qualified to provide the score. Some of them are home inspectors, some of them work for utilities, and we have outstanding partner organizations around the country. Everywhere that the green state is, there's somebody, at least one or more individuals available, and we'd like them all to be green, so we're trying hard to get people to sign up in other states, and more obviously, in the ones that already have it.

Here's a list of our partners by region. As you'll see, some of these are nonprofits, some of them are states, some of them are efficiency programs or utilities. We started off with utilities, and we have some outstanding partners all around the country. What they do is they integrate the Home Energy Score into some other offerings, whether it's their weatherization programs, or their Home Performance with Energy Star programs, or rebate programs, they choose how they want to do it. If they're already going into someone's house, it basically just makes sense to do it, because then you have a very systematic way of understanding the house, you get

good data, all of that. They have found it useful, and a useful way to communicate with their customers.

In the last two years we've been really focusing on trying to build up the home inspector market, and so we work with the American Society of Home Inspectors and the International Association of Certified Home Inspectors, and obviously both of them are nationwide, as is Building Performance Institute, which is an energy efficiency group of very qualified experts.

Any of those folks can also provide qualified assessors. They all go through our program regardless of which partner you're under. That's just the way we work, and you'll basically be getting the same product, whether you're getting it—a Home Energy Score directly from a utility or directly from a home inspector. Obviously the utility might be offering many other products, just like the home inspector's going to give you a full home inspection. It's not going to be—that just means that the Home Energy Score piece of it will be the same; it's consistent.

If you want to find an assessor you can go to our website and look up Find the Assessor, or just click on this link and put your zip code in there, and it

will list those partners that are in your city, or state, or whatever region you've selected. It will also list the specific inspectors.

Sometimes an assessor is not listed individually because the utility will be just wanting you to call them directly rather than list all of their different employees or contractors. So, you won't see a whole list, but you can just contact the utility in that case and they can help you out.

So, any questions now before we get to our last section of our presentation?

Maddie

No new questions.

Joan

Okay. Well, then with that, I'm going to pass it Maddie Kohler who's going to take to you about the fact that there are other resources out there as well, besides Home Energy Score. We really want you to focus on that, but we also realize that there's a lot of other information that we'd love for you to provide to make our homeowners more savvy. Okay, so, I'll pass it on to you.

Maddie

Thanks, Joan. Next slide, please. After the webinar today we want to give you guys some things you can take away if you're really excited, really jazzed about what we have to say so far. The first is if you're interested in sharing this information with homeowners, please use a training that we've prepared called Home Energy Score Educational Module Insert for First-Time Homebuyers. This is something that we've prepared that you guys can take and use. It's ten slides covering similar information to what we've talked about today.

It provides an overview of why energy efficiency is valuable and important, and it also includes specifics on Home Energy Score, the different details that Maddie and Joan went over about what the report means, and how to get one. This is available to all of you for free, so please download this presentation and share it with your clients whether you're working one-on-one, doing a workshop or a class. This is something that you can get through pretty easily and spread the good word about Home Energy Score.

In addition to that presentation, we also have many other tools available to help you train others on Home Energy Score and energy efficiency. Some of these we've covered already. The top, middle one that you see there is

what Maddie Salzman mentioned earlier, the Home Energy Information Guide. This is a tool that you can use if you're interested in connecting Home Energy Score information to your local MLS. This guide will explain how you can do that.

To the left of that one you'll see a training that we've put together for realtor associations. If you know any associations that should be interested in energy efficiency and Home Energy Score, in particular, you can take this presentation from our website and give it to them. Again, it's very similar to what we've covered today, the importance of energy efficiency and then it drills down to Home Energy Score, in particular.

On the bottom row there you'll see a training that we've put together for realtors again, but this one is for people who are interested in acquiring the green designation. That's a certain subsector of realtors that are particularly interested in energy efficiency. So, we've put together something that explains what the Home Energy Score is, just for their training.

Then also in the middle there, like Joan mentioned, home inspectors are really out there and doing this for us creating the scores, so we've created

something to explain to them the value-add to their business if they decide to offer the Home Energy Score. So, if you work with home inspectors or you refer your clients to home inspectors, this will be something that you might consider giving to them that explains how the Home Energy Score differentiates themselves from other home inspectors in their market, and all the tools and resources that are available to them if they do decide to offer the Home Energy Score.

Finally, on the right there, you'll see a tool for appraisers. This is the residential green and energy efficiency addendum. This is something that appraisers can use whenever they're writing their appraisals to document to green and energy efficient features of homes. So, if you know anyone in any of these realms, please feel free to pass along these resources to them. These are all available on our website for download.

In addition to everything I mentioned that was pretty specific to Home Energy Score, the Department of Energy had a lot of other resources on residential energy efficiency. So, the first one is actually a commercial program. If you know anybody who's working in the commercial field they may be interested in the Asset Score which is very similar to Home Energy Score in that it measure the assets of a building, but this program

is for commercial buildings. So, if you work in that space you might want to check out this program.

The next one on our list is the Energy Saver Guide. This is a program from the Department of Energy that's really targeted at homeowners, providing them tips and guidance on how to save energy in their houses.

The next one is Home Energy Score. That's us. Our website is there. That's where you can find all of our tools and resources.

The next one is Home Performance with Energy Star. So, this is a program that you can use if you're ready to make improvements on your house but you're not sure who to call or what to do. Home Performance with Energy Star is a program that includes an audit that might be a Home Energy Score, or something else, improvements, and then a test out, and there's also quality assurance associated with Home Performance Energy Star program.

So, this is a program for home improvement that is really focused on quality and trust. We offer all the steps I mentioned to ensure that all the improvements that are made are made to the highest quality possible and that the home is considered a system. You know, you're not just thinking

about making improvements piecemeal, but that you really consider the house as a whole system before you make improvements.

The next one on our list is Zero Energy Ready Homes. This is a program at the Department of Energy for builders. Builders have to meet certain rigorous standards to meet the Zero Energy Ready designation. So, if you work with people who are building new homes and are really passionate about energy efficiency, this might be somewhere you point them towards.

The next one on our list is something that Joan mentioned earlier. The DSIRE USA database. This is something that people can use to search for incentives and rebates by state. Finally, the last one on our list here is the Weatherization Assistance Program. This is a program that helps low-income households make energy efficiency improvements so that they can reduce their energy bills. Please check out all the links listed here so that you can learn more about these programs.

I mentioned the Energy Saver Guide. Here is an example of a tool that they put together. This is the tips on saving money and energy in your home. The link for this is at the bottom of the slide. As you can see, it's homeowner focused. It's very clear and simple instructions that any

homeowner could use to save energy. On the right side of the screen, a couple of example graphics that are in the guide.

Finally, just a further example of the tools that the Energy Saver Guide offers. Here are some examples of improvements that almost any home could implement, and it also includes several that are behavioral or require little effort from homeowners. So, maybe they're not ready to do a renovation of their house, but they could switch out their lightbulbs, or they could make some behavioral differences that will make an impact on their bill. So, if your clients are interested in something, maybe a first step before they're ready to make serious improvements, you can point them towards the Energy Saver Guide and it can give them some suggestions.

To recap my little section here, what can you do after the webinar today? Offer the training to your clients, to your first-time home buyers, connect to the Home Energy Score partners that Joan mentioned, learn about their programs, see what they have to offer, see the best way to make referrals to your local programs.

Next on the list is spread the word about Home Energy Score to your stakeholders. Use all the resources I mentioned to help us get the word

out about how important this tool is. Then, finally, let us know what you need to help spread the word. We're always open to editing our materials and creating new materials. Just let us know what you need, and we'll be happy to help you train others or just spread the word in general.

I think that's the end of my section. Yes, terrific.

Joan Great. That's excellent. Any more questions that have come in so far?

Maddie Yes. Let me—just a second here.

Joan Sorry, Maddie is the only one who can see the questions, so she has to do all the work there.

Maddie We did have a question if we have any of this available in Spanish.

Joan That's a really good question. The answer is no, but we do—there is a training that we had translated a long time ago. It's called The Building Service Professionals—Glenn, please correct me if that's wrong. We just say BSP. It's put out by the Building Performance Institute, and they have a training, it's more for the person who wants to go out and do scores or

do assessments of homes, and that I know is available in Spanish. It's BSP's training through BPI, the Building Performance Institute.

But, you raise a really good point and let me look into what we should have translated. That's a very—it's an excellent point and we just hadn't thought of it.

Maddie S. I know also, just one other thing, the Energy Saver Guide that we mentioned towards the end there, is also available for download in Spanish.

Joan Excellent.

Maddie S. So, those are the tips and stuff for homeowners.

Joan If there's specific resources that you see on our website that you think would be better in Spanish than others, let us know, or if there's other languages, I think Spanish is obviously easiest for us to deal with, but if there's—if you're working with communities that are—obviously, we can't cover every language, but languages that you find you come in contact with a lot, then we could try to do that.

Maddie We have another question that says, “It was stated that there was no method for scoring multi-family or manufactured homes. Is there any recommendations for improving the energy efficiency for these types of properties?”

Joan Some multi-family homes you can do with Home Energy Score, but it will do the whole building. So, if you have a duplex, you can do each side of the duplex, or townhomes, you can do those. But, if you have a—I think garden apartments can usually work too for the whole building. It just won’t do the individual apartment because it’s just, it’s too complicated to deal with the interior walls, exterior walls, all that stuff.

The Asset Score that Maddie Kohler I think mentioned is a tool that does multi-family buildings, but right now I believe it does only four stories and above. So, anyone can use that, you don’t actually have to be a qualified assessor because it doesn’t generate an official score right now. But, if you wanted to go in and put in the information for a five-story multi-family building or whatever number of stories four or above, you can do that and it will score the whole building on a one to ten scale. They

actually have 0.5 as well, so it will give you a 6.5 rather than just a 6 or a 7.

They offer similar types of recommendations for that specific building.

So, it'll run what's called the Energy Model, which is pretty much saying how much energy is this house or building going to use over the course of a year given average weather in this area. It models that and then it gives you answers as to what would make sense for improvements as well. So, that can be a useful tool.

Then in terms of commercial building tips, if you give us more information as to what you want, we can probably try to find that for you.

Maddie Just to clarify that, we can score manufactured pre-fab homes, but not mobile homes. It's an important distinction.

Joan I'm sorry about that. I missed that.

Maddie That's okay. Somebody else in the audience is interested to know where the pilot programs will be rolled out.

Joan The pilot programs with Fannie and Freddie have not been announced yet, so I don't think I'm allowed to announce it. But, I know that in working with Fannie, they're trying to find locations that would represent diversity of the country or certainly different climates and, hopefully, different kinds of demographics in general.

If you're interned and you think your community would be a good candidate for that you can send us a note and just put that in the headings that you'd like to talk about financial loan pilots or whatever. Let us know and we can see what we can do. We don't really have any control over that. We are working with them, but they lead the pilot.

Maddie And, like Joan said, our e-mail address is on the screen now. That is where you should reach us if you have any comments. Like I said earlier, we're always looking for ways to make what we offer more valuable to you guys. So, e-mail address on the screen is a way that you can reach out to us with any questions or comments on our presentation or on any of the materials that we mentioned so far.

Joan If you take anything away from this, I think that the presentation that the second Maddie, Maddie Kohler, mentioned—I've forgotten what it was

called now, Educational Insert I think, the one that's specifically for homebuyer or homeowner cocounseling entities is the one you'd want to use because it's really directed at, or we hope it's directed at a consumer. So, it's for training people to offer to the consumer, because a lot of our materials are not directed to consumers because we're really interacting more with the provider. But, that one, in particular, is written in a way that it's meant to be for you to provide to homeowners, homebuyers, etc.

Maddie And it is designed for people who might not have very much knowledge about energy efficiency. So, you can walk them through the slides that we covered earlier about why energy efficiency is important and really get them to understand why getting a Home Energy Score will be valuable.

Joan It does have some other information in there, too, so it's not just the score. Is it obvious where you get that on our website, Maddie?

Maddie If you go to our website and then in the menu you navigate to our Resources page, it should be straightforward from there.

Joan But we'll try to put a link in the final presentation here that we give to Virginia that she loads up so that you can download that, too.

If you have comments on that, as I think both Maddies said, we do really welcome comments because we're not the ones interacting with your stakeholders. So, if you find that things are not understandable, or it's not topical, or whatever, it's not addressing your needs, obviously, we can't do everything, but we certainly will try to do as much as we can to address that.

Anything else?

Maddie S. There's just one thing I wanted to add if there are no other questions.

Joan Go ahead.

Maddie S. I just wanted to mention I think Joan earlier showed the map of states where we already have assessors ready to go in the field. Of course, there might not be somebody in your city or town, or even state right now, but we didn't really go into the process of becoming a Home Energy Score assessor.

But if there are home inspectors that you work with or other types of energy contractors that you know in your area, they can become up and running Home Energy Score assessors in a matter of days. We have an online training and things like that. So, feel free to connect any of those people to us through the e-mail on the screen right now.

Joan

Then, lastly, unless other questions came in, our moderator, Grace, said that she could open the phones if you prefer to say something. We didn't have that at the beginning because we thought it might be too complicated, but if we're done with the written questions if we want to do that. Oh, I do see one question here—I thought I couldn't see the questions but now I can—about HERS.

Somebody said, "What does HERS mean?" Maybe Maddie, you can tell me if I have any other questions, or there are any questions up here that I didn't see. I can barely see them. Anyway, HERS is the Home Energy Rating Score Index. It's generally used for new homes. We showed a picture of one of them in there, but we didn't mention exactly the details. A HERS Index is set up by RESNET is the organization that set it up, and it's a very good index in that it tells you how much energy that new home

is going to use compared to if you built it to code. So, energy code of 2006 is the one that they compare to.

Let's say I'm looking at a new home and it's on a 100-point scale. Let's say that's what the scale is. For HERS, it goes above and below 100, but that's the main point. So, if I look at a home and it has a 70, that means that it's going to use 30% less energy than if the build had just been built to code. But if it gets 120 it means the home is going to use more energy than if you built that exact home just to code. So, if you built that home to code and you got 120, it means it really wasn't built to code is what I'm saying. You could have built it to code, but it's built to less than code which probably means it's an older home.

So, it doesn't work as well on older homes because if you're looking at a home that was built in 1980 or 1930, or whatever, it's not that relevant to compare it to code which is one of the reasons we created a Home Energy Score, because you can use it on any home, new or old, and it just is focused on how much energy that house is going to use. It doesn't compare it to the same house built to code, it's comparing it to the whole stock of homes in the country and locally.

So, either one, though, Home Energy Score or HERS, should provide you, also, an estimated energy bill which we probably should have focused on more, and I didn't say that. So, in that report that you get with a Home Energy Score there's a lot of other information including what the estimated bill will be for that house, and that may be of more interest to your consumers or stakeholders than just the score.

So, we like the score to be used to motivate people and to communicate really quickly whether it's good or bad, but we also want you to know how much it's going to cost on average to run that house. So, we look at state average utility prices and give you a good idea of whether it's going to cost \$1,800 a year to run this house, or \$3,000, or whatever, so you can avoid some of the gotcha feeling that you might have if you bought a house that you thought was going to be average, but it turns out it's much worse than average.

That obviously is very important to people who are first-time homebuyers and to people who are in the lower income brackets since energy costs are going to represent a larger part of their disposable income.

Again, I can't really see these questions, Maddie, so you're going to have to—it looks like there might have been one or two, but for some reason I can't open them very easily.

Maddie

I think we've covered most of them. There was an earlier question from somebody who does seminars on education, and they're looking for weatherization resources since they are in hurricane country. So, if you want to say anything, if you can say anything about resilience, or anything like that, I think it will be helpful.

Joan

I don't know that we have anything specifically related to hurricanes, but we do have quite a few experts, and I mentioned to Virginia at the beginning of the call that maybe we could set up a time for one of them, Sam Rashkin to speak to all of you and others who are interested in dealing with communities that have had to deal with hurricanes or other natural disasters, and about the rebuild process, or about just making the existing homes as resilient as possible.

So, it does go hand in hand with energy efficiency, but obviously it's a different topic. It's not just about energy efficiency. But, we strongly believe that, obviously, if you're going to be rebuilding you should benefit

from the energy efficiency part of it as well. Usually—you can definitely overlook energy efficiency just by looking at hurricane resistance, but there's no reason to, you really should be doing both at the same time.

Obviously, as I think I mentioned, one of the benefits is trying to improve the effectiveness of the grid which is obviously really important when you're dealing with severe weather, not that it's going to prevent power lines from going down, but certainly when there's stresses on the grid in terms of overuse, it certainly improves if the community has focused on energy efficiency.

So, why don't we get back to Virginia about what we have, if anything, on the hurricane piece, and we can certainly work with her if you guys have time, for a presentation on how to build effectively, or rebuild effectively.

Anything else?

Maddie

I'm checking our list now. Let me see if we've gotten anything new.

There was another question on HERS and if there was any experience that you know of, Joan, about using HERS as a requirement for building.

Joan

HERS can be used now, just in the last couple of years, it's one way that you can demonstrate that you are meeting the energy code in the area. So, there are different ways that you can meet energy code, and now this is one way to do that.

So, it's not, I don't think it's required. Maybe Glenn knows. I don't know of any communities that specifically require a HERS rating, but there might be a couple in the country when they're building houses. I strongly doubt it would be required for any existing homes. But, for new homes it is one way to meet the requirements of code. You can do it other ways too, but there's different ways to get there.

So, builders are typically the ones who use HERS because they can—let's say I'm building a development with lots of similar homes. I can do a HERS score on one out of seven as long as they're basically the same, and so I'm just scoring all the seven at the same time. I think it's one of the seven, maybe it's changed, I'm not sure, but that's who usually, typically uses it is builders and then they project the energy cost based on that model.

We're trying to get to the point where the underlying energy model that predicts the energy cost and use would all be the same. So, whether you're getting a HERS score or a Home Energy Score you'd still get the same reliability in terms of energy use regardless of which one you'd use.

Obviously, the HERS Index requires, because it's a new home, usually, you can get a lot more information about that home because you can see the plans, and you can see inside the walls, and all that stuff. So, to get a HERS score it takes like five hours to do. To get a Home Energy Score, it takes like an hour. To get a HERS score requires many more inputs. So, it would be more accurate in the sense that it would have more detail, but we're trying to get to the point where whether you're looking at a new home or an existing home, you could get a reliable energy estimate through the same tool, and it could either generate Home Energy Score or HERS depending on the relevance to that house.

Maddie

Thanks, Joan. I haven't seen any new questions come in.

Joan

Okay. Well, we really, really appreciate you guys calling in and spending more than an hour with us, and we're happy to work with individual organizations if you contact us and/or put you in contact with our local

partner, if that makes sense, our Home Energy Score partner. And please, stay in touch.

Thank you so much, Virginia. Did you want to say anything now to end up? I think you said you had a poll or something at the end.

Virginia

I just want to thank everybody for attending and to watch for the posting, probably by the beginning of the week of all this information on our website. Again, thank you for attending.

Moderator

Ladies and gentlemen, that does conclude your conference for today. Thank you for your participation and for using AT&T Executive Teleconference Service. You may now disconnect.