

TAKING ADVANTAGE OF QUALIFIED ENERGY CONSERVATION BONDS (QECBS)

This webinar, held on Sept. 22, 2010, provides information on Qualified Energy Conservation Bonds.

Moderator: We'll give the QECB Overview. Michael and Wayne from Wells Fargo will get the view from the market. Jeff Pitkin of NYSERDA will give the New York Case Study. Brett Johnson of the Governor's Energy Office of Colorado will give the Colorado case study. Questions and answers, we are going to hold until the end of all the presentations, and Brandon Belford will be answering the questions. Next slide please.

Mark Zimring is an expert on financing from Lawrence Berkeley Lab; he's provided a lot of technical assistance to a lot of recipients; and he spent eight years in the banking business before joining Lawrence Berkeley Labs. Mark.

Mark Zimring: Great, thanks Chuck. Just so everyone's aware, you can submit questions throughout the webinar online and then we will take those questions at the end of the webinar. So before I start with my presentation, I do want to give an important caveat and you can see it at the bottom of the first slide; and it's that the information in this presentation is for informational purposes only and does not represent formal guidance or approval from the US Department of Treasury.

So again, thanks very much for joining us and thanks for that introduction Chuck. It's exciting to see over a hundred people attending today's webinar. You know, it talks about the excitement that's been generated around qualified energy conservation bonds, otherwise known as QECBs.

So at their heart, what are these bonds? So they are debt instruments. They allow state, local, and travel governments to issue bonds and then to fund qualified energy conservation projects. We will get to the exact definition of a qualified energy conservation project in a bit.

Why has so much attention been paid to QECBs? They represent an incredibly cheap form of borrowing. And so QECBs reduce the issuers borrowing cost near state, local, and travel governments. How do they do that? Well basically a QECB issuer pays an investor a taxable coupon to borrow money and then receives a direct cash rebate from the US Treasury. As of yesterday, that cash rebate was 3.5 percent interest.

So where did these come from? QECBs were created by the Energy Improvement and Expansion Act of 2008; they were initially set up as tax credit bonds; and the initial allocation size was 800 million. The Recovery Act then expanded the allowable bond volume to 3.2 billion - a meaningful impact. And then the real game-changer was that HR 2847 in 2010 introduced an option to recoup part of the interest issuers pay on QECBs through a direct cash subsidy.

So for those are familiar with Build America Bonds, this is effectively the same mechanism. This is a game-changer in the sense that it allows QECCB government issuers to take advantage of the much larger taxable bond market, instead of marketing the bonds solely to tax exempt municipal investors. Again, the Well Fargo folks are gonna present after I will - will provide a little bit more information on this.

So how were QECCBs allocated? The US Treasury allocated \$3.2 billion of QECCB issuance capacity to state treasurers based on each state's proportional population. The treasurers of the states were then required to reallocate this issuance capacity to municipalities and unincorporated counties with populations greater than 100,000 based on that local government's percentage of state population. So if a municipality has a 150,000 residents and a state has 1.5 million residents, then the state must allocate ten percent of its issuance capacity to the local government.

The local government however is not obligated to issue QECCBs. Should it decide not to issue QECCBs, it can reallocate its issuance capacity back to the state, which then has the option of either issuing QECCBs at the state level or reallocating that issuance capacity back to local governments. The processes for notifying state authorities of one's intent to issue QECCBs - and deadlines for doing so vary. So for example, in California, local government had to respond by the middle of August with not just their intent issue QECCBs, but what the qualified purpose would be.

So what do these bonds actually end up looking like? So from an interest rate perspective, the way this works is that the US Treasury pays the QECCB issuer - again, the state or local government - the lesser of the taxable rate of the bonds or 70 percent of what's called the "qualified tax credit rate", QTCR, from the bond sale date. So as of yesterday, that QTCR was 5 percent. It's set daily by the US Treasury and I've included a link that you can access to see what the current QTCR is.

So for an example of how these work, if a state government sells a bond to a private bond purchaser at 5.5 percent interest - this is again, the taxable interest rate paid to the investor, then the subsidy from treasury will be that 5 percent QCTR times 70 percent, which is 3.5 percent. And so when we look at the net cost to the issuer or to the government, the state or local or tribal government, it's 2 percent.

Again, you know, a lot of attention is being placed on QECCBs because this is such a low interest rate. Maturities can be structured out to 17 years, you can do short; and that 17-year date is set monthly by US Treasury and is available on the same website that's linked to both.

So very quickly - and my apologies. For those that are fairly familiar with finance, I'll move quickly through this. But bonds can be secured generally in three ways. So they can be secured with revenues; they can be secured via a general obligation; or they can be secured with collateral.

So for a general obligation, it's just that. The bond is backed by the credit of the issuer. For revenue bonds, the bond would be supported by specific revenue streams. For example, from an energy efficiency

loan program. So the repayments on that loan program would actually provide security to the bond investor.

And then finally, they could be backed by collateral. So this can be either specific equipment - let's say an H-Vac system in a commercial property or in a municipal property, or by the property itself.

And then from a structure standpoint - and again, the Wells Fargo presentation will cover some of this. But bonds could be structured as a bullet in which interest payments are made during the life of the bond and then all principle is paid back in maturity as a serial bond in which a portion of the bond matures at regular intervals or is a term bond with a sinking fund. And I'll cover what a sinking fund is in a few slides.

So we've moved through a lot fairly quickly. Let me just recap how this works. So the US Treasury allocates QECB bond volume to state treasurers. Both states and local governments as well as travel governments are qualified issuers. The qualified issuers sell taxable QECBs - let's say in this case as a 17-year bullet to investors. The proceeds of that bond sale are used to fund a Qualified Energy Conservation Project. Again, I'll cover what exactly defines a Qualified Energy Conservation Project in a bit.

The issuer then pays a taxable coupon semi-annually to the investor and repays the principle here because it's a bullet at the end of 17 years. And then the US Treasury pays the issuer the lesser of the taxable coupon rate or 70 percent of the tax credit rate. So for our example, the interest rate to the investor is 5.5 percent and the Treasury is paying 3.5 percent back to the issuer.

So what is a Qualified Energy Conservation Project? These projects are defined fairly broadly. Examples include energy efficiency capital expenditures and public buildings, renewable energy production, various energy-related R&B, efficiency and energy reduction measures in mass transit, energy efficiency education campaigns, and finally green communities programs. For a full list of qualified projects, please visit the Department of Energy's QECB - and Craig Primer - I've included a link to that document at the end of this slide. Just want to take a second to focus on green communities programs, as I know there's been some confusion on this issue.

So green community programs represent kind of an undefined statutory term. I'm not going to read the statement that I've included, but the conference report for their recovery act includes a statement about what a green community program is. Again, there unfortunately is no formal guidance from Treasury, but the Department of Energy is supporting QECB issuers who are using these QECBs to support, for example, an unsecured residential energy efficiency loan program.

So at high level, the way that would work is that a local or state government who was working to form a partnership with a bank, and then bank would in turn typically be loaning money directly to homeowners for energy efficiency. The local or state government would actually issue QECBs to the bank; support those - structure those QECBs as revenue bonds so that the loan payment or the security mechanism for

the bonds; and then deliver to participants. So to homeowners who are taking on loans, a blended interest rate that was significantly lower than what they might otherwise be able to access.

So to move relatively quickly through some rules and regulations; the benefit of the green community program designation for a loan program for example, is that a green community program is considered a public use of funds. And that's important because a maximum of 30 percent of QECCB allocations can be allocated to private activity purposes. So again, if an energy efficiency loan program is a qualified community program - green community program - then there is not this 30 percent limitation on using QECCB proceeds to support the loan program.

Generally speaking, all bond proceeds need to be spent within three years of issuance or then need to be used as redeemed bonds at the end of that three-year period. There are some exceptions. Issuers must have a binding commitment with a third party to spend at least ten percent of the bond proceeds within - I'm sorry, I've lost access to my screen - with a number of months of issuance. And importantly, only two percent of bond proceeds can be used to support the issuance. So if your issuance costs are greater than two percent, you're going to need to find additional sources of capital to fund those upfront fees.

And here is an important point and kind of a critical reason that I think a number of you are on the call today. So IRA monies, as of the middle of July, can be used to support QECCBs. So we're taking what is an already extremely cheap form of debt financing and potentially making it even cheaper. So there are three eligible uses of funds, and I included links to the guidance for EECCBG and SEP funds is slightly different - and I've included links to the guidance at the bottom of this page.

But there are three purposes for which IRA monies can be used. The first being a Debt Service Reserve Fund. So a Debt Service Reserve Fund is used to repay principle and interest in the event that the borrower is unable or revenues are insufficient, depending on what the underlying security for the bond is. This in practice has the effect typically of lowering interest rates - and again, the folks at Wells Fargo can touch on this.

The second is a capitalized - QECCBs can be used to create and fund a capitalized interest fund. So capitalized interest funds are used to make bond coupon or interest payments; and these are particularly common with the use of revenue bonds where the revenue streams from the underlying asset. It may not be perfectly matched up to the bond coupon payment dates.

And finally a Principle Sinking Fund. So a Principle Sinking Fund is effectively an escrow account where an issuer can - a bond issuer will make interest payments to the bond holder, and then will make principle payments into this escrow account or this Principle Sinking Fund, which will eventually be used to pay down the principle on the bond.

So I'd like to wrap up with challenges. One of the problems that we see is that low QECCB volume allocations based on this population formula may keep the issuance side of this from getting to critical

mass to wet investor appetite. Issuers might want to consider at state or pulled issuances to get around this challenge.

Another challenge that we see is that, again, we've moved from the world of tax credit bonds in which tax credit investors are typically very familiar with municipal finance to the world of taxable securities, and taxable investors are typically not as familiar with municipal credits. The Build America Bond Product has gone a long way to familiarize taxable investors with the product, but there's still some challenges there.

Another one is that there is some time and effort required to issue QECBs. So it can take several months to market, price, and close the security. And then finally, for a number of communities I know that you're in difficult financial situations, given the credit crisis, and QECBs might strain bond issuance limits for some of those issuers.

So with that, I will wrap up. Here is my contact information. I encourage you to follow up with me in the event that your questions don't get addressed during this call. And again, I am a member of the Department of Energy's Financial Technical Assistance Team, so our services can be accessed for free for DOE grant fees - sorry, for EECBG and SEP grant fees via the TAP network.

Moderator: Thank you Mark; next slide. You can see the bio of Michael and Wayne - between them have nearly 40 years of experience in dealing with bonds with governments. In the interest of time, Michael and Wayne, would you start?

Mark Zimring: Great, and sorry everyone, we're just going to do a quick tech check to see if some of the issues have been resolved. Michael, are you able to speak?

Michael Karlosky: Can you hear me Mark?

Mark Zimring: We can, terrific.

Michael Karlosky: Perfect.

Mark Zimring: Great.

Michael Karlosky: Okay, great. Mark, can you queue up our presentation?

Mark Zimring: Yes.

Michael Karlosky: Okay, great. Thank you everybody for participating today and Mark, thank you for sponsoring and leading this. If you could go ahead, Mark, to the next slide. And then next slide once again. Thank you.

So where do QECBs fit within the broader public finance landscape? Well with the passage of the Hire Act earlier this year, QECBs have become among the lowest cost financing mechanisms available to municipal issuers in today's marketplace. These changes have converted QECBs to what's called a kind of super BAB where taxable bonds are issued and direct subsidy payments are received from the US Treasury over time.

Specifically as Mark detailed in his presentation, the direct subsidy is up to 70 percent of the qualified tax credit bond rate. So by way of example, what does this mean? Well as of Monday the 20th of September, the qualified tax credit bond rate was 5.03. So 70 percent of that equates to 352 basis point subsidy. This

level of subsidy is far greater than the value of tax exemption in today's market and is also far greater than a subsidy that you'll realize on a Build America Bond.

So issuers will find that QECBs will be exceptionally more economic than even their own tax exempt financing in the public market space; however, there are limits to where and how QECBs can be utilized. And Mark did a great job of detailing these limitations. I just want to touch on a few of the main ones.

First, QECB authorization is constrained by a population-based allocation. Municipalities are however able to subsequently seek additional allocation that has been weighed by other municipalities; and typically you do that by going to your State Energy Department.

Secondly, projects financed with QECBs must adhere to a qualified energy conservation purpose. There are several of these purposes. The two main ones that we wish to highlight - Energy Efficiency Retrofits and Renewable Energy Generation. Lastly, the maximum maturity of a QECB is limited, and presently that limit is 17 years. Next slide please

So Wells Fargo has conducted a survey of the QECB transactions which have appeared in the market; and just since the middle of June, we've observed 12 transactions - you see them listed here - and you'll notice that in the size column, you'll see that most of these transactions have been generally under \$10 million; however, the one outlier is the Los Angeles Department of Water and Power Transaction done in August 17th for \$131 million. So these 12 transactions total \$171 million - just over \$171 million.

One of the interesting features about these transactions and we get this question a lot is, does an issuer have to do their QECB allocation by itself as a standalone financing? And you'll see here that the answer is no, not really. About half of these transactions, the issuer has combined their QECB issuance with some other sale of bonds in one sale, one official statement. So you can spread the issuance cost across a larger number of bonds than simply just your QECB allocation.

Now before we get into some of the other features in this survey, I just want to point out that because the Los Angeles transaction is such a large portion of the total issuance that we have observed, there is a tendency for the feature of that transaction to skew the data. So what we've done is presented the data two ways - once in terms of total par amount issued, giving full weight, giving full weight to the size of the LA transaction; but then also presenting the data based solely on number of transactions to help filter out the skewing that results from the very large Los Angeles transaction. Next slide Mark.

So first, let's take a look at the state of the issuer. Where in the country have these QECBs been issued? Well if you take a look at the pie on the left, by par amount, we see that 76 percent of all the QECB volume to date has come out of California. But we know that that Los Angeles transaction is so large.

If you take a look at the pie on the right, looking at the data by number of issues, you see that actually Colorado with four QECB transactions to date has actually been more active. And California only has the one Los Angeles transaction.

Moving to the next feature, we took a look at what types of issuers have been doing these QECBs thus far. Based on par amount volume, you see that municipal utilities have accounted for 80 percent of the QECB volume; however, again moving to the pie on the right, cities and counties have combined for over half of the transactions. Next slide please.

The next feature we took a look at was what is the pledge security behind the QECB transaction. In terms of volume of par amount, you see that a revenue pledge accounts for 81 percent of the volume, whereas a general obligation pledge accounts for only 12 percent. Again however, taking a look at by number of transactions, half of the transactions have been with a GO Pledge.

The next feature we took a look at was the type of sale that issuers have used for their QECBs; and in this instance, regardless of whether you look at volume of par amount or number of transactions, the dominant method is a negotiated sale. Next slide.

The next feature we took a look at was what type of qualified purpose were these transactions done for. Taking a look at the volume of par amount, renewable generation accounts for 76 percent of the volume; however in terms of number of transactions, good old energy accounts for 9 of the 12.

The next feature we looked at was the rating category; and here, regardless of whether you looked at volume of par amount or number of issues, the QECBs have predominately come in the double-A rating category. Next slide.

Now in terms of final maturity, as we pointed out earlier, there's a maximum maturity limit of 17 years, which means that these 12 transactions that have been done today could not have had a final maturity longer than 2027. So the question we asked ourselves was, "Well, how often are these QECB deals done all the way out to the 2027 limit?"

In terms of volume of par amount, 93 percent of the volume has been structured out to a 2027 final maturity, and in terms of number of issues, 8 of the 12 transactions have structured it that way; however, it was interesting to see that there were actually transactions that chose not to go out to the limit. And in fact, one transaction was structured with a five-year longest maturity going out to 2015.

Next feature we looked at was optional poll provision, and because QECBs get issued into the taxable marketplace like Build America Bonds, that marketplace is not as comfortable with the traditional ten-year par municipal call provision. So what we see here is that in terms of volume of par amount, 81 percent of the volume was structured with a Make-Whole Call Provision, which is very common in the taxable marketplace. And only 7 percent of the volume came with a ten-year par call.

Looking at the data from a number of issues standpoint, half of the transactions were structured non-callable and only one-quarter of the transactions were structured with a traditional ten-year municipal par call. Next slide.

So we'd like to finish up with just a real quick overview of the QECB issuance process; and with the conversion of the QECBs to direct subsidy bonds, issuers will find that the issuance process is very similar to doing a Build America Bond transaction. And in particular, this is true for the process of marketing and selling the taxable bonds to the taxable marketplace; however, some important features which are important for QECB issuance include prior to the issuance date, obviously appropriate QECB allocation must be obtained.

The governing body of the municipality will need to make a formal, irrevocable election, designating the bonds as QECBs. The authoring document or the official statement for the issuance should have a section that generally describes provisions of the QECB, including the discussion of the direct subsidy payment. And then lastly, issuers will need to make decisions about features that are relevant to the taxable marketplace, such as the optional call provision.

After the transaction closes, there are some features of QECBs which are important to always remember and keep in mind. First, at least 30 days prior to the first interest payment date, there's a tax form 8038-TC that must be filed with the US Treasury, along with the QECB debt service schedule. And then at least 45 days prior to each corresponding interest payment date thereafter, an 8038-CP must be filed; and these tax forms ensure that the issuer will receive the direct subsidy payment.

And that's it. Thank you everybody very much. Mark, thank you.

Mark Zimring: Great, thanks very much. And before we move on to the next presenter, I just want to do another quick tech check. Jeff, are you able to speak?

Jeff Pitkin: Yes I am. Can you hear me okay?

Mark Zimring: We can hear you very well. And Marion - okay. Take it away Chuck.

Moderator: We can hear you very well. And Marion - okay. Take it away Chuck.

Jeff Pitkin: Well thanks Chuck. And first I'd like to say thank you to the Nazeo, LBL, and DOE teams for arranging today's very important webinar, and also for inviting me to be a participant in today's call.

What I'd like to do is speak a little bit about how we're looking at using QECBs to improve the sustainability and effectiveness of a new energy efficiency financing program that we're going to be creating in New York state; and also to spend a little bit of time talking about how the process that we're using to manage the state's use of its QECB allocation; and to present some thoughts on maybe some opportunities for state governments to be providing aggregated uses for local governments for their use of QECB allocations that were directly allocated. So Mark if you could advance to the next slide please.

I want to talk a little bit about a new financing program - IRA Green Jobs, Green New York Program which was enacted through legislation in October of 2009. The legislation directed NYSERDA to provide

revolving loans and innovative financing for energy efficiency retrofits in residential, multifamily, small commercial, and not-for-profit buildings. The legislation limited the size of the loans, so for residential properties, they were up to \$13,000.00 and for small commercial and not-for-profit buildings, up to \$26,000.00. IRA program rules have limited for multifamily buildings to not more than \$500,000.00.

The legislation in addition to providing financing directed NYSERDA to use a new approach for outreach by engaging community-based outreach approaches through constituency-based organizations. The legislation also directed us to include elements of workforce development activities that would create more auditors and retrofit technicians across the state. The legislation also provided for free or subsidized energy audits for income qualified home owners. And the legislation provided funding for this new financing program through directing \$112 million from the Regional Greenhouse Gas Initiative - or RGGI - auction proceeds a New York share of that. Next slide please.

So a strategy for this new financing program was ultimately to offer three different forms of financing. First would be a pace-type financing approach, where borrowers could repay through a property tax assessment charge. A second would be a utility on-bill recovery financing where they pay back through a utility bill. And the third would be a traditional direct loan obligation.

The pace approach is on hold as a result of the notices that were issued by federal regulators a number of months ago, and we are continuing to pursue - on on-bill financing approach, we're working on a pilot program with National Green Company in their upstate gas market, which would essentially be an unsecured loan repaid back through a charge on the bill.

And we're also working on legislation that would authorize on-bill financing on a statewide basis, and would include important elements that we think make this financing more secure and ultimately allow us to leverage funding through the capital markets. So to launch the program however, the first approach is really the direct consumer loan obligation. Next slide please.

Just a few quick words on program guidelines - and this is mostly as it relates to the residential loans. The program is based on our Home Performance with ENERGY STAR Program. New York was an early pioneer of the Home Performance with ENERGY STAR movement, which provides for comprehensive energy audits and retrofits delivered through contractors that are accredited by the Building Performance Institute. Our program will allow homeowners to finance energy efficiency measures that are cost-effective and which provide a savings to investment ratio of greater than one.

And our program provides for a very extensive quality assurance and quality control standard in an effort to improve consumer safeguards, and it really comes in through two mechanisms. First, we use an implementation contractor that reviews and approves work scopes of contractors prior to their implementation. And secondly, we have a separate oversight contractor that performs post-implementation inspection of about 15 percent of their retrofits done across the state. And those mechanisms can include, if contractors are found to be doing shotty work, it could ultimately lead to their

debarment from the program - and that's been very effective - an effective tool for us in this program to ensure that consumers can believe the energy savings that are promised to them. Next slide please.

So the financing approach that we're contemplating for the Green Jobs Green New York Program would call for loans to be originated through financial institutions using loan underwriting standards that NYSERDA would promulgate. We're expecting to launch the program with a single loan originator. Interview Finance Solutions, who is the current Fannie Mae loan originator for our home performance program. NYSERDA expects to purchase loans that conform with our standards using a portion of the RGGI funds - about \$51 million that has been set aside for financing - and then we would pay an origination fee to the financial institution that originates the loan.

We are expecting to retain a master loan servicer. That loan servicer will monitor the loan origination processes, making sure that they're conforming to standards; and they'll also service the loans. We're expecting to launch the residential financing component of the program next month in October, and we are continuing to work on the financing approaches for the small commercial not-for-profit and multifamily sectors. Next slide please.

So just quickly, the loan terms that we're expecting. This is going to be an unsecured loan product. It would allow homeowners to selected either a 5, 10, or 15-year loan term. The loan term can't exceed the life of the measures that are installed in a home. And we're targeting an interest rate for the loans of 5.99 percent or a slightly lower rate of 5.49 percent if the borrower agrees to repay their obligation through an auto pay charge on their bank account. Next slide please.

So the loan underwriting standards that we've established for the program. We created two different tiers of loans. The first tier of loans would be for loans that meet standards that we believe can be financed in the capital markets; and essentially these standards are very similar to the current Fannie Mae guidelines that are used to qualify borrowers for the Fannie Mae energy loan product.

The Tier 2 loans however would use an alternate criteria for those consumers who can't meet a minimum FICO score, and it would look at a utility bill paying history as a substitute for that FICO score. The Tier 2 loans will initially be issued as a revolving loan fund; we'll monitor the performance of these loans over time; and after a few years if we see them performing as we expect, then we would expect to pull those out of a revolving loan fund pool and include them in a pool of loans that would be financed through the capital markets. And we are working with certain foundations and PRI investors to look for opportunities for them to provide matching capital into this program. Next slide please.

So the financing approach is ultimately to aggregate loans that have been purchased by NYSERDA, and then NYSERDA would expect once the amount of those loans reach kind of a critical mass, we would issue bonds using a master trust structure. The bonds would be supported by the repayments from the underlying loans; and we're also expecting to use a loan loss in that service reserve out of a portion of the

Department of Energy, Energy Efficiency Conservation Block Grant, Retrofit Ramp Up, or Better Buildings Grant.

The first issuance which I think we're anticipating to occur next year 2011 would be a deal size of about \$25 million. We're expecting that to achieve an appropriate credit rating, and ultimately we will - as the program evolves, we expect to increase this scale of number of retrofits, therefore the number of loans; and would increase the amount of the bond issuances which ultimately should help to drive down the interest costs on the bond issuances. Next slide please.

We have a problem however for the sustainability of the financing program at the moment, particularly for these types of unsecured loans, because the loan rate that we're looking to charge the consumer of 5.99 percent, is expected to be lower than the net interest cost on the bonds that we'd issue to the capital markets. So we believe that with each round of financing that we would complete, we would deplete about 30 percent of the program funding.

We do expect this to improve in the future as we increase the scale of the number of retrofits that are done, but we're concerned about the sustainability in launching the program, you know, with these kind of numbers. So one of the solutions we came up with was to look at an opportunity to use a QECCB bond structure to help improve the sustainability. Next slide please.

This is just a quick summary of New York state's QECCB allocations. So New York received a total of \$202.2 million, of which about \$87 million was allocated directly to New York City, and a total of about \$95 million was directly allocated to 37 counties, cities, and towns in varying amounts, ranging from as small as about \$600,000.00 to as much as about \$7.9 million. And the state received an allocation of about \$20 million. Next slide please.

So just a word on the process that we used. NYSERDA was asked by our governor's office to administer the state's allocation of QECCBs, and so back in January, we sent a letter to all the local governments who had received direct allocations of QECCB to ask them - to identify if they intended to use their allocation and if so, for what purpose and when were expecting to use it; or to provide them with an opportunity to allow them to revert their allocation to the state.

Not surprisingly we had some challenges in getting responses. I think we're finding that many counties and cities and towns received relatively small allocation amounts and therefore it made it a challenge for them to effectively finance. Although, as was noted in the prior presentation, I think there are opportunities for them to pool QECCB uses with other types of financing that they may be doing to get them to a larger deal size that would make more sense.

We also found that many local governments were unwilling to revert their allocations without knowing what the state was intending to use its allocation for. It's the kind of "what's in it for me". If I'm going to revert this allocation over to the state, what are they going to do for it and what do I get out of it?

So at the moment, we only had about seven of the communities who received allocations who've indicated their intention. We had one county who did agree to revert their allocation to the state; and as I think was noted in the prior presentation, we have one community - city of Rochester - which did proceed with an issue using their allocation. Next slide please.

So this is where we think there is an opportunity, and a Mark mentioned earlier, the Green Community Program purpose allows QECBs proceeds to fund loans for energy efficiency, and importantly including private facilities. Most of the QECB purposes were for energy efficiency work in public facilities, but the green community language provides for the opportunity for financings to be provided to private facilities.

So we're currently working with our governor's office to see if we could apply the state's allocation of the \$20 million to benefit the Green Jobs Green New York Financing Program, and also to reach out to local government who receive direct allocations and present them with an opportunity to revert their allocations into a larger pool so that the residents of their communities could benefit from lower interest rates that would be charged on the loans, and also which would help improve the sustainability of the Green Jobs Green New York Financing Program.

The lower net interest cost for the QECB bonds would eliminate the depletion of Green Jobs Green New York funding that I mentioned earlier, and also allow us to lower the interest rates that we would pass on to participants. And so we think this aggregation type approach may be an opportunity for states to reach out to local governments and to present them with an opportunity for how they can very effectively use their allocations to benefit the residents of their town. I know that many states and local governments are struggling to try to create sustainable and effective financing programs for energy efficiency, and I think QECB bonds presents a great opportunity for that.

And on the last slide I provided, my contact information - and I know we're going to hold questions until later, so people can feel free to reach out to me directly to answer any questions. And thanks very much for allowing us to participate.

Moderator: Thank you Jeff.

Mark Zimring: Great, thanks Jeff. This is Mark, sorry to interrupt again. Just one more technical check. Brett, if you're there can you just speak up? [Pause] Okay. And Brandon Belford is you're there, can you please?

Brandon Belford: Yeah, you've got me Mark. This is Brandon.

Mark Zimring: Great. So just one more check. Brett Johnson, are you able to speak on the call? [Pause] Okay. So I think what we'll do while we get Brett's technical challenges sorted out is that we will skip ahead to the question and answer period and then we'll come back to Brett's presentation.

Just for those of you that have submitted a question about will the slides be available; yes. The answer is that the slides will be available on the Department of Energy Solution Center sometime this evening I believe. It will be the slides, audio, and a transcript that are available. So Brandon, if you're there - and I'll

certainly open this question to Michael as well - but Owen Hoffman asks, you know, "What is considered a low volume QECB allocation and what would be an adequate pooled allocation amount be?"

Brandon Belford: Again, this is Brandon, thanks for the question. I would actually defer to the folks over at Well Fargo. I mean as we saw from the examples of the issuances that have already gone forward, we've seen folks who are able to get a couple million off in the marketplace. But obviously, the real opportunity and the way to get real investors interests is to either do issuances that aren't stand alone and can have more volume or figure out a way to work at the state level to do a broader program. But I will let Michael or Wayne comment on what they've seen in the marketplace.

Michael Karlosky: Thank Brandon, this is Michael at Well Fargo. I think that, you know, as Brandon pointed out, we've seen transactions as small as a million dollars. So in that instance, that municipality was comfortable with that transaction size and the efficiency that they were getting in the market with that size. So I think it's - depending on each municipality's preference, sizes from a million on up are executable.

And in terms of a pooled structures, what's an adequate size for pooled structure? Again, certainly with greater size, you get more efficiency, and I would suggest that, you know, transaction sizes north of \$25 million start to realize a significant aggregation efficiency. But I don't necessarily think that precludes a pooled structure in the \$10-\$20 million size from being executable. I guess the short answer is there's no hard limits here.

Mark Zimring: Great; thanks very much. So the next question comes from Matthew Brown, and he is requesting from Brandon a bit more detail on, "What qualifies as a Green Community Program?"

Brandon Belford: Thanks Mark and thank you Matthew. I mean as Mark mentioned and had on one of those slides, unfortunately the term Green Community Program as written in the statute is undefined; and we've obviously been working with Treasury to try to get more certainty around that. And I think their interpretation and I think what we can see from the congressional report is that the term was intentionally left broad to encompass a multitude of activity types.

And so I know that we've worked with a couple of folks who are on this call as well as others who have had specific questions; and most of the feedback we've gotten back from Treasury and IRS is that in general, any type of program - be it loans, grants - that benefit home owners or small businesses for energy efficiency and renewable energy improvements would work. The one thing to specify is that I think in a language that's in the presentation and that congressional review specifies more of the energy efficiency type measures. But we did get clarity that that kit could be expanded to some of your on-site DGs renewable solar or geothermal type project.

Mark Zimring: Thanks Brandon. Chuck, I'm going to leave you to ask a couple questions; and mute my line for a moment to try to get Brett Johnson on the line. So please, continue with the Q&A Chuck.

Moderator: A question here is, "What is the risk that the federal government will not continue to appropriate the QECB subsidy in the future?" Is that a risk?

Michael Karlosky: This is Michael Karlosky at Wells Fargo. I think that, you know, that risk is probably no different than the risk with Build America Bond subsidy payments; and I think that issuers with respect to

their bad transactions have been able to get comfortable and manage that risk by including an extraordinary call provision into their transaction, which allows them to redeem the bonds early in case for whatever reason those subsidy payments don't continue.

Mark Zimring: Great. So just a quick check. Brett Johnson, are you able to hear and speak now?

Brett Johnson: Can you hear me?

Mark Zimring: I can hear you.

Brett Johnson: Perfect.

Mark Zimring: Great. So we're going to halt the Q&A and we'll continue again after Brett's presentation. So Chuck, if you could do an introduction and then we'll move quickly into Brett's presentation.

Moderator: Brett is the Finance Manager of the Colorado Governor's Energy Office and he has had a vast experience, as you can see by the slide, wearing many, many hats; and he has been involved in just about all the financing programs that we have talked about here so far. So Brett.

Brett Johnson: Thank you. I hope people find this presentation helpful. I suppose I'm going to have somebody help me go to each slide. But ultimately, what I wanted to talk about is the process as it was mentioned by a couple people before, there were some limitations with regard to the fact that, you know, through the automatic allocation to communities of at least 100,000 in population, how we would reallocate that and how we went about doing that. And so that's a lot of what I'm going to talk about in some of the deals that have been priced in Colorado. So next slide please.

Our allocation in Colorado is \$51 million and with that automatic reallocation, we ended up reallocating \$42 million of that amount to a wide array of counties and municipalities who had that 100,000 population. Next slide.

What ended up happening - and we had a provision that when automatic, we revert those automatic allocations back to the state last October if they were not used. This amount is actually changed from my math here. Ultimately of that \$42 million that was automatically allocated, \$12 million instead of \$18 million was actually claimed by counties and cities. And so about \$30 million was not used from the original allocation moniker. So ultimately we had in this state about \$39 million that we had to redistribute. Next slide please.

We had - and I'm going to go through some of the processes that we did. But ultimately, we had a successful application period that of that \$39 million that we had to give out, we were three times oversubscribed; and these are some of the examples of entities, whether they were state agencies, school districts, local applicants, and so forth, that had requested an QECB allocation from us totalling about \$120 million. Next slide please.

In terms of our evaluation process, we really wanted - with the spirit of the fact that QECBs are a part of the RS Stimulus Program - we really wanted to make sure that we were awarding projects were further along. It wasn't a "we are thinking about doing this" kind of idea, it was more of "we are in the works to plan this and we could really benefit from a lower cost source of finance".

And so in terms of the project development and so forth, that was a big deal for us to evaluate. Of course, in terms of an economic development and the impact to environment, that was clearly another moniker that we judged on. However things were, we wanted to make sure this wasn't centric to the more central municipal larger areas like Denver in the front range that we found a good portfolio of different projects statewide.

And we also wanted to make sure that through reaching out to municipalities and so forth, it was clear that we wanted to make certain that they understood that they weren't receiving money from the Governor's Energy Office, they were receiving an allocation of a bond structure; but ultimately, they would be responsible for moving forward in a financial transaction and making sure that they had some idea of what their finance plan was important in terms of the evaluation.

If you see what our evaluation schedule is below, generally we send out our applications sometime in December; and so within a month, we had allocated all \$39 million of what we had in awards throughout the state and were fully reallocated for our entire \$51 million once again. Next slide please.

Wanted to give an idea - and in terms of what Wells Fargo's data was, those were for, you know, underwritten bond transactions. But a part of the story of what happened in Colorado is that capital leases are another way - whether it's a COP or a true capital lease structure - is another way to apply QEGBs. And so they're probably off the radar, but we so far have had six transactions priced in Colorado totalling about \$17 million. And if you see the range of the net all in costs once you factor in the subsidy, the average interest rate has been somewhere around 1.927 percent.

As I mentioned on that table, that doesn't factor in the first Boulder County deal that was actually done with the prior structure - the tax credit structure - but it does represent the impact of the legislation this year that make municipalities use these - or allowed municipalities to use these QEGBs through more of a Build America Bond pledge structure. It was definitely a significant improvement on the rate that municipalities were seeing in terms of a tax credit bond versus as Build America Bond applied structure. And so it's a pretty good success in terms of the rates.

If you see in terms of project description, we have a pretty good portfolio as well in terms of the type of finance and projects. I'd say the majority of our competitive allocations did go to energy efficiency, capital improvements for buildings, many of which that had some form of Enesco attached to it with an energy audit that basically guaranteed the savings. It would repay the annual bond payment.

And as mentioned before, one of the other highlights that we were able to help out was Fort Collins used their QEGB allocation as a part of their \$15 million Utilities Revenue Bond transaction to support their Smart Grid Project. This is a matching \$15 million that they finance to a \$15 million grant that they were awarded for this purpose.

The last one on the list, Boulder Housing, represents a multifamily deal actually that is more of a private use application of these bonds that was for a low-income multifamily building in Boulder, which was also a big success that we feel. Next slide please.

I also wanted to mention PACE. We've talked about this, but ultimately PACE is a property assessed clean energy finance mechanism in which the bonds are paid back through individual property assessments. Twenty-five states currently have some sort of pay structure, and these are viewed applicable for QECCBs under a Green Community Program.

Of course the federal challenges at hand currently limit residential improvement from that until possibly there's a legislative solution or something else. We did designate \$6 million of our QECCB allocation for PACE Finance, and we have worked with Boulder County to award \$3 million of that amount for their first commercial program.

Commercial is somewhat out of the realm of the direction of what FHSA has directed on the federal level, and so they're actually currently in the origination process for a \$1.5 million QECCB deal for a PACE commercial bond transaction; and we're excited to help that out with a QECCB mechanism. It's been exciting to see it close and show the successes of that program. Next slide please.

In terms of success - and I've had a lot of inquiries on this from different folks in other states in terms of what we did to actually find success. And what I viewed as the biggest barrier in general is education. There's a nexus of different groups, that if they didn't know about the opportunity, they may have financings planned and in place, but they simply didn't know about the QECCB that could benefit them.

So over the course of about 60 days I talk to a ton of municipalities and other eligible borrowers to let them know about it. It was also good to build a good relationship with a lot of local investments bankers and public finance entities that again, were working with communities on projects that they very well may not have been aware of the opportunity for a QECCB allocation as well.

The state of Colorado also has a pretty good relationship with our energy saving groups - our ESCOs - such as Johnson Controls, Honey Well, Chevron; a lot of those different groups that, you know, their model is truly based on maximizing the amount of capital improvements for energy efficiency based on interest rate in the term of the bonds, and letting them know that there was an opportunity to significantly decrease the cost of capital through a capital finance for this.

Created a lot of buzz and interest on that side of things, but really drove the oversubscription of people interested in QECCBs. And so, you know, ultimately building these relationships have been fruitful in making sure that we have become a leader nationwide in pricing these QECCBs. And we have six transactions closed and we have six transactions that are scheduled to be closed in the next 40 to 60 days. We're looking forward to having all those transactions closed and having pretty close to our allocation price by the end of this year. Next slide please.

Wanted to also mention, if a state or an entity in charge of these allocations were to make a reallocation of QECBs, that they consider the fact that there are other things that they need to make sure they're guiding borrowers - municipal borrowers through the process, because again, this is a financing. It's not an injection of cash. And with that, municipalities, counties, cities, towns, will likely have some sort of an internal ordinance process, and that's going to take time and setting out timelines them to do that and different milestones with that award so that they do get done, and if not, we can revert them to other deserving projects was important with that.

And I mentioned this in our evaluation process, we wanted to make sure that they understood that there needed to be a finance plan for this, and not only were they thinking about what they were using the QECB proceeds for, there were also thinking about, "What is the structure we're using and what are we allowed to do? Have we received voter approval?"

In our state, we require voter approval for general obligation bonds; or have we thought about if we're going to do a COP transaction or a capital lease, and how would that look. And how are we going to go about, not only securing the project and making sure that we're ready to go, but also ready to price there?

And that's taken some handholding, especially with smaller school districts, smaller towns who may have - not only have they not done an energy efficient project, but they also haven't done many financings at all; and that been an important factor as well. It's not just making the award, it's making sure that you're there to help them make sure they can close it and have a successful transaction. Next slide please.

Other issues that we noticed is that you should be aware that there are other IRA-related municipal bond structures. For example, many states have been allocated what are called "Recovery Zone Economic Development Bonds". In a lot of ways, Colorado by legislation actually automatically allocated her first priority to higher ed for these. But we've been working with higher ed to make sure that those are used; and perhaps a deserving QECB applicant that was not chosen could use those, or different private developers could do a mixture of those bonds.

In fact, we worked with Boulder Housing to not just award them a qualified energy conservation bond allocation, but we also ended up finding an unallocated portion of Recovery Zone Economic Facility Bonds to help their project, so that - as Michael and Wayne from Wells Fargo mentioned, a lot of these finance structures were not fully financed by QECBs, but they were often financed through something else for the balance of the project. And if we can help a project out in finding some other form of low-cost capital, we try to do that as well. And so it is important to make sure that you know that there may be some other opportunities, depending on how your state has chosen to allocate those funds. Next slide.

I just wanted to also mention in terms of press opportunities for these, the value is pretty high. We ended up for our state projects - we viewed QECBs as having a higher value for the smaller, local projects. But from one of the earlier slides, there was about \$45 million of requests from state agencies with different capital - capital building improvements - that they were already working with an ESCO. We ended up

deciding to allocate all the QECCBs to other projects and do an aggregated COP authorized through some legislation that I worked on in this session to fund those.

But even without the QECCBs I wanted to go over the fact that these are great press opportunities to show a lot of these projects can be paid for with the savings that are realized through the capital improvements. And as cities, towns, and state governments are realizing budget gaps due to revenue shortfalls, that's a good story to show that we're doing capital improvements, we're funding construction jobs in ways in which the improvements pay for themselves; and that's a powerful message to give to constituents who are clearly concerned about how the money's being spent and how different government bodies are going to bridge that gap in terms of maintenance improvements that they may need one way or another.

And I think that might be the last slide. But I'm happy to answer any questions in terms of the deals that were closed or any one of those things as well.

Mark Zimring: Great. Thanks very much Brett. So we still have a couple minutes for a very brief Q&A, so please feel free to continue to submit questions. Two quick questions for Michael. First, "Have any of the QECCB issuances that you are aware of to date been supported by IRA funds in a credit enhancement or debt service reserve fund form?" And then second, "What are the typical costs of a QECCB issuance in terms of percent of issuance, and are these in line with what you see for typical municipal finance?"

The first question as to have we seen any IRA funds being used to establish a debt service reserve fund for a QECCB deal? That's an excellent question, and based on what we've seen thus far in the information that's publically available, we've not been able to track that, but that is an excellent question.

The second question in terms of the financing rates and are they generally in line with what we expect from more traditional municipal financing in the taxable market? And that answer is yes. So from the investor's standpoint, they are largely indifferent as to whether it's a QECCB or a BAB or some other form of municipal taxable bond. They're going to be concerned with the pledge credit and the ratings that have been assigned to it. The fact that it's a QECCB really doesn't come into play.

Great; thank you. So the next question is for Brandon Belford. So the question is, "Are there any potential appropriation issues going forward with Treasury's funding the cash subsidy or the interest subsidy on QECCBs?" In other word, can local, state, and travel governments be pretty confident that this appropriation will continue?

Brandon Belford: I mean again, not being - and then again, this is Brandon Belford from DOE - and not being heavily involved in the appropriations conversations, I mean again, the program itself was expanded through the Recovery Act, so those funds have obviously already been appropriated and in the tax subsidy or grant subsidy was part of the Hire Act. And so all of that has been budgeted and appropriated, and I think the major risk that folks have out there would really be more around the potential for IRS or Treasury to audit some of the project being used by these proceeds and not deeming them as eligible activities; but in terms of the funding coming to support the program, I think that is fairly secure.

And again, as Michael and Wayne mentioned earlier, one way that issuers have structured deals to get themselves even more comfortable with mitigating that risk is through various call provisions that will enable them to mitigate that risk.

Mark Zimring: Thanks very much. So I want to thank everyone for joining us today. On the screen now you'll see a list of additional webinars that the Department of Energy is sponsoring. Feel free to sign up for those. The link to sign up for those is at the bottom of the website. Just a clarification - for those that are interested in viewing the slides, audio, or transcript of this webinar, they will be available next week on the DOE Solution Center.

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