

**Duquesne Light Act 129 Residential Subgroup Meeting
April 23, 2009**

Good morning, everyone, if you'd please take your seats. Hi, I'm Michele Sandoe. I'm the Director of Customer Care for Duquesne Light, and I'm here to welcome you to our residential group collaborative exchange for Act 129 Energy Efficiency. Since it is "bring your child to work day" in the back of the room in blue I'd also like to introduce my nephew Brian.

For the folks on the phone, we will be posting the presentation online at www.duquesnelight.com. When you go to our webpage on the bottom right side there's an Act 129 Collaborate Exchange line, click on that. Once you go there, there's a whole page of information for your use. Our intent is to post all the presentations from this week online hopefully tomorrow, as soon as possible in reality. Also for housekeeping issues, I would like to have a roll call in the room as well as on the phone. So in the room please?

Hello, I'm Barry Kukovich, Manager of Customer Relations for Duquesne Light.

Frank Craig with MCR Performance Solutions.

Cindy Menhorn with MCR Performance Solutions.

Michael Merke, West Penn Energy Solutions.

Larry Barrett with MCR Performance Solutions.

Bob Fiori, Power Minders.

Michael Jones, TransTech.

Jim Conner, CES Inc.

Ted Robinson, Citizen Power.

Tim Carryer, Green Over Green Energy Consultants.

Jim Morinville, Energy Independent Solutions.

Fred Sargent, Sargent Electric.

Harry Geller, Pennsylvania Utility Law Project.

David Evard with the Pennsylvania Office of Consumer Advocate.

Tanya McCloskey with the Pennsylvania Office of Consumer Advocate.

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Cindy Datig, Dollar Energy Fund.

Dave Defide, Conservation Consultants.

Gary Miller, Duquesne Light.

Lynda Pekarsky, Duquesne Light.

Colleen Mackin, Duquesne Light.

Josh Macken, Brentwood High School.

And last but not least.

Tom Crooks with MCR Performance Solutions.

Thank you everyone, I'd like to have roll call on the phone, and please, after you give your name and company you are with, please mute your phone because we are getting some feedback.

Ron Brown and Paul Young, Niagara Conservation.

Mark Hand with Pennsylvania DEP.

Jeremy Kirsch, Positive Energy.

With that, I would like to introduce Cindy Menhorn from MCR.

Good morning, everybody. Thank you so much for joining us today. What we're going to do is we're going to have a high level review of Act 129 as a repeat to the stakeholders meeting that we had initially. If it's repetitive at this point I apologize but we think it's important to in fact reemphasize some of the points that we made at the original stakeholders meeting. And let me just offer up the information that this is a collaborative and it's very important that we get your input on these programs. What we are throwing out today are just high level programs in order to facilitate discussion, and we really need to make this a successful day, your input into what we are putting on the table as just discussion points. So please keep that in mind and if we find the need to have breakout sessions we will get to that between low income possibly and others, but we're going to go through this beginning part first and then I'll turn it over to Tom and we'll through some of those other discussion points.

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All right, so we have goals in Pennsylvania, as I know you've heard. And for Duquesne Light the 1% and 3% reduction consumption in our service area equate to 141 million kilowatt hours by 2011, and 423 million kilowatt hours by 2013. That's measured against the sales forecast ending May of 2010, and that forecast has been approved by the Pennsylvania PUC, so those numbers are in fact what we will be on the hook to provide. In terms of demand, there is a 4-½ % reduction by May 31, 2013, and that's measured against the period June through Sept. 2007 against the highest 100 hours of peak demand for us, that means 113 megawatts in the summer of 2012. And then also included in these goals would be 10% of those reductions must come from government, municipals, educational and nonprofit accounts.

So where do we get the funds to implement these programs? Well, again the PUC has gotten that direction from Act 129 and the 2% of EDC's total retail revenue for Duquesne equates to about just under \$20 million per program year. Not really a lot of money when it – when you look at the number of kilowatt-hours and demand associated with that amount of money. Now what happens is the law provides for Duquesne to recover those costs, but it has to be a measure recoverable in terms of the program class – the class programs will be recovered by that class. In other words, industrials will not subsidize residential programs; residential programs won't subsidize industrial or commercial programs. So the programs that are offered in the residential class or the commercial class or the industrial, the cost recovery mechanism will be designed so that those costs are recovered from that particular class. Duquesne has a separate team that is looking at stimulus funding to determine if there is any funding out of the stimulus package that might assist in some of these energy efficiency programs.

All right, so we've also been given some direction that the cost effectiveness is tested by a test called the Total Resource Cost Test. And what that means is Tom makes his magic with the model and looks at all the parameters and all the expenditures on the programs and determines if there is a positive total resource cost test, and he's going to talk a little bit more about that. But really the ultimate plan is to provide programs that optimize the funding that's available that achieves the greatest energy and peak demand savings.

Now, the first step in determining what programs should even be considered was a potential forecast that was developed. And this next slide is designed to give you an idea of what by class the impacts would have to be in order to achieve those goals. Off to the right on the very first set of numbers is the TRC values that have been calculated out of the model again on this high level program development that we need your input on. And as you can see, based on the information that's provided on this sheet it appears as though that impact is out there for us to in fact meet. So with that I'm going to turn it over to Tom to begin the specific discussion on the residential customer sector. Tom?

Thank you, Cindy. Again, this is a working group session for the residential class. We had our formal big group, combined group a few weeks back and this is really meant to gain input from you, to take guidance on the design of these programs. Going back a slide we can see that one of the things we did first as recommended in the National Energy Efficiency Action Plan is to conduct a energy efficiency potential analysis where we look at the technical economic and achievable potential in the region, to take a total inventory of the building stock in residential, commercial and industrial. So as soon we can – we bounded the potential, technically we applied the TRC test as indicated in the Act and the commission's orders, direction. We applied the TRC test to understand of the technical potential what of that was economic from a supply side alternative perspective, which is the basis for the TRC test. In other words, the TRC takes the avoided cost in generation and capacity for the life cycle of the given piece of equipment and nets that out using a discount factor and weighs that against the cost of the equipment plus the advent of the program to implement the equipment. So the technical potential is screened by the TRC cost test to render a subset economic potential. Then the economic potential is again discounted and screened based on more qualitative behavioral factors to assess an achievable potential.

There are myriad forecast models out there, most apply similar qualitative discounting factors for awareness and willingness, maximum annual capture rate and various more qualitative approaches. So while technical and economic tend to pretty straightforward and scientific, financial calculations when we get to achievable potential that becomes highly qualitative in every model that I've seen. Not just in this industry.

After we know, and this is done at the measure level, so we're not seeing lighting for commercial or lighting for residential, this is done at the specific measure level. You know, 15 watts CFO or placing a 60-watt incandescent light, cost benefit, estimated useful life, operating hours. So technical and economic potential are derived at the measure level where they can be useful in applying things like payback probability acceptance curves where we can project penetration into the population. So as opposed to more of a topical approach to energy efficiency potential this was a bottoms up, you know very granular analysis. We don't have all the money mandated to achieve the potential in this territory, but this gives us a good solid basis for the measure mix, what's out there and how to achieve it, and that is then ratioed by participation in the customer classes to achieve a budget that is consistent with the order.

So we can see here in this particular slide it shows the residential, commercial, industrial use and the technical potential, economic potential, achievable potential in energy efficiency running out to about 1.1% of delivered energy per year, our target is 1% by 2011. You can see in this potential this slide that the residential customers represent 30% of the consumption, commercial 49%, and industrial 21% of the energy consumption in Duquesne's territory, and that's the allocation we use for funding allocation. Are there other allocation bases? Yes. And is this an equitable bang for the

buck? It could be better maybe optimized, but this was a starting point to show we are looking at each, each sector in an equitable way. By doing that and taking the, the 2% or \$20 million annual allocation of money this renders programs for the residential sector at a little over \$5 million per year. You can see here that the net present value of avoided cost of supply is then about \$55 million, so this is a very cost effective program when compared to the supply side alternative.

We looked at Duquesne's housing stock, and very interesting to see that some 73% of the housing stock is single family, site built homes. We're looking at about 26% or so of the dwellings are multifamily. And about 1% are manufactured or mobile home populations. The population in general is 85% or so is older than 30 years old. So this is a fairly dated housing stock, heaving canted towards single family and but still with a strong multifamily presence. So this went into the technical and economic potential analysis that tells us where we are going to need to focus our programs.

Consistent with successes in other states, what we advance is a program structure that includes an umbrella program or an overarching program that ensures that all members of the customer class can receive some level of service. So no one is held out from participating in energy efficiency programs and all can benefit from it. The umbrella program serves a function to put in place consistent terms, conditions and in some cases incentive levels for subprograms that maybe come in and specialize to reach specific market segments. Certain market segments have unique characteristics that present their own barriers to participating in programs, and subprograms will be built and focused on helping those subsegments overcome those barriers. And that's the general approach we used in commercial, industrial and in residential. Residential has very unique and quite frankly significant barriers. From a transactional cost perspective they are difficult to reach, so we need to think and the country in general has had to think, be very creative in reaching these markets.

The low-income weatherization market segment is very well developed. We've got given the present environment of recovery Act money and stimulus package money, there's a heightened focus on weatherization in the country concurrent with the implementation of this Act. So it's an interesting dynamic. Weatherization will be obviously focused on it's an existing core competency in the area, and we'll be looking at growing that and leveraging that.

And we talk about the other subsegments, other than low-income weatherization, whole house weatherization; there are other subsegments that fall out of the residential segment in general. Most residential programs in most of the states with well developed energy efficiency programs that are the most cost effective and the most hard hitting programs will be your upstream and midstream programs where the barrier of first cost is overcome through providing incentives at the manufacturer and retail level. It takes the hassle factor out, there's no rebate applications, you pass your article

over the scanner, you pay the amount, the rebate is already built into and market up by the manufacturer and passed on under contract by the distribution retailer. These are the most hard hitting and cost effective residential programs in the country. We don't have that here because we don't have that statewide guidance and oversight to work toward. It doesn't make sense; it's not possible for Duquesne as an island utility to do this on their own. This is an area where state leadership is required and really quite frankly, to be the hardest hitting most cost effective programs demonstrated in the country is really a hole that needs to be filled and addressed. We can't do that alone, so we have to move off and look at the areas where we can have an influence.

So that covers upstream and midstream approaches, and this is basically your CFL programs, your electronics programs, the other real significant area I think we need to think about in residential is refrigerator recycling, which we should be able to leverage regional resources. But again, it doesn't make a lot of sense to have a refrigerator-recycling program just in Duquesne's territory. These are most of the time leveraged on a regional basis and are most cost effective in that way. So again, we'll be trying to look at what we can do in refrigerator recycling, but it's another area where a statewide leadership is indicated.

I think one of the evolutions and kind of an exciting approach is in the residential program design is in the building sciences that have been raised and developed through the low income weatherization programs that now can be raised up and out of just the low income but to apply from a whole building performance standpoint to non-low income populations for whole house weatherization. So we'll be looking to build elements of programs that focus on whole house weatherization, performance type impacts for non-low income populations. And this is an evolving opportunity. There are other crosscutting programs such as schools programs and outreach programs that will use the talents of these fine gentlemen with us today to implement and influence their families. These are also residential programs and can be very effective at reaching hard to reach residential markets.

The main things we want today because this is a working group and we're not here to dance for you all day long, quite the contrary, we are looking for input on program design from you. So we're going to – I'm going to setup and place a kind of a framework for programs, show you about how much money we think is going to be spent, we can talk about what impacts we need to make, we can talk about what program options are out there. There will be those among you who will have an influence or a specific interest in given technologies, be it lighting or control technology. There will be others that are interested in providing these services. So I'll be interested in hearing feedback from those people with those skills and expertise and influence in these program designs. We wanted to think about breakout sessions. I kind of want to take a read; everyone has introduced themselves, right? Okay, so we've got representatives from a lot of contractors, some technical folks, some widget company

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representatives, and some policy people. I guess I would try to look to the group and say you know do you want to break up into weatherization vs. the other residential opportunities? Or do you want to do this kind of en masse? Any feel for this? All right, I'll just ply you with questions then. This really is meant to be an opportunity for us to garner benefit from your expertise.

I have a question.

Residentially if a homeowner decides to switch incandescent all for CFLs, for example, is there a way that Duquesne wants to capture that savings through some sort of online software program or input program like the Energy Star?

Right, right. Under the residential umbrella program the outreach would include online, internet, fax, phone, dial in where people could take advantage and receive applications to fill – to get rebates on those technologies. And so if you are look in the package that you've got you'll see some example prescriptive rebates of what those rebates would look like on a technology basis. Those are preliminary numbers, but you know the – you know again there is – that will be in place and that umbrella program will be available for all to benefit. It's not a real effective way of reaching the market when it comes to CFLs.

We have, just maybe more specifically, we have a group of students who are going into homes now and doing some weatherization projects and switching out incandescent for CFLs. And they are kind of excited to know that impact, to measure that impact. So we were looking at creating maybe a software package on our own website so that they could see how many kilowatts they are saving. But it would be neat to kind of feed that into another system, that's all.

That's good to hear. We've had programs like that and I have piloted programs like that in other states that have been very effective. We had high school students auditing small commercial and low income housing and then making recommendations and feeding the recommendations into the Department of Energy database, we then downloaded that database data and contracted contractors to come in afterwards and back fill and implement the recommendations. It was a very effective program and you know I think it's a good idea and one that we should look seriously at.

Tom, Harry Geller from the Pennsylvania Utility Law Project. In regard to low-income goals, Duquesne has a population that it's identified through its low-income programs and through LIHEAP, but there is still a significant segment of the 150% and below population that has not been identified nor in terms of quantified. Are there plans as to how you are going to be able to determine the totality of low-income energy usage as a percentage of the system whole?

Yes, there is. And it's reflected in the numbers that I have on the screen here behind me and also in your package. I'll ask Barry who it is his area of expertise to comment on this, but let me say that in the forecast, and this is a beginning framing forecast, we allocated funding to the low income sector consistent with 20% of the population, the current LIHEARP population as I understand it from Barry is about 8%. But we know that based on demographics and economics there's a full population that raises it to about 20%. We allocated a full 20% of funding to the low-income programs to manifest that potential.

Right, and that's in a funding allocation but to meet your goal of a proportional energy savings of low income that goes a step further, does it not?

I don't know that we have a goal of proportional savings for energy from low income. We allocated funding to that sector from an equity standpoint; it's a starting point for us to look at. It will be interesting to see what kind of actual savings you know; I don't think we have any threshold boundaries on savings we're looking for out of low income, other than to pass the Total Resource Cost Test.

So we may have to have some discussions about the reading and meaning of Act 129, because at least Utility Law Project's interpretation is that there are some low-income goals of savings that are expected.

We'd look forward to that, and actually I'd love to use this working session to really roll up our sleeves and get into some of these things if that's possible.

Tanya McClosky from the Office of Consumer Advocate, I just wanted to say we agree with Harry. When you read the statute it is a little unusual in its wording, but there seems to be a – there is a carve-out for the government and your nonprofits, your public and that was specified as 10%. Then there's companion language as to the low income, and it refers to sort of both measures and usage. But it seems to be creating an additional target for you, which it didn't specify a percentage in it, but it was supposed to be proportionate to the low-income customers total usage. So one of the first steps we may need to do is try and figure out that language and peg down what current usage might be for your own income class so we know what we're trying to target.

That would be excellent. We look for that guidance. And you know, I might say that when it comes to the residential sector, lacking the centralized state programs really the low income weatherization programs have the legs I mean we have the ability to implement through, so I really kind of feel like we're probably going to end up loading up on low income to achieve our goals. But we'd like to know formally what they are and establish those in our program plans.

You know, just on the centralized plan, too, I've had the distinction of being able to go to almost all of the collaboratives for all of the different utilities, and I know the Energy Association is going to try to coordinate something in the near future about some possible state-wide programs. But you really – I would encourage you to sort of work with them, because some of the CFL programs, things of that nature are fairly common across all of what's being talked about.

Just to make a quick comment concerning finding the right proportion of energy usage, on our first cut we just made an assumption that 20% of the population is low income, so we put 20% of the residential dollars as a quick cut, because Mr. Geller is absolutely right, we've identified about 45,000 of those of the 100,000 low income customers, but therein lies our problem. Let's just say we have another 55,000 of our customers that are low income and I don't know who they are. It's very difficult for me to say proportionally how much of that residential usage is there. We're going to make some assumptions so I really look forward to trying to figure out what are good assumptions, solid assumptions to make. So thank you.

Hi, my name is Cathy Greeley, I'm the Program Manager for PA Home Energy with Performance Systems Development. I just wanted to point out that we're operating what you are calling a non-low income whole house program. You know we call it Home Performance with Energy Star. We're doing a lot of activities all around the Duquesne Light territory. We are funded by the West Penn Power Sustainable Energy Fund, which as you know surrounds you. We've trained 4 of the individuals sitting here in this room today, we are doing a marketing campaign with WQED in May, we are doing a training in May and June in Greensburg to bring 20 more contractors into the program. There is some real significant opportunities to leverage activities that are already happening and target them in your area. And so – just wanted to point that out.

Wonderful. You know, I knew about that in New York and New Jersey and several other areas, and I know Cindy, who lives in the state and is our expert, I'm an interloper from out of state. But I know that she's well aware of these – of your capabilities and these are the things we are going to have to leverage for these programs to work.

Yeah, and that's – you know our program is about a year and a half old now. We've done some of the painful building from the ground up part, and there are some real opportunities to take off from there and target activities in the Duquesne Light territory.

Wonderful, thank you very much. Anyone else from the floor or the telephone? Yes, over here.

I'd just like to address the low-income breakdown of – my name is Joe Morgenfeld from Energy Independent Solutions. I have some friends, and talked to some consultants who are working with some of the low income providers, Action Housing being one, and currently prior to the Duquesne Light plan they already had around a 500% increase in their budgets and their statements to me where they had 300 projects on their desk that they couldn't reach prior to that money coming in, and there was more money flowing in that they didn't feel they were even going to be able to get out. So they had a – though they have a very established and a very good program, they aren't able to meet the current demand let alone demand with additional projects that are thrown into this. And on the other side of that, when we go with non-low income or something open to all meters, which could be also accessed by low income, there is very little – been very, very little focus in years past aside from PA Home Energy, there's very little focus in that area. I think CCI has some varied meter programs. But my concern with seeing 20% of this allocated just towards a low income program but may not make very much impact at all toward your goals, simply because there is already so much money there that they can't spend it, and they can't get the people out to do all the projects that have already been requested.

It's an oft-cited concern across the country, and we'll be looking for guidance on how to overcome that. I think everybody is trying to pick that lock, do you have any ideas or solutions for it.

One thing that, and I'm not sure how this would work, and it's probably a good thing to throw at your direction is there's a need for capacity increase as far as service providers, people to go in the homes do the audits and people to go into the homes and do the work to improve the homes beyond the audits. And without those two things happening, one, we may be spending on it light bulbs and refrigerators which someone moves or the light bulb burns out and you have no residual effect so 3 years from now you're doing the same work over again. If we do a whole home and we do weatherization or you know improve HVAC systems, etc. then we may get lasting impact on that meter, linked to the meter. So it can't be moved out of and it can't be changed, it's going to be a lasting improvement. One thing that is in common on all meters is the house is always the same, the house is the house and they follow the same sort of scientific principles, whether they be a low income house and they're being paid for by the government or being you know an upper middle income house that's being paid for the consumer. And the same person needs, the individuals who go into these homes needs the same training programs so perhaps it would be better, to use the low income weatherization funding that you're putting in there, to promote training and education efforts rather than throwing more money on top of a pile that can't currently be spent. And that would increase the capacity load for both, for all meter types because we can use, we can put more Resnet, more BPI, more

qualified whole home performance contractors into the field by utilizing that weatherization money, whether it be for either side of that. That's one massive obstacle right now in the system. So my proposal would be and that would be up to the law group as to how this type of thing, whether this complies with the law or not but rather than just making another arbitrary program that we cannot possibly hope to get in to the field, we could build the capacity of the entire system with that lower income money and that – I believe when I read and I'm no lawyer but when I read the Act it states that there needs to be a new program for low income but I didn't see the same specifications as a marked return on that. And the new program could be something that, I'm certain help CCI, I know it would help Action housing, I spoke to them recently. And it would definitely our plan to build the capacity of the system by joining those funds with building more auditors.

Harry Geller again, PA Utility Law Project, and I appreciate the invitation to just join in on this discussion because it is an important one. And there are, there have been expressed some significant concerns about capacity to be able to digest the weatherization money and the additional money coming in to the state. I know it's the expectation in the weatherization community that there are going to be additional training sites and capacity building sites to do that and some hiring but I think anything that can be done to assist in both training capacity building meaning manpower, would be helpful from the low income point of view. Any programs that could be directed to those individuals for training into this new field since there's going to be additional manpower that's directed to low income, it would certainly be appreciated and probably very highly productive in many regards. Again, our reading of the statute is different and it does say from our perspective that there are some energy goals that have to be obtained and goes further to say that they have to be beyond what would be obtained presently from LIHEARP, and that creates some logistic concerns of how we segregate those savings. But I think that makes it more difficult to combine just the general population and the low-income population. Some suggestions about housing stock that is not currently tapped that may be and that is the PA Housing Finance Agency has a full portfolio of housing directed to low income individuals. And they can, it's my understanding, segregate those at a 150% and below and not what their percentage is. So that may be a fruitful avenue of possibility. In addition, it's been our position that appliance swaps, particularly refrigerator swaps that you say are highly productive and that – the concept is that although people move and low income do move the housing stock that's generally available for low income usually continues to be available for low income and any appliance swaps in that house continue to be energy savings directed to low income. So I would support those issues.

And, just, I'd like to comment. My experience is consistent with that and I think the benchmark best practice low income programs, 21 benchmarks best practice low income programs in the country by AC Triple A was – showed that 17 leverage in collaboration with outside funding and leverage that funding and then on the refrigerator side the measurement of each refrigerators consumption while costly and time consuming has rendered upwards of 40% replacements and showing as high as 1600 kwh per year savings which is – when you compare it to a savings associated with motivating someone to buy an energy star refrigerator of a 130 kwh - is a vastly superior investment in the rate payer's money from a bang for the buck standpoint. So I really support that and it's been benchmarked well, that refrigerator replacement should be a strong component of the program.

And just one final point on this whole issue and that is, unfortunately too high a percentage of homes of low income don't receive the treatment that they need because the preliminary issue of housing stock or repairs or rehab can't be addressed. And I think you may get the greatest bang for the buck if there could be some fund set up in some way to provide for repairs or rehab prior to the weatherization so that you can then do the cost effective measures and get some greater return on that.

Leveraging that activity – we are kind of constrained by the TRC of the individual measures -- but we could have that in collaboration, in cooperation with that activity through _____.

Right, and I understand that the TRC – but there may be other leveraged funds available through other types of sources that you have, that could be dedicated so that the benefits of this program can be maximized.

Right. Good suggestion.

I'm Matt Smutts, Sustainability Coordinator with the Urban Redevelopment Authority in Pittsburgh and just on the topic of leveraging funds, I've had some conversations with the local workforce investment board and I believe they're receiving some stimulus funding and there's a green jobs component to that and certainly I think these could be considered in that category, weatherization and even energy audits. So that's one area where I think they have the capacity to do the training, they have experience with doing that and they have new sources of funding for that purpose. So I think they're certainly someone who we should include in this conversation. Again, I'm having a meeting this afternoon with some regional government and even foundation people about how we sort of effectively use this weatherization money that's coming to the region and sort of coordinate on those efforts. So that's another community that should probably be included and then as far as my organization goes we've been looking to

develop – and to the gentleman’s point from the law project – we’ve been looking to develop programs where we’re already loaning money to individuals to make improvements to their homes which aren’t necessarily energy efficiency improvements and we’ve been wanting to tie an energy efficiency component to that. So whether it’s a lower interest rate or rebates, whatever it is, but that would be another conduit for getting that funding out and leveraging it as well.

For the state of California, I implemented a test program in years 2004 and 2005 which was a 3 million dollar program to test, it was a prototype development program for how to engage local government in implementing energy efficiency and one of the six pilots that we ran worked with a county government, it could have been a city but this happened to be a county. Wherein we the energy efficiency people contributed a certain amount of money and they the housing authority contributed a certain amount of money and this went into a bank account where the combined funds were used to pay contractors. The energy efficiency money funded energy efficiency measures and the money funded the other measures but we were able to leverage the resources of the housing authority, their knowledge of the housing stock and it was an excellent leveraging of the funds and accessing of the community through the housing authority. So maybe those kind of structures might also work in this region.

To address the home repair that you suggest and coming up with some sort of comprehensive energy efficiency plan I think this all leads right back to the PA home energy program and Kathy Greeley. And I think if we were to move this towards an audit driven plan or program where their first is a full PA home energy approved which incidentally is the highest I believe in the country, the highest standards or that’s what they were touting anyways recently. But extremely high bar as far as standards of quality control and of testing and it has a health and safety component, it’s a very good all-around program and I invite you to discuss the merits of the program separately if you’d like. But this – if we were to use this as the driving factor for all of the different sub-programs that are going to stem off of the Duquesne Light plan and some of the other plans that are coming in through the stimulus package, then we can ensure that the money that is spent in the home if it is something where you come in to the home and we need improvements to that home in order to make it, you know, you can caulk and seal all you want but if the doors are falling off the hinges, then it’s not going to do a whole lot of good. And one of the great things about PA home energy’s plan is the air infiltration that really addresses a lot of those concerns, we really tighten up the house and make it more comfortable and healthier all around home. So if we were to, I believe that we can address the things that you’re talking about along with the goals that we have on our side of things and all tie in to the weatherization training which weatherization training is the same basic format of PA home energy. It’s Resnet and it’s BPI. And all of those things come together under a single point which is the full home audit and it may be _____ program to

do benchmarking and also these types of programs can aggregate this data which is what you need for your reporting back to the state. So I think that we could probably tie all this together into the same thing and just call it, let's do an audit first before you do anything. And if we do that, we address all of these other things that have come up.

I'm Bob Fiore. One of the things that I hear today is possibly looking at how we leverage the state's college students. There's over a half million college students in this state. There's 428 colleges in the state of Pennsylvania. I've been talking to colleges and students for about a year now and they're afraid, they're scared in this economy. They're not getting jobs coming out of school right now. Something like 7 out of 10 of them are going home to Mom and Dad. So it's a tough, tough world for them. The kids that are involved in our program right now are really looking for other things to do. They're looking at internships, when you think about those students, they all have low income relatives. They all have a 80-year old Aunt Dot or Aunt Ray who has a refrigerator down in the basement that she's had plugged in since the kids have moved and doesn't even know it's down there. So there's lots of neat things that kids can do to identify what it is you're looking for, feed that into the system, provide leads to PA home energy for example. And a lot of these older, older aunts and relatives and grandparents that the students tell me about are not real open to allowing people into their homes to begin with. So having a college student pave the way for some of these programs is something I think could be very exciting for the state, obviously educating and preparing them for the green economy coming up and what we found is that we're beginning to educate college students to pursue careers in this new world and actually placing them in jobs across the state that have something to do with green and conservation and energy efficiency. And it's pretty exciting when you look at it from the state's perspective, they should be preparing a work force for the types of companies that from an economic development point of view they're attempting to attract into the state of PA, that are green companies. So if we can think of ways to leverage that network that we have here in the state, I think a lot of good things can be accomplished.

Just to build on that, I know someone has approached us about potentially using high school students for the same type, using in the distressed communities to get their neighbors, to get through the door to provide the audits or provide the mechanism doing the simple portion and then bringing an expert in later. What would be the potential of using in perhaps a low income neighborhood the local high schools to do that kind of stuff as well. That's my question.

I think I can- no it's just that we use college students as mentors in programs where high school students were involved and where we could get – we did training, did audit training for the high school and the college students and then provided you know the

college students went on to be mentors to the high school students in implementing programs. So I think there's kind of an elegant tradeoff or exchange that can be made. And it's not just high school and college students, it should start at kindergarten all the way up.

My name is Tim Carrier with Green over Green. And I have – well first my response is, I'm surprised at how many high school students when I casually tell them what my business does, they want to sign up immediately. It's a very easy sell. A little bit easier I'd say than convincing homeowners to go through whole house weatherization – so I think if nothing else an internship program wants a _____ boots on the ground to improve the high school students and college students who would be – it's kind of a no-brainer. I mean having recently been certified to BPI and Resnet the whole house weatherization process which starts with a full home energy audit which of course quantifies, gives you a quantifiable base for measuring the efficiency of a home, it becomes a no-brainer actually. And as I meet more people who haven't been through the training program but have heard of it, they're sort of already convinced. The thing I guess I look forward to it and it's hard to articulate well but haven't been an entrepreneur for many years, I've seen this happening in other industries in technology and biotechnology and particular in this region. But there comes a moment if money is spent well and sometimes you can spend too much money and flood the market and thereby destroying incentive for individual homeowners to actually engage in these issues because they think they'll get it for free. And that's something that does worry me a lot frankly. But it's the idea of what's the marketplace going to do. Once you get critical mass, I mean market forces do take over and there's tremendous amount of energy for that, creative energy to come in and fill whatever gaps there are and the nice thing about it is that it's equitable, it's across the board. So I would hope that the concept of the energy audit is taken very seriously as a base, as a benchmark from which all these other programs can take place and go towards a new, genuinely a new industry that includes the young and the old and certainly industries like the financial industry has been so hard hit, a lot of displaced workers there, as well as the construction industry. Something from high school students on up, there's a lot of room for capacity building which of course is the big issue that faces these kind of programs. It's how do you get to capacity. And I feel if you can promote the science well enough which is difficult to do and it takes a lot of intelligence I think to demystify this process for the general public. If that can be done then I realize that that's dollars that are hard to justify but if you truly do believe in the free market economy and that will take over and provide the energy that you need to really spread this forward then I think that will be money very well spent. Thank you.

Before we continue from the floor is there anybody on the telephone who would like to ask any questions.

This is Jeremy Kirsh from Positive Energy.

Go ahead.

I just had a quick question as to whether there's going to be some discussion about marketing and education pieces to the plan.

Tom, would you like to answer that.

Yes.

That was very clear, thanks Tom.

I'm glad to get that on the record. I think – first of all we have this kind of impact the bang for the buck TRC test which is somewhat limiting to the extent that we can spend the money on information and outreach activities. Having said that each program certainly proposal to implement subprograms will be evaluated based on a marketing plan. Programs and contracts that have negotiated to implement programs and statements of work, are written for the utilities to implement programs have components that include training and certification. So there would be an information outreach training and certification role they perform for fees under the program structure. It is tied to the implementation of the energy efficiency measures and then also a formal requirement for fees to develop a contractor network to be able to reach the impact roles. So I think there are some structures that are out there, some models we can use and looks like we have some infrastructure to fulfill those needs to you know, we could do a lot of this and it really affect that Joe, you enunciated, the concerns the whole country has with regard to capacity at this point. But I think you've got a leg well up on it and that leg should be leveraged and that these programs are going to achieve their mandates, mandated goals, we're going to have to leverage the local infrastructure it's good to see that we have in place and so well developed. But again back to marketing and information expenditures, you know, typically we're running, you know, we can take a look at programs across the country and I benchmark programs as I looked at how much money we spend on marketing, admin and outreach as opposed to incentives, and they vary by program. But generally we're looking at a split of about 80-20 or 20% spent on admin and marketing and 80% spend on incentives or hardware, in industrial that varies greatly to more than 50% in studies because studies are where the bang for the buck comes from in the industrial segment. So that kind of gives you a flavor for you know generally it takes even for the most cost effective programs, well run programs, around 10-15% just to administrate the programs. Texas legislated 10% maximum, but there's a lot of hide the pea going on when those program designs. But generally, so

you can see that you're looking at 7, 5, 8% of those budgets going to prototypically to a marketing and outreach activity.

I just, I was curious and you know there are some programs that are available, that from an outreach standpoint, that can also get you savings, measurable savings. I'm wondering if you're considering some of those types of programs.

The online audit tools for residential in particular have demonstrated an impact so we have some record of knowing that behavioral impacts can achieve – you know behavioral modification, information outreach can achieve impacts through behavioral change and that's been documented from an evaluation measurement verification studies of online audit programs. So I think there's some merit to that. What we, what you struggle against is persistence, estimated useful life and application - against avoided cost forecast and the net present value when looking at the cost benefit of doing that. It is very cost effective but the persistence usually is around 3 years that people count towards behavioral modification although that's probably grossly understated but there isn't the science that I've seen to support an alternative treatment.

I understand. Okay, it sounds like you're open to potentially considering some of these opportunities.

I've seen some things done particularly in multi-lingual areas that have been very effective at reaching out to landlords where there have been some collaboration between the renters associations and what not. One of the things I think I like the idea of hearing about is the housing authorities need for audits. I know HUD, I worked with the HUD director in the west that, there's a requirement for HUD financed homes and energy audits to be done every 5 years and for that finance to be in place they have to conduct those audits, the owners, the people that are financing their property to maintain their status with the loan. And these are generally and grossly in noncompliance. So here's an opportunity for a conduit for engagement that could be followed up to affect the landlords that you're talking about. But it's a great observation and it's a problem. It goes along with the split incentives idea that the person that owns the house isn't paying the electric bill. The person that pays the electric bill isn't owning the house. So who wants to invest in the house? Neither one. So that's why we come in through direct install programs and make it easier but it's definitely a barrier. Thank you.

Is there anyone there that can say what percentage of Duquesne's customers use electricity to heat their hot water?

Ten percent. Five percent space heating, ten percent water heating. It's not high but there are definitely, you know it's 50,000 dwellings and that would be a significant

contribution to any program so there is, it warrants a close look, we included it in our forecast.

Just so I'm clear, you think 50,000 homes use electricity to heat their hot water.

That is the last saturation study we have, showed us that 10% was the number.

Okay.

I would like to say that that last saturation study was circa 1996.

Okay.

So there's a need for – actually we should be doing saturation studies, complete saturation studies for supporting energy efficiency program design every two years at a minimum.

Thank you.

Cindy Datig again. I guess one of my biggest concerns is when I hear about the program and I think it's wonderful and I'm very supportive that I just see low income people's bills going up and of course we all know they pay a greater percentage of their income for their utility costs and I just want to, you know, I know you're going to do the 20% maybe for low income that Tanya and Harry talked about, but I'm really concerned about forcing more people into an inability to pay because of these increasing costs. So hopefully there will be extreme emphasis on this population so that we don't force more people into a crisis situation.

I guess one question I had and we talked about it in other subgroup meetings but – can we, can anyone provide me some intelligence or some opportunities to blend or merge the use of sustainability with low income, potentially low income affordable housing to get all the pieces to work together.

Dave Defide, Conservation Consultants. Michele, what we've done is we've started to work with the PFHA to identify their affordable housing, low income and they have enough stock of that and seeing how we can partner with current programs that Duquesne Light offers as well as any stimulus money or any other state money that's coming down to make it sustainable. Because we want to make sure that all the programs that we currently operate for you are being sustainable and pooling any resources together. And some of the points, Harry, that you made about the weatherization and not being able to put insulation in homes because their dilapidated. We're working to explore additional funding

that makes that happen and CCI had grants a number of years ago to work with affordable housing to do the repairs because the PUC won't allow weatherization to happen if the roof is leaking which makes perfect sense. So we receive funding to make those homes, correct those situations, then to allow the utilities to go in and do weatherization because we partner with all the regulated utilities to pool together resources so, sustainability is how we can partner with gas utilities to make it work. So folks are using an air conditioning situation but they are gas heated, we can get them into the weatherization programs on the gas side that will benefit the electric side in the summer in the cooling season. So that's one aspect that we're working on to try to keep those going, to make them all sustainable for affordable housing. Targeting multifamily structures where there's you know kind of one building envelope that we can just go to and look at multiple units, identify what their needs are as it pertains to electricity and then heating if they're gas or electric or hot water. Those figures that were thrown out, the 5 and 10% we verify those to be as accurate as they can be right now, so that's the figures that we're using. And then on the low income side, please understand again that anything that's done under F129 is in addition to what the utility company is already doing. So they put a significant amount of resources toward low income right now and then additional resources to go toward that and it's always been a challenge to identify low income customers because they don't always come forward and so we're expanding outreach programs to get there to those folks that may be are now newly low income because of job loss or economic situations. And so we have expanded our goals for 2009 going forward to achieve that, to recognize that there's a growing population of lower income at the 150% and below but there's an enormous amount of folks that are at 151% that don't qualify for some of these programs and through CCI we're encouraging utility companies in general to start looking at that target. With the state weatherization programs raising their limits now to 200% of the federal poverty guidelines that opens up a huge chunk of resources that while we're looking at the total cost for this program if we're ever able to leverage those resources from the utility side, gas utility side to see how it affects the electric side then that brings the total cost down and maybe within line of proper payback. So we're looking at all those aspects under the current low income program and we believe that through the targeted efforts we can identify a lot more of the low income customers, get access to them and offer them the services that are there. Because then the refrigerator change outs are a huge success. They're an easy to program to implement, they're already established, there's networks already in place for changing out or rebating on the low income side which can just transcend right into middle, the working poor to middle to upper income for folks that want to participate in that. And then we can also look at, we're talking about the rebate programs but there is lighting and lighting opportunities that might exist as well in low income to middle income to upper income.

Just one point and I think it ties in here which is to make sure you're partnering with whoever the gas company is in this region, which I think is Equitable. You know – that's right, we're out in the west, you have all of them. But it's another in to the home if in fact the gas company is going in to do weatherization but your money can be put to a refrigerator change out or some CFLs or whatever. It's an easy into the home and an inexpensive way for Duquesne to get again some savings because I recognize Duquesne has to count savings to meet the regulatory requirement and your budget because of the shopping that you had in your service territories is a quarter of everybody's else in the state. So you're really working at a little bit, for a similar sized utility you're working at a big disadvantage.

(Defide) Currently what we do is we do what's called an inner utility audit for primarily right now contracted with Equitable but we're trying to expand it to the other gas companies. If a customer is eligible for the gas side and they're already on cap, chances are they're on the cap program for Duquesne Light and like everyone of us, low income doesn't want three or four different people coming into their home. We wouldn't want it, neither do they. So if we can the one stop shop approach, go in and do, it's a gas, electric audit combined at one time. We're in the home longer but customers that are in that program realize that they're going to get weatherization on the gas side and they're going to get the smart comfort visit on the electric side. So they might go away with a refrigerator or an air conditioner change out or whatever measure is appropriate for them. And taking that to the next level, we also partner with folks like Rebuilding Together Pittsburgh when they're going into the home and doing work we check are they eligible for a smart comfort visit, are they eligible for a gas visit. We combine those together to really get the biggest bang for our dollars because everybody needs to achieve savings and it just stands to reason that we're doing that together because we can bring resources. On the gas side, we partner with the community-based organization to partner with the state weatherization programs because their guidelines are a lot different than each utility guideline. For example one gas company will put a furnace in for a resident or a tenant whereas other gas companies won't. And state weatherization shies upon that but we partner together to get those increased savings because it's about helping the customer achieve their goal, their goals of conversations. So Cindy, they can pay their bills in a timely manner and have an affordable payment as well as the utility side of being prudent with the energy that's being produced and trying to conserve that and still giving the customer the reliability of having consistent payments and great quality service. So a lot of that can be expanded again into all the other programs that can be offered actually under 129.

Harry Geller again. In regard to the question of sustainability that you raised. Nobody was willing to get back there – I think the answers that you've gotten

have been good in terms of leverage, coordinate and understand what's out there. And one of the frustrations I think that's always existed is the different agencies that are involved in weatherization conservation activities from the PUC, DCD and the others and now that's perhaps even more complicated with the different funding sources. So to the extent that we all can advocate for some sort of inventory of really what the services are, who does the provisions that we all can rely on that would be good. And it's even more important it seems to me in this era of new focus in which we're getting and will expect to get a lot of new entrants into the enterprises and we need to know what they can provide and the quality of what they provide. So that may help for sustainability. And I think Tom mentioned one of the things that he tied into Cindy in terms of sustainability is the need for education perhaps periodically and reemphasizing some of the things that individuals may have hear, we in PA have been fortunate in that we've had longstanding programs of weatherization and LIHEAP because they're longstanding we've got a number of homes and consumers that could benefit by updating in terms of education and I'm assuming Act 129 doesn't have the same restriction that LIHEAP or weatherization would have about reentering homes that were done years ago and that should be certainly considered because you've got the ability to improve the technology as well as to reemphasize to the homeowners.

So that might raise the opportunities it would seem to go back and look at the building stock that has been treated and perhaps at a given threshold number of years and come back and incorporate under a new program initiative counting toward and using ACT 129 funding.

Telephone, anyone want to comment? No. Questions from the floor?

(Geller) We are in an economy as has been mentioned that is going to bring additional numbers of households in to that 150% and below, so again with the question I started with how we determine what the population is, we need to factor that in as well.

Just a note that when we looked – based on economic demographics – what the 20%, really those numbers came from 2007 as I recall and really they were around 18-19%. We bumped them up, rounding upwards at least based on the economic trends.

This is Cathy Grilley again. When you raised the question about sustainability, you were talking about longevity of results from these programs but it got me thinking about sustainability in the more green sense of things and you know Pittsburgh really has a unique opportunity here because there are – there's such a well-developed infrastructure of organizations in Pittsburgh like CCI, like the Green Building Alliance that have great recognition among some of the target

populations you're trying to reach, especially outside the low income sector. Part of the challenge of really getting results in terms of energy savings is building up the infrastructure side in terms of contractors who can deliver these services, while you're building up the work for them to do. You know if you get a great core of contractors out here and homeowners haven't gotten it yet that this is good work for them to be doing, then you have a problem, you know. And I see the nods from the people who – the contractors who have through our programs, going yeah, yeah, where are those jobs. So I think there's a really unique opportunity here in Pittsburgh to bring some of those organizations in who have been doing sustainability work in the green sense in Pittsburgh with this and leveraging the different resources. Matt earlier was talking about some of the workforce investment boards and you know we've already done training with one of those in the Philly area, we're in very serious discussions with another in central PA. But the webs are starting to get, you know, what some of this green workforce development is that everybody is talking about and how that can tie with some of that goals that Duquesne Light is trying to reach.

I want to build on the sustainability of that. We've had a lot of discussion about low income and low income impact and predominantly this entire sector has been driven by low income. There hasn't been a lot of investment and a lot of education into other than low income when hasn't been mandated and all the financial motivation has been at the low income level. The problem with reliance on low income alone is low income is subject to changes in government and changes in funding streams. If we build a workforce that could actually spend all of the money that's going into lower income right now and we have an administration change in 4 years and this money stops, or if this stimulus is actually successful and there isn't a back up stimulus then who will fund these in the future. This has happened in the 70's and it happened in the 80's, it happened in the 80's with solar, it happened in the 70's with this same model that we're all discussing right now; energy audits etc. What we need is a market transformation. We don't need a single spike into the market and then create a whole bunch of jobs and then have the government change or the utilities come out of mandate and then all this stuff disappears. The reliance on, although well intentioned, all the low income is well intentioned, it does not create a market transformation, what it creates is more of a mandated need going forward. On the other hand, opening it up and building the base; the same workforce base which can handle all meter types whether they be low income or any of the others, which then when the pendulum swings back and forth we can move the market, the workforce can move with the market needs. When you look at the PA home energy program or whole home performance, most people that you say what this is to them, they look at you like a deer in headlights. They have no idea what you're talking about because they don't understand what it is. However, if you spend 20 minutes with them and explain details, what it is, then they're very

interested and willing to have it done. Once they have it done they're singing the praises of it because they can't believe it existed and they didn't see it before.

Aside from low income, all the other meters have an incentive with the increases in utility costs, the pending cap and trade program, many of these other programs that are going to drive our energy costs higher. They're going up, we all know this, it's common knowledge, it's going up. If it doesn't go up from market force, it'll go up from taxes, it's going to happen. So we're going to pay more for energy. If you have a home right now and you're paying \$1,000 a month in gas bill and you know that you could pay \$500 a month-or I shouldn't use gas I suppose I should use electricity considering my audience here, however, this is the driving factor. You'll use this service because it makes sense if you understand the services here. One of the things that CCI is bringing up, another very good point is getting that information out. There's so many different programs and who can use what program, and how it all works and even from the other meters, when you look at Keystone Help and some of the, and the federal incentives, there's incentives after incentive after incentive, none of which are correlated, none have a centralized place to go through in order to determine who gets the money or who can qualify for the money or what it can be used for or what can work with what. You know some have a do it yourself component, some have you must use a qualified contractor and it gets, we start to create this big conglomeration of red tape in order to get your refrigerator fixed or your house fixed up. The focus constantly going back to low income looks, I just keep seeing dead end when I look at this. The gentleman up in front of me, you talked about the education, and college students and this is, these are, if we can make a market transformation here, you're going to have more jobs than you can put out of that college with energy auditing whatever. I run numbers on what the state needs, I run numbers on what Duquesne Light alone needs and there is a significant need for just, from just the audit side, just the which an auditor is a decent job coming out of college if it is, if we have the proper demand. It's also a good job retraining place to go to. Whole home improvement contractors are a good place to do the job retraining from displaced construction workers and the drop down in the construction industry and we have an opportunity here to make a market transformation. What I would like to see is a focus on how we can make this sustainable, and a financially sustainable model as well as environmentally sustainable because without one you cannot have the other but that's often forgot by the media and the masses.

Thanks. We agree, I mean I think that's, I don't want to give the impression that our primary focus is to spend 100% of the money on low income, that's not going to happen. As you said the common denominator is the house and whether it's a low income house or whether it's middle and upper income, it's the same. If applied properly, I'm sure Kathy you'll agree with me, that PA Home Energy

audits are applicable across economic conditions. Low income can benefit an upper income. So I agree the market transformation is necessary and we're not talking about spending 100% of the residential resources on the low income, it's just that I think what we're talking about is what service is provided to a low income. Whether the decision might be the audit is going to be the same. When my auditors go in we just don't kind of look at a magic ball and say oh your refrigerator needs to be replaced, I mean there is some auditing that goes on, there's a-while it's not a PA Home Energy or a BPI or Resnet level audit, there is an audit. So we all agree that an audit needs to happen because you need to know what you need to put in, the most prudent resources. The decision though comes down to is if you're low income do you get your refrigerator replaced at no cost to you or do you get a 20, 30, 40% rebate if you're middle and upper income. So I think that by focusing on low income it's usually the demographic that a lot of people forget about because most people feel they are being covered under the PUC guidelines and so I guess here the discussion is broken out separately because it is 2 complete demographics. I mean low income has their own specialized needs, it's a higher transient population or there's a potential educational difference or access to resources and so they need to be addressed in a separate manner. But we all agree that across the board, whatever Duquesne Light decides to do under 129 is going to be applicable to all, I guess demographics; income, education, everything they need to do because overall we need to attain the percentage of savings or the 140 million kilowatts savings or the 113 megawatts in demand. So I think we're all on that same page it's how do we attract them and I don't think Duquesne Light has ever suggested taking more than the 20%. If the updated numbers come down that there's only 15% of the population or 20% that may change. I guess my last comment is in other, in the other sessions that we attended I think that's kind of how we write our response to Duquesne Light. How are we going to attract the demographics, how are we going to get to the folks that we need to get to and what's the mechanism to do that.

Let me just, just a couple comments. I mean I am concerned about sustainability, not only for energy savings but from the market because I don't want to repeat the mistakes we've made in the past, that how can we get this market to the tipping point where it can have legs and life of its own with or without us. But it needs to be able to be a successful and growing market. I also want to comment that about considering about doing this for all meter types, the message has been the same message be it commercial, industrial, office buildings, hospitals, a variety of customers with different levels of savviness, everybody is concerned about the capacity. Do we have the auditors available to do the audits. For some of the larger customers, companies; do they, is there even going to be enough engineering out there to design the specifics that they need to do their energy efficiencies. Then all the way at the end, will the capacity

for manufacturing and delivery be there. It is a concern through the entire spectrum, so we are aware.

I think it's unfortunate and just a comment on sustainability of the programs, we're in our fourth ramp up as an industry in energy efficiency and there are huge spiky ramp ups and what has happened is we've failed to keep people in the industry. So when this kind of ramp up happens again, we're under a very serious, different kind of ramp up you know where our businesses are going to be islanded and excluded from foreign markets if they don't have their greenhouse gas act in line. That's never existed before. So it's a different kind of a ramp up happening, but it's a ramp up and what's happened is where you have California spending more than half the money spent in the country in energy efficiency, and New York spending a big bucket of it and various states coming on line, you can probably count 25, 26 states where they're all coming on line, not only do not have the capacity to do audits, I can tell you quite frankly given the workload these guys put on me, we don't have the capacity to design programs either. So there's a tremendous, tremendous sucking sound going on right now and jeez if we could just stump for sustainability-if you do this again, you know you're really hurting this country and so hopefully our leadership will keep this going on into the future and not do what has happened so many times and just kill it after a few years.

Which is why I'd like to see a coordinated effort actually between-well rather than saying okay let's break out and I understand there's some legal ramifications to that and some-it has to be addressed, but rather than breaking out 20% and putting it towards already over burdened programs which we, there's been about a 500% increase already in those lower income programs and there's been zero put to the next step. So there are coordinated things that can be done on both sides and solve the low income and the rest of the meters which is the community outreach which is a huge thing on finding out who can do what. And the education from a consumer education and from programs that are workforce investment boards etc., all the way down the line. I think if we were to try to coordinate the efforts rather than to ration out and create yet another separate program, then we're going to have a greater overall impact. I don't know where that is, what the legal ability is on you know where you guys sit on what can be done with that, but I think if you want to make an impact, a lasting impact, and reach real sustainability and have a fall out when the money gets pulled out of low income, have a fall out in the rest of the meters because they'll still be going strong. Once there's a market transformation, they will still have an ongoing need. That creates a fall out so we ramp up this low income now and when the money is gone, we have a whole bunch of unemployed, we have a whole new class of people who are now displaced workers. On the other hand we could ramp up the, make a full market transformation so people understand what it is that's going on and then when the money is pulled out of low income or the budgets go back to the pre-stimulus package levels, instead of being

unemployed, CCI can expand their initiative on other meters and retool that workforce that's already utilizing the same skills. So that's what I would like to see is more of a sustainable approach to this from a job creation standpoint and from an economic standpoint so we can actually make this go further and see this happening still 10-15 years from now instead of saying hey remember the stimulus? Boy those were 2 good years, you know.

I agree, I just want to float a question and not to get ahead of program design or formalized or make any commitments for my client; Duquesne Light, but it seems what I'm hearing is, there's an over arching interest in whole building performance as an umbrella. And possibly that should be the umbrella program for the residential sector and then underneath that over arching umbrella where it is a baseline is whole building performance and have then separate sub-programs that break out and treat the needs of segments like low income. So that would, so what I'm saying is we would have a large program which would be built around the building performance model, and building science model-we'll have to look at the cost effectiveness and the impacts- but as opposed to bucks for widgets kind of a menu approach to energy efficiency. I'm kind of getting the sense that, just from the group, that this is an interest and possibly the right direction.

I couldn't agree with you more and I do think there needs to be a bucks for widgets component whether it be widgets or more your widgets did include things like weatherization and other things that have a much greater impact. But as long as there is a 2-part component on that, I believe that that is the right way to go. Because with a program like Kathy Greely's PA Home Energy, there is a reporting aspect of that and a quality control and a-since the 80's we still have the science and it's been just building and improving and the software's been building and improving to go along with that. So you have a way to aggregate that data and show your marked improvement year over year. So I believe that the infrastructure you're looking for is already in place if we do it the smart way and hit these, use these existing programs. Not just an audit, because an audit in itself though it does have an impact from an educational standpoint is really getting the stuff done after the audit and actually implementing the recommended improvements that makes that move forward.

Anyone else? Nothing?

As to the different kind of energy programs, I just wanted to say that certainly from a marketing perspective having an integrated program makes a lot of sense. I can't tell you how many phone calls we've had from consumers who are low income consumers looking for help and we had to say well here, call this other number and maybe they can help you out, you know. So you need to have a simple message to consumers and especially for the residential sector. If your

message is call this number if you want to do something about energy in your home and whoever answers that phone can talk to them about are you low income, here are your options. Are you not low income? Are you looking to replace some appliances that –the simpler it is for consumers, the more effective it's going to be. The other thing I was going to say from the utilities point of view is that of course you don't want to have all your eggs in one basket and that the lighting and appliance kind of rebate programs that you were talking about earlier Tom, they're great because you get like really fast results. In terms of sustainability they're not so great. New York state has this really great graph that I wish I had here today where they show the impact of appliance rebate kind of programs and you get this great spike and then it falls away as soon as the program is shut off. Home performance kind of programs, they're much slower to ramp up, that's admittedly a downside to them. They're slower to ramp up, but they do have more lasting results because they're changing the market. So having several different options that will give the utility the results it needs but have them under an umbrella-it makes a lot of sense.

Anyone? Anyone on the telephone?

I want to make sure that we've got your names and contact information so when I come out and try to start working on the portions and the targets; these are the low income, I can get a hold of Harry. Then also when we're talking about you know, everybody knows who you are, even though I don't I mean like I say I'm an interloper; we can get a hold of you and pull you in and get assistance in designing this. I think this has been a very rich discussion, I've learned a lot from it.

Actually I just have a question. Going back to your potential study, when you came up with your achievable program potential and a TRC of 4.2 for the residential class, what program measures were you-or programs were you evaluating? Are they the ones that are contained in the handout?

That's correct.

Okay.

It's a forecast and you know how forecasts are. We took some prototypical measures and it gave us a bounding approach and now we're kind of trying to boil down into what the actual programs are going to look like.

Anyone else?

I will say that we know that there's incentive levels and content in your handouts that are not right and that we're in the process of correcting them and modifying them, such

as the refrigerator incentive statement. We don't have you know, recycling programs we talked about the barriers right there, we need to solve typically an incentive for our recycling refrigerator would be about \$50 and then you spent the rest of the money getting it recycled and that's some of the cost component of the program. So there's some errors in that but at least you can kind of get a see, a feeling for what we looked at building up the forecast potential.

Any final comments?

If I have anymore questions? They pretty well exhausted me. I just wish I had access to all of your all time because it's painful having to guess at things and there's such a breadth of information you have to know to do this design work that I don't know anybody that knows it all. You're really an asset and I really hope you make yourself available to us as we move forward.

I don't know if everyone here in the room was able to go to the demand response one, I unfortunately was not. Can you just give us a quick hit of what you're thinking of for residential demand response?

If the question wasn't heard by the people on the telephone it was about our demand response meeting that we had, you want to take that Larry?

Larry led our demand response team, Larry.

Hi I'm Larry Barrett with MCR Performance Solutions. Yes what 2 mornings ago we reviewed our plans and analysis for demand response, we recognize that Duquesne has a small pilot program, as you may know, with 150 homes using a residential switch for air cycling; air conditioner cycling. So the one program for consideration would be to build on that and to expand it. I think we looked at again using this switch technology as opposed to a thermostat technology and went through some of the pros and cons of switches versus thermostats and there is a new design for switch technology, it has an adaptive algorithm to it so that it reduces the air conditioning usage based upon how much that air conditioner was used in the prior hour and the prior several hours so it's kind of a dynamic process that is maybe more equitable in terms of how you much air conditioning gets cycled off. I've run programs around the country that have really good participation rates. We assumed that we might get 5% of the homes with central air conditioners involved in a program like this and we might pay them say \$32 a season, \$8 a month for 4 months, so that's one thing we looked at.

We looked at a similar program for small and mid commercial which we define as customers up to a 300 KW predominantly those are going to be barber shops, beauty salons, small offices, small retail, doctors, restaurants, those sorts of things. And again air conditioning is what drives the peak for Duquesne and most of the utilities so we

looked at air conditioner cycling there as well. Probably piggy back that switch technology out of the residential market into the commercial market and often times those commercial units are identical, they're similar to residential. You know 5 ton commercial unit is in a barber shop is probably the same as a 5 ton unit you got in your house that sort of thing.

Then for the large commercial industrial customers which we define as those about 300 KW and there's roughly 900 in the service territory of Duquesne, we were looking at a for purposes, we called a curtailable load program. Some people call it an interruptible load program, some people would call it an economic dispatch program, but the concept there is that we would work with those large accounts to identify opportunities for them to reduce air conditioning, lighting, process activities for a few hours. All these programs would only operate for a few hours on a few days during those peak periods in the summer time. And for commercial there's all kinds of opportunities so it would be more comprehensive it wouldn't necessarily just be air conditioning. And we would partner with those customers to make sure they had the right communications and the right metering configurations so that the utility could communicate with them to achieve some load reductions on an economic dispatch basis or on a reliability basis. Those are the 3 sorts of things that we looked at. Does that help? Okay. And we're open to suggestions and comments on any of this too, so thank you.

Any other comments, any final remarks?

As Tom and others mentioned the access to resources, meaning the people in the room, if a list could be circulated to everyone as to who attended I think it would be helpful for all of us.

We could also, I guess post it on the website too if that's acceptable.

Anyone else? Well thank you very much for supporting and making us better educated about the subject area. I'll be here for a few minutes if you want to meet afterwards and discuss some of these issues, maybe I can get some more information from Harry, and I value talking further after we break up the meeting.

Thank you very much for coming here and contributing.