CAEAFTA 3-29-16

>> Good morning everyone. This is Ashley. I apologize for the delay. We had a few technical difficulties. We are hosting this workshop in person and via webinar, so there were some complications associated with that, but welcome everyone and thank you for coming.

This is the third workshop in a series of educational workshops towards developing a criteria for comparative assessment of energy efficiency financing programs in California, so just a few housekeeping items.

So for in person attendees there's a sign-in sheet, if you could sign in. When it comes time for question and answer and public comment, please come to the front. There's a Mike right there. That way everyone on the webinar can also hear you. There's bathroom codes. In case of emergency, we'll use the stairs to walk down and meet across the street at the Capitol on 10th Street. For those of you attending webinar, you can submit questions through the webinar by raising your hand. This webinar is being recorded and will become part of the public record.

There is a handout with our slides in the back for those of you in the room and those of you on the webinar it should be attached as a handout on the go to webinar.

Just a quick agenda. We'll just do a little bit of background information for those who are new to this series. And we have a bunch of presentations from some piece programs administrators and also a case study of the HERO program. So the legislature asked us to consider a PACE achieved pilot programs on financing. CHEEF financing in California are somewhat -- local agencies and administered locally and through public private partnerships, so programs can have different goals, different processes, procedures and so we ask all the PACE programs to come through how their programs are run. And then after that we'll have an overview of the current case study they are conducting on the HERO program.

Just quick background information. The series of workshops started because in the 2015 16 budget package CAEATFA was asked by the legislature to create a working group that will include stakeholders to develop criteria for comparative assessment of energy efficiency and financing programs. And so we developed this series of workshops to encourage stake holder participation and input. This is actually the final in our series of workshops. So at the end, which will be April 27th, we will have a meeting of the working group and our working group is actually approved by our board on March 15th and so the list of those numbers are available on the website.

Here is a timeline, again, we're at the end of our workshop series. On April 13th we anticipate putting out for public comment our list of proposed criteria that the working group will be perfect affecting at the meeting of April 2nd. In the meantime we are accepting rolling public comments on potential criteria and you can submit that to me and there's my contact provided.

With that, you arrived just in time. First up we have a update in our agenda. Jane Elias will not be joining us from Sonoma, but instead we have Craig Carlock who will be presenting on the Sonoma PACE program. We want to pass this out.

>> Good morning, everyone. Thanks for having us today. I'm glad I made it here just in time. Sorry Jane couldn't join us today. But we put together some information here just to give a brief introduction to the PACE program in Sonoma County. We started our program in 2009, spring of 2009, and we've had our doors open since that date. I guess I'll just jump right into it here.

If you could go to the first one. Thank you.

So this shows an overview of our current GHC sectors in Sonoma County and clearly transportation is a big one, but certainly building is right there, too. Of our current building stock we have 60 million dollars in our PACE program to lend out to business owners, property owners, homeowners, and just doing that feasibility study of if we're trying to reach the aggressive goals that we set out to reach pre19 -- 25 percent below pre1990 levels by the year 2016, we would need an investment of close to two billion dollars for the building stock in Sonoma County. Not to say that PACE should fill that, but PACE is just one of the few tools in Sonoma County to try to reach that aggressive goal that we set out.

You can go ahead and go to the next slide.

So this just shows some of our matrix for the program over the last eight years, seven, eight years. Certainly the amount we've funded and number of applicants received, applicants funded, our delinquency rate as well zero percent default rate, but more importantly here related to our conversations today we want to put an emphasis on our local focus. Sonoma County has a community of participating contractors do get not necessarily vetted, but certainly they have to jump through some hoops in order to become a participating contractor and I'll get into that in a few slides forward. However, a great majority of our work is done by local contractors. While we didn't set it out from the beginning of the program to have this local component, shortly thereafter we did start requiring that applicants for financing would need to solicit at least totality one local bid. We still have that in effect today. Not to say that you must go with the local contractor, but we are going to ask you to solicit that local business to see what the local market is doing in terms of what improvement you're working toward.

The reason behind this was certainly to keep investment dollars through PACE local and also to contribute to that local multiplier effect, which then, you know, translates into jobs, all that that comes with it.

If you can go to the next slide.

This is a pie chart of the improvements that we have funded to date or close to date. Putting emphasis on the energy efficiency improvements and a smaller pie pieces at up to the majority of the projects that we're funding. But one key piece here is that whereas with solar we typically see one improvement financed or requested for financing, when we receive our energy efficiency applications, it's typically multiple improvements that are being looked at. So that's one thing that we have seen over the history of our program. It's not just one office for when you're looking at the efficiency side of things.

Go ahead and advance.

So getting into some of the advantages of PACE, certainly we do hold our customer as kind of the first person we're looking out for, so we do have a number of standards that we require for people to participate and also the contractors to participate. So just to start off, the traditional credit does not require truth and lending statements. We also look at all applicants. We do verify their contractor and what their bids are reflecting in terms of costs and equipment and so we're looking at standards on technology and making sure that they are putting in stuff that's going to meet those standards at a reasonable cost. The next slide shows we ask for justification of costs if you're going to go over our ceiling that we've implemented based on finding local data from our contractor community and the various bids that we do review in our office.

Certainly there's the PACE funds that are there, but haven't needed to tap into that. If you advance to the next slide. We do require that all of our work is permitted. Not every improvement needs to be permitted. However, they all do need to be finaled on the back and prior to disbursement. Again, mentioning the specifications of equipment that's being installed, reasonable costs. We do ask for justifications of those costs if they go over our ceiling.
Next slide.

Getting into the contractor standards. We do require general liability of one million dollars. We also ask if they carry workers' compensation. Also a valid California state license board active license. We make sure that that is active is there. Go ahead and go to the next slide.

Again, going back to disbursements, evidence of completion. Before disbursement we do require to sign off permit as well as final invoice from the contractor. We do follow that up with a satisfaction survey with all of our customers and PACE certainly comes with the abilities to transfer to a new owner.

Next slide.

So getting into energy efficiency and sort of the reasons why people use PACE to do energy efficiency. It's not as clear-cut as you might think in approaching the formation of our program, we're thinking it's all about reducing your utility bills, but the reasons do vary dramatically, whether it's comfort, whether it's just trying to be a good green is a mayor tan. There's really not just one basket that all these people fall into. So try not to pigeon hole folks.

If you go ahead to the last slide there.

Just some housekeeping as far as our program. We are open Monday through Friday. We do operate a storefront, so we do have an active office receiving customers on a daily basis. We do emphasize an educational component to the product, the program services that we offer. Particularly we do have a full lending -- we are a contracting community where they can come and borrow tools for free. We also do solar consultations, but we will also talk to folks about the various energy efficiency improvements they are looking at doing. We have in-house expertise that are able to guide people through that process and help them feel like they are making an educated decision when they do finalize their PACE contract. That's really all I have. The next slide is Jane's contact information. I'm happy to hand out business cards to anybody who has follow-up questions.

>> Next, we have James Hamill with CSCDA.

>> Thank you, Ashley, my name is James Hamill. I'm the managing director with CSCDA. We've been on the PACE roller coaster ride since 2009 as many of you know. It started the program in 2009 with one offering to California first and that expanded into what we call the open PACE concept. This is a program that offers a turn key solution for cities and counties on a statewide basis of the we have over 500 members in. We were approached on a number of occasions that things would be approached by various administrators and don't even know where to start. Our board took that back and said why don't we create an open concept and create a competitive forum with multiple vendors sort of similar to a lending tree.com where it is vetted these administrators looked at, [unintelligible] are made by a subcommittee of board members and an interview process is taken. Right now currently we have five members or participants in the open PACE platform. Four of them are residential and commercial PACE. One of them is commercial PACE only. And the nice thing about the program for cities and counties is it's only a one time resolution that the city and county has to adopt. So if additional administrators were added on at a later point in time they still have access to that potential new administrator there. So it is not something that city or county has to keep going back and adopting new resolutions.

In addition, the oversight is done by the UCC board, subcommittee has been set up to have an oversight over PACE program and by staff itself.

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So in terms of what the -- what are the parameters of the program itself. Some of the key folks that are outlined in the resolution of intention that the CSCDA board took was a couple of items. One energy conservation. Obviously renewable energy and energy efficiency matters. Second one water conservation. Obviously we've been in a drought in California and most likely to continue. Those measures were implemented by the CSCC board. Electric vehicle infrastructure. That was another one that was a need out there to fulfill that infrastructure on a statewide basis. Since CSCDA has -- it makes sense to build that into the program itself.

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The other one is seismic strengthening. That is a program that is just starting to get off the ground. We did our first financing in City and County of San Francisco a little over a month ago. We're seeing in several large cities in LA and San Francisco are looking to keep track of that access to the program.

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The two last points on this slide are really the aspect of open PACE and that created a competitive program will ultimately drive down the rates to the end user to the homeowner whether it's on the commercial side for business owner or on the residential side for the property owner itself. Creating that competition out there is good.

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The last point on there is back in December of last year, early December, the CSCDA board took action to adopt consumer protection policies. The board took it very seriously because it is a new marketplace as some of our board members called it, sort of wild west in terms of financing. And there weren't many parameters out there and we worked closely with governments to adopt these policies and they are called fatigue points of light to really put in place parameters. Now, these will obviously evolve and change, but it's something that we view very important potential as PACE evolves in California on a statewide basis.

Some of the numbers to look at in terms of you can see the jump from 2014 to 2015 where you have fund incorporation in 2014 of 150 to 34 hundred in 2015 up to 83 million so significant jump year to year. The greenhouse gas reduction number significant jump in the numbers. Energy saved significantly jump in those. And water conserved significant jump in those. We will continue to see that as we add more participants because most of these numbers come from the most active program we have right now which is California first.

The last thing I want to point out here is how do we get administrators because one of the questions we get a lot of times from city and counties is how do you qualify these administrators as they come in the door. That was important for the board and subcommittee board that was set up to look at this. Some of the key components are that they have a platform in place to administrator this. As anybody knows who has worked in the PACE based, this is a cumbersome process to get through it. Between governmental approvals, between the final component, between the homeowners, between the contractors, a lot of moving parts. So it is essential so that when CSCDA administrator that that ad more has an ability to handle all those moving parts so they look at all these qualifications, originations, servicing, the ability to do special tax expertise and also having the financing component in place because what we have found is there are a lot of people interested in this PACE, but they may not have the wherewithal or finance capital to actually execute the program up there. So the minimum that CSCDA requires is 25 million in capital available for a PACE financing program.

In addition we also look for that entity to provide the post issuance requirements because there are a number of requirements after the fact of PACE financing that have to be accomplished. So that's a brief overview of the open PACE program and I'll be happy to answer any questions after the series is complete.

>> The next one we're going Mike Lemyre from Ygrene work. Mike, were you able to log on? It was the last minute that he was not able to come in person. Let me see. Mike, are you there?

>> Yes, I can hear you Ashley.

>> Great. Go ahead, Mike.

>> I'm sorry.

>> You can go ahead.

>> Okay. Thank you. Good morning, everyone. I am Mike Lemyre from Ygrene energy funds. We're the program administrator for Golden State finance authority, GSFA, formerly known as CHF, as well as administrator for Coachella Valley association of government and several other cities and counties direct program. And we have a brief overview of the Ygrene works program primarily installation of Golden State. We operate on a platform of government partnerships. And then we have materials that are available to [unintelligible]. Not unlike all the others PACE programs, I think our overarching goals and policies evolved a bit over the six years we've been active in PACE. So directly supporting the public benefits of the legislation and those are consistent regardless of ABA 11, which many of the programs in the state operate under as well

as SB 555, while not entirely unique, there are one or two others, SB 555 based programs in the state over Ygrene operates those programs. Energy conservation and local generation, charging structure, seismic retrofits and water conservation across the page program. [unintelligible]. Overall our vision or mission to make affordable energy to make it for all property owners in California. Offers financing for residential and nonresidential property types including commercial industry and agricultural properties.

Our mission is to serve the local government partners in cities and counties in which we operate as well as GSFA members and the rural counties that they represent as part of the rural counties represent California. And all of that said, in operation program provides the highest level of information and protection as well as contractor oversight in the marketplace.

To date the program has approved or completed over $300,000,000 of projects funding across a range of measures. And we evaluate the impact within the communities that we operate across the state among -- across a number of me tricks. So energy conservation, both in terms of kilowatt hours saved and utility bills savings for consumers. Renewable generation produced, to watch mega watt produced solar being the most common renewable presentation, but others as well. Millions of gallons -- hundreds of millions of gallons of water conserved as others have noted the water conservation measures have increased significantly over the last couple of years with the drought and conditions as well as governor and state mandates.

Then we also look at the local economic stimulus and impact that the program has multiplier effect of the project financing in local communities. And then last, but certainly not least, foremost in our minds is the number of jobs created sustained. When we look at 300 million dollars of projects across more than 200 20 communities in cities and counties in California our program is supported or sustained over 4500 local jobs, contractor jobs in these communities produce almost 20 implementing Watts of renewable energy saved over one point three bill gallons of water abated over 360 thousand metric tons of CS two and other green out glasses and local economies to aggregate period figure of over 60 million dollars. Industry or formulas to track and calculate those metrics and they will be circulated after.

We've also just a note in the last six to eight months as the PACE industry has grown [unintelligible] with the sharp uptake in applications and funded projects since August, September of last year and not just that program, but statewide, the communities accessing one or more or often cases multiple PACE programs to see the market grow and have great impact on energy and water profiles as well as local economies.

The course would be the consumer protections and the disclosures as well as contractor education. I'm going to touch on those, too. Right now most project, particularly in residential sector are generated through contractor relationships. Consumer protection actually starts with contractor education and certifications. It has a rigorous screening and acceptance process for a contractor, that occurs before a contractor can enter the program and gain approval to represent the financing. They undergo both online and in-person training with our team of regional account managers throughout the state. And that are subject to qualification criteria that are verified before they are certified on the program as well as subject to regular audits throughout the year. These confirm that the contractors is in good standing with the license board, has appropriate workers' compensation policies, that they remain in force and so forth. We also have a on billing process to deal with issues that may arise within the contract channel that include watch list, suspension and -- prevent that if that becomes necessary. So the consumer protection actually starts with the contractor program.

On the consumer protection and specifically dealing with… our interaction with consumers, it can break out to four key areas: Lending practices, products and projects, program quality, overall quality assurance and privacy and status security. So on the lending practices side robust program around eligibility requirements, key disclosures made multiple points throughout the documentation as well as appropriately on taking applications over the phone and one of the key features ultimately financing before it's placed is the right to cancel, three day right to cancel. So we feel that the program has the highest lending standards and practices in the industry and those are continuous evolved.

Product and projects, start with that, rigorous review and regular maintenance of eligible products. Some of the later more recent innovations of the program has included price ranks appropriate and projects across the state. We feel that's necessary to monitor, to ensure ultimate consumer protection throughout the process. We also require permits and as I say most, if not all the other permits listed, permits are per the local jurisdiction in which the project occurs.

And then also privacy and data security. So while this is a PACE is attacks lien and not a standard consumer loan, we've adopted many of the policies and procedures consistent with the overall lending community and what's been considered a best practices with the consumer mind. So privacy and data security are at the forefront and ultimately with that data comes the ability to analyze the program overall for measures I mentioned earlier and be able to demonstrate local impact as well as the overall program impact for our local partners.

And then finally, dispute resolution and protection for property owners. Ygrene has had a consumer, a consumer protection policy standard in place since our very first program with city of Sacramento that was launched about four years ago and we've continuously evolved that policy and program and as we do that statewide with Golden State finance in 2016 we have that adopted as well consistent with the other agencies and these PACE throughout the state.

One last thing on how this is translated to customer and contractors satisfaction with the program over 90 percent satisfaction levels are highly satisfied I should say with service levels across both contractors and property owners. So '92 percent of property owners in a recent survey recommend Ygrene to a family member. And we've seen a strong update on multiple projects and referrals across the program with the continued focus on serving our individual customers as well as property owners as well as our government partners.

And then one last thing that I think we're asked to kind of talk about or look into are regarding this workshop. Were some challenges and areas of improvement in the program and I think a challenge is also representing opportunities and one of the greatest opportunities we've had to succeed and growth of the work program but also the PACE industry in general is the interest from property owners across the state and that interest driving the growth [unintelligible] the offer a number of operational improvements or enhancements across the program. For instance, the Golden State program is available seven days a week with extended hours. Our call response time to property owners is 10 seconds or less and our underwriting during certain times are consistently within the 15 to 30 minute approval window approval for documentation. Also have three time funding per week and a number of other features that serve the contractor community well and ensure the program satisfaction uptake is consistently driven throughout all the communities that we served and as I mentioned, both on the operational side and consumer protection side we continuously monitor and evolve and be there as a program where they touch property owners and consumers the most. That's it for the -- thank you Ashley and your team for the coordination on the workshop and inviting me to participate.

>> Thank you. Next up we have -- here is Mike's contact information. Next we have Barbara Spoonhour from WRCOG.

>> Thank you Ashley. Thank you for put oning this workshop and the working group on energy efficiency program. I'm Barbara Spoonhour. I'm going to provide an overview of HERO program as well as our California HERO program.

So just a little bit about western oversight of government. We are a joint powers authority. We represent 17 cities. We were established in 1991. This is our 25th year. We look at regional issues. We look at air quality, transportation, jobs, helping energy, water, anything that goes beyond the jurisdictional borders so our boards gets together on a regional basis.

We are located in Southern California right above San Diego county. Again WRCOG has 17 cities. The county unincorporated area in western Riverside. We also have two of the largest regional water districts on our board. As well as the Riverside county superintendent of schools.

And just a little bit of background. We do administrator a residential and commercial PACE programs HERO program and commercial program. We are an AB 811 program and AB 474 program. We started looking and developing our program back in 2009. We watched what Sonoma was doing and really was very interested in how we could accomplish that in our region. We launched our program December 2011, quickly grew, had a number of cities and counties asking how they could participate or develop a program and we developed a turn key program that jurisdictions could join WRCOG as an associate member by adopting our resolution and joining our JPA. So as a -- actually as of today we have the 313 member association members that are outside of the WRCOG region.

So what we looked at why our regional program. A lot of it was economies of scale. Having one program versus 18 individual programs having a consistent message making marketing easier, having a consistent program design implementation to where people could come if they have questions, complaints, we are there. That they can call our local. And we were also looking to the ability to leverage and coordinate funding sources, which I consider quite well to date.

Our program goals, we all had our program report and outlined our goals. I think we're all similar on what we are the trying to achieve. Western Riverside a large driving was how to create and retain contracting jobs, putting contractors back to work. Western Riverside was hit hard with the housing reception. All of our contractors who were working suddenly didn't have work. Having PACE come along we were able to see those contractors put back to work, whether in retrofitting existing homes. We had our greenhouse gas emissions reductions goals, energy saving goals, which I think we surpassed for our region as well.

We are asked about our program costs. We do have a one time administrative fee of 4.99 percent. This is similar to a closing cost and 4.99 percent is then used to pay all participants in the program. HERO program is not belong solely by one. It is a collection of a full team. We have CSM as our financial advisor. David and associates is our assessment administrator. Best [unintelligible]. Renovate America as our residential funding partner and we also have capital as our commercial financing partner and we also have Deutsche Bank as our trustee. It takes a lot of effort on our parts to make the program successful as it has been.

Our terms we do just like similar to all the other programs, five to 25 years our terms. Interest rates are based on terms that go anywhere from 6.75 to 8.35 percent. Commercial rates are at 5.95 to 6.85 percent. Residential max numbers we allocate the guidelines because we are a participant in the loan reserve. Commercial we have a maximum of 20 percent of the property value and then we have no prepayment penalties on the residential side.

As Jane mentioned we work closely with the CSCDA and other PACE providers in developing consumer protection policies. The policies themselves we're at 15 different ones. They cover anywhere from risk disclosures, funding, operations, post funding homeowner support, data security, privacy, marketing, communications, protected classes. We did work with our real estate community as well as. The policies were based on all of the feedback that we've gotten since the launch of our program in order to make it a better program and to really want to see dash of PACE industry wide. So our real estate community had a lot of input into how to what disclosures should look like for property owners and how to train contractors and make sure that the contractors are properly communicating to the community on how transfer ability works with PACE assessment.

Again, PACE sometimes I think people still believe PACE programs are strictly solar programs and they are not. They are energy efficiency as well. All of our products do need to meet title 24, energy star and/or water sense standards much so it's anywhere from HVAC, you have your solar, water heaters and such.

On our commercial program, again, our capital provider is SAM AS capital. We funded 27 projects for over three million dollars. Our commercial program, projects are coming in smaller dollar amounts than you hear in other PACE programs. We deal more with the smaller mom and pop property owners going through the process.

We do have about 51 projects that are in lender lender acknowledgement stage. It seems to be where everything seems to bottle neck because you're waiting to get sign off on the first mortgage holder on the commercial project. We have 149 projects to equate to about 31.7 million dollars if we hope to see go through the full process over the next 12 months.

For our residential and this is just a WRCOG region. We have over 16,000 homes that have been improved over 44 thousand applications submitted we have approved nearly 30,000 funded of over 453 million, created nearly 3,000 jobs with over 725,000 times greenhouse gas emissions reduced.

For our California HERO, so this is 313 associate members and we have launched over 85 percent of those programs. We have had over 22,000 homes improved 64,000 applications submitted, 46,000 approved for over 541 million making a grand total of a little over $1,300,000,000 of projects funded in California.

The big thing we get is how are the numbers calculated? We take conservative methods for our energy, water, greenhouse glass, using third party calculators based off of the Department of Energy, the EPA, NREL, the CEC, CPUC, CDWR, a lot of acronyms of the government agency. They come together with the savings numbers.

Also, we look at the savings estimates. We looked at the types of improvement, the housing characteristics, the climate and then the total savings we then multiply by the utility rate for forecast on the bill and then our economic impacts we actually have a study completed by a professor with the department of urban and planning and environmental policy at Texas southern university to do an actual economic impact study for the HERO program, so those impacts are based off of our studies.

Just some of the most commonly projects that you see in our region, and a lot of these I think it needs to be made clear that most improvements are because of someone reacting to something's breaking in their home. So their air conditioning unit went out. Their hot water either went out. So they are trying to get something fixed. They are not necessarily sitting and trying to determine a path for greenhouse gas reduction. Those are added benefits to the program.

We do surveys after property owners have completed their projects and it's been funded. We've done over 8,000 or we've received over 8,000 surveys back since June of 2014. 99 percent of state highway of our HERO representatives, '93 percent would recommend the HERO program to a friend and 90 percent would recommend a HERO contractor to a friend or relative.

That completes my presentation and my contact information as well as crystal Adams and my staff is available to answer any questions.

>> Thank you, Barbara, so next we will have Jewel from Renovate America that will be talking about the HERO program.

>> I am here. I'm not seeing my slides unfortunately.

>> I think I had you switched. Do you need me to pull mine up? Do you have control?

>> If not, we can keep going and let me know what slide next.

>> Thank you for the opportunity to present. Sorry I couldn't join in person, but I really do appreciate the opportunity to talk about the HERO program and Renovate America at large and also the value that PACE is providing to California homeowners throughout the state, through all of these programs. I am going to piggy back off some of the things that the previous presenters said especially some of Barbara's comments where we definitely appreciate the partnership of

WRCOG as our program administrators.

Next slide.

So Barbara presented a picture of the impact that the HERO program has had within the WRCOG region and also through our California HERO program. But Renovate America operates the rear row program throughout the state of California with additional issues of partners. Looking at the total impact of our HERO program -- just looking at the impact of the total HERO program throughout California. We have about 86 percent California households who can participate in the program. We've completed 65,000 projects. We funded over one point three billion dollars in you grades. We've created 11,500 local jobs resulting in approximately $2,300,000,000.00 in economic impact.

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And this slide just shows the way that the program has scaled really over the last few years. Our company was founded in 2009. We didn't do our first origination in Riverside until the end of 2011, beginning of 2012, and since then we've experienced exponential growth really as demand has certainly picked up for energy efficient, water efficient especially improvements and as our program has grown to include additional communities throughout California and, as I mentioned earlier, we are now -- we have now financed over 1.3 billion dollar. That's just to date and we expect to experience an exponential growth throughout the rest of the year.

I think what's important to keep in mind is we're talking about the benefits of each of our respective programs is really what sets PACE apart. There was a study from Lawrence Berkeley labs in 2010 and I believe Lawrence Berkeley labs presented at the first workshop series and the study really outlined lessons learned from looking at energy efficiency programs and outline some of the important points for our program, designers, implementers to keep in mind. There are several that go really to the heart of our program and why we believe our program has been able to be so successful in California. And just, if you'll entertain me for a moment, just to highlight a couple of things from that study. Is that retrofits are a tough sale and it's important that when we're providing our financing and our programs to homeowners, that we keep in mind that at every step and with every time delay people will dropout and we'll lose interest because as Barbara mentioned we're finding that most of our consumers are coming to us not because they are interested necessarily in making an energy efficient choice, but certainly the people who do solar are interested in making energy efficiency choice, but of the customers who are making improvements other than solar, the vast majority of them are looking for our financing to fund the cost of a repair that was unexpected.

And when you look at how consumers would typically fund the cost of an unexpected repair when something in their home has broken, typically, most of the time, they'll pay cash, and if they are not going to pay cash, then they have to figure out how they are going to finance that cast and we'll evaluate their options. That's really where we have an opportunity is that we present financing to homeowners with very attractive features and those features being one, that the PACE assessment is attached to the land and not to the borrower. That matters because if you're a homeowner and perhaps you're not anticipating staying in your home longer than say five, seven years, then the idea of replacing something that is broken with something that is more energy efficient, but has a higher up front cost, it might not pencil out to you. However, if the assessment is able to stay with the land and I say able, because in some instances homeowners do payoff when they sell, then for a homeowner that becomes a more attractive option.

The other feature of PACE that I think is important to highlight is that the assessment -- we're able to finance the improvement over the useful life of the product. Depending on the product being installed it could be from 5 to 20 years. Again, if you're that homeowner that you're making a repair or replacement that you didn't anticipate, the idea of being able to spread the cost of that improvement over a longer period of time is very attractive. Now we've provided an incentive to a homeowner who otherwise would have made a less efficient choice and we've provided an incentive to them to make a more efficient choice just by making it more attractive to them and their particular circumstance. That's really where I think PACE stands apart from other energy efficiency financing solutions and it's also why the state of California established PACE is because we needed to have a way to meet our public policy goals of reducing greenhouse gas emissions and we needed to do so in a way that would incentivize consumers to make energy efficient choices. The beauty of PACE and innovation of PACE is we're using a market mechanism to do that versus expending public funds or rate payer funds.

The other piece of it that I think is important to highlight is that contractors are key. And the reason why they are key is because again if you put yourself in the shoes of that homeowner who is making a repair, the first person that you call when something is broken is a contractor. And so I know a number of my other panelists highlighted how the programs make sure that we train contractors and that we ensure that we have reputable contractors a part of our program that the consumer protection that homeowners otherwise would not receive through other financing options. And so I think those things are important to keep in mind as we're comparing PACE to other financing solutions.

Next slide, please. So recently we commissioned a study on the impact of PACE assessments on home values. And we generally believe that making energy efficient improvements to homes would lead to greater home sales, home sale prices, but we want to test that assumption. And so we partnered with Lori Goodman who is a very respected housing economists at the urban institute. She published a study that was recently published in the journal of structured finance and these are the key findings of the study and I'm happy to share it with anyone who would like to see the entire study after this session. But I think the major take away here is that PACE homes sold at a premium of ranging from $199 to $8,882 over comparable nonPACE homes even after taking into account the financing costs of the project. So even after you take into account the assessment itself, those homes still sold at a premium. I'd like to say that the -- this is an important finding. The sample size is small, so we still need to continue to watch this trend because we haven't -- the homes that we financed are sort of just starting to go to sale and so we're watching this now, but the -- we believe that the fund incorporation are directional and it shows that PACE is adding value to the housing market.

We also found nearly $7,000 PACE premiums for homes purchased from foreclosure, so those are distress sales, and importantly, is that PACE home energy renovations recover more than hundred percent of the cost. So when you think of home improvements like remodeling kitchens and bathrooms the PACE improvements that are energy efficient improvements actually cover, yield a greater benefit for homeowners than even those improvements.

So again some of our other panelists talked a little bit about underwriting standards and this is very important because in order to ensure that the program remained strong and we're providing value to consumers we need to make sure that the portfolio is strong as well. What we've seen is that our notice of default rate on our PACE assessment is at about .044 percent and we believe that's because -- well, one, that it's on property taxes and people generally pay their taxes. But also because we have very strong underwriting. Here you'll see we make sure that all applicants in order to be approved for financing have to be current on your property taxes, you have to be current on your mortgage, we will not finance over a hundred percent of the value of the home plus the PACE assessment, which means that homeowners can't go into -- can't go under water as a result of taking out financing. You can't have any involuntary liens on the property and the minimum financing amount is $5,000. Again, and I believe someone earlier mentioned that as a part of our financing program, we don't pull FICO -- I should say we don't underwrite to FICO and that's why it's even more important that we have these standards, these underwriting standards to ensure we're still making sure that the consumers met -- that we're attract go the program are credit worthy, but we're also providing access to capital to people who otherwise may not have access to traditional forms of capital.

Our consumer protections, this is incredibly important as well because this is a new program and because it's a public private partnership in the true essence. PACE is enabled by legislation. It's implemented by local government. It's capitalized by private third party providers, so it's important that we are good stewards of the public trust and that we're operating a program with high integrity. The way that we do that is again we make sure that our contractors are well trained. We make sure that permits are pulled for all projects that require permits. We make sure that the contractors are licensed. We make sure that the products that are being installed in homes are in fact energy efficient or water efficient products. We have a database of over a million products and we check everyone to make sure and it's regularly updated to ensure that we're including the latest and greatest, but also our contractors and consumers are getting what they are paying for. And we have a fair pricing check. So because we have a portfolio now of over 65,000 projects, we have the data that will tell us around the average cost of a project and if there's something that's outside of a certain standard deviation of what we believe is a reasonable cost, we will call the contractor to see if there's something that's driving the cost that we're not aware of and otherwise we want to prove that that project -- again, this is a very important consumer protection because otherwise if you're a homeowner you may not know how much a project costs and you're sort of taking the contractor's word for that. Beyond that if you were to use some other financing solution like a credit card or cash, you would not receive that protection.

I think that might be my last slide. Yes, it is. So again, I think I just want to highlight how PACE is learning and drawing from the lessons learned from other energy financing programs and insuring that we are delivering value to our consumers, to homeowners and it's incredibly important that as we move forward and the industry continues to grow and the program continues to scale that we have very strong consumer protections and that we are good stewards of the public trust. I'll stop there and looking forward to the discussion.

>> Thank you. So next we have Janene Windeshausen.

>> I'm Jenine Windeshausen. Placer County tax collector and the Embarcadero power program administrator, which is the county's PACE program. Our program was launched in March of 2010, but we spend had our residential program in July of 2010 in response to FHFA actions. We were a plaintiff along with Sonoma County national resources defense council and state of California, palm desert, there were a number of us

that were co plaintiffs in the lawsuit trying to resolve the FHFA lien priority issue.

We then lifted our residential suspension in August of 2013. We're one of the initial members of the case loss program. Our program operates in Placer County and also in the City of Folsom. For those of you unfamiliar, Placer County borders Sacramento County and it runs to the Nevada state line and takes in over a fourth of the Lake Tahoe Shoreline. We are in two different climate zones with the hot here and valley foothill area. We have four utilities, two municipal utilities within our boundaries.

Our program goals were to create jobs, conserve energy, save property owners money and reduce greenhouse gas emissions. We utilize a municipal lien status and bonding authorities to achieve these public policy goals. And since they are direct benefits that are provided to property owners, the program does aim to be you know subsidized and self-supporting, so we are cost recovery driven and not profit driven. We're really policy driven.

So we were motivated to utilize local tax dollars historically invested in wall street to invest it in Main Street. Because of the way local government works and our -- wore's primarily funded through property tax dollars, we take that money in twice a year, in December and April, and in the county treasury we also have many other local governments besides just the county. And so that money is typically invested through a portfolio in wall street so we're able to create a local investment and invest that money for warehousing purposes in Main Street.

Over 900 construction jobs have been created in Placer County and the City of Folsom over the past 30 months. We have almost 350 contractors actively working in the program, so we define that as those who have either had projects that are funded through the program or who have active applications. We require all the contractors to attend a training just because they have attended a training, we don't consider them in our active count.

We have received over 2000 applications and we have funded 1370, so we've provided almost 45 million dollars in financing in the last 30 months. That includes 5 million in nonresidential and we have 5 million in nonresidential in progress.

About two-thirds of the funding is solar. We are predominantly in investor owned utility areas and so solar is very attractive. HVAC is about another 15 percent of our program, windows and doors about 5 percent and in addition to under roofs, in addition to coolers, we also finance warm roofs in the High Sierra which are super insulating roofs.

So we have an outside consultant who has developed a methodology for our greenhouse gas emission and our carbon reduction methodologies and for us to track the tons of carbon removed or eliminated. And as of the end of December that number was about 2005 170 tons or equivalent of taking almost $500 off of the road annually. That methodology uses PG&E greenhouse gas emission factors, their guidance for PG&E customers as of November 2015 16 the majority of our area our boundaries are in PGE territory. Our environmental benefits are assigned to the program when the property owner executes their contract and we use those -- we accumulate those to use locally for AB 32 compliance and/or for economic development purposes. We do not sell them out of state. There currently is not a market in California for those.

And our utility bill energy savings is meter based. We use portfolio manager system from U.S. Department of Energy and we are in the process of testing that data and loading it, so we don't have results yet.

So consumer protection has been a Cornerstone of our program since we developed it. Before we launched our program our board made that a high priority and insisted that every applicant go through a consumer education seminar before their application can be completed. So that is a requirement for all applicants as well as I mentioned our contractors go through a training. So we have direct contact with the property owner throughout the process. We use the kill rest pa contract for disclosures. Our terms are very simple clear and they are also disclosed up front. They are included in the consumer seminar as well. So six percent flat rate, there is a $500 residential processing fee and a $1,300 nonresidential. The maximum financing amount is limited to lesser of 10 percent of value or equity balance, so E we don't go to the maximum of 15 percent and historically that's not been a problem for us.

There are also recording fees, appraisal fees and other fees which are essentially third party charged and those are disclosed up front as well.

We don't have any hidden fees, which are passed onto the consumer such as contractor fees. Again, we use the tell TILA/RESPA format. We've adopted the methodology as well. Property owners are also given the three day right of rescission at contract signing and there are no prepayment penalties.

>> The slides are being cut off on the webinar, so I'm just going to fix that. Sorry for those people on the webinar.

>> So our contractors, our program specialists review all contracts and our program specialists have buildings trades experience, California title 24 and green building code. And so they are also price checking as well because they are familiar with pricing and will contact the contractor and ask for an explanation if things are -- anything is outside the market norm.

All permits are required. The contractor's license, bond verification are checked each transaction because that is subject to change and so it isn't a one time thing where you're qualified to be a contractor in the program and that's it. Those things are verified each time.

So these are some of the things that are covered in the seminar. What the application review process is from turning in your application to funding, the financing terms, capitalized interest is a part of PACE because of the property tax billing cycle and so we explain that and the timing for their application to be added to the property tax bill.

We also basically pose to them if is PACE financing right for you and have you considered other options? Again, we are policy driven and so if just by awareness of energy efficiency and renewable generation, property owners are making these improvements whether it's through PACE financing or other financing, if they found out about it through our PACE program, we're still achieving our policy goals.

We advised them of the FHFA issues and potential refinancing and sale impacts relating to Freddie Mac restrictions. We are now telling property owners that payoff is likely to be required at payoff or -- excuse me, at refining or sale due to changes that we've seen in the marketplace recently. Up through September we -- our data shows that '91 percent of refinancings, the PACE -- our PACE lien remained after the financing and it also remained in 69 percent of the cases where there was a sale transaction, however, there was a market change in the marketplace in late summer, early fall and there are very few, if any, lenders who will allow the PACE lien to stay, so we disclose that to the property owner. Whereas before we indicated that the PACE lien may be required to be paid off. We are now indicating that it is likely to be required to be paid off because of the change that we have seen in the marketplace about six months ago. We advise our participants to consult attacks advisor related to any interest deduction on the PACE financing.

We also provide an educational piece related to energy efficiency versus generation and we encourage energy efficiency measures. So there was a line that now is being widely used in the Sacramento area. We promoted it, but I have to give credit to Sonoma County because they were the ones who gave us reduced before you produce.

We also talk about contractor selection, checking references and checking licensing independently of the licensing checking that we do.

At contract signing our specialists follow a script to make sure that they hit certain bullet points and are calling out elements of the contract to ensure that the property owners aware. That does not mean that they cannot deviate in terms of answering questions, providing additional qualifications, but they must at least hit these key elements in insuring that the property owner understands the contract.

We also review their TILA and financing schedules and review the disclaimers that we have made in the seminar on the application regarding FHFA impacts that may require payoff.

Prior to disbursement the -- we verify that the permits have been finaled. If something does not require a permit, which some of the energy efficiency measures do not require permits, we do verify functional installation of the improvements, so that may even mean one of our staff again, we have people who have been contractors in our own department who will go out there and actually verify that.

So some of our other practices, disclosure and ongoing communication are key throughout the process. We have -- as I mentioned -- professional staff with building trades background, they are not on commission or don't receive any compensation related to bringing in applications or processing applications.

We have measures that ensure consistency in our policies and procedures. We work as a bridge between the property owner and the contractor. We do not have contractor execute contracts as contracts are executed with staff. We do not provide equity information to contractors without property owner consent. We want contractors to bid the job, not the equity and not to increase price because they are aware of the amount of financing that might be available.

We also do not do prequalification or 15 minute IPad approval. You simply cannot do the due diligence that is required in our program or in compliance with Kay pa by using algorithms, if you will to get 15 minute financing. We can fast track an application if we have a situation such as an HVAC system that has gone out and needs to be replaced of the so we can do fast track turn around in those cases.

We check our property tax records timely for all assessments, whether they are on the role or not, so in other words, financing that is provided after July 1 will not go on the property tax bill until the following year, so even though it's not on the property tax bill yet, we are checking that property owner's payments status in December and April prior to it actually being on the property tax role, so that they are not going -- the first time that they go, how the assessment on their bill, they are already delinquent. So the delinquencies are probably pursued. Lenders are notified early in the event a default occurs if a delinquency remains after July 1 and we strip the assessment timely for separate collection from the roles. Sometimes that makes it easier for the property owner to pay because it is a smaller amount because they can pay it separately from the rest of the property tax bill.

We have zero defaults currently we have two delinquencies, which would be .0014 percent and we are always there for the property owner even after the deal has been closed.

Those are my comments and again, thank you for allowing us to participate in the workshop, Ashley.

>> Thank you, Jenine. We are next going to go to our presentation by Pat McGuckin and Laura James on the case study of HERO program. I do point out we do have several questions waiting on those webinars, we are not ignoring you, but we are going to hold all questions to the end since we are running a little bit behind.

>> This is Laura James, I know he's on the call. He must be muted.

>> Pat.

>> I'm muted.

>> Now you're not.

>> There we go. That was close. All right. Well, since we're running late I'm going to really skim through the first couple of slides and get to the good stuff. Next slide.

We went in the evaluation industry call this a process evaluation meaning we're not actually trying to measure the energy savings. We're looking more at processes. We did not do a logic model, but as you'll see when we look at the tests we did most of the other elements that are typically done in a process evaluation.

Project is funded by the four investor owned utility

[unintelligible] finance program and best practice review of leading financing programs. That's what led to this case study of the HERO program.

The purpose is to inform the development of the IOU pilots and also to test new attribution methods. I should explain what we mean by attribution in this case. When you have two programs, rebates and financing that overlap and you have a participant that takes advantage of both programs, how do you split the credit for the energy savings between those two programs? Now, this was a good opportunity to take a look at that because it's not a situation where we're actually measuring the energy savings. We're not really going to do the splitting of the energy savings. It's not even relevant because the rebates are utility program and the financing is a PACE program, not at all involved were the utilities, but it gives us an opportunity to tests some different methods for attribution in a low stakes environment.

Also want to thank the cooperation of WRCOG and Renovate America. We couldn't be doing this without their help. Next slide.

Researchable issues, I don't think we'll take any time on this. We're covering a lot of ground with the researchable issues and we'll just leave it at that. You can come back and take a closer look if you want. Next slide.

Well, we have completed to date our local government

interviews, interviews with Renovate America executive team, interviews with contractors and we've done survey and attribution design. What we will be completing in the next five months or so are additional contractor interviews. We're actually going to field the survey and then we'll be analyzing the survey reports and issuing a report on all of the tasks [unintelligible].

>> Pat, you're going in and out on our end. If you could check your own phone lines to make sure that those are clear.

>> Can you hear me?

>> Yes. You're back.

>> Great. We're even on the same page. We've generated a lot of tentative findings, but what we've tried to do here is present those that are maybe the key findings number one and number two that have potential implications for the purpose of this working group, which is to look at comparative analysis of different programs.

One of the key findings is that [unintelligible] end up bearing these out, but one of the findings is that PACE is only partly responsible for HERO's success. PACE does have some unique advantages in terms of being transferrable, in terms of not relying on typical credit score qualifications and on tenors. Tenors, that's a big one. Being able to go out 20 to 25 years means you can get the annual payments down low enough that the savings from the project can offset and cover and even exceed in many will cases the cost of those payments. So those

are all big pluses but those by themselves would not account for the success of the program.

We're seeing two other factors that are huge to their success and that is first of all, the customer experience designing it so that it's easy, fast and compelling. And working with contractors. In fact, marketing through the contractors, training them and equipping them to deliver on that easy fast and compelling customer experience. There are a couple of implications here for us. One is that intangibles we're going to have to be measuring intangibles like east of use can be hard to measure, at least hard to qualify. Another one is even the tangibles can be difficult to compare. If I asked you whether you would have a loan with three percent interest rate or four percent interest rate your answer would be a slam dunk. But now if I said, well, what would your answer be if that three percent loan had some closing fees associated with it? Well, a finance type like me, I would actually go through the calcs and come up with an answer down to three digits and three decimal points and know very definitely. Most homeowners aren't going to do that and their answer is actually going to be relatively subjective. You can present that same offer to two different homeowners and one would say I think the one with no fees is a better deal. And the other would say no, I think the one with lower rates is a better deal. When you fold in things like the loan tenor and what I mean by tenor there is the length of the loan, the term of the loan. Tenor avoids some conclusion about whether we're talking about overall terms or the length of the loan, so I'll use tenor here throughout.

The other finding is that's really relevant is the contractors are key influencers in this process and really crucial, will be really crucial to the analysis. Next slide.

Okay. PACE is well suited to a lot of projects and to a lot of contractors, but at least in the HERO program it's not going to work for smaller projects under $5,000. It's not going to work for larger projects that are greater than 10 to 15 percent of the property value. And it's not going to be -- not going to work for people with lower, less than 10 percent value in their home.

Another factor is that HERO appears to favor larger contractors, gives them special status and so there may be an opportunity for smaller contractors, they may be looking for something that favors them.

Other important findings. Renovate America has hundreds of employees. Joel, let me ask you, what's a current count for employees at Renovate America?

>> That's a good question. We are -- we now have grown out of our building and have moved into a new building, so I rarely see everyone in the same place. But I believe we are north of 500 now.

>> That's what I thought. How many of those are in the

call center?

>> That's another good question. I'm not sure honestly.

>> I've been to your call center and it's an impressive operation. I'm not sure you're operating quite 24/7, but I think you're close, aren't you?

>> Close to it. That's right.

>> Then there are also reps that are out in the field training contractors and supporting them, visiting them on a regular basis and then the IT staff to develop the tools to support that customer experience. It takes some fair amount of IT development to be able to provide that easy and compelling experience. So all of those things are an important part of [unintelligible] for the IOU financing pilots.
Next slide.

On the surveys, we ran into some challenge obtaining the PACE participants contact information. One of the challenges is that the HERO program has privacy policies in place with their participants. They promise that they are not going to share the participants data with any outside firms and so renovate agreed initially to send out the emails inviting HERO participants to the online survey, but there was a miscommunication there. When renovate agreed to a survey, they were thinking it would be the kind of survey that they would send out which would be no more than three or four, maybe five questions. We were of course thinking about a typical utility survey particularly when we're looking at having to do some statistical analysis that involves a lot of questions, modeling brings to it a lot of questions and when we realized that there was that disconnect it was a real problem because renovate's branding is all about making it easy for the customer and sending out a survey with 30 plus questions just didn't fit with that. CAEATFA has some information on all of the HERO participants going forward. What they have is parcel number and converting that parcel number into contact information in terms of a street address or a phone number and email address proved to be a very challenging process for us. And we got through it, but involved cooperation from the utilities and from county assessor's, there are 58 counties in California to have to go to all 58 would be a real challenge. I think the implications for comparative analysis programs is to get that issue figured out now. How are you going to identify and reach through to the PACE participants in order to be able to survey them.

Next slide.

Eligible measures. The eligibility for the utility programs for the HERO program. I think most PACE programs. For example, PACE will allow any energy star project is my understanding and we'll have time at the end if anybody needs to correct me on that. IOU, the IOU programs in some cases energy star labeling is good enough. In other cases it's not. So in the surveys we don't think that participants will know the

details of their measures sufficiently to satisfy the needs of an impact evaluation. They'll know they installed a new furnace. They will have no idea what the efficiency rating of that furnace is. So the key there is going to be that we're going to need to get project deals, details from the PACE programs exactly what measures are being installed. There is some precedence from that. LA county is in the process of getting that information. I don't know whether that's going to be aggregated information or tied to specific properties, but that's going to be an important part of the process as well.
Next slide.

Attribution. We looked at several different models, analytical hierarchy process, self-evaluation, which we are doing, AHP did not work out. We couldn't identify a good hierarchy as a model for the decision making process. And so it looks like discrete choice modeling is going to be the primary method and it looks as though that may require very large sample sizes. We can get into the details of that in the questions if we have time for that if anybody wants to.

The other part of that, and by significant sample size is we're looking at sending out probably 50 to 60,000 emails inviting general population participants in our study area to take the survey. And then significant incentives maybe these are long surveys and getting people to sit down and actually stick with it for the full lengths going to require some incentive we think.

That's it. For more information, please feel free to call me or Laura. Laura has been actually more involved in the nitty-gritty of the project and may even be better at answering questions than I can. I think that's it. We're ready for any questions. Sounds like we have some questions on earlier presentations as well.

>> Great. Thank you. With that we'll open up with questions from the webinar. We will go ahead and start with Gene. Are you there? If not, perhaps you can just read the question. Your line is open. We can start with -- we have a couple of questions from Gene. The first was what is the geographic coverage of active administrators working with the CSCDA?

>> Geographically I think it's pretty much the entire state. We have over 75 cities and counties that we're currently participating in the PACE program. For one of our programs, the California first program, which was launched earlier, that is over 350, so that pretty much covered the entire state, but open PACE in 2014 started later, but it goes pretty much from the Oregon border all the way down to the Mexican border.

>> Gene's next question is for Mike. Mike, I'm going to go ahead and you know mute you.

Is Ygrene 300 million projects all in California? If not, what percentage is in California?

>> The vast majority of it is in California. And I'll pull up quickly -- it's over 50 million or close to 50 million I should say in our corridor program. 50 million inception to date in California and nearly 50 million in Florida.

>> Thank you, Mike. Another question is what is the on build function mentioned? Sounds like something for contractors. I'm not -- I don't remember. What is the on bill function mentioned sounds like something for contractors?

>> Online functionality perhaps?

>> Doesn't mention an online billing as well.

>> On bill was mention organized the last program has to do with the utility provided financing that builds a conduit for repayment.

>> Gene, if you come o feel free to clarify.

>> The next one is what percent of applicant contractors past qualification study. So that might be a question for all the PACE programs.

The question again is what percentage of contractors pass the initial study.

>> I would say a high percent. I don't have exact percentage, but certainly if you have all of our standards met, you're going to qualify to participate with our program.

>> This question might be hard to answer on the fly. Perhaps folks can do research and get back to us.

>> I think for us I think it's very high, like high '90s and I

think part of that is -- this is Jenine for mPOWER. Is that with the training if they are required to go through first, they know up front what the expectation is, so they are going to make sure that they are in compliance before their client is, before they have a client submit an application.

>> This is Craig from Sonoma County. Even if an applicant comes through our doors with the contractor that isn't currently participating, we can sign them up on the spot as long as they have a general liability, proof of general liability workers' comp, their -- we can look up their contractor's license on the state website and they just need to sign the standards agreement for participating contractors.

>> Next question would be for Renovate America. What is the difference between the 900 million projects that WRCOG mentioned for theirs regions combined with California HERO and the one point three six bill that renovate states in California?

>> Go ahead Barbara.

>> The 900 million is what WRCOG has issued. We are the bond issue for the WRCOG as well as for the California HERO program -- also bond issues for San Bernardino county, sandbag and Los Angeles County.

>> Is the 900 included in that global number?

>> The 1.3 is the global number.

>> The 900 is included?

>> That's right.

>> Next question, again, WRCOG and Renovate America. You guys mentioned the importance of fast transaction time to interested participants. How long does it take a residential homeowner to get through each of the program presented? I guess it would be everyone else kind of giving the general timeline of how long it is for approval, I guess.

>> For a homeowners decision to move forward to approval.

>> This is Jewel with Renovate America. We pride ourselves on being a tech company first and foremost, and so we've built a tech platform that we provide to our contractors as part of our program wherein a homeowner can apply on the spot and we can make a decision on an application within a minute. So whether they are approved, rejected or we need more information, we can make that sort of determination within a minute.

>> This is James Himmel it's the same, not as quick, but one day approval.

>> This is Jenine from mPOWER. I have a congestion. Once we have complete application information, on average it's five to seven days.

>> Craig Carlock with Sonoma County, pretty much the same timeline as Jenine's program. As long as we have a completed application we can generally have the project approved within about five days.

>> So a follow-up that I have from a minute to a day to five, if we are looking at a sequence of process, my assumption is that your algorithm or the widget makes some decisions, but there's some clarification in there after day one or minute one?

>> Yes, there is verification. It's just a matter they get through the system and there's some verification on that information. So it's not a matter the money is wired at the door that same day. There is verification of that information.

>> So for follow-up process, what is the criteria for that?

>> It can vary depending on the type of project and size of the project and anything that comes back, that maybe it is something that was off in the application and may vary from application to application.

>> Mike, did you want to say anything on that? Next question would be for Jenine, mPOWER, if your local funds are used for warehousing, what is the take out finance struck structure or bundling?

>> We have several investors. We have already sold -- last year we sold 10 million of the 45 million that we have financed so far and we have additional investors that we are working with when we're ready to sell our next bundle.

>> So the next few questions we have from Diane Frazier. First is why is the bank approval for commercial of bottle neck and I think Barbara you had mentioned that.

>> Yes, on the commercial side we do require lender

acknowledgement from the first mortgage holder and a lot of it has to do with finding the correct person in the bank who will actually acknowledge the PACE assessment. So we have done a lot of work with a lot of the major banks. A lot of the banks were in silos so figuring out which person and which department to get it to which credit department to get it signed off seems to be a challenge. Residential doesn't have that caveat in its financing.

>> Next question is, what is the number one complaint from customers about contractors?

>> From WRCOG's experience it is the contractors call in to solicit us too much.

>> It's a pretty frequent complaint that we get is that perhaps the terms of the lending were not completely conveyed at the time of sale for say a solar project or for energy efficiency project, so things are quite not as laid out clearly and that's really part of why our program requires mostly for everyone to come in-house for contract signing, so that we have an opportunity to convey those details to the customer.

>> Luckily we haven't had that many complaints. Mostly people don't understand the terms, which was sorely admitted to put the consumer protection policies in place.

>> This is Jenine for mPOWER. In all honesty we have very, very few complaints and I think that is because we may

contact throughout the process and because of the expectations with the contractors and they know if they try to pull any punches they are going to hear from us right away. And because -- and then also the property owner has access to the person who is processing their application and because they also go through the training, they know what to expect and things are clear and disclosed up front. So I think that the other part of that is that because of that seminar that they go through, they also kind of self qualify, if you will, and know well, maybe this isn't for us. We don't meet the qualifications or the terms aren't for us. So we have very few.

>> And then another question kind of along the timeline for this one is from the time that the applicant is approved what is the time to completion of project?

>> This is Craig from Sonoma County again. So once we have the plan contractor the three day cooling off period work cannot begin until our letter to proceed issue, we give an initial 90 day window to complete the project. Should they need to extend that, we can give a preliminary additional 30 day extension. If they need anything beyond that, then we have to run it up the food chain to get approval for additional extensions on those timelines.

>> This is Jenine from mPOWER. It's pretty much the same. Once that three day right of recision is up, the notice to proceed is given and a lot of it has to do with the contractor

and the size of the project, so for example, on a nonresidential large project, there might even be progress payments because there's a number of things that need to be done and some of it has to be done sequentially and can't be done on a parallel, so it's really largely dependent on the contractor. Although again, we're monitoring that. I would say months projects in a couple of weeks they are completed and we're moving to verification and payment distribution.

>> This is James Hamill saying three days provision and what you need depends on the commercial. Large scale will take longer and then even on the residential side depending on the size of project it will vary from time to time. It as moving target.

>> Barbara WRCOG. We have 120 day cut off for the financing and that has really to do with the projects getting through the process, but your quicker agencies terms get through, so it varies, but we do have the three day grace to cancel.

>> Great. Next question we have on the webinar is from Chris Cramer and it's for renovate or others. You mentioned that LVL studies citing the needs to move things along quickly so homeowners don't dropout. How do you move the PACE approval process along quickly while still gathering information you may need for underwriting on property tax tax payment history, value of the home, present and current outstanding

value of the existing mortgages? How do you avoid slowing down and losing customers while still gathering that type of information?

>> That's a great question. This is where us being a tech company really comes into play when the company was founded we made a significant investment and a technology platform. And so we have a proprietary software that allows us to run a report on all of our sort of underwriting criteria and pull all the necessary reports to verify within a minute. So that's how we don't slow down the process. We literally built a software to do that.

>> Next question from Alex hill, a question primarily for Cadmus or Renovate America. To what degree are the PACE programs aware of the utility incentives by our customers, is this considered in the project underwriting or applications?

>> This is Laura from Cadmus. I can only speak on what we've seen so far is that the scale of the PACE programs, SHAR outstrips the scale of the utility rate program. So in short the PACE programs, at least the HERO program that we have focused on and then the local government administrators with other programs are aware of their utility rate programs, but they are not expected to be a driver of the PACE financing and they are not necessarily a primary factor in programs design. I don't know if any of the other PACE administrators on the line want to add to that.

>> This is Jenine from mPOWER. As I mentioned, we have two investors run utilities and two Munis. The bulk of the territory is the with PG&E territory and then there's a large percentage that's in Muni. We track what current rebates are and so in that application process we're looking to ensure that rebates and incentives are being utilized. Many times what happens is that the contractor will get the property owner to assign the rebate to them and the contractor will do the paperwork on the rebate and so that's why we're looking for the mPOWER financing net for any rebates.

>> This is Jewel with Renovate America. I think one of the other important factors that Lawrence Berkeley labs pointed out in their study is that rebates, financing and other incentives do matter. I think the PACE program is actually able to help rebates reach a greater amount of consumers because often the rebates don't cover the entire costs of a project and so there is a Delta. Homeowners may take into consideration the rebate that they will receive and choose to finance a lesser amount after taking into consideration that rebate. We don't process rebates for homeowners, but again the homeowner is able to consider the fact they are going to receive a rebate and then choose to finance less.

>> This is Craig Carlock from Sonoma County. This harkens back to taking care of our customers again. We're very closely aware of what rebates are available in our territory in Sonoma

County and we do make sure that our customers are aware of the various rebates that may apply to them.

We also, as Jenine mentioned, do not finance the rebate portion of a project.

>> This is James from CSCDA, we are aware, obviously being on a statewide basis it's difficult to manage because we are beyond one county, but we are working with our administrators to try and come up with a way to make those aware so they can be accessed by the end user. It's something at the Craig's point we don't finance it, but we are in the process of working on.

>> I have a follow-up question to those folks that net the rebate out of your financing. Is that assuming that everyone takes the rebate or you ask the customer to self-identify whether they are moving forward with that or not? So some rebates can happen after the fact, sometimes they take much longer than the estate the project does, and getting approval. I'm just that's an assumption up front that everybody is partition participate go in the rebate program or that folks inform you that they are or not.

>> I think in most cases our customers are pretty well educated and do -- are forthcoming with the rebates if they are aware of them. However, there are scenarios where perhaps something was overlooked in the sales process between the contractor and the customer. So we are trying to provide if you

will a back up to that sales process to make sure that folks are aware of what rebates are available and whether they come now or later, it's sort of inconsequential. Does that answer your question?

>> Yes. With a follow-up question. So most of the time we're seeing, as I mentioned, edit in the contract, but if it's not there, then we're following up with the property owner and asking if there's any particular reason that they wouldn't be taking the rebate.

>> I think one other factor that's just important to keep in mind is that most -- what we've found is that most of the homeowners who are seeking PACE financing do not use the total eligible amount of financing that they could be -- that they could receive or that they are approved for and so it's not that people are sort of maxing out. That's important to keep in mind when you're thinking about rebates because, as I mentioned, we try to point homeowners to resources where they can find rebates and a homeowner knowing that they will receive a rebate will or may choose to finance a lesser amount after taking into consideration that they will receive the rebate at a later date.

>> Perhaps it's worth mentioning too, we will finance the federal tax credit portion of the solar project.

>> Right.

>> All right. So the next question we had is from Angela

hacker and it's for Cadmus. Does Cadmus say to what extent the consumer protections have worked or failed in light of leader lender HFA?

>> Can you repeat that one more time?

>> Sure. Did you study to what extent the consumer protection have worked or failed in light of lender FHFA resistance?

>> So we have looked at -- the resources we have so far, the interviews that we've conducted with contractors and the local government administrators, that has been one of the areas of questioning that we've asked is what kind of response have you had from customers, from local residents, what kind of responses have you gotten from other lenders, the real estate community, other stakeholders. And what we heard across the board that while there were some groups that were concerned, there have been very, very low levels of actual complaints. So we did most of our interviews in early 2015 and the program was really just getting started for a lot of the contractors and local governments representatives that we were talking to, so it was the same across the board that there have been very few issues and very, very few. I don't think anybody had anything specific to report.

>> This is Jewel from renovate. I just want to add to that that the consumer protection don't necessarily exist because of -- they are not because of FHFA concerns. The consumer

protections that we've put in place which are very strong and we are working with under other industry players to gain some consensus around are because we take seriously that we are operating in a public trust and we want to maintain a strong program. And so the protection about maximum financing amounts and making sure that contractors are licensed and all the other consumer protections are in place are separate and apart from the concerns raised by FHFA as it relates to the priority of the lien on the mortgage.

>> This is Barbara. I just want to follow up on Jewel's comments and the fact that in terms of the consumer protection that I think it is really centered on disclosures of FHFA and Freddie may will not do is they will not purchase mortgages that have assessments on them and make sure that the property owner is very clear in their understanding that when they go to sell and/or refinance, they may need to pay that assessment off prior to that transaction closing. We work really close over the past year with our real estate community and increasing our disclosures and made the language a very clear basis owe that a property owner when they are looking at their assessment contract, it is a contract and it is legal and there's a bunch of legal -- that covers from A to Z and everything in between. And our real estate community likes that language. However, they understand the property owner doesn't necessarily comprehend all of that legal language. So

we have legal language and then we have simple language in our assessment contracts and applications to clearly identify to the property owner this is when you go to sell and/or refinance you may need to pay that assessment off. Since April of last year we've been able to start contractual subordinating. We got permission from our investor to subordinate our collection rights and so we are able to offer that during the sale and/or refinance and we've seen lenders take advantage of that more so on the refinancing side and on the sale side, but it is avail a and an option for property owners and lenders.

>> That's right. Those are really important points, Barbara. I wanted to make sure that we are thinking about consumer protections broadly and not narrowly as it relates to the FHFA disclosure, but that is a very important piece that we make sure is all caps and bolded so that consumers are aware of FHFA's position and the impact.

>> Could you expand a little bit more on the subordination, like if somebody goes into refinance and you guys agree to subordinate do you stay in a subordinate position and maybe you can expand on that process a little bit more.

>> Sure, I can expand on it. We are contractual subordinating, which means we are subordinating our collection rights. So the lien still stays in the senior position. It's -- so if the property goes into foreclosure the collection, the property is sold, and they are difficult violating out the

money, we are in the second position for collection, so it does get the money first. It is assigning our rights of collection into second place.

>> We do the same thing. We back in October of last year for lender subordination rule and we see lend tester taking advantage of that also right now.

>> So the next question we have on the webinar is for Jenine at mPOWER. What info has led you to think the lenders are no longer accepting liens upon sale when there has been a change in the market? I think that was referencing --

>> In the late summer, early fall we have some participants who contacted us because they were having difficulty finding a lender who would maintain the lien and they wished to do so after closing their transaction. So we started actually calling the lenders who had previously allowed the lien to stay and we came up with essentially two who would allow the lien to continue to stay. These were lenders who had previously aloud the lien to stay. These lenders are not specific to Placer county, so even lenders who had previously allowed the lien to stay, were no longer allowing it to stay.

>> I think what's important, too, just to piggy back on that to keep in mind in terms of what was going on in the market around that time, is that in August the president came out and said that he wanted to, as a part of the administration climate

change efforts, he wanted to unlock PACE and allow PACE to scale across the country. And the way the administration was going to do that was that the FHA and the Department of Housing and Urban Development were going to work on developing guidance and coordination and collaboration with the Department of Energy and CFPB and other federal agencies, but guidance around how FHA could support mortgages or ensure mortgages with a subordinated PACE assessment on it and so that relates to what we're saying in terms of the contractual subordination model that we've been able to put in place with HERO and sounds like CSCDA is working on as well. We believe that's where the market is moving and I think those things are all related and part of the broader context.

>> I would agree. I made that correlation myself. I think it was -- there was some activity among lenders and exactly how that might have been cord unlimited through FHFA I don't have any information on, but I do believe that what we saw was a reaction to that announcement.

On the limited subordination, you indicate, Barbara, that the you take a second position in the event of foreclosure, but any unpaid amount remains with the property and for later collection.

>> Correct. It stays with the property.

>> So we have one more question on the webinar. Is there

anymore questions in the room? So to what extent are PACE administrators or contractors encouraging their residential or commercial building applicants to also seek out utility rebates that may be available and if so, how do the two processes work together?

>> I don't necessarily think this is two processes work together and I say that because WRCOG is in partnership with Southern California has a gas company and we encourage and I believe contractors encourage property owners to take advantage of the rebates. I think sometimes that rebates are a little cumbersome and what they eligible improvement is not quite what is actually being done at the home. So we do a lot of encouragement, but I don't necessarily think they really -- I don't think go together. I think they run more side by side.

>> This is Laura with Cadmus again. Again, we focus primarily on the HERO many practice. We interviewed contractors that are affiliated with rebate programs as well as with multiple PACE programs and they have told us that what they put in front of the homeowner is really about what they think is most appropriate for that project and what the homeowner is most likely to be interested in and this is very important for contractors, would it least likely to derail the projects. And so a lot of contractors said that HERO financing was so affected that they no longer mentioned any of the utility rebate programs because the utility rebates were so -- I

think that was Jenine or Barbara, I'm not sure. They are cumbersome. They have a lot more requirements. They take a lot longer and it wasn't necessary to move the customer forward and so they just weren't mentioning them. And it's the same way with the various PACE programs. Contractors were not telling I have three page program that you can choose. They were picking one that they thought was appropriate for that customer or that they preferred for whatever reason and that is what they put in front of the customer. To the extent that this information funnels through contractors, which the contractors are the kind of primary delivery channel for a lot of these different programs, they really control the information that's being presented to the customers.

>> This is Craig with Sonoma County, kind of reiterating a little bit of what I said earlier, but our office is very active and our staff being educated on what rebates are available locally and we do have a municipal utility that is within our territory as well. We actually help administrator an efficiency rebate program, so we do try to work very closely with customers to make sure they are taking advantage of incentives that they are able to utilize, but again, it is sort of a separated process. I mean, we will certainly take phone calls in our office to speak to certain rebate programs as well, but then we'll refer them toe that body that's actually disbursing that rebate, so we try to be one stop shop for all things, energy efficient, renewable

energy and sustainability related, but as it pertains to PACE we just try to make sure people are educated.

>> Are there any questions in the room?

>> Just a comment. Jill is with renewed financial, we're the program administrator for the California first program. I just want to touch briefly on the approval process, specifically for California first and the contention that we cannot collect as much information as we need in a short period of time. The fact is that us as the private sector working with the public sector, we've invested millions of dollars into a platform that we can take that information that we collect, but also make sure that it meets underwriting standards. And if we are not sure, we do not go forward. We have to meet a competent score based on a number of different things. If it does not meet that confidence score, then we have to look at other waste to either get the value or the underwriting. So I think it's unfair to claim that we can't do that in the private sector in an adequate way, because we have since program inception and the fact is PACE is just one tool that contractors are using with homeowners. So if we can't compete with other projects, PACE is going to be irrelevant. So we are trying to do that because there are other products out there that are instant approval, but frankly w the California first program we are doing our due diligence to make sure that we're protecting the consumers from things that contractors do say and may convey

that it's not necessarily true. With our approval process you have to be on the phone with a call center representative to make sure that the homeowner both understands the project itself as well as the financing, so I think that's one point of distinction. It's not to say that a contractor can be in a home and just say anything they want. That has to be verified with the program administrator and that's where us as the program administer comes in working with our joint powers authority. So I just want to clarify that that programs do things in different waste, but we can still achieve what we're all intending to do with consumer protections and making sure that contractors are conveying the right information.

>> All right. So we are now a minute over. I want to thank everyone and all the presenters for coming to participate and reiterate that we will be issuing a proposed comparative criteria for public comment on April 13th that will be going out and posted on our websites. And that public may submit written comments on that proposed criteria to me. My contact information is on the slides by April 22nd at 5 p.m. And with that, thank you very much.

12:01 PMs.