

Joan Glickman:

We'll get through as many as we can in the next half an hour.

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So as many of you probably know, this all started through the Recovery Through Retrofit effort which was initiated by the Middle Class Task Force out of the Office of the Vice President. That task force identified three major barriers standing in the way to greater use of and investment in home energy improvements around the country. And what they identified as the three major barriers were a lack of consumer information, a lack of standard workforce training and certification standards, and a lack of access to financing. And so the announcements last week at the White House really focused on addressing all three of those types of barriers and the one I'm going to be talking about today is specifically consumer information and how we are hoping to help address that and get consumers interested and motivated to make improvements in their homes 'cause that's what we're all interested in.

Next slide:

So in doing that, we developed the Home Energy Score, which is a quick way that a homeowner or a home buyer could find out how a home is doing in terms of its major energy systems and envelope. It allows comparison between homes regardless of location in the U.S. and provides basically a standard way that a qualified assessor could come into any home in the U.S. and collect about 40 pieces of information, enter it into our home energy scoring tool, and then develop the output and that output is an asset score ranging from one to ten, recommendations for improvements, some tips, and also, just for tracking purposes, a list of the data inputs that were used by the assessor. So if the homeowner or homebuyer makes improvements to the home, then hopefully those inputs would change, presumably, and then their score would change, as well, hopefully if they've made improvements that actually result in energy reduction.

Next slide:

This is the first piece of the Home Energy Score output. It's the actual label or graphic, whatever you want to call it. It provides information about what that home is projected to use in terms of MBTUs total energy use in source energy with a bunch of assumptions about who's living in the house and how they use the house. So it basically standardizes how you would evaluate any home in the country by saying that there are two adults living there, one child, they set their thermostats at certain levels during the day, at night. And it standardizes all of that so that you really can have an apples-to-apples comparison between homes.

It provides the address. It provides what climate zone the home is in. The country is divided into 19 climate zones and so the BTU range that is represented by the one through ten varies. So if you're in the climate zone where Minnesota is located, obviously they would be using a greater number of BTUs than if you're in San Diego or another temperate climate. So an eight in Minnesota, as I said, or another cold or harsher climate, will be allowed to use a greater number of BTUs than if it was the same home in a temperate climate.

And there are a bunch of caveat language down here saying how it was calculated and also other assumptions have been made about how we calculated that. It also provides a reference point for that climate zone and for the homes in that area as to if you are in the top 20 percent of similar sized homes –

we broke homes up into two sizes, basically, greater than 2,200 square feet and less than 2,200 square feet or equal to, and gave you a reference point based on rec data that we used to calculate that.

I'm having trouble with my screen. I apologize.

Next slide:

This is just showing you the front page of the home energy scoring tool. As I mentioned very quickly earlier, you have to be a qualified assessor to gain access to the tool. I mean anyone can go to the home page here that I'm showing you here but to actually get into the tool and input information about a home, you'd have to demonstrate that you were well qualified and to do so, you'd have to show certificate by a resident provider or BPI. And you'd also have to take a training module on the web, which we will make available to those who show that they are certified for those requirements and they also have to pass a brief test.

So I'm gonna go through these. As I'm going through these pretty quickly, at the end I'm going to take you over to the website because maybe that would be useful for you to see where a lot more information is available about the tool and about the whole program.

Next slide:

So last week's announcement was basically announcing the Home Energy Score, which I already mentioned what that is, the scoring tool, which was developed by Lawrence Berkeley National Lab and DOE, in consort, and also ten pilots that we are initiating and completing over the next six months. We're partnering with cities, states, and utilities in different climate zones around the country. I've listed the states here. It's not the entire state in any of these cases but in some cases it's multiple utilities and in other cases, it's just one, and we're testing different types of things in each of those locations.

Next slide:

So the next steps we have in terms of how we're moving through the pilot stage and beyond is that right now we're in discussions with all the pilot partners to finalize their pilot is on. We had a general idea of what they were committing to already but now we're really getting into the nitty gritty about timing, scope, what they're gonna be analyzing, how they're gonna be collecting data, what kind of quality assurance approach they're going to be using to ensure that you have qualified folks going in, not just that they're certified but that they are actually using the tool correctly and uniformly and consistently across the board.

And you see here it also says the role of the USDA, the Department of Agriculture, and HUD, Housing and Urban Development. Last week, as part of the announcement, HUD announced a new tool, a new financing mechanism called Power Saver, and that will allow an additional financing capability to be tested around the country again over the next – I don't know how long they're taking to do that. But they issued a request for qualifications, I believe it is, that financiers could submit their qualifications and say that they're interested in providing this type of funding, the Power Saver funding, which I think is under Title I, and basically allowing homeowners to have a source of funding available to them to make improvements.

And it can be done either with the score or without the score. It's a complementary effort, although the two do not necessarily have to go hand in hand, by any means. But in some of the cases, I think our pilots are interested in the HUD financing tool and so we will be working with them to – if financiers apply in those areas, we will be working with them to make that financing available to homeowners in most locations.

The reason USDA is involved is that we're working with some of the rural electric utilities and they've already been doing a lot of great work in home performance and Energy Star and other home improvement programs – home energy improvement programs, I should say – and so we're working with several of their partners in electric utilities to make this available to rural communities around the country – I should say not exactly around the country but in the specific pilot areas that we're working in.

So the pilots will be implemented from basically January through June. We're going to be doing analysis along the way but also completing it in the summer, figuring out what kind of improvements we need to make to the Home Energy Score and what we learned from all the data collection. As I said, there's different types of questions being analyzed and tested at each of the locations. There's some overlap but in some cases, the provider might be using diagnostics and we need to see what the results would be if you use diagnostics versus you don't use diagnostics, what kind of score and different kinds of recommendations you might end up with.

Because that's something we're still considering, the role of diagnostics in all this. We want to know what consumers think, what homeowners think of the score, whether it actually makes a difference in getting them to make improvements, how quality assurance works. There's just a whole range of issues that we're interested in understanding, including improvements that we need to make to the scoring tool. In the fall, we hope to initiate a larger national rollout once we've made those improvements.

Next slide:

So with that, I'm going to actually go to the website. Why don't I take questions, if anybody has some questions that they've sent in? Kolleen, has anybody sent in questions, yet?

Kolleen Kawa:

Sure. Glen's gonna read them to you.

Glenn:

The first one was why not go to zero for a zero-energy home?

Joan Glickman:

Well, you do go to zero, although the best score on the scale is a ten and a ten, as I said, in different parts of the country will equate to different levels. It might be from zero million BTUs to 80 million BTUs. So it doesn't start at zero, but you're right. You don't have to use zero energy or zero net energy to equate to a ten. You can use more than that. And the reason we didn't make a ten equal to only zero is that it's just very unlikely that more than a handful of homes around the country would score a ten in that case and we think this is something that should be motivational. It shouldn't be too easy to get a ten but it also shouldn't be impossible and it shouldn't be just those people that are going to extreme or great measures to do so. We want to motivate others, as well. I think there's ability to do that with a ten being equal to a very small amount of energy but not necessarily just zero.

I realize that when I signed up for this, I lost my connection to the website, so I have to plug that in. Sorry.

Next slide:

And the website is HomeEnergyScore.gov. So if you go to that or you can just see as I'm going through it – but actually, I'm sorry. Was there another question? Should I go through a few more questions right now? Glen?

Kolleen Kawa:

Joan, do you want to take another question or did you want to show the website?

Joan Glickman:

It depends on are you getting a lot of questions or just a few?

Glenn:

I can knock out a couple of these very quick for you. One question was are the assessors going to be limited to the pilots? To start with, yes.

How do we calculate the energy upgrade costs? Those are based on a measures database that's been built by the National Renewable Energy Lab and the tool that's tied into that for those upgrade costs.

And then the next one is are we seeking feedback or comments? And we are, indeed, although I don't know where to do that.

Kolleen Kawa:

I'll send a follow-up email. It will be at HomeEnergyScore@sra.com. So I'll send that email address to all the attendees and you can send any comments or questions to that email address.

Joan Glickman:

Great, thank you. The other thing I should say about the cost analysis for the recommendations, so it's basically the national average that NREL came up with by collecting data from lots of different sources on energy improvement measures and what they cost around the country. Since we don't think that is necessarily going to be representative of what a specific homeowner is going to find in their community, we didn't actually put the cost on the set of recommendations. We do provide a payback so somebody could calculate it if they wanted to bother with that but we didn't really want to make that something that people saw upfront given that they will likely get a different answer when they call contractors in their community.

So as I said, you've got the Home Energy Score label or graphic or whatever you want to call it. In this case, this home scored a six. That's based on its current condition. If they make the improvements that are recommended, it would score an eight. And this is the gross savings that they would achieve, basically the annual reduction on their bills, on their annual utility bills, if they make the improvements that are recommended by this assessment. The total energy used, I think I already mentioned, and that's based on really specific behavioral assumptions about who's living there and how they are using their energy so that you could really be able to compare between homes.

Next slide:

So if you go to the website, as you see on the left, there's information for homeowners. There's information on testing locations, so if you're interested in learning more about specific pilots, you can go there. They're all listed here with brief descriptions as well as contact information for those folks who are running those pilots. If you are a qualified or certified energy professional, you can go to the home energy – well, you can go either way – but you can learn about what the requirements are to become a qualified assessor, where you can send that information. And as I think Glen said just now, you basically we're only allowing assessors to join right now for use of those skills and in the pilots. So basically, if you're in a pilot area and you want to form assessments for those pilot homes, you would contact the pilot first and then they'd let us know that you're going to be involved and then you'd send us your qualifications. Once we receive proof that you've been certified, we would provide you access to the home energy scoring tool.

The training for the scoring tool includes a whole module explaining the tool but it also includes a test. But if you click here at Home Energy Scoring Tool: Assessor Training, you would pull up this, which is basically a PDF presentation of what's in that assessor training module.

Next slide:

So anybody can see what's in the training. You just can't see the test so that basically we can see if you're paying attention or not to what's in there and I think it's about, I don't know, 40 slides or something – yes, 38 slides.

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So basically it goes through the entire tool that explains what everything means, not how we came up with every specific item but it explains enough that a qualified assessor could go into a home, know how to use the tool appropriately and also be able to communicate with the homeowner if they had questions about what it all meant.

Next slide:

So if I go back to the web, there's also down here – and this is in a couple of different places – there's a data collection sheet that's also a PDF.

Next slide:

If you pull that up, you will see exactly the kind of information that the tool requires the qualified assessor to put in. So as I said, it's about the envelope and it's about the major heating and cooling systems in the home. So this is several pages long but you get the idea. If you want to learn more about what you'd actually be asked, then you can go to the data collection sheet for that kind of information.

Next slide:

And I think there was one more thing. This is on the first page. I'm sorry. I think it's the home energy page. Down here, there's a sample label and other information.

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I pulled these up ahead of time so they wouldn't take so long, but basically this shows you what the tool will be providing. It provides the Home Energy Score graphic, telling you where you score today and where you could score along with the savings associated with those improvements.

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It provides tips, which is just generic. It's just the same list of tips regardless of who you are and where you are in the country.

Next slide:

Then it also provides the specific home energy upgrades that are recommended to this specific home based on this specific assessment. The one thing about this page is that if the qualified assessor is providing this assessment as part of a larger program, like the home components of Energy Star or they're using a different software tool to generate recommendations for the home based on a lot more information than they're collecting on the home, then this page is optional. Basically if you're going to be providing additional recommendations through a different software tool, we felt that it was fine to do that if you're collecting additional information that's not required for the asset version and we didn't want to confuse homeowners by giving them separate sets of recommendations.

But recommendations for the tool are broken up into what you can do now and what you should do now to save you money. It shows utility bill savings, simple payback, greenhouse gas reductions. And then the second set of recommendations are really replacement recommendations. So if you are ready to replace your furnace or your water heater or other piece of equipment, windows, it basically directs you to purchase one that is energy efficient, that meets Energy Star if that is Energy Star covered product.

And the reason these are separated out is that the savings that you see here under the second list, the ones that recommend when you need to replace equipment, those are really based on incremental costs of the improvement. So it looks like if I was going to buy a furnace today that cost, in this case, anything – let's say I was going to buy one that cost \$500.00 more to get an Energy Star one versus one that is not Energy Star. It looks like I would recoup my savings in just over three years. But I think what it's telling us here is it would probably take you less. The estimated savings on the utility bill would be \$160.00. It looks like probably it won't cost me quite that much to buy one that's a little bit more efficient or a lot more efficient, so you're generally going to end up covering your cost in three years.

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Okay, so if I go back to this page again, there is information on how we calculated all of this, on how we came up with the tool, what it all means.

Next slide:

And there is a list, if you're really interested in knowing exactly how we broke out the different ten points regardless of – I mean depending on where you are in the country, there's a table here that shows you a million BTUs and how much you can use to get a ten in New England versus in the Southeast or versus in the Southwest or wherever in the country.

Next slide:

There's also a lot more information and documentation if you want to go to a Google site that I'm not gonna go to here but it's something that Lawrence Berkeley put together with us and they primarily manage that. It goes into a lot of detail in terms of information about the home energy scoring tool. I think you can also find information on Home Energy Saver, which is basically the same engine that's used for the scoring tool. It's the same engine that's used for Home Energy Saver and Home Energy Saver Pro.

I should mention, as long as I mentioned those tools, that one nice thing about this, as well, is that if a homeowner wants to get the label and score, they can do so. They can also automatically have that information uploaded into Home Energy Saver or Home Energy Saver Pro where they can provide a lot more information like lots of information about their actual operational use. So they could get customized recommendations that way but actually taking into account a lot more information about their home. The reason that we limited how much information that you'd need for the score is because we felt like it was a good amount of information, a good enough amount of information, to give you a good sense of how a home performs but it's also not so complicated that it would take hours and hours to collect the data. So basically as it's designed right now, somebody could go into your house and collection the information in about an hour and generate the recommendations and score.

Okay, I think that's all I really needed to show you guys on the website. Did we get any more questions, Glen or Kolleen?

Kolleen Kawa:

Yeah, we have a few. Glen's going to read them, again.

Glenn:

Yeah. There was a question about comparing the score between regions. Basically can you do that?

Next slide:

How will it work? I'll let you field that one, Joan.

Joan Glickman:

You can. Basically actually I shouldn't have gone back to that. Let me just try to remember where it is.

Next slide:

If you look here at the energy use points, if you were in let's say – let's pick a harsher climate. Let's say you're in the Great Lakes area and you score a seven. That means that you could basically use up to 183 million BTUs, somewhere between 156 and 183 BTUs in order to score a seven. But if you were in Southern California where it's very mild, you'd actually only be able to use up to 129 million BTUs in order to score a seven.

So what we're saying there basically is that we think that a home that scores a seven relative to its climate in Minneapolis or wherever you are in a harsher area is equivalent to a home that's using a lot less energy but it's in a much more mild climate. Because obviously it takes much more energy to make you the same level of comfort in Minnesota or in North Dakota than it does in South Carolina. So we put those on sort of an equal footing by setting the BTU levels differently in different climate zones.

Are there additional questions?

Glenn:

Next slide:

Yes. One question here, what level of BPI or resident certification is required? For BPI, it's building analyst. For resident, it's rater. And I think we're still considering the HES, is that right, Joan?

Joan Glickman:

Next slide:

We are considering the Home Energy Survey –

Glenn:

Professional.

Joan Glickman:

Professional. Is that right? Is that what it's called?

Glenn:

Right.

Joan Glickman:

Yeah, and I'm talking to resident about that and we are evaluating what it is that those folks are trained to do. I think if we're not going to require diagnostics, which is something we're testing during the pilot phase, then probably a Home Energy Survey professional will be perfectly qualified to do so. But that's something we're still figuring out, something we also will test during at least one or more of the pilots where we get people with different levels of expertise to go through the same home and see how they match up.

Glenn:

Another question is does the scoring tool consider renewables?

Joan Glickman:

It does not.

Glenn:

Several people have asked where is the information on the website for the pilot states? So I'm not sure where that is.

Joan Glickman:

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Testing locations. It's under testing locations and you'll see in Alleghany County, we're working with Efficiency PA. They're doing something a little different than the others where they're doing a house tour where it's basically often done by the real estate folks and they're interested in incorporating energy efficiency, highlighting that as part of this year's house tour, and they're going to do something with the score involving that.

In Cape Cod, we're working with Cape Light Compact. They already have a very active auditing program and so they're going to incorporate the Home Energy Score there. I'm not gonna go through all of these but we have several counties in Colorado that are working with us. The local Energy Alliance Program in Charlottesville. In Indiana – let's see, Indiana – also in Virginia, I should say, part of the Virginia pilot – but also Indiana, South Carolina, and Texas, we're working with the rural electric utilities. Minnesota, they've already been doing lots of energy audits and they're incorporating this into an existing program.

Omaha and Lincoln, as well as the Colorado counties, were Better Building awardees from DOE, so those are the two that – or I should say three, since it's Lincoln and Omaha, that also are doing Better Buildings. It's a retrofit improvement program and grant program that DOE funded under the Recovery Act. We're working with the Energy Trust of Oregon and I think that's everyone.

Next slide:

Any more questions? I'm sorry I can't see these.

Glenn:

Just to let you know, we're not answering all of them. We will answer all the questions here and we will post them to the website. In particular, there have been several questions about auditors being compensated and what does this cost?

Joan Glickman:

Well, it's gonna be a market-driven effort just like most efforts in this country. It depends on how it's being done. If it's through a utility, then they probably have a cadre of people who they're using and who they pay who are either on staff or not on staff, as contractors. If it's independent folks that eventually are doing this on their own, then they would be paid directly by the homeowner. And in some cases, obviously there are incentives to do audits in certain locations.

So this is not a full house audit. I should make that clear. It's an assessment of a home's energy performance and it really would depend on where you are whether a homeowner would have to pay out of pocket or get some of it paid by someone else. We're generally not funding – I'm saying generally because I haven't worked out all the details – we're not really funding the pilots. These are interested parties that wanted to do this with us and so they already had existing programs that we're feeding into. That said, two of them were already DOE grantees, so there is money going to those regardless if they do the pilot or not.

Glenn:

Joan, we're still getting the question about whether it's site energy or source energy. It is source energy.

Joan Glickman:

Okay, so it is source. Let me just show you again.

Next slide:

The total energy up here is based on source and it's calculated based on a national source conversation rate.

Next slide:

If you go to this page, these estimated utility bill savings are really based on site energy reduction and then it's using an average state utility cost to calculate that, so that is state based. And I should say the greenhouse gas reductions are actually based on what region you're in. So that is not a national source number. It's using local or regional source numbers that we're getting from eGRID.

Okay, next question? I apologize. I just can't see those questions so I can't just automatically respond.

Glenn:

And I'm trying to pay attention at the same time and I'm not doing it very well.

Joan Glickman:

That's okay. You've got –

Glenn:

Go ahead.

Joan Glickman:

Could you forward them to me so I can see them?

Glenn:

I don't know how to do that.

Joan Glickman:

Okay, forget it.

Glenn:

It says when will the low-interest loans be available to the homeowners?

Joan Glickman:

I'm not sure about the timing of – what's it called – Power Saver, but you can find out –

Glenn:

I think it's towards the end of the year.

Joan Glickman:

Next slide:

Towards the end of this year?

Glenn:

I believe so. I think they're talking about in another month or so.

Joan Glickman:

Next slide:

Okay, well, if you go to related links and I don't know exactly what's on here but the Power Saver fact

sheet will tell you – it doesn't look like a fact sheet, actually. It looks like a lot more information. It looks like if you go here, you can read the news release and see the FAQ's, lenders' FAQ's. So you can find out more about the Power Saver pilot program if you go to our related links.

Next slide:

At the bottom, there's information there.

And another part of the announcement last week was the workforce guidelines, so if you're interested in that, that's also on related links. That's something that DOE did collaborating with industry, Department of Labor, and the EPA to generate these guidelines. They basically go through all the different major types of energy improvements that you can do in a home. They analyze them in terms of what steps you need to take to make those improvements, what standards you need to meet. They didn't create new standards but they referenced ASDM, ASHRAE, or whatever was relevant. And they also turned that information into a list of knowledge skills and abilities that a skilled worker would have to have in order to perform that work adequately.

Next slide:

So if you click there, it takes you to this very long document which is under review right now and people are welcome to make public comment it looks like through January 7th on those guidelines. And they are just guidelines. They aren't meant to be mandatory. And I should say that about the Home Energy Score. It's completely voluntarily, as well.

Glenn:

Next slide:

We've got one here. Is the program representative or the DOE verifying and approving the assessor's credentials? The DOE will do that.

Roughly how long would this audit take for a qualified assessor to complete on site? For most houses, it should be less than an hour.

Will you allow the auditor or the assessor to perform work on the house? I'll let you field that one, Joan.

Joan Glickman:

We haven't really worked out the details of that kind of conflict of interest and since we're really focusing on the scoring part of it and not – I mean, obviously, our interest is in getting people to do the retrofits but I don't know that we've really thought through whether there should be those kinds of conflict of interest issues that we should raise and it's a good point. I just have not thought about it because we're just in the pilot phase. I know that many programs, Home Performance with Energy Star and others work through those issues and so it's something that we'll have to figure out, as well.

Do you want to add anything to that, Glen?

Glenn:

No, that sounds good to me.

Will the BTU range for each score be based on a percentile of homes at a single point in time or will it be a moving range over time?

Joan Glickman:

It is not based on a percentile of homes. It is based on what we understood to be a reasonable spread in a specific area that's covered by each of those 19 climate zones and we did a lot of analysis to come up

with those ranges. But that's something we also have to really test in pilots to see if in practice, we're getting – what kind of range we are covering with the scores. If everyone's scoring six, seven, eights, then or everyone's scoring twos, then we may have to reevaluate. But it's not meant to be a scale that adapts over time. We did allow there to be room for improvement, so I think getting a ten is – we think it's going to be pretty difficult.

Next slide:

But this number will change over time. The top 20 percent of similar-sized homes were here or better. That reference point, hopefully that will change over time as more and more homes become more efficient, so it might be that they become a nine instead of an eight or something like that. Although I really don't think it's going to change quickly, by any means, unless there's massive investments in home energy improvements in a specific area.

Glenn:

We've got two more we'll throw out there and then we'll call it a day. Why no obvious connection to this tool to be used at point of sale?

Joan Glickman:

Well, it definitely can be used at point of sale. It's not that it cannot and it's something that we're considering with some of the pilots. Right now, I think our focus is trying to get people to make energy improvements and that really can happen at any point, whether it's a homeowner who's living in their home who just moved in or somebody who's buying. It's certainly something that we're interested in and we've talked to home inspectors and making it possible that they could provide this service at the point of when they're doing home inspections.

There's certainly a lot of nervousness I think by some parts of the real estate community and realtors that they don't want to hold up a sale. And I don't think you really would. I think it's just additional information that would be provided and it's certainly not mandatory. So it's something we're considering but it's not necessarily or it isn't an area of focus. It's just one of the ways that you could do it. We kind of want to prove it out first before we – just like we're proving it out in the pilots and making adjustments, I think we feel the same way about starting with homeowners and moving towards the possibility of expanding to home buyers at a later date. And it really is driven by what people are interested in what they do in different communities.

Glenn:

And then one more. I think we've hit this one in other webinars but I don't think we've gotten it here is how does this relate to HERS and why we didn't use HERS instead to do this?

Joan Glickman:

Well, to get a HERS score, you basically need to have an extensive assessment or an audit done on the property and so it's costly. It takes a lot of time. We wanted something that could be done in a much shorter period of time, give people a rough estimate of how they're doing. It's meant to be something to get you in the door, get you interested, and hopefully, get folks to start making improvements. While HERS has done a great job in the new home markets, particularly as it's related to energy incentives for new homes, I think it clearly has a role to play but I think this also can play a role. We're basically just trying to ramp up the interest and investment in energy efficiency improvements.

And so I think the two can work hand in hand. We spent a lot of time with residents talking to them about how that can happen and I think that they're pleased with what we've come up with and obviously we're still figuring this all out to some degree. I mean I think we've figured out a lot of it but I think we're still tweaking it around the edges.

The other big distinction between the two is you get a much more detailed number with a HERS audit and you don't get that here. Basically you're one through ten here. You don't get a .2 or 7.5, and so you can get a much greater level of detail and granularity if you go with HERS than you do here and that's why there's a cost to this, as well. So it just serves a different market.

Okay, well, I really appreciate so many of you calling in and I hope you've found this to be a good use of your time and we will try to get back to as many questions as possible and get those up posted somewhere on the web. Our web people have told me they don't like doing frequently asked questions so I'll have to figure out how I'm gonna do that but we'll do something. If not, we'll just email you guys separately. And if you have any more questions or comments, I know that Kolleen is going to follow up with you and let you know how you can raise those with us. So thank you very much.