



Clean Energy Finance: Green Banking Strategies for Local Governments

Webinar Transcript

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I. Introduction

Slide 1. Clean Energy Finance: Green Banking Strategies for Local Governments

Operator: This is conference # 8289757.

Good afternoon. My name is Louie and I will be your conference operator today. At this time, I would like to welcome everyone to the Green Bank Resources for Local Government Conference Call.

All lines have been placed on mute to prevent any background noise. If you should need assistance during the call, please press star, then the number zero, and an operator will come back on the line to assist you. Thank you.

Ms. Emma Zinsmeister, you may begin your conference.

Emma Zinsmeister: Thank you. My name is Emma Zinsmeister and I appreciate everyone coming on the line today to join us for our webinar on Clean Energy Finance Green Banking Strategies for Local Governments. I'm with the U.S. Environmental Protection Agency's (EPA's) State and Local Energy and Environment Program.

And we have come to this topic today as many cities across the U.S. are pursuing aggressive goals for energy efficiency and renewable energy deployment in their communities, along with targets for deep reductions of greenhouse gas emissions. And to achieve the scale up of these technologies and the types of emissions reductions that communities are aiming for, there's a real need for reasonably-priced, appropriately-targeted, and sustainable financing options.

Local governments, of course, as a result are looking for ways to fill gaps in private financing with efficient use of their public dollars. So today we're going to be talking about green banks and other green banking opportunities that local governments can use to advance these goals and their environmental, energy, and economic priorities.

Slide 2. Clean Energy Finance: Green Banking Strategies for Local Governments

Slide 3. Using Adobe Connect

So to get started – before we dive into the topic today, I'm going to turn the line over to Alexis St. Juliana who's just going to give some tips for participants on how to use the Adobe Connect software and to participate in today's webinar.

Alexis St. Juliana: Great. Thank you, Emma, and thank you, everyone, for joining today. Those of you that have attended past webinars may notice we're using a different platform. We hope that everyone was able to join easily, but, if not, we have a few troubleshooting tips that usually resolve those connection issues.

First, you might try using a different web browser. If you are using Internet Explorer, test out Firefox or Chrome. You may also need to download the latest version of the Adobe Flash Player or the Adobe Connect plug-in.

If you continue to have trouble, you might check with your information technology department about your internet security settings. Adobe Connect also has fairly extensive online help pages.

Slide 4. How to Participate

There are two ways to connect to today's audio: the first is through your computer. Please make sure that your computer speakers or headphones are unmuted. The second option is to call into the phone line. If you experience audio feedback while calling into the phone, please try muting your computer speakers. All participants, whether connected via phone or computer, will be muted throughout the duration of the webinar.

Slide 5. How to Participate

So there are three ways to participate during today's webinar. First, participants can enter questions into the Q&A (question and answer) box that you see on the right-hand side of your screen. If you could, please let us know who your question is for and we'll hang on to all those questions and moderate them at the end of today's session.

Questions that we don't have time to answer today, we will post responses on the EPA website. And, right now, I'd like to quickly point out a really neat feature of today's webinar platform. All the hyperlinks that you see on your screen, like the one right here, those [sic] are active. So you should be able to click [sic] those, visit the sites, and explore that content.

Slide 6. How to Participate

So the second way that you'll participate is through several poll questions we'll ask throughout the webinar. It should be very simple to participate; however, those using mobile devices or tablets may need to exit out of full-screen mode and tap on the poll icon which [sic] looks like a little slip of paper dropping into a ballot box.

And then, the final way to participate today is to complete a webinar feedback form. At the very end of today, we'll share a link to participate through that form. And I think that covers everything, Emma, so I'll turn it back to you.

Slide 7. Today's Agenda

Emma Zinsmeister: Great. Thank you, Alexis. So for today's webinar, as I mentioned, we're going to be covering green banks and green banking strategies for local governments. You'll be hearing from a number of experts on the topic who have been doing some really great and innovative work in the field and I will introduce each of our speakers in turn as we get to their presentations, so we will be hearing more about each of their experience and the work that their organizations are doing.

Slide 8. Introduction

To get started though [sic] I wanted to give everyone a little bit of background information on our program here at EPA, the State and Local Energy and Environment Program.

Slide 9. U.S. EPA State and Local Energy and Environment Program

Many of you may be familiar with us and our resources if you've participated in previous webinars or accessed our website. But overall, we are helping state, local, and tribal governments identify, understand, and implement strategies to help them pursue multiple goals through the use of clean energy, whether that's energy efficiency, renewable energy, or other related technologies. And ultimately, to help them advance their priorities and improving [sic] air quality and public health,

strengthening [sic] their energy systems, reducing [sic] greenhouse gas emissions, saving [sic] money, and a host of other multiple benefits.

So, to do this, we offer analytical tools, data, technical expertise, guidance resources, and other information on our website. And you can access all of that at the link on the bottom of the screen.

Within a few weeks' time from today's webinar, the slides from today's presentations will be made available so you can access those. And also, there will be a new resource available which [sic] you should have received a copy of [sic] attached to this morning's reminder for this webinar.

Slide 10. Clean Energy Finance: Green Banking Strategies for Local Governments

EPA has just developed a new primer for local governments on green banking strategies. This short paper provides a basic overview of many of the concepts that we're going to be discussing in today's presentations, and provides really introductory information on what green banks are, the types of products and services that it [sic] can offer, why working with a green bank may be beneficial for your community, and some other practical information on what it really takes to establish a green bank. And if establishing your own green bank is not necessarily something your community is going to pursue, what other kinds of opportunities may there be for your community to use innovative financing to support your clean energy goals? And, of course, a number of the organizations being represented on today's call are also featured in this paper.

Slide 11. Contact Information

If you have any questions after today's webinar, feel free to contact me directly. There are also links on this slide to take you to our website or to sign up for a newsletter, or you can learn more about resources like this new paper as they come out or other webinars and other materials that we will be offering.

II. Poll Question 1

Slide 12. Poll 1

Before we get started, we wanted to open today's call with a poll. We want to know a little bit more about who we have on the line. And so, our first question for you all today is, Which of the following best describes your experience with green banks?

Please choose the answer that is best for you – we're new to green banks and just need the basics; we're familiar with green banks, but have never worked with one; we have our own green bank; we're currently trying to establish one; we're exploring whether to create our own green bank in the future; or maybe you're working with another green bank such as a state green bank. So I'll give everybody just a minute to share their responses.

All right. I think we can go ahead and pull up the results of the poll. All right. So it looks like the majority of folks on the line today are new to the concept of green banks and green banking and are looking for the basics, over 50 percent. Some are familiar and fewer have either started working with a green bank or maybe looking to establish their own.

So thank you for sharing that information. We're – we have designed today's presentations to really start to dive into the basics and give you ideas of where you can go to learn more, so I think it will be a good fit for folks on the line. All right.

III. *Jeff Schub, Coalition for Green Capital*

Slide 13. Jeff Schub

All right. We are going to go ahead and move forward. All right. We are going to go ahead and move forward. I'd like to introduce Jeffrey Schub. Jeffrey Schub [sic] from the Coalition for Green Capital (CGC) where he leads their business development state-level consulting work. Jeff has worked in New York in 2013 to develop New York's green business – sorry, New York's green bank business plan designing products and structures, and building financial models for the bank.

On behalf of CGC, he also performs ongoing consulting work for the Connecticut Green Bank, [sic] serves on the advisory committee for the Maryland Clean Energy Center's green bank study. He has engagement [sic] with the State of Vermont and is partnering with OECD (Organisation for Economic Co-operation and Development) to develop tools and information for nation [sic] state green bank development.

Prior to CGC, Jeff has [sic] worked for [sic] Analysis Group, Greenskies Renewable Energy, and EnerNOC. He holds degrees from both Yale and Brown University.

Jeff, I'll turn it over to you.

Jeffery Schub: Great. Thank you so much. I'm really happy to be with everybody this afternoon, [sic] really excited about the gathering we have. Tom and Bryan are spectacular green bank leaders and so you'll get a really good rundown from them of the day-to-day mechanics and operations activities of green banks, [sic] the kinds of products and solutions they are actively offering in the market today.

CGC has been lucky to work with both of them and I'm going to spend some time upfront talking about some of the basics – what are green banks, how do they work, how are they created, what forms do they take, how are they funded and capitalized, and what are some trends and developments going on in the green bank space nationally today?

We happen to be talking at a moment where there is a lot of really interesting activity in the space where some of the traditional definitions and bounds [sic] of green banks are changing, which actually creates more opportunity for local governments and local actors to engage in the green bank space and really that would have been difficult previously. So let's dive in.

Slide 14. Scaling Green Bank Financing to Deploy Clean Energy: Local Government Opportunities

Slide 15. Coalition for Green Capital (CGC) unique role as Green Bank (GB) field catalyst for decade, refining GB model, implementing on the ground, coordinating partners

So just for a little bit of background on what our organization is, so [sic] I'm the executive director of the Coalition for Green Capital. We're a 501(c)(3) nonprofit that's been working for about a decade specifically and exclusively on the topic of green banks. And what that means is we play a role as an advocate, advisor, technical assistance provider [sic] to – and a thought leader on the topic of green banks – directly partnering with governments, local actors, NGOs (nongovernmental organizations), investors, lenders, [sic] foundations in order to help build green banking capacity, support its operations in an ongoing basis, and ultimately drive more investment through green banks.

We are lucky to work with Bryan in Connecticut and Tom in Montgomery County to help design and stand up those green banks, which we are really happy to do. And we continue to work around the U.S.

on green bank activity. We are now working in probably about a dozen states that are at some form of green bank exploration and sometimes those are state-level activities, sometimes local.

We've been able to build a pretty strong network of partners and thought leaders in the green bank space that are really excited to engage and support the creation of new green banks and build just [sic] collective scale through the community in order to drive innovative investment at the local level.

We were founded about a decade ago by our CEO (Chief Executive Officer) Reed Hundt, who was previously the chairman of the U.S. Federal Communications Commission and brought to CGC in [sic] a green bank concept [sic] the basic premise of if we're able to drive a trillion dollars of investment into the communications platform in just a decade in order to completely rebuild that platform, what would it take to drive similar amounts of investment into the clean energy or the energy platform to make it clean and reduce greenhouse gas emissions and CGC's green bank efforts have been the result.

Slide 16. Green Banks are institutions purpose-built to deliver transformation - generate demand and draw investment

So what's a green bank? Let's talk about the basics here. So green banks are institutions that are purpose [sic] built to deliver transformation for a local community market. So what that really means is both generating demand for clean energy investment and drawing in the investment to lead that demand.

But let's talk about a few things that it's not – green banks are not banks. This is a handy phrase to describe the concept of a green bank, but they're not actually depository institutions. They're not like Bank of America or a – or a community bank where people are actually making deposits.

Green banks are effectively dedicated finance institutions that are providing lending and other kinds of finance tools specifically to mitigate climate change. They can be funded by government, [sic] by charitable contributions. They can deploy capital from public or private sources. They can be investing in projects directly on their own or they can – they can do it in conjunction with the private sector.

There's a whole range of the actual structures and capital sources that green banks use. But fundamentally, what we're talking about is an institution of variable size that exists in a specific market and exists to drive clean energy investment and market growth in that market. So this means market engagement; meeting with local developers, contractors, specialty finance companies; working with banks; working with investors; working with the government; trying to build the pipeline for investible clean energy projects; filling gaps that the green bank can identify exist because of various shortcomings, and [sic] market structures, and financing structures; and then, delivering capital to those projects in a range of structures. And that can be the green bank's own capital and it can also be private-sector capital.

For example, the Connecticut green bank has done a tremendous job developing financing structures where a green bank dollar is actually leveraging about \$5 of private investment to co-invest alongside the green bank. So there's been a huge bang for the buck from the green bank structures.

As I said at the bottom [sic], the objective is volume and scale. The objective of the green bank is to penetrate the energy markets as much as possible in order to deploy technology that can reduce greenhouse gas emissions.

Slide 17. Map U.S. Green Banks

This is a map showing the landscape of green bank activity in the U.S. And I will say there are probably things in the country that some of you on the phone might suggest are green banks and you're probably right. The definition of a green bank is – as you can tell is sort of conceptual – it's not rigid. And so, we were always looking for new kinds of organizations that do activities that sound similar to this. And so, I would suggest people sort of send them our way so that we can track them and engage with them.

But the ones that are up here that exist, these [sic] include the Connecticut Green Bank which is the first state green bank in the country, created in 2011 through legislation; followed by the New York Green Bank; the Rhode Island Infrastructure Bank; [sic] Montgomery County Green Bank, which is Tom's organization. Washington, DC just passed legislation to create their green bank, which is called the Green Finance Authority.

Then there are some local organizations as well. The New York City Energy Efficiency Cooperation was created by the City of New York to provide financing into building efficiency. It wasn't created as a green bank, but it is in effect a green bank in the way it operates.

The Florida Solar and Energy Loan Fund is a similar kind of organization that was created by a local government but without the label of a green bank, but it's using public and private capital in innovative ways to drive financing into, in their case, primarily low- to moderate-income market adoption for clean energy.

And so, there's a really wide range of institutions in terms of scale, funding sources, corporate form, [sic] relationship to government. But all the ones labeled here are ones that are sort of actively in a green bank community and driving – or working to drive clean energy investment in their markets.

And then, also, there is [sic] the states that I've highlighted here in yellow which [sic] are all places where there is some kind of green bank exploration project underway either led by the government itself, [sic] by local actors and local partners. Sometimes it's initial conversations with governors' offices and, again, this – [sic] some of these are state banks and some of these are local or county-based. And we've had conversations with probably folks from 30 to 35 states in the U.S., again, whether it's state level or [sic] local level about green banks. But these are the ones that are sort of in most active development [sic], just to give you a sense of sort of the breadth of the activity in the country.

Slide 18. Green Banks around the world have mobilized more than \$29 billion in clean energy investments

And green banks around the world have mobilized – actually now it's almost \$30 billion of clean energy investments and key piece here is the world; this is not just a U.S. phenomenon.

The United Kingdom government created the first national green bank in the world. It has been sold to Macquarie through a privatization process in effect because it did where it was supposed to and drove capital into nascent markets and turned them into mature investible markets.

The Australian green bank, the Clean Energy Finance Corporation, is another national green bank that has billions of dollars of investment and these collectively have added up to about \$30 billion of clean energy investment, again specifically targeting market gaps [sic] short – where private capital markets are unable to drive sufficient capital at a reasonable cost to reach market penetration. And so, all of these green banks have driven about \$30 billion of what you can call additive or marginal capital that wouldn't have flowed otherwise.

Slide 19. Governments have implemented the model through a number of forms

So let's talk about – a little bit about the mechanics and forms of green banks. Historically, they have been implemented in a pretty-wide range of structures. The New York Green Bank was created directly as part of the state government that is actually a division of the State Energy Office.

A number of green banks have been created as quasi-public institutions where they were formed effectively as corporations that are owned by the government, but they have a board of directors. And I think a lot of the advantages of this is that you can create a green bank in a way that has an alignment with [sic] policy, ensuring that [sic] sorts of meetings and policy objectives [sic], while allowing it [sic] sort of stick in the market and operate with market actors.

So then, finally, there's [sic] a few private nonprofits and this is actually a trend we're seeing where the New York City Efficiency Corporation was eventually turned into a nonprofit and the Montgomery County green bank was created originally as a nonprofit. It was done so sort of [sic] at the direction in behest [sic] of the county government, but it sort of showed a new pathway to creating an institution to [sic] house green banking activity.

Slide 20. Energy is local! Sources, uses and price all highly localized, which means need local expertise to build pipeline

And, as I said, there actually has been a trend towards nonprofit green banks and actually a growing interest among local actors in green banking. The historical approach of having a state-driven institution that is capitalized and funded with hundreds of millions of dollars of public money is a pretty hard pathway to go down. And in many states, and especially at the local level, it's a complex process. Where is the money going to come from?

But those sort of barriers don't change the fundamental reality that energy is local. Energy is, you know, electric – you know, electricity in one place is exactly the same as any other place, but the source and price and the use of that electricity is extremely localized. And so, driving meaningful clean energy market penetration and development in the country relies on local actors that are able to engage with the local market and meet specific needs facing the economics, policies, and regulatory environment of those of the local clean energy market.

And so, what we have is a situation in the green bank space where increasingly there's a recognition of the importance and need for this kind of local expertise and capacity to drive investment, but we have a mismatch where we have really large pools of capital that are trying to act as deal flow. And so, creating green banks at the local level can be a really interesting opportunity to effectively create the intermediaries that are necessary to go out and build the pipeline; identify projects that are typically very small, disaggregated, and diverse; and be able to turn that into a set of investments that are actually attractive to really large investors. This kind of a warehousing and intermediation can be a really critical function for a local green bank specifically.

Slide 21. Trend is toward "lean non-profit" Green Bank that draw on multiple resources, funding and know-how of others

And what we see here is, as I said, there's a trend towards nonprofits and specifically in sort of [sic] leaner nonprofits. And this is something that foundations which [sic] support the green bank space have been pushing for a little while now.

The idea of building local capacity and local expertise to engage local markets, relying on whatever resources might exist there, but also drawing on resources that might exist at the national level whether it's from national foundations or capital providers or working with existing green banks that have proven products and proven structures that they think can be deployed into local markets that would allow new local green banks to be able to avoid reinventing wheels and spending a lot of time on product development.

There is a national conversation happening right now about how do we make the green bank space more cohesive so that local actors can tap into and benefit from the resources, the know-how, and the scale that exists already among existing green bank actors and the new kinds of capital that are coming into play here.

And so, while it's important that any green bank nonprofit or otherwise are [sic] sort of built and housed locally and owned locally, there is a new opportunity to tap into resources at a higher level from a national set of actors that really weren't there already for this kind of a conversation even six months ago or maybe a year ago.

Slide 22. Parties connected through new Green Bank Consortium to share products, know-how; access capital, services

A key piece of this that CGC is starting to implement to help bring this sort of national network together is the launch of what's called the Green Bank Consortium, which is a really exciting idea that people have sort of suggested and he [sic] noted the value of for a while and we're finally starting to move towards launching it, and the Consortium is going to be a member-based network of green banks, local governments, NGOs, investors, market developers, [sic] specialty finance companies.

It's meant to be that big tent that is facilitating the creation of the connected tissue that can allow local experts to connect with product providers and investors, service providers, [sic] other green banks so that they can learn from each other and leverage what already exists to make this space grow as efficiently as possible.

As I said, energy is local and clean energy investment has to occur locally. But how can we help local actors tap into all the resources and know-how and expertise that's already been developed among green banks from around the country to make sure everybody can benefit and achieve [sic] scale efficiently?

So we're really excited to be launching this. As I said, please do reach out to me if you want to join and sort of become part of this conversation. We have found that the best thing that CGC can do to facilitate green bank development is basically just put everybody in the room together and let them all talk, which isn't hard to do. But we're happy to raise our hand to help that happen. We think that's an important role for CGC as a field catalyst in green banks.

Slide 23. Local actors can lead new national Green Bank expansion and take advantage of funding, partners, know-how

And then, lastly, just to point out and sort of to summarize, local actors really can be the leaders in the sort of national green bank expansion. As I said, the barriers of legislation, and political will, public capital, those [sic] are starting to fall through some of these new methods, whether it's new capital being raised by the New York Green Bank specifically to be able to finance projects in other states, [sic] whether it's new firm profit-funding coming in to pay for the start-up cost of new green banks that

might take a nonprofit forum towards Connecticut creating a new affiliated nonprofit to be able to take their existing products into new markets and partner with local actors so that they don't have to reinvent products.

We're at a very exciting time here when this sort of networking structure is coming into play, but it really all depends on having the local experts and capacity on-the-ground who can engage with the markets and drive the development of a pipeline of real projects and [sic] investments. So really excited to be able to engage and speak with you all today and happy to field questions at [sic] end and then afterwards after the webinar. So thank you so much.

Slide 24. Thank You

Great. Thank you, Jeff, for sharing that information with us. And I really do encourage everyone on the line to go to the Coalition for Green Capital's website. They have a lot of great resources that dive even deeper into the topic of how to – how to look at and explore green bank opportunities.

I want to remind everyone on the line that if you have any questions for Jeff, please type them into the question-and-answer pod on your screen and we'll get to those at the end of today's discussion.

IV. Poll Question 2

Slide 25. Poll 2

Before we dive into our next presentation, we are going to do another poll just to get a sense of the type of information that folks on the line are hoping to learn today. Jeff has provided a great overview of the different types of structures that local green banks can take, and [sic] the roles that they can play, and some of the challenges that they're working to overcome. So we're interested to know a little bit more about what you are hoping to learn and ways in which the EPA can help provide information in the future.

So if we could just pull up that poll, it'll take just a second. The question for you all is, What information on green banks would your community most like to learn? And please feel free to select as many of the answers available that apply.

They include the basics of green banks, what they do and the products and services they offer, reasons why a community may want to create or work with a green bank, specific ways in which green banks can support clean energy investments, the benefits of a green bank and its investments that could occur to your community, tips for exploring if a green bank or other green banking opportunities might be right for you, and then the nuts and bolts of how to establish a green bank. So we'll wait just a minute to get some responses.

Great. I think we can go ahead and share the results. It looks like everybody is interested in everything, which is great because we have a lot of good information to share on all of these topics, as well as in the paper that was distributed to all of the participants on the line. In particular, folks are interested in ways in which green banks can support clean energy investments, which is great since that is a specific perspective that we are taking today. But we will be sharing other information on the basics, sort of the various benefits, and you'll hear these examples throughout the following presentations. So [sic] appreciate everyone sharing their interest and we will go ahead and move on to our next presentation.

V. *Bryan Garcia, Connecticut Green Bank*

Slide 26. Bryan Garcia

Great. So next we will be hearing from Bryan Garcia. Bryan is the president and CEO of the Connecticut Green Bank, the nation's first state-level green bank. The green bank mile is demonstrating how smarter use of public resources can attract more private investment in the clean energy economy, reducing [sic] the energy burden on households and businesses, creating [sic] jobs in local communities, increasing [sic] the deployment of clean energy, and reducing [sic] greenhouse gas emissions that cause global climate change.

Before joining the Connecticut Green Bank, Bryan was the program director for the Yale Center for Business and the Environment where he led efforts to develop a leading global program responsible for preparing environmental leaders for business and society. Prior to Yale, Bryan served as the Connecticut's – as Connecticut's Climate Change Coordinator where he supported the Governor's Steering Committee on Climate Change. And he holds degrees from UC (University of California Berkeley), New York University, and Yale University. Bryan, take it away.

Bryan Garcia: All right. Good afternoon, everyone. Thank you for that introduction. I want to thank Emma and Alexis for providing Tom, Jeff, and I [sic] an opportunity to talk to all of you about how we can drive private investment into our local clean energy economy, so thank you for providing us with this opportunity.

Slide 27. Connecticut Green Bank: Attracting Private Investment, Growing Our Economy, Creating Jobs, and Helping Our Communities Thrive

Let's just move some of these slides here.

Slide 28. Glossary

All right. So, thankfully, the EPA team ran through our presentation and pulled out all of the acronyms. So we all live in our acronym world and the EPA was kind enough to pull all those together. So there's a very useful glossary that they put together at the outset of my deck here, so feel free [sic]. As I go through these slides I will definitely speak to [sic] these acronyms as we work through them.

Slide 29. Connecticut Green Bank: Mission and Goals

But why don't I start off with just, at a high level, What's the mission of the Connecticut Green Bank? Our focus as an organization is to deliver on the energy policy of the state which [sic] is cheaper energy, which is to make clean energy more affordable and accessible to end-use consumers like households and businesses to ensure that the energy is cleaner. Of course, there are a lot of benefits that cleaner energy provides to our communities.

And lastly, [sic] is more reliable. Connecticut and all of [sic] New England states and probably a number of your states across the country have experienced significant weather-related events over the course of the last 5 to 10 years. Connecticut has gone through a number of hurricanes and the like that have really challenged the reliability of our energy systems, so cleaner, cheaper, and more reliable.

And, of course, what comes from all of that is deploying more clean energy and driving more investment into our clean energy economies is job creation and local economic development [sic]. So, at a high level, this is [sic] the policies that we're after.

From a goal perspective, as Jeff alluded to, our focuses are [sic] to attract and deploy private investment to help support our clean energy policy goals. Each of us at a local or state level has policy goals. And if you quantify the level of investment that's going to be required to successfully implement those goals, one of the things you quickly realize is that you need more private investment, so that's really important.

We want to leverage limited funds and attract multiples of private investment while getting those public funds over time and reinvesting them. So we loan funds out. We don't rent them out. Our focus is to invest them and get those funds back over time so that we can reinvest them.

Thirdly, we want to bring down the cost of clean energy to make it more affordable and accessible to consumers. That's to say that as more and more consumers deploy clean energy, they are better off economically; they are paying less for clean energy than they were before paying for normal energy.

And lastly, this is a goal that we've developed over the course of the last two to three years is we [sic] realized that, in some cases, we have to break down an existing barrier in order to get at that energy improvement. So it may be that we have to remediate asbestos, mold, [sic] lead in order to get at the clean energy improvement; of course with the focus on reducing the energy burden on low- to moderate-income households and distressed communities.

Slide 30. Green Bank Impact Report: Investment (Fiscal Year 2012–Fiscal Year 2018)

All right. So I am going to start with the results and I'm going to come back to how we work with communities to drive investment. So, as you're hearing me, this is all about mobilizing more investment into your economy, right, so using a limited amount of public investment to drive private investment into your respective economy.

We want to get more out of the public dollar by driving in the private dollars, so we've, over our seven years of existence, driven six private dollars to one public dollar. And again, that one public dollar that we've used we expect to get it paid back over time.

And then, as more and more investment comes into the state economy, we start to see tax revenues being generated from individual income taxes, the labor of all the people out there doing the deployment of clean energy [sic] paying their taxes. The companies who are deploying those technologies will pay their corporate taxes and then, of course, customers who are deploying those technologies onsite are paying sales tax. So by driving more investment into our economy, we can create these benefits.

It's important to say that in terms of developing metrics, what we've done at the Green Bank is work with our local state departments. So, in this case, on tax revenues, we worked with our Department of Revenue Services to develop a methodology for how to quantify this tax revenue benefit. So this is a reasonable estimation of the tax revenue benefits that have been created from more clean energy investment in Connecticut.

Slide 31. Green Bank Impact Report: Economic Development (Fiscal Year 2012-Fiscal Year 2018)

So as we take that then to economic development and we look at how investment is creating jobs, we work with our Department of Economic and Community Development to develop a methodology for how we would calculate the direct, indirect, and induced job years created from the investments in clean energy.

Over the course of the – our first seven years we’ve helped families and businesses reduce the burden of energy cost. That is to say that families – low- to moderate-income families that are paying 5, 10, and 15 percent of their household income on energy are paying too much. The same thing [sic] for businesses. Two (2) percent, 3 percent, 4 [sic] percent of their operating expenses on energy are paying [sic] too much and our focus is to help them reduce those burden [sic] of energy cost by helping them deploy more clean energy on their property [sic].

And then, lastly, is to make sure that clean energy is more affordable and accessible to consumers. We call this inclusive prosperity, which is essentially that this green energy economy, this [sic] clean energy economy should benefit everybody. And, in the case of residential solar, we’re happy to report that we are now beyond parity, which is to say that proportionately, we’re seeing low- to moderate-income households deploy more solar PV (photovoltaic) than non-low- to moderate-income households. So we want to see more investment happening in our distressed communities as well as our low- to moderate-income households.

Slide 32. Green Bank Impact Report: Environmental Protection (Fiscal Year 2012-Fiscal Year 2018)

And just kind of wrapping up here on the impacts on the environmental side, and I really just want to give a shout out to our colleagues, Denise Mulholland and Robyn DeYoung in the EPA office, there [sic] for working directly with us on developing methodologies for how we estimate the criteria pollutant, benefits, the reduction in air pollution, as well as CO₂ (carbon dioxide) emissions.

So by investing in the deployment of renewable energy, obviously, over time, as you see more clean energy being produced, it’s displacing air emissions and we are using an EPA tool called AVERT (Avoided Emissions and geneRation Tool). If you haven’t used it, you should check it out. It’s a great tool.

It takes inputs like kilowatt hours of clean energy produced or kilowatt hours of energy efficiency and energy savings as inputs, and it computes as outputs the associated CO₂ and criteria pollutants; SO_x (sulfur oxide) and NO_x (nitrogen oxides) reductions as a result of clean energy within your specific duration, a really handy tool.

Those outputs can then become inputs into an EPA tool called the COBRA, the Co-Benefit Risk Assessment model, which then calculates the associated public health benefits with cleaner air. So you’ve got reduced hospitalizations, avoided sick days, and the EPA values those. So I think you’re looking at here [sic] \$8 million of public health value created from one year’s worth of clean energy production. So that is to say these are avoided health care costs as a result of cleaner air.

So the EPA has been great. We work with our Department of Energy and Environmental Protection and Department of Public Health to approve of these methodologies with the EPA. So reach out to them if you haven’t done that already. They’re really, really helpful and will help you develop methodologies for calculating this benefit.

Slide 33. Connecticut Green Bank: Business Units and Nonprofit “Spinoff”

All right. So just kind of stepping into our organization a little bit, so [sic] we effectively run two lines of what I’ll call businesses or areas of program activity. One is an incentive business and I’ll go into that in a second. Our focus there is to ensure that the incentives were provided and get cost recovered over time.

The second business that we operate is really what you think about when you think about a green bank business. It's a clean energy financing business, an area for us to attract private capital by us co-investing with our private sector partners. We've got a number of programs here – commercial property assessed, clean energy, C-PACE (Commercial Property Assessed Clean Energy Program), the Small Business Energy Advantage program. And I'll go into some of these in a second.

Our focus there is to ensure that we are a self-sustaining business with regards to these investments, which is to say that we expect a return over time so that we can recover the investment that we're making.

And then, lastly, I'll speak to [sic] something recently that we've done with regards to partnering with our Department of Energy and Environmental Protection and several foundations to create a nonprofit called Inclusive Prosperity Capital, which is really taking the lessons learned from the Connecticut Green Bank in the low- to moderate-income single-family and multi-family space to scale up – [sic] to help others scale up those programs outside of Connecticut.

We've invested a lot of time and effort to work out the kinks in the program areas that we think are scalable. We move to inclusive prosperity capital. So I'll talk about that in a second.

Slide 34. Incentive Business: Residential Solar Investment Program (RSIP) Incentive and Solar Home Renewable Energy Credits (SHREC) Securitization

So why don't we start off with the incentive business? So I'm sure all of you across the country had various renewable portfolio standards. For some of you, RECs or renewable energy credits, may be something that you are used to.

So here in Connecticut we provide incentives to homeowners to install solar PV systems. In exchange for that [sic] incentives, we own the renewable energy credit, which is the environmental energy obligation that our utilities have to have in their possession in order to comply with the renewable portfolio standard.

So here in Connecticut we provide these incentives to households. We own these renewable energy credits and then we resell those credits to the utilities through a 15-year agreement. So the utilities have to buy those renewable energy credits from the green bank at a price that we set.

So that will allow us to recover our cost to administer this incentive program. And we're about to go out for a green bond to essentially aggregate all of those renewable energy credits in the 15-year [sic] worth of production of those credits and sell those [sic] into the green bond market, so stay tuned for that. We're using all the EPA tools to help us quantify the value of those green bonds.

Slide 35. Investment Business: Local Partners

On our investment business, just a real quick point, a lot of our focus is to ensure that we're bringing in local private capital to invest in our clean energy marketplace and this is just a couple of quotes. We also have a partnership with Sustainable Connecticut, which is a nonprofit here in Connecticut. I co-chair this group, which the focus is to help all of our 169 communities pursue sustainability. So we have a direct link between what we do to those communities through Sustainable Connecticut.

Slide 36. Investment Business: Public-Private Partnerships

These are just a breakdown of a couple of our public-private partnerships over the years that have allowed us to leverage limited public funds to attract and mobilize more private investment, and I'll go into some of those things here specifically.

Slide 37. Investment Business: C-PACE (Example)

So I wanted to start off with Commercial Property Assessed Clean Energy. This is directly a local finance program. And you could think of this as your community wanting to support the energy burden reduction or the clean energy production of your local businesses and nonprofit organizations.

So we help to finance clean energy improvements on their properties through a benefit assessment, which is to say that we're all used to benefit assessment financing when we think about sewers and sidewalks. We all benefit from them, so we would pay an assessment for them through our local property taxes. And as a result of that, that becomes [sic] paying your taxes is senior as to having to pay for any mortgage. So it's that seniority that the benefit assessment causes that allows us to attract low-cost, long-term private capital, which makes clean energy more affordable, so C-PACE is a program that I'm sure many of you have across the country.

Slide 38. Investment Business w/ Inclusive Prosperity Capital (IPC: Solar Lease and Energy Efficiency Energy Savings Agreement (ESA) (Example)

Continuing on, we've got a program in partnership with PosiGen. Many of you are trying to see more solar and energy efficiency being deployed in the low- to moderate-income communities. We had done a study back in 2014 with the University of Connecticut that had shown we were failing to deploy residential rooftop solar in low- to moderate-income communities.

And we turned that around by doing a number of different things. One is doing research around the credit quality of low- to moderate-income households, which really said that they're a very credit-worthy investment, so that attracted a lot of our local contractors who want to do work in these communities.

But we also attracted a company called PosiGen out of New Orleans, Louisiana, which has been great. We brought them up to Connecticut. They established a beachhead here; have created 50 jobs; and they offer a solar PV lease, as well as an energy-efficiency, energy-savings agreement. So for \$10 a month for 20 years, a household will get \$2,500 upfront of energy efficiency being [sic] done to their households. So this is a really innovative program because it brings together renewable energy, that [sic] energy efficiency.

Slide 39. Inclusive Prosperity

And just kind of wrapping up here, I mentioned earlier inclusive prosperity. We're very much focused on ensuring that this green energy economy is for everyone from our local YMCAs (Young Men's Christian Associations) to reducing [sic] their energy burden – to our faith-based institutions – to fixed-income households. And we've all been inspired by the work and the leadership that [sic] Mayor Bowser – Jeff mentioned that DC created the D.C. Finance Authority. She talks a lot about inclusive prosperity and creating jobs in distressed communities through the green economy.

Slide 40. Inclusive Prosperity Capital: Sparked by the Connecticut Green Bank

So we've been motivated by that enough to help create a nonprofit called Inclusive Prosperity Capital, that [sic] takes a lot of the lessons learned that we've been involved in in [sic] these underserved markets, with the focus on trying to expand those programs and products across the country.

Slide 41. Inclusive Prosperity Capital: Fund Launch

And just one final note here is on inclusive prosperity capital, as we launched it several months ago – they are currently focusing on raising resources to support those products. They've got obviously ambitious capital raising targets, but we've got a number of investors who are getting it off the ground.

So not only have we transferred seven of our incredible staff members to run this nonprofit, but the Department of Energy and Environmental Protection here in Connecticut has provided funding [sic] \$5 million of funding for single-family and multi-family clean energy. The Kresge Foundation has been great. They are providing a \$10 million guarantee to IPC.

The Hewlett Foundation is supporting in [sic] a credit union product, the platform to develop a credit union product that [sic] would be national. And we're seeing investors like Calvert want to put their funding and investment behind this mission-related nonprofit.

So if you're interested in IPC, just let me know. Let Emma, or Alexis know; and we'll put you in contact [sic].

Slide 42. Thank You

But that's a real quick high-level overview of what the Connecticut Green Bank has been doing and some of our products [sic] have been delivering to our communities around Connecticut.

Emma Zinsmeister: Great. Thank you, Bryan. And thank you for plugging a lot of EPA's resources on quantifying the multiple benefits of energy efficiency and renewable energy. I'd be remiss if I didn't restate that all of those are available on our website and you can get to them through the links on the slides. And also, we really appreciate your focus on inclusive prosperity and reaching low- and moderate-income communities.

EPA has also developed a series of case studies that look at some of the practical aspects of implementing effective energy efficiency and renewable energy programs for LMI (low- to moderate-income) communities; and [sic] those are also available on our website and I encourage those who are interested in the topic to take a look at those as well.

VI. Poll Question 3

Slide 43. Poll 3

So, in follow up to Bryan's presentation, we'd like to do our last poll for the day. As Bryan mentioned in the beginning of his presentation, the investments of the Connecticut Green Bank have been able to generate a multitude of benefits for community-based within the State of Connecticut. And so, we're interesting in hearing about what kinds of benefits you are most looking to get out of your work on clean energy and clean energy financing. And, of course, feel free to reach out to EPA if you have any questions about evaluating and quantifying any of these types of benefits.

So we've included things like affordable clean energy for families and businesses, climate change benefits, investments in local and state economies, job creation, the ability to leverage private funds, public health benefits, tax revenue, and others. So please let us know what you are interested in pursuing for your community.

Great. So we can go ahead and pull up the results of the poll. Great. It looks like folks are very interested and the top three seemed to be affordable clean energy for families and businesses, climate change benefits, and job creation.

So we do have tools and resources to help you look at all of those types of benefits on our website, so please check us out and reach out if you have any further questions. Also, for folks on the line, if you have any questions for Bryan regarding what he talked about in his presentation, please go ahead and enter those into the question-and-answer panel and we will get to those during the Q&A session. And as you enter in your questions, feel free to indicate if you have a particular speaker in mind you'd like the question directed to and we'll be sure to do that.

VII. Tom Deyo, Montgomery County Green Bank

Slide 44. Tom Deyo

So we are going to move on to our last presentation for today's webinar. I'd like to introduce Tom Deyo.

Tom Deyo is the inaugural Chief Executive Officer of the Montgomery County Green Bank (MCGB) in Maryland.

Tom brings his finance, operations, and mission-strong background to accelerate MCGB's goals of creating greater access to clean energy and energy efficiency financing for households, businesses, and institutions in Montgomery County, Maryland. Tom has over 30 years in the for-profit and nonprofit sectors and financing and investment, technical assistance, knowledge-building and grant-making, and [sic] housing and community development, and green programs.

Tom joins MCGB from NeighborWorks America where he led its division focused on real estate development and management in green strategies for nine years. Prior to NeighborWorks, Tom was at Fannie May for 14 years where he worked extensively with the company's field operations and partners. Tom works throughout the company to advance tailored single-family and multi-family mortgage and investment products that responded [sic] to local market needs.

Tom is a graduate of both Loyola University of Chicago and the University of Virginia. Thank you, Tom. Please go ahead.

Tom Deyo: Thank you, Emma. Appreciate that introduction and I just want to also just say thank you to the EPA asking Montgomery County Green Bank to be a part of this webinar, as well as your green bank research, and to present along with Jeff with [sic] Coalition for Green Capital and Bryan with Connecticut Green Bank. I'm certainly honored to be a part of this and to be able to present the Montgomery County Maryland's leadership in establishing a local green bank.

So, at this point, I think what we will do is we're going to sort [sic] step on down and go into sort of thinking [sic] local market and local execution. And what I want to do is sort of walk you through, you know, who we are; what do we do; and then, take you through our first product so that you get a sense of maybe how a local green bank can sort of operate in the local market and develop a solution and then end with some learnings that come out of that.

Slide 45. Montgomery County Green Bank

Slide 46. Who We Are: Montgomery County Green Bank (MCGB)

So we move on. So, first, who we are. We are the Montgomery County, Maryland Green Bank. I want to make sure. There is [sic] a few Montgomery counties out there. So we're in Maryland.

And we were the nation's first county-level green bank, you know, with [sic] county-established resolution in 2015; we established it and then designated us in 2016 as that green bank. And, you know, just sort of some things about why they went about sort of thinking about a local green bank, one, they wanted to leverage [sic] certain amount of resources that would come into the county.

The last bullet there – about \$14 million of capital coming from a county settlement between Pepco and Exelon. And they kind of looked at that and we wanted to sense – they could use it in a one-time kind of spend use but they wanted to sort of build on that opportunity and leverage it and create more than a

\$14-million worth of opportunity in the marketplace. And Bryan talked about revolving money and that's clearly what the county was focused on, of taking that money and turning it into a multiple of itself.

They had also set up a very extensive aggressive greenhouse gas reduction goal and they saw setting up a green bank as a tool of helping them achieve that – [sic] those goals. They also recognize, you know, [sic] putting something inside a government like the county creates certain constraints around it and having something that was outside government would create a flexibility of using that resource and building partnerships, but being inside government often can be constraining [sic]. And one of those is the speed of execution that can [sic] happen in dealing with private capital partners.

And the other ones, they were kind of looking at this as sort of – sort of [sic] short-term horizon. They sort of set it up to be about 10 years out there with the idea that, you know, it would establish itself and got [sic] to achieve market transformation.

So they created this [sic] us as this independent 501(c)(3) corporation. We have 11 boards, 2 of which are county to make sure that we have a sort of relationship to the county.

Slide 47. What are we trying to do?

Yes. So, you know, what's the real overall goal and mission we're trying to do? So, as expressed by Jeff and Bryan, you know, the idea here is to partner with private capital, not to take the place of private capital, but to partner with it. And by in so doing sort of grow the clean energy market that is in Montgomery County, Maryland, by a much larger amount of capital and to make that, as Bryan was saying as well, to be inclusive.

Twenty percent of the funds we have to be dedicated to supporting low- and moderate [sic], and multi-family communities. And so, we have a – within our own award – a certain amount of mission we have [sic] achieve as well.

So this cascade gives you a sense of what it means, right? If you bring in more capital in the energy efficiency renewable energy market, you end up delivering many more projects and delivering more jobs in that space that [sic] translates into [sic] greater energy savings. It actually then translates in better financial security both within the business that has now improved itself and becoming [sic] more energy efficient business at home and – but in so doing they've improved their own budget and operating position. That results in less energy demand and then, for the county, ends up in that lower greenhouse gas emissions.

Slide 48. How Do We Approach Our Work?

And so, how do we approach our work? And I think you've heard this a little bit from Jeff and Bryan. But the first thing is really to find out where the gap is in the marketplace.

What is it that the private sector is not presently sort of operating in? And, as I mentioned, not to replace capital that's already functioning, but to find out where capital is not presently working or functioning in the marketplace and then to fill that gap and fill that gap by doing partnerships – partnership with the private lenders that the green bank can co-invest with. And, in principle, co-invest in a way that reduces their risk.

They are obviously not in that marketplace because they perceive some level of risk. Our job is to sort of help them enter that marketplace, feel more comfortable, reduce that risk, and in so doing, leverage our resources. And in leveraging our resources, putting a more attractive and affordable product [sic] there.

By reducing that risk and attracting those [sic] private capital in, we achieve the third point which [sic] is market transformation, which is once those lenders have been operating in that marketplace for some time, they get comfortable with the marketplace, they no longer perceive that risk, and therefore they will operate in there in [sic] the long haul and the green bank in a way goes – you know, puts itself out of business because the lending market takes over.

And lastly, as [sic] a part of our approach is to really meet some key goals. Get to a multiple of our dollars, help the county meets its greenhouse gas emissions, and reach that inclusive space.

And another important part of the goal here is really to generate some sustainable operating revenue. If we use all that \$14 million for external capital, that would be the best outcome. And so, generating some level of internal resources helps us preserve as much of that \$14 million to the external environment as we can.

Slide 49. Can a local green bank work?

So Jeff had mentioned this, but, you know, why does a local green bank work? Well, you know, [sic] the words of Chip O’Neill, “everything is local,” right? And so, being local has a lot of benefits.

Jeff had mentioned building a pipeline. That’s true. You’re in there, you’re working with the channels that are out there, the contractor channel, the lender channel, the customer channel, and you’re building a pipeline. And so, [sic] building that pipeline, you’re building that investment potential for others to move into the marketplace.

And you can build that pipeline because you really are in the middle of the conversations, understanding where the local energy sector is and what the needs are there. You can define the right product to build it and you can build partnerships. So when you’re sitting locally, you have a chance to really be in the middle of all those conversations and build the right product to meet those needs.

Second, just because you are local doesn’t mean you’re alone and Jeff was talking about this [sic]. The large network that exists out there is something that being local allows you to tap into, too. It’s a very open, collaborative that we share willingly. They really want to help in the collective scale and impact that as a collective group. And so, being local doesn’t mean you’re alone, and so, tapping that network is important.

And then, [sic] scale at the local level has many different considerations. One is to get to that reduction and deliver a certain amount of energy efficiency, renewable energy outcomes. But the other is, when you’re in those local conversations, you’re making connections, you’re helping people in different parts of the – of [sic] the environment connect to themselves. And you actually grow more relationships and more partnerships. And then, also, you also become a larger voice that can sort of promote and sort of message in the branding way that energy efficiency [sic] renewable energy is an [sic] important component [sic] in the market.

Slide 50. Putting the Green Bank Idea Into Practice

Slide 51. Product Development Cycle

So I'm going to sort of take you through how to think about a green bank and how it might work in practice. And the first thing to think about is how do you bring a product to market. And there's many – you know, this is sort of a product development cycle, but I wanted to highlight a few things.

One [sic] this whole part of market due diligence, and again, being local helps you get there. It is a key first step, right? We're not trying to replace capital. We're trying to bring new capital into places that [sic] are gaps in the marketplace.

So doing a much[sic] significant level of due diligence is essential to make sure you've identified where that gap is, and it also helps those initial sort [sic] of partnership- and relationship-building that goes on because in that market due diligence and in outreach to the – a variety of players out there, you begin to make relationships, make connections and you begin to understand where their needs are so that when you bring a product to market you're sort of responsive and fitting into where their needs are [sic]. So spending time on the due diligence is a critical factor and, once you get done with that, you actually find your road pretty quickly. But that's an important step to take.

The product framing then just really builds off of that. You bring into the mix what it was, where those gaps where, what it was that those market players said needed to be mapped in order to sort of really have a successful product. And so, you begin with – really begin to [sic] frame off of that.

And once you have the frame, you move on to sort of getting the feedback. You go back and you test it with those players, you make sure that you filled the space that they felt was the – there was [sic] the missing piece. And then you also build more relationships there because they see that, you know, you're trying to support them; you're just trying to support their execution. You're not trying to just go off on your own and build something that when you bring it market actually won't be responsive to the market [sic].

So those are the top three most important pieces. And the last one I would just call out is the marketing piece and just say [sic] don't ignore the marketing piece. It takes effort. Just because it's out there doesn't mean that it's going to be sort of fully understood. So you really do need to spend time on the marketing aspect.

Slide 52. First Product Due Diligence

So let me walk you through our first product and the due diligence. We did some outreach with the contractor and [sic] the lender community, and other stakeholders in the energy efficiency renewable energy sector and identified a number of things that we found.

C-PACE was out there, [sic] Commercial PACE was out there, but it really served a much larger marketplace at \$250,000. The utility programs served a very small end. And so, there was this middle space, up to \$250,000, but it really wasn't something that was [sic] serving that.

The contractor said, "If you can find something that fits in here, it would be – it would be – it would fit our needs." And then, we spoke to the lenders and we found out that they were not operating in that space largely because they didn't understand it, they didn't really sort of get energy efficiency, [sic] renewable energy; and, in particular, they were constantly being challenged to underwrite energy savings and that wasn't something we're comfortable with. They could see it on paper, but they really couldn't sort of put enough behind it to say, "Yes, we can loan on that." So that became the place that we wanted to sort of focus in on and develop the product.

Slide 53. First Product: Commercial Loan for Energy Efficiency and Renewables (CLEER)

So our first product was this and it's a pilot. We do things that maybe a design do away [sic]. We try to sort of get it right, get it out, and then we'll be able to tweak it as we learn where it fits and where maybe it needs some adjustments.

So it's the commercial loan for energy efficiency and renewables. It's designed to work with the commercial and industrial sector which in our market includes any nonprofit, for profit as well as any multi-family properties. And it's limited in scope energy efficiency, co-gen others because that's the market we understand and that's the market we're comfortable saying, we know, if you do this work in this market, the energy savings will materialize and so – and also our funding was dedicated to supporting that particular area [sic].

So we limited the scope of work. We developed it through a loan loss reserve structure where we're standing behind, you know, five – you know, we're putting 5 percent of the portfolio we're going to stand behind. If something defaults on that, we're going to willingly stand in and then solve that.

But we share that risk 80-20 with the lenders. But it's a way for them to say, "OK, you know, I'm willing to move into this marketplace and if a loss occurs I'm willing to take – I'm willing to sort of move in there because I have some backstop to that loss." We got two lenders that participate, Revere Bank, which is a local lender; and Ascension Capital, which is a national lender. They brought new capital into the market.

So before they weren't operating in Montgomery County, Maryland, Ascension Capital was not there. So we brought new capital into the marketplace with them and Revere Bank brought a new set of capital that they had been operating in this particular sector. So we brought \$20 million of new capital to \$1 million of our own investment.

In the loans they provided one up to \$250,000, and [sic] these other points are some of the keys we learn from that due diligence period. One, it needed to be 100 percent financing. The customer needed to be able to cover it with a – with the loan and not come out-of-pocket. It needed to be able to be stretched out as far as it could, so even though the underwriters weren't underwriting energy savings, the loan itself, in fact, could match up to that.

So the loan is about 12 years. They're not secured by the property, which was another component. The customers really didn't want more debt on the property, so this became an unsecured loan. Now, by – [sic] those things all would have driven to a much higher rate, but because of the loan loss reserve, we were able to get the lenders to bring them a better, affordable rate. And lastly, the lenders are underwriting per credit and not per energy savings.

Slide 54. First Product – How It Works

So this next sort of just gives a diagram of where we sit. Everything happens in the – in the – [sic] in the visible world outside of us. The contractors are working with the commercial property owner, underwriting the property, [sic] getting 15 percent energy savings when they do that. The commercial property owners [sic] working with the lender to get underwritten, the lender makes the loan to the commercial property owner, they finance it with the contractor, [sic] they get the work done.

All that happens; we're not involved in any of that. If the loan goes bad, that's when we get involved and the lender would come to us to get any default that may occur on the commercial property owner. They'd come to us to get cured on that [sic].

Slide 55. Keys to Effort

So what were some of the keys to the efforts? First, as I mentioned, outreach relationship building. You really need to get those insights. Second, go to the network. We went there a lot. We learned a lot from what they were doing, so we can bring some best practices in.

Make sure that we had alignment that we were working in – with the lenders' interests in mind. And we would do it as a pilot so that we could be flexible and adaptable if things were to change and to be patient. We did set an aggressive timeline and we kept working on that timeline. But we needed to be flexible as we went along so that we could bring the right product to market.

Slide 56. Creating a Product Continuum using Own, Government, and National Products

And now, I want to talk to a piece Jeff had mentioned about how to think about a broad set of resources to make it happen. You don't have to think you have to solve the entire equation all by yourself if you're a local green bank. In our minds, we sort of saw the commercial pace already existed so that [sic] had a place in the marketplace. So the county local government was already operating.

We needed to fit below that and we found that space. And working with the consortium that Jeff was talking about, there is the opportunity we can bring even another level of product in the market and operate in the larger-scale marketplace through that other product.

And I think that's the benefit of being this local green bank is you kind of work with what you have, but you see what's out there in the larger universe, and you try to bring it all to play in your local market. So being a local green bank and bringing in national resources is just as good as playing with whatever resources you have on your own.

Slide 57. Financial Products in the Pipeline

So we've got a couple of other products in our pipeline. We're working on a companion program to the – to the [sic] commercial one, which is for residential. We're finishing our due diligence phase there and we should be, in the spring of next year, bringing that to market.

We're also working in the community [sic] solar, looking at a pilot there and that, particularly in order to emphasize the low-modern households, getting the benefit of that community [sic] solar. And we're also focused on working in the affordable rental market. And even though our commercial product works in that space, we're dedicating more time and energy to figuring out if there's [sic] other solutions in the affordable rental market.

Slide 58. Challenges For Standing up a Green Bank

And just, lastly, some challenges we're standing up at green bank, just want to mention, you know, capital. It's a critical component to it. You want to find out the best flexible source you can. That's the first best building block.

Second is to get to an infrastructure and think about what it is. Do you want to be, you know, inside government, quasi-governmental, nonprofit? But find out the right infrastructure that's the right fit.

There's not just one model that fits all. You want to be sustainable, so you need to think about how it is that you make your own revenues out of this so that you can support yourself in the long haul and preserve as much of that capital as possible.

Market assumptions, be careful. A green bank is there as an investor of financing entity. You can get dragged into wanting to be a grant maker and subsidy, and you really want to stay clear of that because once you get pulled into that, that becomes a sort of identifier for you and you want to be thought of as a financing market.

Slide 59. Info on Local Green Bank Model

Then, lastly, on the model side, clearly the network and others are out there and the models that we built upon, use them liberally. And so, just lastly here, we – there's [sic] similar resources to what the EPA is putting out that we've put some recent papers out from a convening we did on local green banks and you can find those if you do that click and you can find through too [sic] our papers as well. So there we go.

Thank you, Emma. Thank you, EPA for inviting the Montgomery County, Maryland Green Bank to the webinar. We appreciate it.

Emma Zinsmeister: Thank you, Tom, for providing those great insights about green banks at the local level. I highly encourage everyone to check out the papers that Tom has linked to on this screen. They provide some really great insights from experts who've been on this webinar today as well as others. And also, a lot of the topics that we have talked about are covered in EPA's new paper which [sic] we have attached to the e-mail you all should have received as registrants this morning.

Slide 60. Contact

So thank you all for your great presentations. If anyone has any additional questions for any of our speakers, please go ahead and type them into the question and answer panel. We are going to move on to addressing those questions now.

VIII. Question and Answer Session

Slide 61. Question and Answer Session

The first question that we've received, I believe, is a question for Jeff. And this question is, Who is working on the green bank exploration project in Colorado?

Jeffery Schub: Hi, yes. So CGC has been partnering with the Colorado Energy Office [sic] the State Energy Office with the Governor's Office for like two years or three years or so. There's a U.S. Department of Energy grant per contract under which that activity is happening and it's been moving along pretty well.

I, you know, don't think I can share more than that. But it's gotten to a pretty good state of development. If you want to reach out separately, I'm happy to talk about that in more detail. But the simple answer is [sic] it's driven by the State Energy Office in the Governor's Office.

Emma Zinsmeister: Great. Thank you. Our next question, I think, is open for anyone who would like to respond to it. The question is, How are green banks planning to or currently cooperating with opportunity zones, which I believe refers to the treasury department's program for tax breaks, for investing capital gains into specific areas that are designated as opportunity zones for the potential economic development benefits? So are green banks currently or planning to work with opportunity zones?

Bryan Garcia: So this is Bryan from Connecticut. So, yes, when that announcement first came out, we reached out quickly to our state's Department of Economic and Community Development. Each state made recommendations to the Department on Treasury on which locations the opportunity zone funding or opportunity should be designated to. So we reached out, worked closely with our Economic Development Agency to suggest areas where we believe we can attract a lot of private investment into the low- to moderate-income, single- family, multi-family, small business, [sic] distressed community space.

So first off is you want to check out what communities have been designated as opportunity zones. And our finance team, which is led by Bert Hunter, is currently exploring ways of putting together funds that would lead to more private investment in those opportunity zones.

So that's to be determined with regards to what's the structure. But our team definitely sees an opportunity to use that federal policy as a way of driving more investment into underserved market segments.

Slide 62. Today's Speakers

Emma Zinsmeister: Great. Thank you, Bryan. So moving on to our next question. Are there examples of financing strategies that target specific districts or neighborhoods such as business improvement districts?

Jeffrey Schub: This is Jeff. I mean, in some ways, PACE is sort of a similar construct to that where by definition, PACE is sort of a designated, almost like a quasi-public district that [sic] many ways the underlying construct of business is built off of the concept of business improvement zones. So that's one way of creating a defined geography.

The difference there is PACE isn't – unlike I think how business improvement zones work where if you're in the zone, by definition, and sort of by rule you have to pay back some important, quote unquote,

“tax” as part of the improvements happening there. PACE is a voluntary assessment. But I’m curious, Bryan, you might know a little bit more about that based on the sort of the way that PACE came together in Connecticut.

Bryan Garcia: Yeah. Connecticut has, outside of PACE, energy improvement district policies which [sic] allow local municipalities the ability to create improvement districts. You know, they would form a governing structure, the local town would approve of that structure, and it’s through that structure that more clean energy, efficiency, renewable energy could drive, you know, local production.

We’ve seen some of our cities pursue it – the City of Stamford the City of Hartford. It requires – it’s a quite complicated [sic] policy that requires the locality to be really savvy in terms of how to utilize it to its benefits. Obviously, if you become a district, you know, that would support your municipal facilities, your school facilities, [sic] your business facilities.

So I’m happy to share the energy improvement district policy that Connecticut has. And C-PACE, as Jeff has alluded to, is a benefit assessment financing innovation that really came out of Berkeley, California and we use it as a tax. You’ll hear things like tax increments and financing. But it’s a way of using a benefit assessment on your property tax to attract low-cost capital for clean energy improvements. Happy to share that policy as well.

Tom Deyo: And this is Tom. I – you know, I’m thinking of it in a – you know, a way that they complement each other. The business improvement districts are obviously focused on the investment in a particular area in order to preserve the commercial stock there.

And when you think about the product that the Connecticut Green Banks or the Montgomery County Green Bank are putting out there, it’s really to improve that [sic] real estate properties for the long haul and to make – to [sic] make sure that it is efficient and can be sustainable over a longer period of time. And so, you know, complementary of sale of what is going on with the green bank’s offer into those districts is a way to sort of help, you know, support the business improvement district investment as well is another way to think about it.

Emma Zinsmeister: Great. Thank you for those answers. Our next question is, Is the interest rate on a green bank loan lower than market rate? Anyone can feel free to jump in on that one.

Bryan Garcia: Yes – and Tom, you want to start?

Tom Deyo: No. Go ahead, Bryan. I’ll come behind. Go ahead.

Bryan Garcia: All right, that’s a great question. So I think, typically, folks think about financing through a green bank as being concessionary, which is, you know, a subsidized interest rate. I think it depends, right. Whatever market segment you’re trying to serve, the state is trying to invest its resources in a way that attracts other investors.

So if it’s a high area – a high-risk area, you know, it may require that the green banks lower their interest rate so that the overall cost of capital from private sources and public sources is affordable enough to [sic] that end-use consumers so that they [sic] are better off by financing those clean energy improvements.

But it really varies. I mean, if you looked at all of our different financing programs, you would see different interest rates and they’re intended to, you know, ensure sustainability as well as affordability – sustainability to us as lending out resources as well as affordability to the customer who is borrowing

those resources. So, it depends. And if you look at our comprehensive annual financial report, we have the breakout of those by our different products. So happy to share those.

Tom Deyo: Yeah. And this is Tom Deyo. So [sic] the others to think, you know, is it against market rate or what it – you know, the intent of the green banks are [sic] to attract, you know, a large source of private capital into the market where presently it's not.

So if you think that deploying our resources has now created a new pool of available capital that, you know, commercial businesses or residential property owners may not have had available to them before because of the risk perception for those lenders in that marketplace, you know, by bringing – deploying green bank resources, you've at least created a much – you know, a market base, you know, capital available to those constituents to use to improve their properties.

Slide 63. Connect with the State and Local Energy and Environment Program

The other thing that the green bank capital can do is often, you know, provide – you know, make sure that the terms that are being brought to the table are of a more favorable set of terms. It may not look like it at the interest rate level. But, you know, in the case of, you know, the loan that we put out, the commercial loan, you know, those unsecured loan, [sic] but the rates associated with it were the same as what a lender would have done as a secured loan.

So it – you know, it may not look like it's a different market rate, but it would be different if it was an unsecured loan and the rates they may bring to it. And the fact that they're willing to do the unsecured nature, it was built upon the fact that the green bank was willing to stand behind it. So there are other sets of terms one looks at to say, you brought a more accessible, a favorable product to market for the fact that you are a part of the program.

Emma Zinsmeister: Great. Thank you for those answers. The next question, I believe, is probably for me since the question is, How will the EPA continue to work to support green banks?

Our program here at the State and Local Energy and Environment Program is going to continue to track what's going on in the field of green banks. As I mentioned, we just released our – we're just releasing our first paper on the topic which [sic] is really a primer to addressing this very basic information on what green banks are, what they can do for your community, and some of the sort of basic nuts and bolts of what it really takes to establish a green bank and other opportunities that may be of interest to your community.

And we've been having conversations with a lot of different green banks and organizations working in this space. So we will continue to track the opportunities, challenges, and emerging lessons learned and identify ways in which we can help other communities learn from those who are engaging in this space and in this type of financing. So we do hope to stay engaged and to stay – you know, to stay a key player in helping to share information on this topic. So we will be continuing to track those innovations.

Our next question I think might be for Jeff. Are there any plans for green bank development projects or initiatives in the South or Southeast?

Jeffrey Schub: Yes. It's a very good question. This is something we and a number of partners have thought about for a long time. And frankly, this is where the local opportunity is strongest because, you know, if we're talking about state-level or state sort of policy-driven activities, it can be a challenge for a number of reasons.

But there are sort of pockets of local interest and strong markets, and where the economics are viable that we think there's a really great opportunity and something we've actually thought about as a sort of a regional effort in the Southeast. It's a way sort of organizing local activities rather than sort of creating a little bit of a hodgepodge of the landscape.

So that's definitely something we've thought about a lot. We've spoken with a number of sort of NGOs or organizations that do clean energy work in the Southeast. But we have a few things sort of in the pipeline but nothing that I recall are really robust project [sic] underway. So if you want to reach out to talk about that, I'd be really interested to because that's something that at CGC and our funders are both actively interested in right now.

Emma Zinsmeister: Great. Thank you. And for folks on the line, all of the speakers have shared their contact information in the slides. If you do want to follow up on any of your questions to get more information and to – [sic] and to contact them, please do. So we have one more question today which is I – which [sic] is a question for Bryan. And the question, [sic] What is the status of community solar in Connecticut?

Bryan Garcia: Great question. I wish it was stronger. So a– our big energy policy just recently passed in June of this year that establishes a 25-megawatt-a-year target for community solar starting likely at the end of 2019 [sic] early 2020.

So, right now there is a regulatory process going through that's looking to value all the different benefits from behind-the-meter clean energy systems [sic] community solar facilities. In Connecticut, we're technology agnostic, so it's actually called a Shared Clean Energy Facility. So that system can be any Class One renewable energy resource.

So it's really to be determined. When a policy passes, you go through a regulatory process to interpret how that policy gets implemented. And we're looking at now like, you know, the beginning of 2020 to have community solar in Connecticut.

We see a lot of our partners in the region doing very well. It's obviously an important opportunity for low- to moderate-income household to have access to clean energy. So we're optimistic that the rules will beget – [sic] put in place so that more investment can happen. So stay tuned. I can't say more than that beyond trying to be an optimist of seeing more community solar.

Emma Zinsmeister: Thank you. So those are all the questions that we've received today. So I would like to thank all of our speakers: Jeff Schub, Bryan Garcia, and Tom Deyo for your time and your expertise in sharing all of your insights with us. I know I have appreciated learning from you and I'm sure our audience has as well. And again, as I've mentioned, folks [sic] feel free to reach out to our presenters if you have additional questions or would like to follow up on any of their responses.

In closing, I would just like to encourage everyone to take a moment at the end of this – once we wrap up to complete our webinar feedback form. We really do appreciate getting insights and comments from all of our participants on how we can improve these webinars and ways in which we can better deliver information to you in the future.

So please do take a moment to click on the link on the screen here or it should pop up for you when you close out [sic] Adobe Connect and offer feedback for us. And there's [sic] also links here to get to EPA's State and Local Energy and Environment Program website and to register for our newsletters.

So I highly encourage you to check out all of those resources as well as the ones that each one of our speakers have highlighted today. And thank you again to everyone for tuning in. And I think, with that, we will close out today's webinar.

Operator: And this concludes today's conference call. Thank you for your participation. You may now disconnect.