Local Efficiency and Renewable Energy Project Examples for ARRA Funds

Webcast Transcript

June 11, 2009

Contents

Introduction

Slide 1: The EPA Local Climate and Energy Program webcast titled "Local Efficiency and Renewable Energy Project Examples for A

Operator: Ladies and Gentlemen. Thank you for standing by. Welcome to the EPA Local Efficiency and Renewable Energy Project Examples for ARRA Funds conference call. During the presentation, all participants will be in a listen only mode. Afterwards we will conduct a question and answer session. At that time, if you have a question, please press the 1 followed by the 4 on your telephone. Your line will then be briefly accessed from the conference to obtain information. If at any time during the conference, you need to reach an operator, press star zero. I would now like to turn the conference over to you at EPA. Please go ahead ma'am.

Slide 2: Local Efficiency and Renewable Energy Project Examples for American Recovery and Reinvestment Act 2009 Funds

Neelam Patel: Thank you. I'd like to welcome everyone to the EPA Local Climate and Energy Webcast. Today our webcast is local energy and renewable energy project examples for the American Recovery and Reinvestment Act of 2009. Our agenda today is quite a packed agenda.

Slide 3: Webcast Agenda

Neelam Patel: We'll be having 7 different presentations for you. Just a quick overview of the agenda. I, Neelam Patel, will be going over our program, the US EPA Local Climate and Energy Program.

Slide 2: Webcast Agenda

Neelam Patel: We'll have Molly Lunn from the Department of Energy talking about the Energy Efficiency and Conservation Block grants. She'll be followed by Leslie Cook from the EPA Energy Star program who will talk about different Energy Star resources for using the ARRA money. And then we will have Curt Cole from Arapahoe County talking about their energy efficiency program. And then we will turn to the renewables section of our webcast. And we will have Blaine Collison from EPA's Green Power Program and then Hannah Muller from the Department of Energy talking about solar energy. And lastly we'll have Jeanne Hoffman talking about what is happening in Madison, Wisconsin on both renewable energy and also on energy efficiency. At the end of the presentations we will be taking some questions. Just to clarify, the questions should be submitted using the question function in Live Meeting. And they will be all submitted in writing. As we go through some of the logistics you'll get more detail about how to submit the questions. We do encourage you to enter your questions in during the presentations even though we will be answering them during the Q&A session at the end. And we also ask that you include the presenter's name so we know how to direct the

question. Today as we go through the presentations, because we do have a packed agenda, when there is one minute left for the speaker, we will have a small bell sound so please if you hear that don't be alarmed. And with that we will turn it over to Lauren to go over logistics for the live meeting software.

Slide 3: Live Meeting Software Logistics

Lauren Pederson: Great, thanks Neelam. Just to cover some of the basics of Live Meeting, you'll be muted throughout this webcast in order to minimize background noise and you can submit questions and comments in writing as Neelam mentioned using the Question and Answer function. If you want to see the presentations full screen, press F5 and then F5 to return to the Live Meeting Console. Today's session will be recorded and made available at the following link and throughout the webcast, if you have problems, please contact Nikhil Nadkarni at the following email address or phone number.

Slide 4: Feedback and Questions

Lauren Pederson: So for the Question Manager, if you have a question you will be submitting it through this. The screen shot here shows you how to do this. You enter your question into the box and click on 'Ask.' We will be compiling during the presentations and asking them at the end. As Neelam said, if you could put the name of the presenter in the question, that would be great, so that we know who to direct the question to.

Slide 5: Handouts

Lauren Pederson: If you would like hand outs of the presentations and background materials, you can select 'Handouts' in the Live Meeting console shown here in the screen shot. You can download any of the presentations in PDF format.

Slide 6: Attendees

Lauren Pederson: You can also see who else is participating by clicking on the 'Attendees List' of the upper left hand corner of the live meeting console.

Slide 7: Local Climate and Energy Program

Lauren Pederson: Now back to you, Neelam.

Overview of Local Climate and Energy Program

Neelam Patel: Thank you. So, a quick overview of our Local Climate and Energy Program. We are an information and peer exchange network and we focus on comprehensive climate and clean energy approaches for local governments and one of the things we do is really try to promote cost effective best strategies and with that we really do talk about energy efficiency first and then once energy efficiency is in place, we encourage looking at renewable energy and this is based on the cost effective components of energy efficiency. In addition, our program also offers tools, resources and guidance. And through these different resources we really do try to showcase successful program of local governments.

Slide 8: Local Climate and Energy Program Goals

Neelam Patel: And just to emphasize, when we talk about local governments, our resources do apply to tribal governments, regional governments, municipalities and small communities, they really are intended to reach a broad range in the audience. And what we try to do is really focus on greenhouse gas emissions and maximizing multiple benefits such as energy savings, cost savings, economic growth. And, you'll hear more about these principles that we work from as we talk about one of our new programs coming up.

Slide 9: Local Clean Energy Strategies Guide

Neelam Patel: Some of our resources include a Clean Energy Strategies Guide and today we are actually showcasing two chapters from our Clean Energy Strategies Guide.

Slide 10: Featured Local Clean Energy Strategy Guides

Neelam Patel: To come back to the topic of our webcast today, we have two documents that are available in the handouts that were also sent out to all the participants. We have Clean Energy Strategy and Energy Efficiency in Municipal Operations and this is a resource that can help you develop your program. The second resource that we are showcasing today is the On-site Renewable Energy Generation guide and this helps develop programs for renewables across the board.

Slide 11: EPA ARRA Resources for Energy Efficiency and Renewable Energy Projects

Neelam Patel: Other resources we have available to support planning projects under ARRA are on our website which you can access through the link listed on this slide. And it covers funding opportunities throughout ARRA that relate to clean energy and that targets local governments and tribal governments. We also have resources that help identify the appropriate EPA program and their resources that can help in certain types of projects. For example, there's access to the Energy Star program that focuses on energy

efficiency in buildings. And lastly we have a number of toolkits, documents and webcasts that really help on the implementation side of these energy projects.

Slide 12: Webcasts and Training

Neelam Patel: Another element of our program, the Local Climate and Energy program, are the webcasts. We've had a number of webcasts here, and generally they are annually but we are, excuse me, generally they are monthly, but we are taking a summer break so our next webcast will be in September of 2009. And you'll see that we have links to several other webcasts that are helpful for local governments.

Slide 13: Climate Showcast Communities Grant

Neelam Patel: So that talks about some of our existing resources. What I'd like to quickly mention to you now is a new grant program that's coming out, the Climate Showcase Communities Grant. To be very clear, this grant program is not part of the ARRA funding, which is associated with the Recovery money. This grant is actually awarded through the FY09 appropriation and just to clarify and provide some additional information on this grant program, I just wanted to, in additional to the information on the slide, I wanted to mention that this money, if you receive it, is money to be spent over three years and if you do apply, the opening for this is expected in summer of 09 and as early as next week. And we wanted to just mention that this is a showcase grant and so we really are promoting habits that can be replicated. We plan to make your projects and the lessons learned, we want them to be transparent so that other communities that are interested in pursuing these types of projects to reduce greenhouse gas emissions, can use your lessons learned to develop their own projects. And as communities think about applying, really this program is intended to reach diverse geographic locations, diverse sizes, so really it's a broad range of projects that we hope to see through this program. And one of the nice things about this program as well is that this money can be used for implementation. So again, please look for this new grant program unrelated to ARRA but focusing on greenhouse gas reductions and thinking about climate from a long term comprehensive approach.

Slide 14: Local Climate and Energy Contacts

Neelam Patel: And so with that, just to let you know, if you do have any questions about this program you are welcome to call Andrea Denny, or email, and she is the lead for the Climate Showcase Communities Grant, myself, or Emma Zinsmeister. So now, we are ready to move into our first presentation which will be Molly Lunn from the Department of Energy. Molly?

Energy Efficiency and Conservation Block Grant Program

Slide 15: Energy Efficiency and Conservation Block Grant Program

Molly Lunn: Thank you. Hi everyone, this is Molly Lunn. I'm from the Department of Energy, Office of Energy Efficiency and Renewable Energy, Weatherization and Intergovernmental program. I'm going to give you a bit of an overview of our new program this year, the Energy Efficiency and Conservation Block Grant Program. And, as I said, it is new for us here at the DOE, funded for the first time through the Recovery Act. And there is a wealth of information provided in these slides, and in the interest of time, I am going to breeze over them but I believe that these materials will be available to you and hopefully you can look back some of the slides that I gloss over.

Slide 16: Secretary Chu on the Block Grants

Molly Lunn: So, on March 26th, Secretary Chu announced the Block Grant program. These funds are intended to be a major investment in what is the cheapest, cleanest and most reliable energy technologies we have, that being energy efficiency and conservation.

Slide 17: Program Purpose

Molly Lunn: The program was originally authorized as part of the Energy Independence and Security Act of 2007 and the purpose of which was to assist state, local and tribal governments in implementing strategies which would help them reduce their fossil fuel emissions, reduce their total energy use, and improve their energy efficiency in several sectors. It was given funding for the first time through the Recovery Act. So, in addition, the program has the purpose of spurring economic growth and creating and/or retaining jobs.

Slide 18: Objectives

Molly Lunn: We at the department have also outlined a number of objectives in implementing this program. As part of the Recovery Act, we really hope to be as transparent and accountable to the taxpayers as possible. And we are hoping to invest these funds to stimulate the economy now, of course, but also to meet our long term energy goals. We're hoping to create comprehensive energy programs and strategies that have aggressive goals and benchmarks of current performance. We want to develop programs and projects that will truly persist beyond the grant period. These funds are to be used over the next three years, but we really hope that cities, states, counties and tribes establish program that will last long beyond that.

Slide 19: Funding Opportunity Announcement (FOA)

Molly Lunn: So, this is our Funding Opportunity Announcement, as I said, it was announced on March 26th and I hope that many of you have already taken a look at this and studied it intensely if you are interested in the program, this is your bible, this is where everything is, you can find out about application requirements, eligibility, all the pertinent issues, so really study up on this.

Slide 20: Appropriations: Total $3.2 billion

Molly Lunn: Total appropriations for the program for this year are $3.2 billion, about $2.8 billion of that will be distributed via formula grants, these are grants that are derived via formula for cities and counties, states and Indian tribes. In addition, there will be a competitive pot, which will total about $455 million and the details of that will be announced in the coming months, but they are not available yet.

Slide 21: Eligible Uses of Funds

Molly Lunn: So, what can you use this money for? You know, there are many eligible uses for these funds. There are in fact 12 eligible activities, primarily for energy efficiency and energy conservation. And we really want to encourage applicants to use these funds community wide, it doesn't just have to be on municipal buildings and facilities, it can be in your industrial sector, your residential, your business sector generally, your transportation, these are really intended to affect all sectors of your economies. And then finally, the funds must be obligated within 18 months and expended within 36. That means that funds have to be committed to go towards certain things within 18 months and then spent within 36 months. So as you can see here, the 12 eligible activities, they include a range of things, including Energy Audits and Retrofits, Traffic Signals and Street Lighting, Renewable Energy Technologies on government buildings, Material Conservation Programs, Building Codes and Enforcement and then finally this catch-all category, any other appropriate activity. Now we really encourage folks to look toward the first 11, but if you have a project that is thinking a little bit outside of the box, maybe a little more innovative, then you can pose it and it will be reviewed by the department and approved based on the extent to which it meets the program's goals, reducing fossil fuel emissions, improving energy efficiency, and improving energy conservation.

Slide 22: Types of Projects

Molly Lunn: So again, we are really asking that grantees choose projects that will provide sustained benefits. We want your projects and programs to live beyond just the grant period and to really provide energy savings for years to come. We also suggest that you try and maximize your benefits by linking these efforts to your longer term priorities, whether that be long term economic development, or community revitalization, but that's another great way, to marry your funds with long existing goals you may have. We also encourage you to give priority to programs that can leverage other funds, whether that be federal money, private resources, state money, you know, there are a host of other resources available through Recovery Act, as one example, that might work well with

these funds and leveraging that money can really be a way of making these dollars go even further. And finally, not just capital projects, although those are certainly eligible, but programs are a good way to look, you know, whether that is developing an Energy Retrofit and Audit program that might target all of your small businesses, so you would provide energy audits for them, retrofits for them, and then maybe combine that with a job training program so that people in your local community can perform that work. We are really looking for comprehensive approaches to these funds.

Slide 23: Planning Considerations

Molly Lunn: There's some planning considerations to keep in mind as you are in the final stages of coming up with your plan. First of all, Attachment D. This is your Energy Efficiency and Conservation Strategy and applicants have two options with this. The Energy Efficiency and Conservation Strategy is a requirement by law of the program. So applicants can either submit this at the time of the award, and that would be Attachment D to the Funding Opportunity Announcement and if you do this you can still conduct additional planning activities, but this is a quick way to get your overall strategy for your use of funds approved. We think of this as the executive summary for your plan. Attachment D talks about your overall goals and objectives for the use of funds. How your projects will help you meet those goals, your energy efficiency and conservation goals, and then a few other items such as how you plan to work with other entities, how you plan to track and report your performance, it's a four page document, it's really pretty straight forward. However, if you've decided that you would really like some more time to plan, if you would like to develop a more comprehensive strategy, you can submit after the award. You must submit it within 120 days of the effective date of your award and in this case you must submit an activity worksheet that is Attachment B1 of the FOA with the application which states that your first activity will be to develop your strategy. If you do submit a strategy, Attachment D, you'll still be attaching your B1, your activity worksheet, but those are really where the details of your projects come in. You'll submit one for each project that you propose. So if you don't decide to ask for funds upfront, but to submit your strategy after the application date, you can receive up to $250,000 for this activity. Next, this program has a Staged Dispersal of Funds, if you are below $250,000 you can get all of your money up front once your application has been approved, whether or not you submit a strategy at the time of application. If you are between $250,000 and $2 million, if you submit a strategy upfront, and its been approved, you can receive all of your funding. If you choose to wait to submit your strategy, again you can receive up to $250,000 and receive the rest of those funds once the strategy has been approved. If you are entitled to an award of $250 million or more, whether or not you submit a strategy at the time of award, you can receive up to $250,000 for, if you submit a strategy and its been approved you can receive up to 50% of your funds, and then you'll get the rest upon completion of progress reports, if you don't again, $250,000 for planning purposes. There are a couple limitations to uses of funds, limits on administrative costs, on revolving loan funds, and then finally on sub-granting, the details on that can also be found in the FOA. Again, NEPA, something you will want to keep in mind. NEPA can really hold up the speed at which your award will be made so there are a number of activities which will likely be categorically excluded from a

NEPA review. And we've identified those in the FOA, you can go to page 18 for those details. And then finally, reporting and metrics. It's really important to consider how you will be able to report back to us about the activities you plan to do.

Slide 24: Applications Accepted Now

Molly Lunn: So, applications are being accepted now. The deadline is fast approaching, it's June 25th. And in order to receive your funds you must register and apply. You are entitled to these funds if they are formula funds, but you have to tell us what you are going to do with them first. So, your first couple of steps, these applications slides in particular I am going to sort of breeze through, but this information is really critical so I wanted to provide it for you here, and just give a brief overview during the presentation. So, your first step is to download the Funding Opportunity Announcement, that's available at our website which is listed here. You'll also need to complete three registration steps, you'll need to get a DUNS number, you'll need to register with CCR and you'll need to register with FedConnect which is where you will be submitting your application. And then you need to download the application package from grants.gov. Again, the complete application instructions are available in the FOA, there's also a special instructions document that we created which is available on our website, and then we are hosting webinars about the application process once a week and again, the details for those webinars are available on our website.

Slide 25: Doing Business with the Federal Government

Molly Lunn: So, just to give you a taste of what is available on these slides and also in our application process, here are some details for registering, the first three registration steps that I mentioned.

Slide 26: Critical Step! Join the Response Team

Molly Lunn: This is what FedConnect looks like, once you join, once you register on FedConnect you also need to join the Response Team, that is how you are actually going to be applying, you are submitting your application as a response. So it's important that you join that team.

Slide 27: Accessing the Application Package

Molly Lunn: Here's a little more detailed information on accessing the application package, at grants.gov, that is the only time you will be at grants.gov for this program, is just to download this application. There's also the attachments that I mentioned as part of the FOA, those are not included in the package on grants.gov, so you need to download those separately from the FOA.

Slide 28: Bookmark Program Site www.eecgb.energy.gov

Molly Lunn: So, I'd mentioned it a little bit before, this is our website, this should be your first stop if you have any questions, if you are just trying to get some information about program, or if you are diving in a little bit deeper and need some guidance on activities in particular. All of the allocation tables are here, instructions on how to apply, you can register for our webinars, and then we have our solutions center.

Slide 29: Resources for Grantees

Molly Lunn: So our website is really where our resources for our grantees are located. As I mentioned, we have a series of webinars, they include planning and strategy development, the application process, financial incentive mechanisms, and we will continue to be hosting those over the next several months. You can register for those online and there is a complete listing available on the website along with past presentations. And that little icon on the right, that is available on the first page on our homepage of our website and you click there for all webcast information. We also have a solution center as I mentioned. This contains best practices, tools, and now newly our application resources page. This is where we have model application materials, so model strategies, I mentioned the strategy requirement, we have models of those strategies for cities, counties, state and tribes, we also have model project activity worksheets, those are available on this application resources pages. We are hoping to put a link, either today or tomorrow, to that application resources page in particular on our homepage, but for now, you will need to go to our solutions center, which you can link to from our homepage, and then just click on application resources. Finally, coming soon, we will also be providing some technical assistance from our network of national labs, that will be to help grantees once they have had their applications approved, to really implement those funds. And then, as I mentioned, there's also the competitive grants pot, which, the details of that Funding Opportunity Announcement will come out in the next several months.

Slide 30: Questions?

Molly Lunn: So if you have any questions, we ask that you submit either via email to this EECBG@NETL.DOE.gov site, we have one of our project officers who does an amazing job at turning around responses to those questions, they really do come in and out quite quickly. There's also our EERE information center, and again, especially there toll-free phone is a great place to go to help walk you through the website, to help walk you through where you can find certain documents, or connect you to someone who might be able to answer the questions that you have. They are also a great resource that we have here at the department.

Slide 31: Thank You!

Molly Lunn: So I want to thank you again for having me participate on this call, we are really excited here at DOE about the Energy Efficiency and Conservation Block Grant program and very excited about working with so many different communities, to really

push forward the energy efficiency and conservation page nationally. So, thank you, and please continue to check our website for updates.

Neelam Patel: Thank you Molly, that was an excellent overview of the Energy Efficiency and Conservation Block Grants. And you know, it is a lot of money, so we do appreciate you going over the application process as well as the resources.

Leveraging ENERGY STAR in ARRA-Funded Projects for Commercial Buildings

Slide 32: Leveraging ENERGY STAR in ARRA-Funded Projects for Commercial Buildings

Neelam Patel: And again, if there are questions that any of the participants have, please feel free to type them in to the Question Manager any time during the presentation and include the presenter name. So if you do have questions for Molly, please go ahead and enter them in. And our next speaker is Leslie Cook from EPA's Energy Star program and she's going to be talking about some of the resources that can help you spend money through ARRA generally and also specifically through the Energy Efficiency and Conservation block grants. Leslie?

Leslie Cook: Great, thanks Neelam. Hi everyone. So, thanks Molly for that great overview of the process, and I can't say enough about their solution center, I think its great and I was just on it today, actually, myself. I am on the pubic sector team at the Energy Star program for commercial buildings, so today I just wanted to give you a brief overview of our resources available through the buildings program here. As you will be receiving quite a bit of funds through the block grants, thanks to the ARRA fund, I just wanted to go through some of our new resources that are there for you to get through the Energy Star program and hopefully get the most bang out of your buck for the programs that you can use in your buildings specifically.

Slide 33: What is ENERGY STAR for Buildings?

Leslie Cook: So, for those of you who are new to our program, we are a voluntary program here at EPA and we focus on promoting the climate friendly reduction of energy waste and specifically for what I work on, it's in commercial buildings. And just so you know, we define commercial really as anything that's not residential or really industrial. So we do work with sectors in the commercial properties such as offices, retail, hotels, along with across the public sector including state and local governments, K through 12 schools and higher education. We have programs for the healthcare industry and also for small businesses and congregations. We also have some focused groups on restaurants as well. So, as I go through these slides and talk about our resource, keep in mind that we are here to help you find and implement the best ways to increase the energy efficiency of your buildings, but we also have resources for your community members. Like Molly clarified and pointed out in her slides, these ARRA funds and block grant funds do not have to be spend just in public buildings. So when you are looking for ways to engage

your private sector with efficiency in their buildings, I wanted to highlight those program for you too.

Slide 34: Portfolio Manager – Tracking Performance in Existing Buildings

Leslie Cook: One tool that we are specifically focusing on, that's a real cornerstone of our program, that we think is really useful for those that are planning to use their ARRA funds for efficiency program in your buildings is Portfolio Manager. And hopefully some of your are already using Portfolio Manager. There are a number of cities and states that have adapted this tool as their measurement platform to look at efficiency and the greenhouse gas emissions associated with the energy use in their buildings. And a lot of private sector organizations are using it as well. I believe that there are over 80,000 buildings right now being rated in Portfolio Manager. So, in general, you can use this free access online tool to translate your utility bills, which can sometimes be a little difficult to interpret, for your buildings at the whole building level, so that you can meaningfully assess and understand the performance of your building, look at them side by side to identify the best areas that you can go to, to improve. And also the tool not only tracks the energy use in your building, but also the associated greenhouse gas emissions, energy use, and water use and water cost. So, as we know that it is really important to leverage these funds in your buildings that need it the most, track your improvement over time and maybe most importantly, clearly and transparently documenting those savings, which we all know that we need to do. We hope that you can leverage Portfolio Manager to do that.

Slide 35: Portfolio Manager 1-2-3 for ARRA Projects

Slide 36: 1. Identify Best Opportunities for Energy Efficiency Improvements

Leslie Cook: So just a couple of really quick screen shots of what I just said. This is a simple exercise but it is not always undertaken and one of our partners just looked at their fire stations side by side before they embarked on an efficiency project for that sector of their buildings and they found that two of them were just really consuming much much more energy than the other stations and there wasn't a whole lot of reason for that, other than malfunctioning equipment, change in the O&M, maybe some things that need to be figured out. So, going through that benchmarking process to identify the buildings that needed the most support.

Slide 37: 2. Track Progress Over Time

Leslie Cook: So the screen shots here, what you'll see is a tool that you access through our interface online, so you'll be able to, hopefully you can see that there is a zoom in on how you can monitor your change from a baseline that you can set yourself, your building or your portfolio, and also a change in both energy use and in carbon dioxide emissions.

Slide 38: 3. Verify Savings Results

Leslie Cook: And then the third piece here is, of course, documenting your savings. And you can use Portfolio Manager to do that step of energy use, greenhouse gas emissions, water and energy costs. So we hope that this might be one tool that you consider using as you are looking to document these important savings that we want to show and brag about from all the work that we are able to do through the EECBG funds.

Slide 39: Promote EE to Your Target Markets with ENERGY STAR

Leslie Cook: And then quickly, I just wanted to go over some of the resources we have online before I turn it back over here. And it is good to keep in mind that we have resources for you in your local government portfolios, we also have many model programs where states and locals have specifically leveraged Energy Star and the use of portfolio manager to reach out to the private sector as they are targeting those different markets such as schools, commercial real estate, health care, et cetera. So, those are some examples there, we've got more at energystar.gov/government.

Slide 40: New resources on the Public Sector pages: www.energystar.gov/government

Leslie Cook: Also, there, I wanted to highlight a few things. We have put together some sample text for those EECBG activity worksheets, such as attachments B1, and this is just suggested model text if you were to incorporate Energy Star and Portfolio Manager et cetera into some of your activities, worksheets that have to do with efficiency in your buildings, or promoting efficiency in your community or target sectors. So that's available online as well as some recorded webcasts that Energy Star has conducted on Portfolio Manager specifically, so getting more into the nuts and bolts of it, and giving some examples of how some of our partners have maximized efficiency work with performance contracting. We also have put up a benchmarking starter kit as we are anticipating an elevated use of this tool as more new folks are coming in to track their energy use.

Slide 41: ENERGY STAR Sample Text for EECBG Activity Sheets (Attachment B1 in the FOA) (screen shot)

Leslie Cook: And then lastly, here is a quick overview of this sample text available online for your worksheet, I am sure you are all quite familiar with the image you see on your screen, that's a screen shot of the worksheet itself.

Slide 42: ENERGY STAR Sample Text for EECBG Activity Sheets (Attachment B1 in the FOA)

Leslie Cook: And here are the categories of sample text that we've put together. So, how can you integrate Energy Star into the work in your own buildings, how can you integrate it into a campaign or support programs for the rest of the community. And we also partner with our residential folks to put together the suggested sample text for how

you would include Energy Star and Energy Star home retrofit programs into your plans. And we have similar templates for states.

Slide 43: Benchmarking Starter Kit: Animated Portfolio Manager Training

Leslie Cook: And here's a snapshot of our animated training that you can take at energystar.gov/government.

Slide 44: Learn more at www.energystar.gov/government

Leslie Cook: And there is the website where you can access all of that. And I'm also happy to help any of you in any way that we can and my contact information I believe will be included in the follow up email.

Neelam Patel: Thank you, Leslie. That was very helpful.

Arapahoe County Government Energy Conservation Program

Slide 45: Arapahoe County Government Energy Conservation Program

Neelam Patel: Next we are going to have Curt Cole talking from Arapahoe County about his Energy Conservation program. Curt has over twenty years of experience as a facilities engineer and energy manager including work with baseline energy measurement, heat electric load calculation and measurement, project management and much more. He's going to be talking about an excellent example of a program happening in a county. So, Curt?

Curt Cole: Okay, thank you. As our host said, I've been at this energy conservation business for quite a while and become passionate about energy and water conservation so I thought I would share some ideas that may help you in your conservation programs and also give you some ideas about how to apply these to the energy conservation block grant applications.

Slide 46: About Arapahoe County

Curt Cole: I am not able to toggle down. Next screen please. Okay, a little bit about Arapahoe County. We are in the Metropolitan Denver area, we are a large county both geographically and in terms of population. Next screen.

Slide 47: Energy costs are going up, while County revenues are declining

Curt Cole: It is no secret that energy costs are going up while county revenues are declining. Here's just a few of the examples of some of the things that we are being hit with here in Arapahoe County. Next screen.

Slide 48: Program Summary

Curt Cole: Here's a summary of the elements of Arapahoe County's energy program. One of the corner stones is the energy performance contract, and I am going to talk at length about that. We have several Energy Star buildings and we are very enthusiastic about the Energy Star program and I'll talk about how you can apply that and use that as a tool for all these things. We have a written policy which actually addresses many of the points in the block grant, we've instituted behavioral changes and of course have hired an Energy Manager. Next.

Slide 49: Performance Contract Summary

Curt Cole: So, this is a brief summary of our performance contract. You can read what we are doing there. We didn't cover all of our buildings with this, but it's a very

substantial program and again, 12 years of guaranteed savings on the six largest buildings that are in the performance. Next.

Slide 50: Electrical Improvements

Curt Cole: On the electric side, we have implemented several kinds of improvements. And these are not novel things, these are really standard strategies that are well proven, like lighting upgrades, occupancy sensors, chiller plants, and so forth. Next.

Slide 51: New Efficient 130 Ton Chillers

Curt Cole: And there's an energy efficient chiller that replaced an old worn out energy hog. Next.

Slide 52: Variable Frequency Drives on Chilled Water Pumps

Curt Cole: And Variable Frequency Drives on Chilled Water Pumps. Next.

Slide 53: Chilled Water Economizer/Flat Plate Heat Exchanger

Curt Cole: A chilled water economizer that actually in our climate turns out to be a very good thing that is often overlooked. Next.

Slide 54: Natural Gas Improvements

Curt Cole: On the natural gas side, as you can see we replaced several boiler plants, these so called sidearm heaters are just terrible, they require that you run a large heating plant just for domestic hot water in the summer time when you don't really need the full plant running. And in one case we installed a heat recovery system to take some load off of the natural gas side. Next.

Slide 55: Efficient Induced Draft HW Boilers

Curt Cole: And there's an example of that. Next.

Slide 56: Water Improvements

Curt Cole: On the water side, because we are in a semi-arid area, we are almost to desert in the Colorado flat range, we have done several things there, as you can see. Next.

Slide 57: Other improvements

Curt Cole: And in addition, there were several other improvements. The energy management system and the building automation system I am going to talk about a little bit more. But particularly the automation system lets us control set points and schedules.

And the retrocommissioning of existing building and new building equipment was very effective as well. Next.

Slide 58: Chevron Energy Solutions (screen shot)

Curt Cole: This is a screen shot of the energy management software that I use on a daily basis and if you look at the yellow line there, I'm looking for anomalies in this kind of thing, so the yellow line shows a big spike, and this happened to be mid-November, what happened was that, two, this was on a 3,000 square foot office building, two chillers staged on when we really didn't need any mechanical cooling at all, turned out to be a problem with the building equipment controls. Next.

Slide 59: Chevron Energy Solutions (screen shot, example 2)

Curt Cole: Here's another example from the energy management software that shows a peak load at building start up in the morning. What was happening was that the schedules were set up so that all of the mechanical equipment was coming on at once rather than being staged on more smoothly. I was able to work with our building technician for that building to correct that and he's really done some good things that have helped us tremendously. Next.

Slide 60: Chevron Energy Solutions: 24 Hours Graph

Curt Cole: And this is more normal early winter building load profile office building. Next.

Slide 61: Screen Shot

Curt Cole: This is a screen shot from our building automation system and our maintenance staff uses this site a lot, but I use it as well, and this lets us take a look at a whole zone or a whole area within a building and look at the temperatures in occupied spaces. Next.

Slide 62: VB-11

Curt Cole: And from that screen you can jump to individual zones and in this case, this one happens to be, happens to illustration a Variable Air Volume Box and you can see we have a space temperature of 63 against a set point of 70 and we are only discharging 70 degree air, heating valve position is 100%, hey, we got a stuck heating valve, it let's you trouble shoot this very quickly and very effectively. Next.

Slide 63: Air Flow System

Curt Cole: And a slide of a building system, this happens to be a boiler plant, and you can see that our staff has put the one of the hot water pumps, the magenta one over there,

in “Override” in order to maintain differential pressure in the hot water loop on a day when we had a high heating demand. Next.

Slide 64: Additional Benefits

Curt Cole: The additional benefits I can’t begin to overstate. You don’t need to sacrifice building comfort for energy efficiency, in fact I think that we have shown that we really have improved comfort levels. We’ve got more even lighting, we’ve got reduced maintenance costs, overall improved occupant satisfaction. Next.

Slide 65: How did the Energy Performance Contract Turn Out?

Curt Cole: Next.

Slide 66: Energy Performance Contract Summary

Curt Cole: This slide illustrates a summary, a financial summary of the energy performance contract. As you can see in the first line, we actually achieved measured savings of $737,813. We had some other savings that we calculated from buildings that we did not have direct measurement on that we contractually agreed to include in there. And then in the teal colored line, the $969,505 was our net combined savings for our first year of the contract. That’s really impressive. They guaranteed $587,000 so under promised, and over deliver, that’s one of the best things you can do. But our county commissioners, when they saw these results, were just really, some of them had been skeptical about this program and they loved seeing the savings here. Next.

Slide 67: Electric Usage (kWh) – Comparison

Curt Cole: Now I’ve got several slides showing the details. This happened to be a kWh baseline against current for contract year one. Next.

Slide 68: Electric Demand (kW) – Comparison

Curt Cole: And Next.

Slide 69: Natural Gas Usage (therms) – Comparison

Curt Cole: And really big improvements in the Natural Gas Usage as you can see. Next.

Slide 70: Water Usage (gal) – Comparison

Curt Cole: And next.

Slide 71: Rebates by Xcel Energy

Curt Cole: In addition, we achieved some rebates from Xcel Energy, whose our primary energy provider here in the front range of Colorado. During this time, these total $95,000 and change and we were able to plow much of that money back into further energy improvements and this is an example of the type of leveraging that the previous speaker was talking about, that the EECBGs highly encourage. Next.

Slide 72: Recap and Summary

Curt Cole: I think that this has been a very successful program for Arapahoe County. I think the really good thing, and what has caught the commissioners attention, is that it demonstrates good stewardship of the taxpayer's resources. Next.

Slide 73: Energy Star for Buildings

Curt Cole: The previous speaker also talked about the Energy Star buildings. I won't go over that in detail. Next.

Slide 74: Screen shot of Statement of Energy Performance

Curt Cole: Here's a screen shot for one of our large office buildings. And this is a really useful tool for me for tracking the energy use, energy intensity for the site, and then I can compare that across the 22 buildings in our fleet of buildings. And in particular, this gives me good measure of the greenhouse gas emissions in our on site energy use, and that is going to be a key in tracking and doing the measurement and verification for the block grant program. Next.

Slide 75: Arapahoe County Energy Star Buildings 2007

Curt Cole: So, in 2007, largely due to the good efforts of my predecessor here in this position, we had three Energy Star buildings. Next.

Slide 76: For 2008, in the state of Colorado there were 13 public buildings that got Energy Star ratings and we had 5 of them. So, this is a really good program, its relatively easy to use, I would encourage you all to look at that. And once again, our county commissioners love the positive public recognition that this has gotten for the county. Also, I can't say enough good things about the outstanding support and encouragement we've gotten on this and many other issues from our regional Energy Star representative, Patty Crow in Denver.

Slide 77: Curt's Concepts to Live By

Curt Cole: Energy efficiency is probably the highest return, lowest cost investment that you can make today. So the cheapest energy is that which you don't use. And as my wise old control systems professor at Purdue said, you can't manage what you don't measure, therefore, I need more points, I need to do more measurement. Next.

Slide 78: Other useful resources

Curt Cole: Some other useful resources on here. Some of which have been mentioned before. We at the county level have been getting some excellent support from naco.org. And we in Colorado are blessed to have outstanding support and encouragement from the governor's energy office there. And the last one of course is my contact information. Thank you!

Slide 79: THANK YOU!

Neelam Patel: Thank you, Curt. That was a great presentation covering a lot of different topics. And you know, speaking of the tool and some of the messages that you sent out, you couldn't have said it better in your last slide about what you live by, I like the Negawatts. (laughter)

Curt Cole: I stole that from Amy Levins, so. (laughter)

Neelam Patel: Oh, Part of the Colorado scene. So with Curt's presentation we are concluding the energy efficiency component of our webcast. And again, as a reminder, as you develop these energy efficiency programs, definitely use some resources that were mentioned and also we have the chapter that we are showcasing, Energy Efficiency in Municipal Operations to help you develop these if you are at the very beginning stages and walk through the entire process and all the information you have heard today can help link and support the process that's outlined in that chapter.

On-site Green Power Opportunities

Slide 80: On-site Green Power Opportunities

Neelam Patel: So moving away from energy efficiency, we are now going to start talking about renewable energy and to kick off the renewable energy conversation we have Blaine Collison who is going to talk about EPA's Green Power Program. Blaine?

Blaine Collison: Hey, thanks everybody. So, green power is the most fun you will ever have messing with energy. I don't know, it's pretty interesting stuff. And so I am going to tell you everything you need to know in the next 7 minutes.

Slide 81: What is Green Power?

Blaine Collison: So green power is a set of technologies, it is electricity only, it is not thermal, it's not process, it's just electricity. It's not a couple of things that are worth noting quickly. It is not large scale Pacific Northwest hydro, there are some pretty significant environmental consequences to that stuff, it is not nuclear, although the nuclear guys will tell you that they hold the key to dealing with climate change and that their electricity is carbon free, it is in fact carbon free but there are some nasty environmental consequences on the front end and the back end.

Slide 82: Buying Green Power – Product Options

Blaine Collison: So it is this set of technologies. There are some vintage requirements within the Green Power Partnership. And quickly, well, I'll get to that. So keep these things in mind as we move through the remaining 6 minutes and 30 seconds. There are three procurement options for green power. Bundled electricity products, that utilities may or may not have available. One quarter of US utilities currently offer green products of one kind of another. Next are the vast majority of the voluntary green power market place. The RECS are the unbundled environmental "attributes" associated with renewable generation. That is, if you picture a wind farm somewhere, and a turbine spinning happily in the breeze, two things coming off that turbine, there's a stream of electrons, and electrons look like any other electrons, you can't tell a wind electron from a nuclear from a coal from a natural gas, from whatever, it doesn't work like that. Another way it doesn't work is if someone buys a wind product, a wind electricity product from a utility, the wind electrons are not in fact tagged at the point of generation and wheeled oh so carefully through the grid, to that customer's outlets or facilities. It doesn't work like that either. And so, in fact, RECs and Green Power Electricity Products and pretty similar in a lot of ways. The straight REC model produces some pretty interesting flexibility for consumers as well as, frankly, for stakeholders in development. And then on-site of course, I want to focus most of my remaining 5 and a half minutes on some on-site issues and options here.

Slide 83: Benefits of On-Site Renewables

Blaine Collison: So, benefits of on-site are significant and varied. Energy price stability and reliability are pretty significant ones here, because as these technologies don't have any fuel inputs, they are immune from fuel input price volatility. Local job creation, a friend of mine who runs one of the solar associations has a pretty good line about this, that we can't drill our way out of our energy issues but we can certainly manufacture our way out of them. And renewables deployment involves new energy technology, we are talking about building power plants whether its on a distributed scale or a utilities scale. And all of that equipment and technology needs to be manufactured. We are actually already starting to see some re-tooling of existing manufacturing facilities, re-purposing of facilities and, in fact, development of new ones. So that's something to keep in mind.

Slide 84: Traditional Barriers to Adoption of On-site Renewables

Blaine Collison: The traditional barriers are fairly well known. High up-front capital cost being chief among them. So some of the funding opportunities being discussed here may be pretty interesting in terms of their ability to address that. I would suggest that payback is the wrong economic metric, but there is that issue of recouping the investments.

Slide 85: Partnership Offerings & Benefits

Blaine Collison: Quick plug for the partnership here, is come take a look at our website, because we've got some resources here that could be pretty useful. We have a peer group for you already of state and local governments that are doing renewables, whether its straight procurement or on-site development, lot of lessons learned, lot of good experience to leverage, good definitions for benchmarking, lots of technical guidance and procurement guidance, an interest peer group of leaders. They are at the top partner list, included in a top 50 national list of top renewable energy users in the country and even a top 20 list for state and local governments. It is pretty interesting to see what those folks are doing already.

Slide 86: On site wind options

Blaine Collison: On site wind options. On site wind gets pretty interesting. Most of the wind development that we see around the US right now is utility scale turbines which are big, and we are starting to see some more development down here in these small turbine end of the spectrum, and this mid-sized commercial turbine. Vertical axis turbines offer some interesting potential, haven't seen a lot of deployment of that yet. There is a couple that I am aware of that are getting ready for some. This picture on the bottom right here is actually a potato chip factor in Wisconsin, and building integration of turbines offers some interesting benefits. We know that we get a lot of prevailing wind hitting on the face of a building and then accelerating up the slope, and so up here at the top edge, there's often a pretty good wind resource.

Slide 87: Photovoltaic Solar and Wind Resources in the United States

Blaine Collison: Maps of this. The resource availability varies of course. And it matters for testing options.

Slide 88: Biomass Energy 101

Blaine Collison: Biomass is a really interesting option, this slide and the next one are from a biomass energy webinar that we did, just a few weeks ago and it is all up on our site, so you can come take a look at it, or download it, we have some pretty interesting case studies from schools around the country that have done some pretty interesting biomass work.

Slide 89: Biomass Options

Blaine Collison: Neelam Patel: Just to interrupt, please make sure that everyone puts their phones on mute. Thank you.

Blaine Collison: Just some additional details here on biomass, I have deliberately overloaded my slides so that folks can take something extra away.

Slide 90: Green Power Partners by Sector" Who's Buying & How Much?

Blaine Collison: One of the things that I have done here is to take our green power partnership partners, and there are about 1150 of them now, and broke them out by industry and ranked those industries. It is worth noting that the single largest sector in the economy is the local municipal governments, here, running behind IT, retail and food and beverage. So again, lots of interesting work that is happening, good peer group is available.

Slide 91: Want to know more?

Blaine Collison: Here's our website, we have some specific information about onsite projects. Please call or email at any time. And I believe that I am right on the 7 minute mark.

Slide 92: Appendix: PV Options

Blaine Collison: So I have some additional information about solar, but I will stop there.

Neelam Patel: Thanks Blaine. Apologies to everyone about the background noise. If I could just have all of the speakers make sure that their phones are on mute, so we are not hearing side conversations, that would be very helpful. Again, apologies for the sound that we are hearing in the background. So Blaine, thanks again for going over what green power is, and how that is defined.

Accelerating Solar Energy at the Local Level

Slide 93: Accelerating Solar Energy at the Local Level

Neelam Patel: We are going to move onto our next speaker, who is Hannah Muller from Department of Energy and she works in the Solar Energy Technologies program. Hannah?

Hannah Muller: Hi Neelam, and good afternoon everyone. Lauren, I wasn't able to get to a live internet connection, so I will need you to advance the slides for me, if you can.

Lauren Pederson: Okay, no problem.

Hannah Muller: Thank you. Okay, so I wanted to thank EPA for hosting this call and for giving me the opportunity to participate. I really really feel that local governments are essential partners for building some of your recovery money to help fund solar into your community. So before I get started I actually want to play a quick game of solar myth-busters.

Slide 94: Solar Myth-Busters

Hannah Muller: There are some common misunderstandings about solar technologies that we run into, that we need to clear up so that you can all become advocates for solar if you are not already. Alright, the common one is that your city does not get enough sun to use solar technologies. Your city, or your county or your state. And the fact is that, yes you do. The entire US is rich in solar resources, even in cities like Seattle and Portland and even in Alaska. There is plenty of sun to use in solar technologies. A good comparison is to the country of Germany, which actually leads the world in solar installations, but has much worse sun than the United States. So no matter where you are, you have plenty of sun. Myth number 2. Solar is a new fangled technology and its still in development and you shouldn't invest in it quite yet. Well, cell phones are still in development, but we all use them every day. So, the solar technologies on the market today, they work, they are safe, their reliable they are effective, they are ready to go. And actually, the graphic that I have put on the bottom of this slide here is straight from Home Depot's website. And Home Depot solar installation services, over the counter and to me this says that solar is really starting to go mainstream. The third myth that we hear often, which, depending on where you live might not be a total myth, is that solar is just way too expensive. And, depending on where you are, your state and local incentives might actually make solar competitive. We've got power purchasing agreements, and other third party creative financing mechanisms, that are making solar more and more affordable. And so you obviously want to invest in energy efficiency and conservation first, solar can have a good economic proposition in certain areas.

Slide 95: Recovery Act Financing Options for Solar

Hannah Muller: Can we adjust the background noise? Okay, I'll go to the next slide which says Recovery Act Financing Options for Solar on the top. So I am going to jump into the meat of my presentation, which is how to use recovery act funds to help local governments that are trying to increase solar energy use. First off, we will start with the grants. Molly did a great job earlier of describing the Energy Efficiency and Conservation Block Grant program. And while these funds are mainly focused on efficiency and conservation, they can be used for renewable energy projects, including solar, on government buildings, and they can also be used, in the case of an integrated program, that's focused on efficiency, but may have some renewable component. So this could be something like, maybe a comprehensive residential retrofit program, where, if you are already going to go into homes and do a full on audit, to see what the best investments are, that may also include a solar audit or something like that. So, if its integrated into an efficiency program, solar projects are eligible under the block grants. A second grant opportunity under the Recovery Act is the State Energy Program, which as many of you know, that states also receive significant funds and there's a lot of discussion about what to do with those funds. So, some already have detailed plans in place, and others do not. My recommendation would be that if your local government has promising solar projects that you'd like to propose, go ahead and approach your state to see if they are interested in using some of those funds for that. Second category for options in the Recovery Act for solar is we have three bonding programs. Two of these, the Clean Renewable Energy Bonds and the Qualified Energy Conservation Bonds were preexisting programs that were significantly increased in funding under the Recovery Act. And then the third category, the Build American Bonds, are brand new. So Clean Renewable Energy Bonds are designed as interest free financing for public sector projects. They are tax credit bonds meaning that whoever buys them from you can take a tax credit rather than have them pay you interest, so from a local government perspective it is interest free financing and this can be used to pay for public sector renewable energy projects. Qualified Energy Conservation Bonds, or QECBs work very similarly to CREBS but they have much more of a broad use. So rather than just public sector projects you can fund community wide projects. The funds for the QECBs are actually with the states right now, and what I have heard from our financial analyst at DOE is that because states are pretty busy administering their State Energy funds right now, we may not see activity on these QECBs until the Fall of 2009. The next category of bonds are these Build America Bonds and these work a bit differently. These are taxable bonds, which are of interest to a wider market than the tax exempt bonds which can be pretty helpful in this economy. And the way it works is that the IRS will reimburse you 35% of interest on the bond, so this effectively lowers your interest rate and these can be used to finance infrastructure repairs which can include projects that incorporate solar. Then we've got tax credits. One of the most important things that the stimulus bill did for solar was to extend the 30% federal investment tax credit for solar through 2017 and to remove the $2,000 cap on the tax credit that was there for residential installations, and now it is uncapped. And because tax appetites are also lacking in today's economy, the federal government also created a grant program that people can opt for in place of the tax credit. The Treasury is still finalizing the guidance for that grant program. The Recovery Act also clarified some vague language that was in the Internal Revenue code about the relationship between subsidized energy financing, like local government loan programs,

and the 30% federal tax credit. So just to clarify, it is now allowable for people to both participate in those local financing programs and to take the full 30% federal tax credit. So this was good news. And last but not least, the Recovery Act allocated $6 billion for DOE's Loan Guarantee Program and DOE is finalizing details on that and expects to come out with the guidance and the application instructions in July.

Slide 96: $$ (alone) can't buy you love (or solar)

Hannah Muller: And I just realized that one of my very silly titles made it in to this very serious presentation today. The point of this slide is that while the financing I described on the previous slide is obviously very important, and the Recovery Act gives you lots of options for investing in solar systems, there are some other areas that you need to address if you truly want to create a sustainable solar market in your community. So I think I might be getting close on time, I am going to gloss through these, there are five key barriers that local governments are uniquely positioned to overcome. The first is permitting, you can streamline your solar permitting process, make it as quick and as cheap as possible. I think that City of Portland has it down to a 24 hour online turnaround for solar permits, and you can also train your code officials so that they know how to do proper inspections. Secondly, we've got Solar Access, and my personal opinion is that this is sort of a sleeper issue that is going to get messy as we get more and more solar installations, so this is something that you can address up front. And basically think about what you can do in your building and zoning codes to protect access to sunlight for solar systems. Next we have Interconnection and Net Metering. Those are fancy terms for those of you who aren't familiar with them, basically interconnection is how you connect your solar system to the electric grid and Net Metering is a billing mechanism by which if you are producing more electricity than you are using in your building at a given time, you can sell that excess back to the utility for some reasonable rate. So you can work with your utility, whether it's a Muni or an IOU or a cooperative or whatever, you can work with them to improve these policies. So fourth area, train your solar workforce so they can support various training programs or run their own. And last but not least Customer Assistance and Assurance. So as a respected independent body, a local government can play an important role in terms of unbiased technology evaluation, or big reviews, or recommending contractors to install solar systems, and I believe that Jean from the city of Madison will talk about their program next. Next slide please.

Slide 97: DOE Resources

Hannah Muller: So if you are looking for more information on how to get solar into your community, you are in luck, DOE is publishing a guide called Solar Powering Your Community: A Guide for Local Governments. And that will be out July 24th, we are going to release that at the National Association of Counties conference in Nashville on July 24th. And this guide is a pretty comprehensive resource, it has descriptions of different policies and programs, implementation tips and options and real examples for other local governments in these seven topic areas. It is available at that Solar America Cities URL there. And then I just wanted to quickly mention our one, it is actually not a

funding opportunity, but rather a technical assistance opportunity that we have open right now. And this provides technical assistance to highly visible, highly replicable, and somehow sort of unique in terms of addressing a key market barrier, unique solar installations. And all cities and all entities, local governments are eligible to apply for this. Awards have varied from about $50,000 to $250,000 and even higher in some cases, worth of technical assistance for projects. And we review these on sort of a rolling admissions basis, so it closes every quarter but it is open right now and you are all encouraged to apply.

Slide 98: Thank You

Hannah Muller: And on the next slide I have my contact information, and that's it for me.

City of Madison Sustainability Program

Neelam Patel: Thank you, Hannah. So now we will move into a city, Madison Wisconsin, what they have done, mostly on renewable energy, but as you'll see Jeanne Hoffman talks about their comprehensive plan, it also addresses energy efficiency, actually it has the first step of energy efficiency.

Slide 99: Local Efficiency and Renewable Project Examples for ARRA Funds

Neelam Patel: So I'd like to introduce Jeanne Hoffman, she is with the city of Madison, Wisconsin and is the city's Facility and Sustainability Manager. She is the team leader of a team of city architects and engineers, maintenance and custodial staff who build and operate the city's 300 buildings in a sustainable manner. Jean works with community partners to help the community better understand sustainability and before she took on this position she was actually an aide to the mayor, where she worked on planning, development, environmental and transportation issues. Jeanne?

Jeanne Hoffman: Hello! Thanks for putting this event together. And for all the people listening, if you could raise your hand if you have been to the city of Madison. There's a little office Live Meeting humor there. It's been a long, long presentations here so I am going to roll through my stuff pretty quickly so we can questions, because I am sure that there are a lot of burning questions out there.

Slide 100: Sustainability Goals for the City of Madison

Jeanne Hoffman: So, again, my name is Jean Hoffman and I am with the city of Madison. What we have done is, I am just going to go through our steps for looking at making our city operations more sustainable. And it all really started back in 2005 when the Mayor at the time, Mayor Cieslewicz who was very committed to energy efficiency and renewables, wanted to put together a plan to make the city of Madison a national leader in energy efficiency and renewable energy. That plan was adopted by our common council in 2005 and I think it is very important for cities and local units of government to really start off with a plan that the governing body adopts, so that you have that buy-in, that political buy-in and an opportunity for stakeholder groups to participate in the development of a plan.

Slide 101: Highlights of "Building a Green Capital City Plan"

Jeanne Hoffman: So the highlights for our plan were to create an office of sustainability, and adopt a framework for sustainability which the city adopted the Natural Step. We have, in the plan it also calls for the adoption of green policies and projects, energy efficiency projects, solar projects, wind purchases, Green Fleet, and then engaging the community. The Common Council did adopt the Natural Step as our framework for sustainability in 2005. They also have adopted a resolution that requires LEED certification for all new construction in the city. And for the future, what we are really

working on right now is developing a green building program that would be available to the private sector. We feel now that the city of Madison has its own construction LEED certified, that we need to further engage the private sector in green building. We are working through developing a CO2 baseline and progress towards lowering our baseline through all the different activities and projects that we've done that you'll see. And of course, since we've adopted our plan, in January of 2005 and have implemented a number of the recommendations, we're actually right now in the beginning stages of putting together a new version of that plan so that we can continue implementing different aspects to move us forward to sustainability.

Slide 102: Office of Facilities and Sustainability

Jeanne Hoffman: So just to quickly go through some of the components of our plan, the plan calls for the development of the Facilities and Sustainability Office, this position was created in the 2007 budget and I was hired into that position in May of 2007. We are housed in the Engineering division and again as was mentioned in the bio, I manage architects, engineers, maintenance and custodial staff. We really are a services agency in that we partner with the Parks department, fleet services, all of the public work agencies, and working with them on energy management, retrofits, remodeling, new construction, but in addition to that my role is also to engage the community, the business community and residents and hopefully through the stories that we have about how we've worked towards sustainability in city operations, it will help to encourage the private sector and residents to do the same.

Slide 103: Adopting a Sustainability Framework: The Natural Step

Jeanne Hoffman: So I had mentioned earlier that we had adopted a framework for sustainability. We chose to adopt the Natural Step. I think that at first when the city began to look at adopting the Natural Step, there was a lot of hesitation on the part of a lot of people that work at the city, but as we have moved through this it has really become a really critical part in how quickly we have been able to implement a number of our policies and projects. Simply put, I am one person with two architects, two engineers, a handful of maintenance staff and the city has over 4,000 employees and so to be able to train them in a sustainability framework and encourage them from the top down and the bottom up to work on sustainability projects, does more than I could possibly do if I worked 24/7. So what this framework does is it asks questions of the city. So every time we are making a decision, which obviously local units of government consume a lot of resources in fuel, electricity, products that we purchase, so in the decisions and policies that we set forth, we are always asking ourselves, are we lowering the amount of substances that are extracted from the earth in the decisions that we are making. Are we limiting the number of substances that society produces that nature cannot decompose readily. And are we also lessening the amount of segregation of our natural systems. So, when we make decisions, and this really happens at top, key level meetings with the mayor and top management when they are putting budget together and putting policy together and also through all the city government, these questions are being asked, and we are not only looking at cost, but we're looking at the environmental

impact of our decisions. So we also go through an ABCD process, A for awareness, B for baseline, C for compelling vision and D for down to action. And so for awareness we have done a number of trainings on the PNS, we have probably trained about 150 staff throughout the city government. We still have a long way to go to get to 4,000. But we pick key people in all of the agency's that we feel really need to participate in this training. And the invitation for the training is actually sent by the mayor, so it's not training that someone can just say I'm not interested in doing. We've conducted a building assessment of all of our buildings to establish our baseline, our compelling vision is to make Madison a national leader in energy efficiency and renewable energy and we are obviously down to work doing a lot of projects that we will talk about.

Slide 104: Green Policies and Projects

Jeanne Hoffman: So, some of the things we have done are implemented a number of green policies and projects. These include green cleaning, green purchasing, how we deal with e-waste and recycling, a paper printer policy that requires that all of our printers be multi-functional devises that can be shut down essentially at the end of the day, that automatically do duplex and you have to set the printer if you, for some reason, do not want something duplexed. And then also looking at standards for the city fleet for mileage and emissions. And all of these are being worked on by a cross section of city agencies. So, for instance, the green cleaning team was made up of folks from our library, from our convention center, from facilities and from purchasing. And that cross section across agencies just lends itself to having the city work together towards working towards more sustainable policies and projects.

Slide 105: Energy Efficiency Projects

Jeanne Hoffman: So of course we are doing a lot of things for energy efficiency, and I'm not going to go through a whole list of all of the things we are doing, but obviously I think for people who work in local units of government, its pretty apparent that we have a lot of facilities and once we build them, we own and operate them for a very long time. And I would add that there is a lot of aging equipment and building envelopes out there and so it really is, as other speakers have mentioned, this is really where you need to start looking first. And so, as I mentioned before, for new construction we are to required to use LEED certification, in recent years we have done one library that is LEED certified, another one that is in the planning stages, a fire station, our convention center is LEED certified, and a parks facility. We've done a number of remodeling, retrofits for energy efficiency, many lighting projects. At the end of 2009, basically our entire public works street department, maintenance facilities, vehicle storage and outdoor yard waste areas will be completely remodeled with new lighting, LED lighting outside and energy efficient inside. We have done a number of HVAC projects and controls, police stations, fire stations, our senior center is going through a major remodel. We are systematically going through and making sure that all of our old fire stations are insulated and sealed. The list is long and somewhat daunting, but once you get started, you actually start making progress and it is very rewarding.

Slide 106: Solar Madison a US DOE Solar America City

Jeanne Hoffman: And I also wanted to quickly mention on that previous slide that what's so wonderful that we are doing here in the city of Madison is that we do have the support of our executive branch and our mayor does provide us with flexible funding that we use where we see fit to improve our buildings through energy efficiency and renewable energy projects. So I do want to talk about solar, the city of Madison is a US DOE solar city. We are one of two in the state of Wisconsin, Milwaukee is also a Solar America city. And our goal is to double the amount of PV and solar thermal systems in Madison by 2010. And I think that we are well on our way.

Slide 107: Components of MadiSUN

Jeanne Hoffman: So the components of MadiSUN, which is the name for our program, is to provide assistance to businesses and residents to basically answer any question that they may have about installing solar, from permitting to rebate issues, to costs, to comparison different proposals that contractors provide, basically the consulting people do as little or as much as you'd like. And of course for the city to lead by example by having installations around the city that point to our, that the city of Madison is really behind the idea of solar and we are leading by example. We have already adopted our pro-solar zoning, that was adopted in fall of 2008. There was a lot of discussion about the proposal, mainly from the historical preservation side of the stakeholder groups, there was a lot of concern about how solar would look on historically significant buildings. And as we've moved through this process, we actually discovered that there was a state law in Wisconsin that basically gives very limited flexibility to cities with regard to denying a system based on aesthetics. So we were able to use our state law to craft a pro-solar zoning that really helps make it a lot easier for solar to be installed in the city. Of course, educating city staff and installers and a number of technical assistants that we are getting from DOE.

Slide 108: Solar Agent

Jeanne Hoffman: So in terms of a Solar Agent. You know, the city of Madison we have a strong environmental ethic. We've been one of the first cities in the country to start curb side recycling, people here understand, and I think it is one of the reasons that the city of Madison is such a beautiful city, people really understand that they have to act locally to maintain their high quality of life. We also have a high level of education, Madison is kind of known for this place where taxi cab drivers have Ph.D's and it can be a good thing and it can also be kind of a bad thing in that I think that people here because they are so smart, they don't really want to move forward like for instance on solar, until they feel like they are an expert in it. And people are really busy, and they don't have time to figure out everything about the technology and process all the paper work and all the rebate paper work and all the paper work that is associated with doing solar. And so we put the solar agent in place to help out and answer those questions. I think it is a very great program because its sponsored by the city of Madison and I think people in the city of Madison expect quality service from their municipality, we really do provide excellent

service, and so this is just another service that we provide that people can feel is nonbiased, accurate, really good information that people can get about solar.

Slide 109: Solar Agent Program

Jeanne Hoffman: And so how it works is that the Solar Agent will use aerial photos that the city engineering department provides and also actually Google Streetview and through those two different mapping programs, we'll come up with a grade. The city of Madison is also as a tree city, a Tree USA city, so there are a lot of trees in the city and a lot of times people want to do solar but it doesn't really made sense because they have so much shade throughout their lot. So the prescreening grade provides them with an idea of whether or not its worth pursuing solar as an option. If they do get a good grade, which is 'A', then the solar agent will go to their home and actually do a full assessment for them, advise them on all sorts of options for them, advise them on any permits that they may need, if they are in a historical district there are some extra requirements that they may need to go through, but the solar agent can explain that to them and can assist them in the hiring of the installer and even just in helping with how the installation works.

Slide 110: Results to date

Jeanne Hoffman: So results to date, and actually this is a little bit dated, I don't think I've updated this slide, but it's been a great success, there's a lot of people that have been asking for assistance, we've issued a lot of quick-look reports, there are quite a few of those that have not gotten an 'A' grade because of tree coverage, and we are seeing installations happening because of this. And we are hoping that we will see more and more installations as people work through the issues of putting together the financial picture to do solar.

Slide 111: City Installations – Leading by Example

Jeanne Hoffman: And of course we also are leading by example and currently we have four different sites, actually, I take that back, we have three different sites, spread throughout the city and they are listed there. We have, well, two sites at landfills which are actually kind of by city parks, they modified facilities at 6.3 kW each, we also have a system on the library at the far end of the city at 7 kW and then one of our engineering buildings has a smaller system at 4.2. We actually just received bids on another 40 kW, that's the last two items that are listed there, and those will be under construction in a matter of weeks.

Slide 112: City Installations – Leading by Example (con)

Jeanne Hoffman: When we do any kind of project with the city, even a solar project or an energy efficiency project, we have a spreadsheet that runs city payback analysis, and it is based on 10 year debt repayment, which is how the city of Madison repays its debt. And we also repay our debt with a level of principal payment so this takes all this into

account. For this particular slide, it also has in the spreadsheet a buy-back rate that we will be getting from our local electrical utility, for the PV systems that we have put up for the next 10 years. And we run this payback with a non-discounted version and a discounted version and the reasoning for doing this is just to provide the mayor and the consul staff and others with an understanding of, if they were to do something else with the money, what kind of return would they get if there was another opportunity for an investment. And even for this sola project, the return on investment is, it basically paid for itself in 12 years, which is pretty good for solar, and Madison.

Slide 113: City Installations – Leading by Example (con)

Jeanne Hoffman: Of course, we also look really closely at solar thermal here. Solar thermal actually works really good in this environment and we have outfitted all 11 of our fire stations with solar thermal. And as we prepare our 2010 capital budget, we'll be looking at implementing solar thermal at a number of our public works facilities that have a lot of long hours and a lot of crews coming in and taking showers and using hot water to do some maintenance on the equipment.

Slide 114: City Installations – Leading by Example (con)

Jeanne Hoffman: The city also partners with our local utility, Madison Gas and Electric. Madison Gas and Electric will install utility-owned PV throughout the city as well, at some key locations throughout the city. The picture shows a system that is at our community swimming pool and also a down town parking lot that's very visible to city of Madison residents.

Slide 115: Engaging the community

Jeanne Hoffman: And of course, we want to engage the community and right now the city is doing that through two different campaigns, the first campaign is called Mpowering Madison and that campaign is a campaign to lower our CO_2 footprint, for the community as a whole to lower it by 100,000 tons by 2011. And for the city of Madison, through it's operations, to lower our footprint by 25% or by 15,000 tons by 2011. And then, of course, the MadiSUN project that I had spoken about previously.

Slide 116: Conclusions

Jeanne Hoffman: So, in conclusion, I think it is very important for local units of government to have a plan and have that plan be adopted by the local elected officials, and to have a process where stakeholder groups can participate. In the end you will end up with a document which is something that has backing and can help you move forward towards implementing projects that lead towards more sustainable city operations. I am actually kind of anxious for the new capital green city plan to be adopted because I am running out of items in the plan to implement and it would really help me to have a plan in place so that I have a work plan available and I can go to our common consulate and say, here, here's why we need to keep working towards sustainability. I also think it's

important for local governments to think about the triple bottom line, to look at not just costs, but of course you are always looking at costs of the a project through it's entire life, both capital and operating, but also the environmental and social aspects and ramifications of the decisions that are being made. And I don't know if this happens in other cities, but Madison is a city where the political bodies tend to legislate first and sometimes the business community is a little concerned and raises issues about the fact that Madison tends to always pass laws and raise regulations. And I think for this particular issue, what we really wanted to do was to lead by example first and to be able to share the story with a community, so that, so that, I'm sorry, I have a call coming, I guess I will just ignore it, to lead by example, and then really engage the community and that's something we are going to really push in the next version of building a green capital city. So thank you.

Neelam Patel: Thank you, Jeanne that was a great overview of what is happening in MadiSUN!

Questions and Answers

Slide 117: Local Climate and Energy Contacts

Neelam Patel: And we do have 20 minutes left for questions.

Slide 118: Webcast Agenda

Neelam Patel: I do want to let you know that if the questions you've submitted are not answered, during the Q&A session the remaining questions that were submitted, we will put into a word document and send it out to the presenters and ask them to respond. So, if we don't get to your question today, you will be seeing answers to your questions within a couple weeks. And for the Energy Efficiency and Conservation Block grants, as Molly mentioned there is information available up on their website that can address some of the questions that we received today if we don't get to them. I'd just like to do a quick recap of the main messages, starting off with the funding opportunities, we went over a couple different funding opportunities, we went over a couple different funding opportunities on the phone today, so I just wanted to reiterate that the Energy Efficiency and Conservation Block grants being funded through the Department of Energy are funded through the American Recovery and Reinvestment Act, so that is one particular type of money that you can get coming from DOE. We also talked about a second grant program that is coming through EPA in the near future, which is called the Climate Showcase Communities grant program and that has not yet opened but should be opening very shortly as soon as next week. So please keep in mind that there are a couple of different opportunities for energy efficiency projects and renewable projects that we described. But we do ask you to take a look at the criteria for each of the programs, to decide which projects would be best, and Molly, from the department of energy did go over a slide that covers the different project categories being funded under the Energy Efficiency and Conservation Block Grants. So now moving on to one of the main messages that we hope you carry away with you today which is that when you are exploring projects, we really do encourage you to start with energy efficiency because of the long term cost benefits, and then think about renewable energy after you have thought about the energy efficiency potential in your communities. And just a quick overview of some of the resources that we mentioned and that are available online. Through the local climate and energy program we have two clean energy strategies chapters that are available in the hand out section as well as in our website. And one is called Energy Efficiency in Municipal Operations, the second one is on-site renewables. As a note from the State and Local Clean Energy program, excuse me, Climate and Energy Program, at EPA, we also, on June 17th, will be having a lead by example guide that is coming out, that reinforces some of the messages that Jeanne talked about. It is important for governments, local, state, whatever the government is, to really focus on getting their house in order first, and the Lead by Example guide will help with that, and additionally, the resources that Leslie Cook from the Energy Star program mentioned also support that, including how Portfolio Manager can be used in public buildings. The Energy Star program also provided some sample text that can be used for the attachments B1 for the

Energy Efficiency and Conservation Block grants, and that includes how you would use some of the energy tools for public buildings, homes and other buildings in the community. On the renewables side, Department of Energy is coming out with a guide on how to use solar energy for local governments and that is coming out on July 24th. And that basically covers some of the mechanics of what was presented in the presentations today. And I hope that helps clarify and reiterate what we went over today. So with that, I am going to turn it over to Lauren to ask some questions that were submitted.

Lauren Pederson: Sure, this first question is for Molly on the Energy Efficiency and Conservation Block grants. Does this information apply only to the cities and counties receiving formula grants, or does it also apply to the competitive program?

Molly Lunn: Okay, well, thanks for that question. First of all, it is not just cities and counties who are receiving formula grants, its also states and tribal governments and though much of the specific information does apply to them with regards to the application deadline and the application itself, because the application deadline on the 25th is the formula grants, some of the general information on eligible activities and what kind of activities the department will be looking for and encouraging, that will likely apply to all grantees. But in terms of the details on logistics, yes, that is mainly for formula grants recipients, and that is because that deadline is fast approaching and more information will be available soon.

Lauren Pederson: Great, thanks, and to follow up with another logistics question, if someone misses this deadline due to technical difficulties with FedConnect do they loose their allocation money?

Molly Lunn: No, absolutely not, you know, we've spoken with a number of grantees who, for one reason or another, have been having trouble getting through our systems, or who might have an issue meeting deadlines, and we are going to work with the grantees, you know, grantees are entitled to these funds and we want to do our best to get everyone their dollars. So please let us know if you are having problems and we will work with you to get your application submitted.

Lauren Pederson: Great, thank you. And another question for Molly. Could you pin down the timing on receiving the second half of the reward? If it needs to be committed within 18 months, would we receive it soon enough to meet the 18 month deadline.

Molly Lunn: Yeah, I mean I can't give you an exact date as to when the additional 50% will be awarded. You know, that will be based on one or more progress reports. But certainly we will be able to make that second award, giving you enough time to obligate the funds in 18 months.

Lauren Pederson: Great, thank you. And then we have a couple questions on projects that might be able to qualify. There's a specific question on a renewable energy project

implemented in government buildings. Would a parking garage located on government property but open to the public qualify, if you know?

Molly Lunn: I don't want to pre-approve any projects, but if the parking lot is owned by the municipality, then yes, that would qualify.

Lauren Pederson: Great, and then the second question about what would be allowed, if you could answer this one. Would a green roof be an appropriate use of the grant funding?

Molly Lunn: You know, it would depend, I don't know the details of the project, I don't know where the green roof would be. But generally, if the project is going to save energy, and reduce fossil fuel emissions and those kind of things, then yes, that would likely be an eligible activity. I know that some people would consider a green roof as a retrofit program, so likely yes.

Lauren Pederson: Okay, great, would requirements for sub-granted or nonformula grant communities come from the DOE or from individual states and when will requirements be announced?

Molly Lunn: The process of subgranting from the states is going to be in large part left up to the states. However, their plans have to be approved by us and they will be proposing those in their applications. So in terms of requirements, they will outline the specific requirements, but the activities that they allow will have to be in line with the program in general. As for when those will be announced, I can't give you an exact date but as I've said, we are accepting applications now and several projects are currently under review. We hope to get the majority of applications approved in the next few months, so I would assume that many states are eager to get their announcements out very soon.

Lauren Pederson: Okay, thank you. And then we had a series of questions on the EECBG funding. The first question, the formula states that 40% of the funding will be directly allocated to the top ten jurisdictions within each state with 60% given to the state itself for allocation to jurisdictions not in the top ten. And the question is, will the top ten jurisdictions be eligible for competitive grants?

Molly Lunn: Okay, so I saw this question and I just wanted to clarify, so there's $455 million for competitive grants, $55 million of that will specifically be for ineligible entities, folks who weren't eligible for direct formula grants, so that's ineligible cities, counties and state-recognized Indian tribes. So they will be the only ones eligible to apply for that $55 million pot. But the $400 million, although we haven't exactly worked out all the details on who will be eligible, will be open to all recipients of direct formula grants as well as those who are eligible to apply for the ineligible pot.

Lauren Pederson: Thanks. And this is one of our last questions for you, Molly. It is specific to that activity worksheet, that one that has the proposed number of jobs retained

field and the proposed EECGB budget linked so that any information entered into one field is automatically linked into the other. And they were wondering if there was a corrected form to use.

Molly Lunn: Unfortunately, on our first release that form did have an error in it. It was corrected a few months ago in an amendment and if you just go to the version that is on our website now and download that, that's been corrected. You can also go to the amendments in FedConnect if you are registered there.

Lauren Pederson: Great, thank you. And now we will go through some questions for Leslie Cook, representing Energy Star. One question is, if we create a revolving loan fund for businesses, and we require them to create their baseline and track results and energy in Energy Star, will we be able to access their account information so that we can monitor our loan fund's program? How cumbersome would this requirement be for a small business and can they have historical data loaded in, or do they have to hand enter this data month by month?

Leslie Cook: Great, thanks. That is a fantastic question actually. It has a few parts to it, actually. First, you can definitely include the use of Portfolio Manager as part of your program to verify the energy savings from your participants. We have a number of examples at the state and local level of programs that do just that. Specifically, there is the Pennsylvania small business grant program where they do provide technical and financial assistance to small businesses looking to improve the efficiency of their buildings and they do require that all their participants benchmark their facilities before, during and after the period. So we think that that is a great idea to verify that your participants are actualizing their savings. In terms of how they can get their data in, they can enter it in through the online interface by hand, there's also other ways to get the data into the tool, one of which is a bulk upload template that they can, more of a spreadsheet interface that they can upload at once a lot of historical energy use data all at one time, which might be less burdensome. So, if you are looking for specific examples, go to EnergyStar.gov/government which is the website I have in my slides, we have webcasts and also a fact sheet that links you directly to those programs, like the Pennsylvania small business audit program.

Lauren Pederson: Great, thank you. And the next question, the participant was very excited to see the EPA toolkit as it seemed to be a starting place for all of the energy related federally funded programs, but they were confused if it was intended to be a toolkit for initiating applications among all of the energy related ARRA programs or a toolkit to help once the government is already in the system.

Leslie Cook: So I am a little bit unclear as to which toolkit, which website, I think it might have been that question might have been referring back to the broader EPA website that lists ways in which you can get help to plan and implement. In general, I think that all of the EPA guidance out there, including the Energy Star website and the EPA site that Neelam highlighted are resources to help you plan for your application but I think

will also help you lead into the implementation side as EPA offers a number of different clean energy programs, best practices, et cetera. So I guess it would be both.

Lauren Pederson: Okay, so the last question for you Leslie, is there a way to incorporate energy efficiency projects into the Portfolio Manager?

Leslie Cook: Integrate energy efficiency projects into Portfolio Manager. Well, in general, Portfolio Manager is the tool that you can use to track energy efficiency projects, so we think that there is a direct tie there. Our take away message for portfolio manager for our projects is to benchmark, to understand where those projects should be deployed so that you know where your worst performing buildings are, the ones that need attention the most. Use the tool to track their performance over time and then also leverage the fact that you have been tracking to then validate and report back those savings in energy use and those green house gas emissions. Those are really important metrics to track and measure especially for ARRA projects.

Neelam Patel: This is Neelam. In terms of energy efficiency projects, Leslie is talking specifically about the buildings sector.

Slide 119: Local Clean Energy Strategies Guide

Neelam Patel: And to give you an idea from the local climate and energy program, we do provide resources on other types of energy efficiency projects, and I've pulled up the slide called the local clean energy strategies guide and on here you can see that in additional to the two chapters that we showcased today, which are Energy Efficiency and Municipal Operations and On-Site Renewables, we do have a number of other chapters that cover other clean energy strategies that can be implemented by local governments. So, for example if you wanted to do a landfill methane project, we do have a chapter targeted to local governments on how they would pursue that type of project. So I hope that that helps in terms of other energy efficiency projects as well.

Lauren Pederson: Great, thank you for those answers. And then moving on to Curt Cole's presentation, Curt we had a participant ask what the tracking software was that you used for your project, that you had a screen shot of in one of your slides, and how does this software correlate with or assist Portfolio Manager?

Curt Cole: The particular software that we are using is UtilityVision which is furnished through our performance contractor, in this case, Chevron Energy. There's lots of different software packages out there and actually our local government local manager's group is going to have a round table discussion on that next month because it is of a great deal of interest to all of us right now. And as to the correlation, they give me different perspectives on the energy use. One is really trending, which is seeing energy use patterns over the course of a day or over time. Versus the Energy Star Portfolio Manager really tracks the utility bills, so that is monthly slices and tracks it over a longer period of time.

Lauren Pederson: Thanks, Curt, and the next question for you is what were the costs versus savings and payback expectations for the county on your project?

Curt Cole: Yeah, and I had a slide that I believe addressed that. The expected payback was about 12 years. And so the guaranteed savings, so the guaranteed savings for the year one was $587,727 the actual was $969,505 so we were 65% better than that, does that address the question?

Lauren Pederson: Yes, I think that addresses the question, yes. And then our next question was for Blaine Collison at EPA. Blaine, would waste to energy projects. . .

Blaine Collison: No. Here's the problem with waste to energy. It is an interesting technology and approach, but green power is environmental preferentiability, the renewability, the straight combustion of municipal waste, involves combusting anthropogenic waste. So, plastic bottles, paint cans, that kind of stuff. And that is not in fact renewable, that's bad, so we have asked the Waste to Energy industry to come back with a methodology that would provide some sort of way to calculate the bio-based content of waste to energy combustion and we are still waiting.

Lauren Pederson: Okay great, thank you. Hannah, this question was for you. Are the solar tax credits for residential use as well?

Hannah Muller: Yes, absolutely, the federal investment tax credit, that is for all sectors, so residential installations are absolutely eligible for that.

Lauren Pederson: Okay, thank you. And then, Jeanne, this question was for you. Do you know how much kilowatt hour was used to run your city park.

Jeanne Hoffman: Well, I know how much we used across all city agencies, I'm not even sure what they are referring to with a city park. So I don't have that specific information, not handy.

Lauren Pederson: Okay, that was a very specific question. And then lastly, for Neelam, is the Climate Communities Showcase grant to be used for local government entities such as waste water or landfills?

Neelam Patel: So, the Climate Showcase Communities grant, the applicants can be local governments, tribal governments or units of local government. So that means that if the water portion of the local government wanted to apply, as long as their unit of local government falls under the definition that's used for this grant, they can apply. For the grant, the Climate Showcase Communities grant. Does that answer the question?

Lauren Pederson: Yes, I think it does.

Neelam Patel: Okay, great, and just a quick follow up. Additional information will be available once the grant is open, which I believe again should be summer of 09, but as early as next week.

Lauren Pederson: Okay great, thank you. And I guess for one last question, is there one place to go to look for energy efficiency funds for municipalities. For example, is there a website that contains information from the different federal agencies.

Neelam Patel: Well, one of biggest funding opportunities right now is definitely the Energy Efficiency and Conservation Block Grants, as Molly said, it is important to get those applications in as quickly as possible. In terms of other energy related funding opportunities, you can search that with ARRA on the EPA Clean Energy ARRA resources page we do have a document called the American Reinvestment and Recovery Act guide to renewable energy and energy efficiency opportunities for local and tribal governments and that document basically contains an analysis of ARRA and identifies all of the clean energy, so that is renewable energy and energy efficiency, funding opportunities through ARRA. But it doesn't go beyond ARRA and Leslie is going to mention a program that contains information about other energy efficiency spending opportunities for local governments.

Leslie Cook: Yeah, and actually, Molly, you might have the specific weblink but I know that EERE does their DSIRE database, D-S-I-R-E data base, that has a great clickable map for state by state opportunities for funding. You go through the EERE website from the Department of Energy.

Molly Lunn: Yeah, I am trying to remember what the exact address for that is and I am not coming up with it, but I can try and track that down and send it to you guys if you'd like. The other thing that. . .

Neelam Patel: The link to the organization that was just mentioned, it is listed in the DOE Solution Center website. Molly, I am sorry to interrupt you.

Molly Lunn: No, that's okay. I don't know that I was going to add that much more. I was just also going to say, and I am sorry, I was looking at something for a second and so I am not sure if you mentioned this, but I think another good place to look would be ICLEI, they tend to track that information really well. They would be a good source of information for possible funding opportunities.

Neelam Patel: Okay, and just to close off on that question, all grant opportunities through the federal government have to be listed through grants.gov and while I know there has been some trouble with the system because there is much funding available right now through the system, you do have to post grant opportunities in that system and there is a way to search through specific categories so that might be another option, for looking at what funding is available for energy efficiencies. So I think that would be our last question, so I want to thank everyone for joining us on today's webcast and hopefully this information will help you think about energy efficiency and renewable energy as you

apply it to funds available through the American Recovery and Reinvestment Act. Again, I just want to reiterate that, as Molly mentioned, for the Energy Efficiency and Conservation Block Grants, being administered through the DOE, please submit your application as soon as you can, that money is there and available for the people listed under the formula and I hope that today's overview of different programs and resources will help you in planning, designing and also implementing projects that really help focus on getting cost benefit from energy efficiency and also starting to implement renewable energy in your communities. So again, our webcast for today will be our last one for the summer, the local climate and energy program at EPA will host our next webcast in September of 2009, so please check our website for an update on the next date and topic. Because it's the beginning of the school year, we are thinking about focusing on energy efficiency in schools. So, just something to plant a seed for the future. But again, we hope that this is helpful as you think about projects using funding opportunities through the American Recovery and Reinvestment Act. And we hope to have you on our calls in the future. Thank you.