

## **Preliminary Process and Market Evaluation – Better Buildings Neighborhood Program Webcast February 13, 2013**

Ed Vine: Hello everyone and good afternoon. My name is Ed Vine and I am a staff scientist at Lawrence Berkeley National Laboratory, otherwise known as LBNL, and I'm the LBNL project manager for the evaluation of the Better Buildings Neighborhood Program. You may hear the term BBNP—it's a short-handed version for that. So thank you for joining us and welcome to today's webinar on the preliminary process and market evaluation of the BBNP. This evaluation addresses the national program with a goal of identifying what elements of grantee programs are most successful at bringing about market changes that will result in sustainable energy savings. The study provides a preliminary assessment focused on what is known approximately two years after the grants were awarded. It also offers insights to the BBNP at the U.S. DOE and to the grantees to strengthen their programs in their last year funded by the grants.

This is a very important evaluation study and I'm glad that so many people are on the line. This evaluation study represents the first of four evaluation studies that are planned for this program. The other three are preliminary energy savings evaluations, the second is a final process and market evaluation, and the third is a final energy savings evaluation. These studies are funded by the U.S. DOE American Recovery and Investment Act—ARIA, for those familiar with that term—Fund. LBNL is managing the evaluation. The evaluation team is led by Research Into Action. Other team members include Nexant, NMR Group and Evergreen Economic Consulting. The evaluation team was selected through a competitive solicitation, and also the preliminary process of market evaluation went through a peer review process in order to make sure we have an objective, credible, and accurate evaluation of this program.

At this time, I will briefly introduce today's three speakers. Jane Peters has more than thirty years of experience in evaluation focusing on energy efficiency, renewable energy, and other environmental issues. Program performance measurement, customer research and market assessment. She founded her company, Research Into Action, in 1996 to pursue advanced program performance assessment and market research for clients around the country, including a few international assignments, and now leads a firm of 30 people. Jane is the principal investigator for the BBNP process market and impact evaluation. Marjorie McRae, like Jane, has more than 30 years of experience in evaluating and conducting other research and planning support for energy efficiency and renewable energy programs. She is a principal with Research Into Action, having joined in 2000. She is leading the process assessment component of the evaluation. And the third speaker is Greg Clendenning. Greg is a senior manager at the NMR Group, with 7 years of experience monitoring and evaluating energy efficiency and renewable energy programs. His background includes evaluating the effectiveness of educational and cultural research programs for the U.S. State Department and serving as a rural community development extension agent in Togo, West Africa with the U.S. Peace Corps. He is managing the market effects portion of the BBNP evaluation. But before we get started, let's go over to a few logistical items. I'm going to hand this over to Sargon.

Sargon de Jesus: Thanks Ed. Hi everyone, my name is Sargon de Jesus. I work for ERG. We're a contractor to the U.S. DOE and I'll be running today's meeting on the webinar side. But before we get started, I'd like to go over a few logistical items.

First of all, all of the attendee phone lines have been put on universal mute to prevent background noise during the presentation, and if you haven't done so already and you're using a telephone to join us please enter your two- or three-digit audio PIN into your telephone keypad and you can find your audio PIN in the GoTo Webinar box on the right hand side of your screen. In your audio window there, you can select your telephone option there on the radio button and find your audio PIN that you can enter into your keypad. This will allow us to unmute you should you want to ask a question over the phone. So you just enter "pound," those two- or three-digit numbers, and then "pound" again. We will be able to take questions orally during the Q&A period which will take place at the end of each presentation segment. If you're listening to the presentation through your computer speakers, however, you will not be able to ask questions orally during the Q&A period. During that Q&A session you can virtually raise your hand by clicking the blue circle button with the hand in the control panel, and we can unmute you. You can also type in a question at any point during the webcast into your questions box in that same control panel and we'll address those at the appropriate time.

Lastly, the presentation from today's webcast, along with an audio and video recording, will be posted to the BBNP website so please check back next week for that and I'll be sure to send out a URL to everyone in attendance right now so you can access that webpage. That's it, Ed, I turn it back over to you to kick off the meeting.

EV: Thank you, and today's first speaker is Jane Peters from Research Into Action. And now I'll hand it off to Jane.

Jane Peters: Thank you, Ed. Just waiting for the slides to be returned to me. Should be quickly. There we go. Okay, Ed already gave you a brief overview of the project, the purpose. Let me start by describing who we are. We are a team of evaluators independent from the BBNP program and DOE contracted with us, as Ed described, to assess performance of BBNP and identify lessons learned. We are Research in Action, the NMR Group, Nexant, and Evergreen Economics.

EV: I don't think the slides are going.

JP: I forgot to hit the "Show Me" button. There, can you see them?

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EV: Yes, thank you.

JP: Okay, sorry. What we hope to learn, we are assessing the National BBNP program, not the individual grantees or the individual grantee programs specifically. We are looking at program processes for the BBNP, market effects from BBNP, and program impacts from BBNP efforts. The goal is to identify the program elements that are most successful in getting market changes and sustainable savings for the grantees.

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Today we're discussing the preliminary process evaluation. This is only looking at the first two years. The project started in 2010, the evaluation went through 2012. We're talking about the key findings and conclusions and recommendations, and we focused in our conclusions and our recommendations on those findings that could be most useful to the grantees in their final year of implementation. After we talk about what we learned, we'll talk about how we did it, our methods, and finally next steps.

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The grantees and their programs are very different. Even within some grantees there are a variety of different programs that the grantees are operating. The organization types are different, the realm of experience with energy efficiency prior to running their programs is different, the climates are different, the building types are different, the services measures offered are different, the role of different types of firms working with them, whether they're private sector or public sector firms, the methods that they used to market their programs, the messages they used, et cetera, et cetera. There is a huge range of difference across the 41 grantees.

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They are, as some of you already know if you've seen this map before, scattered throughout the country, but there are states with no BBNP grantees and then there are states with more than one BBNP grantee.

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A little sense of the difference here—many of them are government, and there are some nonprofits. There were no private-sector firms that received grants. Those private sector firms are working with some of the grantees. Our market effects team members, Greg, will be speaking after me—

Marjorie McRae: Oh, no, I think you skipped one—

JP: Oh, I skipped one. Greg will be speaking after me, but I want to talk about the correlates of success here.

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In order to do the analysis we had to have a sense of high, medium, and low success. We were able to take a variety of data that were being submitted to DOE on the grantees' activities and create a comprehensive composite measure that said how these grantees success was relative to each other. So it isn't some kind of success metric that's been established by some higher power and say, if you achieve this, you're successful. This is relative to each other—who's doing most success relative to all these factors, who's doing the least relative to these factors. What we've found is that the factors that most strongly correlate with success were whether they had partnerships with financing organizations in place, whether they had partnerships with nonprofit organizations, and whether they had energy efficiency experience prior to. So those were drivers of success, but not the only drivers. And you will

see some of that come in our analysis coming up and I wanted to turn this over to Greg Clendenning. Greg is on somewhat of a short timeline, he has a plane to catch, so I hope—that's one of the reasons we're putting market effects first, and that'd be great.

MM: We're still going to do the slides. He's going to talk, but we're going to do the slides.

JP: Oh, okay.

Greg Clendenning: Okay, thank you, Marjorie and Jane. So, brief introduction, the market effects appear to be happening, and we're defining marketing effects as changes in the structure of a market or the behavior of market participants. That's reflected in the adoption of increased energy efficiency products, services, or practices, that are causally related to market interventions, in this case the BBNP.

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This next slide is showing us a simplified illustration of the major BBNP program elements, which are listed to the left. Training, financing incentives and other program elements, and marketing and outreach, going from top to bottom. And then there are links to our expected outcomes, what we're trying to measure as our expected market effects that are going to, that will hopefully result from the BBNP program, which include increased activity in the energy efficiency upgrade market, increased availability of trained contractors, increased marketing in energy efficiency by the contractors, increased adoption of energy efficiency building practices by contractors, and increased sales and availability of high-efficiency equipment by suppliers and distributors. Each of these were key indicators that we measured in this preliminary evaluation.

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One step in the market effects evaluation: we conducted some 26 in-depth interviews with key market informants. The goal of this was to identify and understand potential indicators of market effects that were resulting from the BBNP grantees' activities. And in the 26 market informants we had three broad populations. You can see to the right we have the trade associations—these were organizations whose members retrofit and upgrade homes or existing buildings. We interviewed nine trade association members. We interviewed regional energy efficiency organizations, and these organizations that were working on behalf of energy efficiency programs in a supportive capacity in different regions of the United States. And then we also interviewed twelve representatives from stakeholder organizations, and these were directly involved with energy efficiency industry, serving as research or even program implementation and other supportive functions.

One of the key findings from these interviews was who the key market actors are in this retrofit and upgrade market. You see on the first column, the "key market indicators" identified by the market informants. The most commonly identified are the ones listed on the table—the contractors, consumers, building owners, managers, government agencies, utilities, and then a broad group of other market actors. In particular for the residential market, the informants really focused on the importance of contractors as the key market actors, and then in the commercial market the focus was on the managers of buildings as the critical market actor in this upgrade market.

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The next step of our evaluation was to conduct survey evaluations of participating contractors, nonparticipating contractors and suppliers and distributors of energy efficiency equipment. We found preliminary evidence of market effects that are happening due to the BBNP program and the grantees' activities. We sampled the contractors and suppliers, they're all located in and active in the grantee service territories and our preliminary results suggest that the market effects are more pronounced in them and the most successful grantee areas.

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In particular, focusing on the contractors, they agree that the BBNP grantee programs are having positive effects on their business, that there's increased activity for their business and in the marketplace because of the BBNP grantees. There's increased access to trained contractors, they're increasing their own marketing of energy efficiency, and they attribute these increases to trained contractors and so they're marketing to the BBNP programs. In addition, suppliers are also reporting that they've increased sales and availability of energy efficiency products and changing their sales and stocking practices. A segment of them are attributing all these changes to the BBNP grantees.

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This figure presents some of our results of this survey of the contractors. This is the contractor assessment of the effect of the BBNP grantee program on the market of energy efficiency, and there's two sets of columns. The dark blue are the participating contractors and the light blue are the nonparticipating contractors. The first two sets of columns are, we asked them to assess the impact of the program on their business and the marketplace in general currently, and we ask them to rate on a scale of zero to ten (zero, you strongly disagree, ten, you strongly agree), "Is there more business for your company than there would have been without the program?" And you can see, particularly from the participating contractors, half of the participating contractors strongly agree that there's business for themselves and for the marketplace. And then, the two sets of columns to the right, we ask them, "What's going to happen in the next two years? Will there continue to be more business because of the program?" And again, more than half of the participating contractors believe there will be more business for themselves and for the marketplace in general. There are even small percentages, but still noticeable percentages of nonparticipants who strongly agree that the grantees are having impacts on their own business and on the marketplace both now and in the next two years--at least, that's their expectation.

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We asked the contractors about the effects of the BBNP programs on the number of retrofits that they've completed because of the program. In those findings, we've found a net positive impact of the program on their number of retrofits. We asked them, "Can you estimate the number of efficiency upgrades you've conducted because of the program?" And there's, again, a net positive from this, particularly from the participating contractors. As a follow-up to that we asked the contractors to focus on what were the program elements that were responsible for the increase in their upgrades. We've

grouped all of the grantee activities into five broad categories: rebates and incentives, low-interest financing, free or reduced cost assessments, the marketing and outreach and training of contractors. The rebates and incentives and the low interest financing were identified as the top program elements with the energy assessments and marketing close behind, and training, in the opinion of the contractors, as the least important.

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We also asked the contractors to estimate the percentage of their upgrades that result in fifteen percent or more in energy savings or reduced energy usage. You can see that the participating contractors are estimating a much higher percentage of their upgrades are meeting this threshold of fifteen percent savings, although we don't see much of a change during the program years. We'll see in the final that there's a slow increase over time of the upgrades meeting the program threshold of fifteen percent or more.

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Another of our indicators for market effects were the impacts on training and trained contractors in the marketplace. In this table you can see we have participating contractors to the left; to the right are nonparticipating contractors. And first we wanted to assess what's the level of training in general in participating contractors, where 90% have received any kind of training with over 60% having attended training through their grantees. Levels of training in comparison, both just in general and then in any training they've received from the grantee organizations. And then we asked if they believe there's been a change in the number of trained contractors and if there's been a change, do you attribute that to the BBNP grantees? You can see that for participating contractors, over 80% believe there's been an increase, and even nonparticipating contractors have seen a change in the marketplace with close to three-quarters indicating that there's an increase in the number of trained contractors. In terms of the influence of the BBNP grantees, close to half of the participating contractors believe that it's strongly attributable to the grantees. We used a zero to ten scale, and 48% of respondents said 7 or higher, indicating a high level of influence of the grantees.

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-Somehow although the slide deck was working perfectly this morning we have these two blank ones, so this was Greg's last slide... so maybe it's the perfect time to transfer to any questions people might have on Greg's presentation. If that works for you, Greg, or you could freestyle it if you wanted to.

EV: Can you hear me? This is Ed.

-Yes.

EV: Yeah, we had a few questions that were written in. One is, how wide geographically do market effects radiate out from the BBNP programs? So it sounds like there are some market effects occurring in these grantee areas, how broad could that be?

GC: It depended on the size of the grantee. So we have a sampling protocol—if it was for example a county program that was run, we classified each of the grantees—there were 22 grantees that were included in the preliminary market effects portion of this evaluation, and we sampled the contractors and distributors from those. We categorized each of the grantees on their location, from rural to urban. So in some cases if it's rural we looked at the entire county where they were located; if it's a city we looked at the entire metropolitan region. If it was a state we looked at, we focused on the major areas of activity within the state according to the grantee records. So generally I would say it goes out to at least the county level or if it's a small neighborhood in a bigger city it's at least ten miles out from wherever their focus of activity is.

I don't know if that helps or that answers—

EV: Yeah, I think it does.

-And here's a list of the grantees included in the market effects survey.

EV: Thank you. Another question: some people may not be familiar with participating versus nonparticipating contractors, so what is a nonparticipating contractor? How would you define that?

GC: Those were any contractors who did not complete any upgrades with the grantees, so they may be aware of the grantee or maybe even participated in some of the training but they didn't complete any upgrades through the program.

EV: And somebody was asking about training for contractors. Did you take a look at whether the contractors received sales training, rather than building training? And what impact that might have had?

GC: We did not in this preliminary get details on the types of training although that's something we're strongly looking into for the next round.

EV: Okay. Somebody had a comment, versus a question, in that the numbers for the training responses seem to suggest that the contractors who did not receive any training don't realize that their peers have indeed received more training—perhaps there's an opportunity for getting that message out to those folks. So that's a good comment for the Department of Energy going forward, making contractors aware of all these training possibilities.

A few questions for the earlier slides. So Marjorie or Jane, did we want to hold onto those or did you want to answer those? They're not market effects slides, but for the earlier ones.

-We can answer them now. Greg will need to leave in seven minutes or something like that, so if there's nothing more for Greg we can address those.

EV: And he's finished with his presentation part?

-Yep.

EV: Okay. So for those... Sargon, did anybody call, or we haven't opened the lines?

SDJ: We haven't had anyone express a desire to speak over the phone.

EV: Okay. I have a few more then. Going back to... is there any particular manner in which you verified or estimated retrofits that achieved that fifteen percent or more energy savings?

JP: Not at this time.

EV: Okay. But there is an energy savings evaluation that you'll be looking at?

JP: Yes, in the remaining evaluation activities, but not in this preliminary process market studies.

EV: Right. Another one was, when analyzing the costs per unit of energy saved, how will you handle the cost of financing programs, which will revolve the dollars rather than using them just once as a grant would do?

JP: Not all financing programs will have revolving funds—some do, some don't. We haven't actually addressed how we're going to do that but it's certainly a good question to ask. We're addressing that for the next evaluation. But not all financing are revolving funds.

EV: Okay. Let's continue then. That's the end of the questions for now.

JP: Okay. So Marjorie is going to speak to the next—the findings from the process study.

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MM: So DOE has identified four pillars for BBNP—marketing, finance, workforce, data and reporting—and they do all appear to be necessary for upgrade program success. At this preliminary evaluation we learned much less about financing than we will by the final in that financing capabilities were just really being put in place. We learned that it takes a while to get those financing partnerships and mechanisms in place, which is one of the reasons why a success factor was having those established relationships with financial institutions. So we'll be learning more about that. But the four pillars all seem necessary, and they must work together. Fewer strong pillars won't hold up the program. It's not a pick and choose kind of thing, and having those elements.

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There's no best way to implement each pillar, and each pillar is not a single thing. It has multiple facets. So the thing with marketing and outreach, there's messaging, and then there's media, or approaches, and how those messages are consistently used by all players touching the customer—the assessment and the contractor. There's multiple elements in each pillar and they all need to work together in an integrated whole. We found at least in this preliminary it does not appear that there is a silver bullet or a must-have activity for success, other than these pillars. We have identified activities that yield good results, yet both the successful and less successful grantees may have done these activities, so it's not like "do this and you're guaranteed success." And then both groups have done things not on the activities with good results list, and you'll notice that's phrased positively. We don't have activities that yield bad results—there may not even be such a thing. It may be possible that you could do almost



anything and if it's well thought out and well executed and it drives towards the logic of upgrades... For example, an activity not on the activities with good results: one grantee had success with competitions or contests, and another one was like, oh, we started to float a contest and we got a lot of push-back on it. So it didn't make it onto the good results list as a more uniform finding but it can be helpful, it can work.

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We conclude at this preliminary juncture that success is not associated with any of the specific ways, that these grantees are varied, given the organization type, the climate, what specific measures they're offering, the role of the private sector firms, marketing methods... It's associated with marketing methods—I'm trying to think of how to describe this—there is not this silver bullet “do this and it works; don't do this, it's the kiss of death.” So that's what I mean by not associated in that way.

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But yes, all those things need to be in place in a well thought-out way. We conclude grantee success is associated with program activities that are complementary, so again, well thought-out, integrated. And these examples right here, they follow right here in the sub-bullets. Like outreach and audit scheduling processes need to generate some peer interest, which fosters high conversion rates, not just an outreach process that generates lots of audits. Your sales role needs to be clearly defined and the salesperson needs training if they haven't previously had it. Information on emphasizing the customer-specific benefits, and to address customer-specific concerns. And that's the difference between sales and marketing: marketing, you're going with the general message, to appeal to most people; sales, you're trying to appeal to this individual person with their individual benefits and countering any of their individual objections. Effectively address market barriers. Coherently drive customers and trade allies to comprehensive building upgrades. And we conclude that the grantees with prior efficiency experience and strong partnerships are the grantees most likely to have these things in strong working order.

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On the topic of driving demand, the program activities need to be governed by sound logic, so linking it from first touch of the customer all the way through the last touch with the customer. A consistency, a driving home the message, making the steps and the junctures between steps as easy as possible. A specific activity that we didn't find typical of a high-success grantee can nonetheless be part of a successful program if all these elements coherently drive upgrades—so for example, direct installation of measures. If you're coming in with an audit and putting in a few measures and showing a “sweetener” but you don't have other program elements in place that sweetener alone is unlikely to drive the expensive upgrade. If that's part of something with additional purport it may be quite effective.

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Sales and marketing are different; I already touched on this a bit. The sales needs to go to the individual and the grantees were effective that paid attention to the sales process and thought about who and in

what role sales would occur. We want to go at this more deeply for the final evaluation, but there was differences among the grantees in terms of whether they thought the assessment reporter of that information was going to sell the upgrade or if the assessment assessor was in that key role, or the contractor, or program staff, and we're thinking that it doesn't necessarily matter which one the individual program has targeted as long as it's clear that that is the pivotal role and that that's supported with the right messaging processes.

So sales training appears to be very effective, and rebates and financing appear to facilitate sales but do not appear to make the sale. So it's not a "if you build it, they will come" proposition—quoting Field of Dreams.

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Stimulating supply: here's something we want to look into more in the final, but again this is to the point of not a silver bullet or a must-have. Market informants were pretty certain that an energy advisor was critical, and in fact we find high success grantees—40% of them had an energy advisor compared to only 10% of other grantees, so that suggests, yeah, this is a good strategy. Yet 60% of high success grantees don't use an energy advisor—more than half—so that's certainly not what's driving their success. For that 10% of the lesser-success grantees that use it, that wasn't enough in and of itself to pop the entity into the high-success category. Again, there's no silver bullet, no must-have.

It's important to—on a new theme—identify a set of qualified contractors both technically and in the program requirements and to develop some basis to address poor performance or exclude poor performance. A QC process having some sort of teeth that you can use. Successful grantees stress the value of communication with contractors. Often, I think in general, we think of communicating as "message out, listen to what I have to say." The most important part can be "message in," learning from the contractors.

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Partners: having a financial institution partner is typically better than trying to be the bank, but then again it would depend on the particular grantee and what experiences and systems they're already coming to the table with. Credit enhancements can attract financial partners, and yet we've also learned that demonstrated program success can reduce needs for credit enhancements. Credit enhancements are ways to make this whole proposition more attractive to banks, this whole upgrade proposition, but if in fact you have demonstrated program success that these upgrades work, that there's a market there, they can pay back their loans, then that makes the enhancements and inducements less necessary. Having grantee staff experience with financial products is an asset because it's a whole new kettle of fish, and just trying to establish the partnerships and the products without that is difficult. Typically, but not always, working with an experienced program administrator was an asset. Sadly we learned of a few program administrators, experienced ones, that did not quite function in that role, or at least not in the assets.

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We conclude DOE is meeting its objectives. It's generating a wealth of experience in alternative, and some very innovative approaches to developing demand and supply markets for whole house and whole building upgrades. DOE enabled and facilitated an exchange of grantee experiences that grantees told us was highly valuable and contributed to their success.

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We developed for our evaluation and will going forward for the final a logic model, both from DOE's perspective here, grantee perspective here. I'm just going to cover these very briefly. So key activities from the DOE perspective was that they had an account manager, which is different from other DOE programs, and grantees found that very, very helpful. A go-to person, somebody that knew their specific programs, could run interference for them, provide advice, share information. They had that peer-to-peer exchange which was also very valuable. They provided technical assistance, again very valuable. Data tracking—now, grantees may not be as thrilled with this part but that is essential to knowing what you've accomplished and knowing how to make it better, both at the grantee level and at the national level. And then of course the grant funding that they provided. It couldn't have happened without it.

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The grantee perspective: they're getting marketing, conducting building assessments, home and building. Training their contractors, getting an approved contractor list, telling them program requirements. Leveraging other sources of money or other partnerships, collaboration. Providing incentives, offering financing.

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We have—now we're getting to the recommendations stage of our presentation—we've recommended to the DOE, for the final program year, that it encourage grantees to clearly identify who has or should have the role of selling the upgrade, and then provide sales training to them, and not just sales training but total support. Recognize which of the many steps is the pivotal one and then support that pivotal step. Include messaging that emphasizes comfort and solutions to building problems, as these themes appear to be influential. Simplify audits and connect audits to the upgrade sales process. Now, by simplify I mean consider your audit process in terms of what you're trying to accomplish—identifying opportunities, yes, but leading to the upgrade. You don't want to be sinking a lot of money into audits that are not converting to upgrades.

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We also recommend the DOE encourage grantees to sponsor meetings that give contractors opportunities to share experiences with each other and with program teams. This is something that DOE has been doing at the grantee level, so meta to the grantees... DOE has been bringing the grantees together to share. Now the grantees need to drive that down into their program teams, bring contractors together to share experiences with each other and up to the program staff. Have a program with multiple components that logically and coherently drive demand and supply, and those were recommendations for DOE to encourage their grantees. That DOE itself promulgates these findings to

market informants. The market informants haven't done the research that we've done. They are involved in the market, they have opinions, but they lack empirical findings, so to circulate these ideas back to them and otherwise publicize what we've learned.

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Let's break for questions now. We can then go onto our methods, which are brief, and then after our methods we have what's next in this evaluation. So let's stop for questions.

EV: Okay. If marketing and outreach were not used to inform the public of these programs, the BBNP programs, but then rebates and financing were used, how would that get to them if there's no outreach?

MM: It's not that anybody lacks these components. It's not that programs lack these components entirely. I think it's more that some of the pillars were less developed than other pillars, and they all need to be equally strong.

EV: Okay. Regarding energy advisors, were you able to get information about the various ways that the grantees used energy advisors, and were you able to understand or correlate other factors that might explain the success or not for the programs that used energy advisors?

MM: That's an excellent question. We want to look more into it into the future. We do have some insights into the roles that the energy advisors played at this preliminary report but we do want to understand it better, and we absolutely want to understand the correlates—let me jump ahead briefly to next evaluation steps. We will be having for all the grantees a web survey that will ask them to provide specific information about specific program types: low income, other residential, non-residential, so that by asking this web survey all of the grantees we hope to have their very specific close-ended information. You need closed-ended data, not narrative, in order to see what is... So when we have more precise, as in limited, closed-ended data, on the grantee's subject, on the advisors issue, we can then see whether it's this effect or it's something else that's also typically bundled with that that's most effective.

EV: The next question is, you've stated that it's important to identify a set of qualified contractors. Could you expand on this point? Does this refer to a vetted pool, or just having a contractor list? And is this conclusion based on residential or commercial contractors in that sector, or just one of those?

MM: We had much more information on residential than we did on commercial. It's something we will also get more information on going in the final. Generally a vetted list, I think we were finding is more successful. So your contractors have technical requirements, they have business requirements, licensed, bonded, insured, and maybe BPI, or other certifications that you've determined are appropriate in order to qualify them to be on the list. But that couldn't be exclusive. Most grantees found that they didn't have enough contractors who fit all their ideal qualifications when they first set up their list, so they would allow contractors to be engaged in the program and then they'd encourage the training, and then later they would monitor their performance. It was that combined activity that was so important for creating that pool of qualified contractors. It's not a single thing.

EV: The next question builds on what you just said, Jane, and so you don't have to repeat everything you just said but maybe if you want to amplify it: how did most BBNP grantees identify successful contractors? Did they require contractors certified through BPI or other certifying bodies, and is there a value in certifications as a way to ensure contractor performance?

JP: Yes. So, as she said, most grantees found that they couldn't require it because it limited their pool too much. There is some value to requiring such certifications. I would say though that the profession as a whole is still out—there's disagreement or controversy or variety of opinions as to the different types of certifications, the different roles of audits, even, so assessments—do you even need to have diagnostic tools to do the appropriate assessment, or could a lower-cost, faster assessment still reach your ultimate goal? So there's also some lively discussion in the upgrade profession as to what are the right qualifications, what is the right approach? So I would actually hesitate to encourage grantees to dive right in and adopt something too soon that starts to lock their market into a certain way, if this were an ongoing program having that effect. But let's see. The other way they do quality is they do pay random inspections. And it's also good to have the first several projects of a given contractor 100% and then you taper off into random, a lower amount, and if there's a problem you work with them on it and possibly pull them off your list. So that's that quality assurance.

EV: We have three last questions dealing with bigger picture. How will these programs continue without the Department of Energy funds? Please elaborate.

MM: That is a good question, and the sustainability of the programs that were developed through the BBNP funding is one of the key questions that we're going to be answering in the final evaluation. We know already from the continuing research that we've been doing that there are grantees that have developed business models that they believe will be able to carry them forward without the DOE grant funding. And there are grantees that have not been able to develop a business model that can carry them forward. Between now and December of 2013, this year, those grantees will be implementing those plans towards their sustainable efforts. So there is no conclusion to be drawn at this time, but we know that some of them are working in that direction and making progress, and others are being less successful in that direction.

EV: Will this evaluation look at cost effectiveness of successful programs? In other words, how do we ensure success at a cost that is sustainable going forward?

MM: We'll be doing it at a grantee program level. We'll be looking at cost effectiveness at the BBNP.

JP: And one of our component metrics and the composite metric was cost per energy saved, so that enters into it that way but in a simple ratio manner, not a—

MM: So we won't be able to take these programs and compare them to programs that are operating directly out of this evaluation. It'll be a general sense.

EV: And the last question before we go to the methods section, and this is a speculation but: do you feel that a national public service campaign educating the public on the benefits of energy efficiency would have been helpful at the onset of this program in driving demand?

MM: You can answer that as well as we can... Hard to speculate.

EV: Okay, I'll leave it at that. Why don't we go onto the last section, dealing with the methods?

MM: Yes, so our methods and then what's next.

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The next slide shows all our data sources. We got from the BBN program level data on grantees, which we scoured before talking with grantees. We also used that data that grantees had reported to the DOE to develop that success metric we were talking about. We talked with DOE staff and their contractors and stakeholders to understand the overall BBNP program, and then we talked with grantees, and the success metric that came out of the secondary data—we talked in interviews with grantees about their activities and it was 35 of the 41 grantees. It was the grantees that were up and running, that had not had a recent program change or director change, that includes fewer of the SEP grantees that had a different model than the other grantees.

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For the market effects, we've gone over this briefly, as Greg mentioned we had the market informants, we looked at participating contractors, nonparticipating contractors, and the vendors within that selection of grantees—

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--this selection that we've already shown.

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Our grantee success metric, I believed we've mentioned, is a composite of four indices of success. We look through achievements as of second quarter, 2012. Each of these components has good reasons to be a success indicator plus some drawbacks, so we developed that composite one, and it comported well with observers' (DOE, account managers and the program managers) views of success. This graphic you don't need to drill into, it just lists the grantees in an anonymous way here and the four component metrics and the composite that we used on the far right and in the red. So, this far right one, we just ranked grantees in this visual here from least to most successful (grantee 1 would be least, grantee 39 would be most). And it just shows how those grantees would have appeared had we picked one of the components rather than the composite.

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We conducted in-depth interviews with 35 grantees—10 of these were on-site, the others were by phone, most were over two hours. At least one was up to five hours total with different parties—we didn't have the grant director sitting down for five hours, but grantee and partners. We selected grantees for this with the conversation with the account managers and then looking over the data, as I described already.

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Market effects and trade allies, Greg went into a little, with the participant list provided by the grantees as working in their territories. The nonparticipating ones we purchased lists in the areas as Greg defined it—for the county or whatever—and they were contractors and vendors located in the territories of 22 of the grantees from among the 35 that we had those in-depth interviews with. And altogether, over 550 surveys conducted.

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Now we're getting to the next steps. Our draft evaluation was approved by the comments of 11 reviewers, and these reviewers set a high bar. You know, when you ask a lot of experienced evaluators with some of the best reputations in the field to critique your work, you hear a lot. They complimented our work but they pushed us further. We strengthened the preliminary report and they gave statements of expectations for the final, so consider this:

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“Actually I was uncertain whether to be impressed that 212 pages of text resulted in such a short list of recommendations that succinctly captured the few things that can be said unequivocally at this point, or to be disappointed with the lack of additional recommendations. I have come down firmly on the side of being impressed.” We like that, we're pleased. He's saying, “This much we know,” now here's the kicker, “many other things we don't; we will have to make bigger and more difficult judgments in the next round.”

*[next slide]*

So here I emphasized it. Okay, how do we make bigger and more difficult judgments in the next round? We know more. We know more than we know in the preliminary. So the preliminary was limited by two things: 1. The grantees were only halfway through, 2. These are complicated programs individually for the grantees, it's a complicated national undertaking... There's a lot we can learn and there's still a lot we don't know. So we need to be focused on identifying the key elements and going through the grantees to get that information so that we can make the bigger and more difficult judgments in the next round.

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So our activities: we will have this web-based survey that I mentioned of grantees and a few of the sub-grantees. We hope everyone answers because that will give us the ability to do statistical correlations. Without that—we have some other data we will be pulling in, so it's not just this instrument. We are coordinating with the DOE and information that grantees are reporting, so we will be pulling that in as well. But it needs closed-ended data to do statistical correlation analysis. We will go to a sample of grantees with a request for an in-depth interview. We have started working with a sample of grantees to get the data we need for the impact analysis, which will include both include an M&V component, which Nexant is doing—so on-site and file review, and Evergreen Economics will do a billing analysis to the

extent we have access to these data. We also—oh, I think I could've had a line across the page there, but regardless, grantee samples, email or call to request the contractor list. So we want to, as we did last time, request a contractor list from grantees and we will do that again so we have a good list for the contractor participants, and we will be purchasing a nonparticipant list. We're having a web-based participant survey that we will field primarily through the grantees. We've asked the grantees whether they'd like us to send it to them and they send it out or whether they'd like us to send it out which necessitates them telling us their contact information. Only two grantees wanted us to send it out, so we will be sending I think two grantees for them to forward to their contacts, because they consider that information confidential between them and their participants.

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For nonparticipants we're planning a store intercept survey. Again, our reviewers requested this—we're like, you know, what participants? We don't want a needle in a haystack. What do you mean? Anyway—we put our thinking caps on and came onto this approach for getting nonparticipant information. A phone survey with financial institutions—we didn't have that in the preliminary—to get insight into that. Participating contractors and nonparticipating equipment distributors, as we did before, and again the DOE and their staff and their contractors.

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Why a preliminary and final evaluation? I think we've made all these points. DOE hopes to be useful to its grantees and its team. It helps us refine our methods and better understand what we don't yet understand. You know the famous "There are the known knowns, the unknown knowns, and the unknown unknowns"... Well, our unknown unknowns has just gotten shorter, we think. They've popped into the known unknown list. So that's part of the final, we'll use the refined methods to get a deeper exploration and we will either confirm or disconfirm our preliminary findings.

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These reports are available. Here are their URLs, which, because this very slide deck will be online, you can get them off the slide deck or I can leave this up for a while. I have one more slide—

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And here is that information that Sargon told us in the beginning about where you can get these follow-up materials of this presentation here and the video of it. I'll put this back on,

*[next slide – back to previous slide, "Preliminary Report URLs"]*

Because these are the specific links to our study and that is the more general link. They're not exactly the same—on the last slide gives you a directory where you can find the report, and these are the specific report lengths. So I'll leave this slide up, and now we're done presenting. I guess we have 22 minutes for fielding any questions.



EV: I have a few that have been written in and then we can open it up. Just as a reminder to people that you can type in a question on your question box in the control panel or you can virtually raise your hand by clicking the blue circle button with a hand in the control panel. So, let's see. Actually, one question right here: "The slide on the composite components listed 39 grantees. Where are the final two? Aren't there 41?"

MM: There are 41 and actually I don't have in mind—

JP: So one of them, the data that they had submitted to DOE was considered to be completely out of sync with their actual program, so we didn't have their newest update at the time we did the model. The other grantee—

MM: I think had lacking data. I mean, with good reasons. The data were not complete.

EV: Another question: "Can you please elaborate on what data you collected and how you calculated cost per upgrade and cost per MMBtu? Did you use all grantee calls or a subset of them?"

MM: We did use a subset. Thank you for clarifying. So we left out the financing costs—we were going to those other costs. And we got the data as reported by the grantees into the BBIS, the Better Buildings Information System. And yes, we excluded the financing. We will need to be dealing with that in the final, but also, at this point most of that money was set aside and not actually in play. The grantees very quickly put the money into financing so that they could get it into their books as having spent their grant and that was in everybody's interest to have that happen. So a lot of that money wasn't in play and we didn't count it at all. We were looking at the other program costs.

EV: Right. I think the next question refers to Figure 1, the comparison of component success metrics. You'll like this one. "How do I find out what grantee number pertains to my program? I know the findings are just preliminary, but I am curious. Is it in the appendix?"

MM: Ed, you can countermand me, but I would say anybody who wants to know can email us and we can tell them. This was not attended for any public consumption—we didn't tell DOE—because the point wasn't to make or break any individual grantee. So I'm happy to give you that information if you want to email us. The individual grantee asking about their individual number on this page. Does that sound okay with you, Ed?

EV: Yeah, I think that's fine. Again, just to reiterate what Marjorie was saying, as an evaluator in general it's difficult to get good information, and so one of the ways we convinced people to provide that information is to make sure that they (being the grantees or the contractors) won't be personally associated with the numbers we're using. So as you can see in the highlights as well as the report, we provide aggregate numbers, averages, and distributions, but we try not to identify a person or any organization or municipality right now with one specific finding. But as the evaluation team said, if there is a grantee who would like to know more about their program I think the best thing is to contact the evaluation team directly.

JP: And recognize that these all could change by the end.

MM: Yeah, really change the next quarter, perhaps, or at least on the margins.

EV: Another question came in: “Are the cost metrics longer lines for smaller costs per BTU or retrofit, or longer lines for larger costs?”

MM: That is a good point. We actually have the metric and not the raw data. So in fact all of these metrics on this graph here are going with the smaller bar being less success and the longer bar being more success. So specifically cost per MMBtu, the longer bar is the lowest cost and the shorter bar is the highest cost.

EV: I don’t have any more written questions. Are there any people asking questions or want to talk? Do we have any of those? I’m asking the organizer.

SDJ: We do not have anyone’s hand raised.

EV: Thank you. I want to thank you all again—I don’t want to keep it going until 1:30 if there are no questions. We can talk of course... Let’s see. One more came in. “Do the costs per MMBtu only include upgrades, or also the audit savings?”

MM: Upgrade savings. Well—

JP: Probably claimed savings.

MM: Yes, it would be the total claimed savings that the grantee reported.

JP: So if a grantee is reporting savings from an audit, then that would be included. We have not verified or confirmed that the savings are actually present.

MM: Right. So we took what was in the program database, the BBIS, as savings to date for that program.

EV: And then, somewhat similar, “Do total energy savings per retrofit factor into that table?”

MM: Yes. All savings that the grantee had reported to BBNP we used as a numerator or denominator—whichever we used in the division. Any other questions?

EV: There is one last question--if you could also put up your contact slide, with your contact information?

JP: We don’t have one.

MM: Yeah, that would have been nice. You can go to our website, [researchintoaction.com](http://researchintoaction.com). There’s probably some way to contact us that way.

JP: Well, actually, it’s very easy. [Jane.Peters@researchintoaction.com](mailto:Jane.Peters@researchintoaction.com) or [Marjorie.McRae@researchintoaction.com](mailto:Marjorie.McRae@researchintoaction.com).

MM: Or Ed Vine.

EV: Another question came in. “Is there going to be any actual post-retrofit test-out retrofits requirement from grantees to verify actual savings? To your knowledge, are any grantees performing this function?”

MM: I think some grantees are performing it. And of course, they would be ones that are also performing a test-in, though you can have a test-in without a test-out. I think a handful of grantees are performing this function. And what was the first part of the question?

JP: Was it going to be worked into the evaluation? I don’t believe that we worked that into the evaluation of savings directly because we need to be doing an independent assessment, but when we look at the data for each grantee subject that’s picked. So there will be M&V sites that will be subject to project upgrade sites around the country, and we will look at all the data that’s available for that site. If that includes test-out and test-in data then that will be reviewed, but there’s no explicit intention to verify test-outs or use them in place of M&V.

MM: Although I did make a note that we would be able to explore if there’s a sufficient number of our programs that have it. We might be able to detect whether it’s a value.

EV: Okay. I think that’s it. I don’t see any more questions. Anybody raise a hand?

SDJ: Nope, we still have zero raised hands.

MM: I would like to briefly thank people who ask questions, because I did take a note on a number of them so we can try to pursue these things for the final. Thank you—some good comments were raised.

EV: Okay. I think on that note I want to thank everyone—the evaluation team, as well as the people at DOE and their contractor for setting up the webinar. We had over 120 people listed as participating on this call. It’s great to get the word out. Normally in the evaluation community there’s limited distribution of findings. We often prepare evaluation studies, sometimes we give talks at workshops and conferences and sometimes they appear in journal findings, but this is an important evaluation and I’m glad it’s reaching a lot of people. I look forward to the final results and of course we’ll have another webinar later on different aspects of this program. So thanks again for calling in—and organizer, you can do your magic.

SDJ: Will do. Thank you.