

**New Jersey's Clean Energy Program  
Energy Efficiency Committee Meeting  
Tuesday, July 12, 2011  
Hosted by Honeywell – CSG, Iselin**

**Technology Review and Discussion**

**EPOX-Z Cool Roofs (Presenter: Tony Camarota)**

[www.epox-z.com](http://www.epox-z.com) / [info@epox-z.com](mailto:info@epox-z.com) / 781.561.7227

1. Benefits:
  - Interior is subject to less thermal flux and stays cooler during the warm season.
  - Reduced energy costs due to reduced demand on HVAC systems.
  - Increases roof longevity resulting from reduced thermal flux on roof.
    - Can extend the life of a roof for 10 yrs or more.
  - Carbon dioxide emission savings.
  - More efficiency from solar panel on roofs because it lowers the temperature of the surface.
2. Payback – Every building is different but most NJ buildings it is estimated that it would be 2-5 years.
3. Distinguished among energy conservation measures because of the many environmental benefits they can provide. Attributed to the fact that they combat the Urban Heat Island Effect.
4. Some states and power companies are offering both rebates and funding for Cool Roofs (Note: Programs qualify for Cool Roof products in general, not just EPOX-Z Cool Roof Coating).
  - Florida Power and Light; Progress Energy; Pacific Gas and Electric; Austin Energy
5. Two thermal properties are solar reflectance and thermal emittance. A Cool Roof minimizes the solar heat gain of a building by first reflecting incoming radiation, then by quickly re-emitting the remaining absorbed portion. The Cool Roof stays cooler than a traditional roof of similar construction.
6. Defining requirements for a project - Four Questions to ask: 1) What is the weatherability? 2) What's the manufacturer's warranty? 3) What is the installed cost? 3) Does this cool roof coating meet the EPA's ENERGY STAR ® requirements?
7. Only certified applicators can apply coatings due to the warranty issues.

**RenewABILITY Energy Inc. (Presenter Gerald Van Decker)**

<http://www.renewability.com>

1. Drain water heat recovery system.
2. The Power-Pipe uses outgoing warm drain water to pre-heat incoming cold fresh water. Energy is saved by reducing the primary water heating. The product features coils wrapped in parallel around a central drainpipe. As waste water flows down the drain pipe it clings to the inner surface and at the same time the cold fresh water travels up through the tubes. The heat in the waste water travels through the copper and into the cold fresh water.
3. Long service life. Maintenance free.
4. Multiple retailers/partners sell the product, primarily in Canada and France and UK. Partners are listed on their website. Most notably Home Depot and Sears who mainly sell them online. Home Depot is coming out with an installation program in next month and a half.
5. They are selling about 5k-7k units each year. They do have competition, but have about 90% of the market share in N.America. They are expected to see about 7k home installs this year.
6. New home construction builder cost is \$400-450 (depends on copper pricing).
7. Mike Ambrosio asked: Are most new homes putting in pipes with PVC? Gerald responded that yes and that you need to go from PVC to copper and that every unit comes with connectors.
8. Darren Port from DCA stated that when he was in the Green Homes office of the DCA they started using these back in 1999 (about 3k units for affordable housing using). He recommends that the NJ BPU take a look at this technology. Ideal in that there are no moving parts. They have seen some good cost savings from it in the affordable housing realm.

9. Mike Ambrosio asked if we are seeing it in new homes in NJ. Consensus from several attendees and presenter is that it is not seen here yet; primarily because the product has not been marketed here. Gerald said that it has such a high level of installs/knowledge in Ontario because of the market transformation program there which has really helped them. Big barrier right now is knowledge of the technology
10. Savings do not take into consideration with low flow shower heads. (Not in this presentation that is. There still will be savings though. Efficiency is higher with low flow shower heads, but overall savings is lower.) He has shared information with Rebecca Forster (VEIC) and can supply more information as requested.
11. Deemed energy savings in Minn. Other utilities have it in the US. Both residential and commercial applications.
12. 3-4 year payback is quite common. Again, assuming you are not using a low flow shower head.
13. Colleen Makowiecki (First Energy) – Several years ago they did incorporate this technology in the low income residential program, but no installs in NJ. First Energy has done installs in PA low income program.

## **Program Coordinator and Regulatory Updates**

Presenters: Mike Winka (BPU) and Mike Ambrosio (AEG)

1. It was believed the Straw would be out at end of July, but it will be more like early August as of now.
2. On the Request for Proposal (RFP) being developed for scheduled date in Sept., Treasury has asked them to put out a Request for Information (RFI).
3. For the Energy Master Plan (EMP) the meetings have started with Work Groups yesterday. Hearings are scheduled for one at the end of this month and two in August - NJIT, Trenton and then Stockton. The RFI will be circulated to the Work Group. There are four Work Groups - Biomass, Clean Energy Funding, Innovative Technologies, and Alternate Fueled Vehicles.
  - a. EMP comments can be made at the public hearings coming up. He believes the Working Groups were by initiation only.
4. The RFI will include questions that Treasury has asked them to ask the industry before they finalize the RFP. The funding level procedural order should be out about the same time. Funding levels for 2013-2016 should coordinate with the end of the year for recommendation to the Board at the end of the year. This will tie into the Transition and tie into the RFP and hopefully it will all work together.
5. In terms of the EMP they are asking the Market Manager Team what can be done in advance and what can we put in place ahead of time and transition from rebates to financing.
  - a. They are working with TRC, on the Multifamily Financing program.
  - b. Combined Heat and Power (CHP) and Fuel Cell - they want to see if they can do stand alone programs since we lost some of the CHP funding.
6. HP Summer Promotion and Large Energy Users Pilot Program are the only changes to the budget.
7. Board Orders – The 3<sup>rd</sup> revision includes Home Performance Summer Promo and Large Energy User Pilot program and has been approved by the Department of Energy (DOE). Using about \$900k in SEP dollars.
8. Next year's regular SEP funds – Proposing to DOE that we use those for non-electric fuel programs that were funded under ARRA – about \$1M. Whatever carryover we have will run through that program.
9. Key meeting dates with Sustainable NJ and municipalities across the state to promote the Energy Savings Improvement Program (ESIP). Our goal is to capitalize on the interest garnered through EECBG and roll into energy savings performance contracting.
  - a. ESIP on NJCEP website too
10. At the end of this month the Department of Community Affairs (DCA) is running a seminar on the RFP that they just published on their website.
11. 7<sup>th</sup> round of the solicitation for solar on this Agenda.
12. New Jersey Natural Gas (NJNG) is about to file. Susan Ellmann added that they are approaching 10k on audits and rebates and the On-Bill program has about 250 applications with about 200 approved.
13. Elizabethtown filed last week.

14. PSE&G E3 program which is for Multifamily, Hospital and Direct Install for Municipalities for a little over \$100M is on the Agenda to be approved. Filing on Agenda for Thursday.
  - a. Question from the room wanting to know what PSE&G was doing while waiting for the RFP's. Elaine Bryant - Everything will be issued shortly after receiving a Board Order. Not going to talk about the RFP's beyond the fact that they will be issued soon and that they are for services for the programs. The Stip will be posted on the website. PSE&G intends to refresh the contractor pool for all 3 programs. Their Procurement Dept. handles the administration of the RFP's. They will prepare it to as many qualified people as they can identify. If you are interested in being in the bid list you can contact Elaine Bryant at PSE&G. You can see Dave Wolk at the end of the meeting for her email.
15. Also Green Cities on the Agenda to show just cause in terms of that contractor.
16. 2012 Compliance Filing Concepts and Timeline (Mike Ambrosio)
  - a. The plan is that the Market Manager teams will present updated ideas for the 2012 programs at this meeting and again in the August meeting. The numbers have not changed since last month's meeting. Each meeting we will get more and more refined with budget numbers and program details. The September meeting is the final one and he has asked the Market Manager's to submit estimated expenses through to end of year. The 2012 budget will include carryover/unspent/uncommitted funding from this year, plus the numbers they posted last month. The game plan is for a draft filing towards the end of Sept., followed by comments and hearings and then final plans for late Nov for consideration by the Board in Dec.
  - b. Mike Winka – They are looking at financing programs and how they can work in NJ. They have started discussions with the banking and finance industry individuals/groups/associations.
    - 1) One of the things they did with TRC is that they met with NYSERDA as they have been successful in running a Multifamily program and they have gotten away from operating like a bank and works almost like rebate program. It is simple and a model they are looking at for a number of programs.
    - 2) On the Multifamily side there are so many barriers to that market and they are so confusing, such as if they are considered residential, commercial etc. The goal is to be able to send the customers to one place and be serviced by one entity. Those incentives will stay in place regardless what it is filed as (e.g. Home Perf., etc.).
    - 3) On the back end of Multifamily Programs, they tried working with the EDA, but they are not allowed to work with residential units even if they operate in a commercial capacity. What NYSERDA does is that they work with the banks and they provide the bank with essentially a rebate for the bank to work with at 0% interest. The bank then processes the loan on their side (they do all the processing, issue/manage the loan and work with the commercial building operator) and they blend that with a 0% interest that NYSERDA provides as the incentive with their own market rate. The Multifamily Program then gets a lower interest rate to complete the end of the program. Therefore the barrier of access to capital and not being able to get mortgages is lowered.
      - i. Again, the bank manages the process and NYSERDA is not the loan processor. They are paid back by the bank that does all the processing. Nice model and they are going to try and do this with a portion of the \$30M from the 2011 budget that they have not gotten to yet. This is all preliminary, and then they circulate this for comments and put together a program in a little more detail. They do want to do this year. The concern on Home Performance side is the high cost of the financing and buy down of an unsecured loan at 12% interest to 0% gets pretty expensive. They would like to work with the utilities with the on-bill financing as a way to secure the financing program.
    - 4) It was noted that there is potential for a significant barrier in the future as there is a rule due out in upcoming months that has anyone who talks about cash flow to now legally have to register with the FCC on any municipal or state government program. It is Section 975 of the Dodd/Frank bill.
    - 5) Final rule is not in place yet and is due out in upcoming months. This will make it extremely difficult for ESCO's, contractors, engineering firms etc. to talk about energy efficiency. The larger ESCO's are attempting to fight this proposal now.

## **Commercial/Industrial Programs**

Presenters: Roger Kliemish and Brian Deluca (TRC)

1. 2012 proposed budget and plans, 2011 program results and ARRA.
  - a. Mike Ambrosio noted that there will be carryover from 2011.
  - b. CHP will be a \$13M stand alone program in 2012.
  - c. Small team of Direct Install contactors, including Ed Hutchinson put together a list of suggestions/concerns for the program and went over the list during the meeting. The overall concern is the volatility of the program and their wish for a sustainable program.
  - d. Discussion on how to get to smaller commercial projects and whether current requirements (e.g. screening, incentive levels restrictions on downsizing, equipment because of limitation of energy analysis tool, etc.) are really overcoming the barriers.
  - e. TRC is interested in working with Utilities to co-market the program. Mike Winka added that he wants to have a broader discussion in terms of a relationship between the program and utilities.
  - f. TRC meets with Sustainable Jersey regularly and is interested in having a circuit rider type role in the group to help the ESIP project get completed.
  - g. Suggested including induction lighting in the program. Need a spec level to weed out the bad ones.
  - h. On fuel cells without waste heat – There is some interest in moving forward this year instead of next year; they are just waiting on the Staff's decision on incentive levels. They will circulate the proposal and it will likely be on the Sept. Agenda

### **Residential Programs**

Presenters: Dave Wolk (Honeywell).

Presentation/Handout: New Jersey's Clean Energy Program: 2012 Residential Efficiency Plan & Residential Programs Progress towards Goals Statewide Results YTD June 2011 and Home Performance with ENERGY STAR® June 2011.

1. 2012 proposed budget and plans, 2011 program results and ARRA.
  - a. Question arose of what/how has the response been to the Home Performance Summer Promo? The response was that they have seen a pick up with 136 new enrollments alone. There was also a comment made that there is also more in the loan pipeline. Also, although the HESP funds are committed, they are looking for additional funds.
  - b. There is a proposal for ENERGY STAR ® to move from the EPA to DOE.
  - c. The NJ BPU is likely to enter into an MOU with DCA to do training on orphaned water heaters.
  - d. One person in the room asked about the possibility of Home Performance not using BPI contractors stating they are well trained and do the right thing without it. He also added that the additional cost is problematic. As the program answers to the EPA Home Performance guidelines, we do not foresee them dropping this requirement. The program can maybe look at helping with the costs more.
  - e. A question arose on how the EMP will impact the 2012 budget process. Mike Winka responded that it is in a draft and will change, but there are some things that they will likely act on.

**Other Business:** Next Meeting – August 9, 2011

<b>Name</b>	<b>Company</b>	<b>In Person</b>	<b>By Phone</b>
Ambrosio, Mike	AEG	x	
Berlin, Jake	Willdan	x	
Bitner, Angela	EFS		x
Bovio, Brian	Bovio Heating	x	
Boyd, Mary Jo	CSG	x	
Brooks, David	Gibbons P.C.		x
Bryant, Elaine	PSE&G		x
Camarota, Tony	EPOX-Z	x	
Chaplin, Dawn	Honeywell	x	

DeLuca, Brian	TRC	x	
Dolan, Brian	Intellidyne	x	
Donohue, John	On behalf of Fuel Merchants Assoc		x
Ellman, Susan	NJNG	x	
England, Cheryl	Elizabethtown	x	
Fallick, Jesse	Donnelly Energy Solutions	x	
Figuera, Gabrielle	Devan Mosccc Givclitta and Zarillo	x	
Fisk, Andrew	CSG	x	
Flannery, Mike	MaGrann	x	
Foreman, Sheila	One Change	x	
Foster, Rebecca	VEIC		x
Frederick, Rachael	Apojsece Interactive	x	
Grossman, Bruce	SJG	x	
Gubb, David	CleanEdison	x	
Hambric, Steve	Opower	x	
Heise, Dani	Techniart – Energy Saving Outlet		x
Hernandez, Nicholas		x	
Hoff, Kim	CSG	x	
Holland, Dave	Honeywell	x	
Holmes, Bill	SJG	x	
Hutchinson, Ed	Hutchinson Mech. Services	x	
Johnson, Cindy	CSG	x	
Kliemish, Roger	TRC	x	
Kurdian, Grace	Watson, Farley and Williams	x	
Makowiecki, Colleen	FirstEnergy Corp.		x
Mitchell, Allison	BPU	x	
Miucio, Nick	1 LLC	x	
Murdach, Jay	Well Home		x
O'Connor, Daniel	Trane Turnkey/Energy Services	x	
Payne, Clif	CMC		x
Pecora, Tom	Honeywell	x	
Pierce, Bob	EDI	x	
Port, Darren	DCA		x
Rhodie, Alan	Tristate Light and Energy	x	
Richman, Josh	Bloom Energy	x	
Russo, Linda	CSG	x	
Siai, Michael	EELC, Newark	x	
Sutcliffe, S. Lynn	EnergySolve LLC	x	
Swift, Don	CSG	x	
Van Decker, Gerald	RenewABILITY		x
Wetzel, Linda	AEG	x	
Winka, Mike	BPU	x	
Wolfe, Sharon	BPU	x	
Wolk, Dave	Honeywell	x	
Wong, Doug	BC Express Inc	x	