

**New Jersey's Clean Energy Program
Energy Efficiency Committee Meeting
Tuesday, August 18, 2009
Hosted by Honeywell – BPU, Trenton**

Attendees:

Mike Ambrosio (AEG)	Michael Winka (NJ BPU)	Mona Mosser (NJ BPU)
Dave Wolk (Honeywell)	Roger Kliemish (TRC)	Dave Holland (Honeywell)
Dawn Chaplin (Honeywell)	Mark Magrann (Magrann Assoc.)	Linda Wetzel (AEG)
Nikki Kuhn (VEIC)	Elaine Bryant (PSE&G)	Kimberly Hoff (CSG)
Bruce Grossman (SJG)	Joe Kirby (RAMAIR)	Brian Dolan (Intellidyne)
Yennaira Ortiz (Honeywell)	Craig Moran (AEG)	Joe Gennello (Honeywell)
John Zarzycki (BPU)	Bob Gallo (NJNG)	Jeff Miller (QuadrillionSolar)
Chris Bitters (EnergySolve)	Mary Sheehy (NJ Green Homes)	Rick Marx (EAM)
Anthony Truppi (Velux SHW)	Joseph Carpenter (NJDEP)	Patrick Stanton (Positive Energy)
Ruben Brown (The E Cubed Co)	Jon Zeller (Ameresco)	Erin Thomas (Soladesign systems)
Steve DeFranco (Johnson Controls)	Mark Sussman (EarthTech Energy Solutinos)	Harry Sussman (Earth Tech Energy Solutions)
Pete Perrello (Metro Energy Solutions)	Arthur Pearson (The E Cubed Co)	Susan U. Bredehoft (NJ Community Capital)

Via Phone:

Diane Zukas (TRC)	Chris Neme (VEIC)	Joe Navarra (BC Express)
Clif Paine (TRC)	Brian Bovio (Bovio Heating)	John Malanga (TRC)
Julie deSeve (CSG)	Fred Hauber (EES)	Maria Grazul (CSG)
Fred Reilly (TRC)	Kenji Takahashi (Rate Counsel)	Clif Payne (CMC Energy Services)
Felicia Thomas-Friel (Rate Counsel)	James Postell (Cushman & Wakefield of N.J. Inc.)	Diana C. DeAngelis (ACE)
Christine Hoh (DH Services Group, Inc.)		

Introductions

Program Coordinator and Regulatory Updates

Presenter: Mike Ambrosio & Mona Mosser

1. **True-Up Budget Order** was signed last week per Mike Ambrosio. Now coordinating with TRC and Honeywell to decide when to go live with changes.
 - o Home Performance planned for Sept. 1st and Joe Gennello (Honeywell) says press release info. is ready to go.
 - o Local Government Energy Audit Program (LGEAP) cap increased up to \$300k is currently available.
 - o Pay for Performance (P4P) still working on date to go live. Should go live when applications are ready and Mona Mosser signs off. Hoping for within the next few weeks.
2. **Utility Filings** – 4 have been approved. 3 are still pending. Utilities were given 60 to 90 days to get up and running. Shooting for late September/early October. Some however are already live for PSE&G.
 - o **SJG** – Bruce Grossman – The filing is meant to work with both the residential and commercial NJCEP programs and SJG is working closely with the Market Manager. They are currently working on the final components of the linkage between SJG and the MM. Shooting for Residential on or after Sept 1st. The Commercial side is moving forward and they are working with AEG on their reporting

systems and currently attended a presentation. Noted as impressive reporting and that ultimately there will be some sort of usage. Status - need to get systems and procedures in place. Overall theme is to get contractors that SJG works with to do the hiring; stimulating the contractor network and get more to become BPI certified.

- **PSE&G** – Elaine Bryant – In the filing they had 8 programs. Some are already in the market. Brief comments made on programs. Additionally, noted that 8 auditors hired previously and currently have 36 postings out. Noted that PSE&G HR is going over the process to get through the hiring.
 - **NJNG** – Bob Gallo - Approval contained additional resources of 22 new employees. Nine (9) home energy auditors started today for training which will lead to certification. They continue to interview and will be fully staffed within the next week or so. Additionally, they have hired a Marketing and Research Agency. Looking at first week of Sept to roll out 3 programs.
 - **E-town** – First online submission for weatherization hit yesterday. Gearing up for auditors and one (1) is in place already. Waiting for financing to come through. Hoping for Dec..
 - **JCP&L** – Nothing approved yet.
3. **Federal Stimulus** – Mona Mosser (BPU) was unable to advise if approved last week (as it was expected) since she was away. Stated if it was not done, it should be any day now. She also noted that we all working very hard to ensure that everyone, (BPU, Utilities MM, etc.) are coordinated with regards to this.
- Already issued a solicitation which was part of the Federal Stimulus which is for the state funded grants for energy efficiency and renewable energy. Should be on Board agenda tomorrow.
4. **Retail Margin** now available per Mona Mosser (BPU).
5. **American Recovery and Reinvestment Act (ARRA) of 2009** – Dave Holland (Honeywell) - With regards to AARA money there have been indications of requirements for Prevailing Wage as well as Buy American. No clear guidelines at this moment.
- At state level, we do have prevailing wage requirements per the Governor. At this time, the BPU needs to develop rules and regulations and the Board is working with state Dept of Labor on this. Currently under discussion and we are not sure how it will impact the programs exactly yet.
 - Mona Mosser (BPU)– The Dept of Energy (DOE) has a two (2) week goal and made it clear that prevailing wage would be applicable for ARRA funding on the residential side. However, there are still questions about the details and level of impact (e.g., prevailing wage to all 3 Home Performance Tiers).
 - Question asked for a ‘guestimate’ of how long before we know the final rules and applications. Mike Ambrosio says he only knows that the Board, DOE, etc. lawyers are having ongoing discussions. Ultimately the BPU will get its guidance from the Dept of Labor.

Micro-Combined Heat and Power

Presenter: Ruben Brown - E Cubed

Presentation/Handout – Micro-Combined Heat and Power: The Future of Home Energy.

1. The E Cubed Company specializes in Northeast America. They say they are uniquely positioned to activate market rules and conditions that facilitate the competitive supply for generation, both large and small, including Combined Heat & Power business opportunities.
2. Micro CHP – Grid connected, space and water heating. Generates electric power as a by product of the normal heating operation and provides self powering, emergency backup power and grid support capability. Simply put it makes electricity while heating; getting heat and hot water with the same amount of fuel use instead of just heat.

3. Replaces exiting furnace/boiler.
4. Small units are retrofit ready.
5. Efficiency can be greater than 90%
6. Provides a continuous/steady heat source.
7. Residential and small commercial applications.
8. Install costs ~\$10K.
9. Alternative to renewable, because these can be installed anywhere. The space needed is about the size of a 3 drawer filing cabinet.
10. R.Brown states there are a number of other companies rapidly moving into this product esp. in Europe; Live concept moving rapidly.
11. Provided CO2 savings compared to traditional heating with natural gas statistics.
12. Provided EPA emissions calculator, noting that 1k of these units model can do what this table says it can do.
13. Customer bill example in presentation.
14. 11 – 13 states have net metering. Legislation moving through channels. Industry needs to come along.
 - a. Mike Ambrosio (BPU) asked about net metering and economics of this. Do we need legislation for it? R. Brown said the Governor's Aid says no need for legislation. Mike, wanted to state his point was if we were going to make a recommendation for an incentive for micro CHP, would we have to tackle net metering as a part of it. Someone on phone advised we would have to because net metering is covered as Class 1.
 - b. Joe Gennello (Honeywell) asked if there were incentives in other states. R. Brown, noted that in Pennsylvania they do and another has a tax credit. Joe followed asking if they have a requirement for demand response capability. Response was that PA does not.
 - c. Mike Ambrosio asked if the DEP had taken a position. Joe Carpenter responded that the DEP supports it and made some additional comments about it being too small and not requiring permits. DEP said they would be looking at 65% energy efficiency.
 - d. Dave Holland (Honeywell) asked what type of work would have to be done on the municipality side, like permits and education. R.Brown responded that they found that they learn very rapidly, but obviously would need to further training.
15. Proposing a 3 year pilot program: 1) 200 units for 2010, 2) 900 units for 2011 and 3) 1,800 units for 2012.
 - a. The E Cubed company has been bringing the presentations to the BPU for years so this is not new. However, the current proposed numbers are new.
 - b. Per R.Brown, the immediate policy issue that is in front of us is this fish or foul, meaning energy efficiency or renewable energy saying that states that have offered money have taken out of both. Overall policy question.
16. Question asked - What is the advantage of this over installing a VERY efficient system? R. Brown responded that it is half the costs, stating you are using the same amount fuel to also make electricity. Thus saving on having to purchase electricity. There was general audience confusion on this. R. Brown will provide modeling evidence.
 - a. Bruce Grossman (SJG) provided an example of replacing a 14 SEER AC unit and 90 plus furnace 2 years ago. What would happen if they installed this? R. Brown says with those economics you probably would not do this because the units are high efficiency already and low/no impact vs. costs.
 - b. Mike Ambrosio (BPU) requested comparable gas bills for the example. R.Brown will supply.

Residential Programs

Presenters: Dave Wolk, Joe Gennello

Presentations/Handouts – 1) NJ's Clean Energy Program: 2010 Residential Efficiency Plan, 2) Residential Programs Progress Toward Goals and 3) Residential Energy Efficiency and Renewable Energy Program 2009 Mid Year Program Plan Update.

1. Progress Toward Goals - Dave Wolk (Honeywell)

- a. WARMAdvantage is running close to 100% of 2008 YTD. However, COOLAdvantage is at 55% and contractors surveyed say this is a result of cool weather, weak economy and low rebate levels.
- b. Room AC low with current weather and weak economy and is trending 53% to goal. August has seen the hotter weather so it will be interesting to note August's results next month.
- c. Clothes Washers is doing very well at 144% of YTD goal.
- d. Dehumidifiers rocketed in July. This June was the 6th wettest in NJ history.

Note: Joe Gennello (Honeywell) commented that it is good to see the appetite for ENERGY STAR® in the market. Mike Ambrosio (BPU) asked if we had a sense of the market share. Joe responded that we could perhaps have VEIC look at it for NJ.

- e. CFL's were not a year round program in 08, but has been for 09. We are 163% of YTD goal.
- f. New Construction – Included reports for enrollments and completions. Noted that completions are based on Certificates of Occupancy.
 - Special Note: Signed in our first Climate Choice Home. Mark Magrann (Magrann Assoc) noted that it is for Homes for our Troops. Hoping to have an event perhaps early next month for this. Also noted we are still working diligently on 8/9 other projects.
- g. Home Performance with ENERGY STAR® – Results for both for audits and completions noted. Currently ahead on audits, but completions is trending at 67% of YTD goal.
- h. Joe Kirby (RAM AIR) asked if we have poverty levels info. readily available. He was instructed to speak to Dave Wolk (Honeywell) after the meeting.

2. 2010 Residential Efficiency Plan – Joe Gennello (Honeywell)

- a. Timeline – We are looking to complete the draft sometime in next week or so to Clean Energy. Planning a Sept CEC meeting. Goal to file with BPU by Sept 15th. Have not completed 7 in 5 report.
- b. Overall Themes for 2010 – same as purposes essentially. Trying to stabilize the programs that have been changing this year, most notably all the Home Performance changes and Res. New Construction changes to open market rater. Looking to integrate a few pilots on the HVAC side based on results. Federal Stimulus money has created some interesting challenges for us. We will be looking to integrate with our current programs.

c. HVAC

- 1) Changes - Overall we will refocus our marketing towards customers and drawing them to the contractors. Through a study performed approx. 50% of the contractors are not using the program, claiming too much paperwork or confusing processes or paperwork, etc. We want to get back out there and help with this and find ways to make it easier or appetizing to contractors and eliminate perceived barriers (e.g., perhaps an Account Rep process or other hands on ways, online processing, etc.). Overall easier and more accessible.
 - a) Feedback on the COOL Program has us believing that the incentive split may have been a step in the wrong direction, so we are seriously reviewing it. It was believed that it would stimulate activity in providing the contractors an incentive to do the work, but it may have actually given a perception of lesser value.

- b) New initiatives such as Solar Domestic Hot Water just kicking off and some are already asking about offerings for gas.
- c) QIV is getting great feedback. No baseline data yet. However, feedback is promising.
- d) Duct Sealing is coming in the fall this year.

Note: Joe Kirby (RAM AIR) agrees with the comments about confusing paperwork stating he also hears contractors say they do not know where to start

- 2) Budget – \$9.0M, new allocation. In 2009 \$13.5M total. \$8.3M in Federal appliance incentives available. Key budget changes will be the success of Solar Hot Water incentives, review of market penetration and review of the impact of the utility programs.

3) Goals:

- a) 16k+ electric HVAC installs
- b) 17k+ gas HVAC installs
- c) 1k AC QIV
- d) 400 Solar Hot Water Heater (potential for 600 with additional ARRA \$)
- e) 400 Duct Sealing

Note: Mike Winka (BPU) noted that we are not sure what ARRA will bring in with regards to additional requirements and reporting (e.g., buy America and prevailing wage). Could have impact on these numbers.

d. RNC

- 1) Changes - The goal is to have an open market and to shorten commitment cycle time.

- a) Significant change for this market place for open HERS rating. There is a Working Group on this and if anyone is interested please contact Joe Gennello (Honeywell).
- b) Continuing Tier 3 incentives.
- c) Review and respond to pending code changes. Per Mike Winka (BPU) – The DCA is proposing code update and the Governor has a code bill on his desk too. We need to think of when and were to bump up incentives.
- d) Looking to develop a customer incentive so more consumer demand. The building associations state getting money to the customers will help. There are process issues and we looking at what they are and how to work through.

- 2) Budget - \$20.2M new allocation, noting in 2009 was \$455.6M total. Key budget impacts are an open market for HERS rating, continued market uncertainty and Tier 3 uptake rate.

- 3) Goals – Increase penetration levels for completions and sign-ins and review implications of open rater marketplace.

e. ENERGY STAR Products – Good feedback received from social marketing done. Peer to peer processes which we are trying to do more of, especially in coordination with utilities. The Appliance Recycling program has launched. Overall, lots of opportunities in electronics.

- 1) Changes – Note that the overall goal is to get ahead of the curve on some new technology and perhaps help with rolling them out.

- a) New offerings
 - Consumer electronics (set top boxes)
 - Social marketing customer feedback in coordination with utilities
 - Refinements to Appliance Early Retirement initiative
 - ARRA Appliance Program
 - Pool Pumps

- b) Review of Positive Energy opportunity
 - c) Prioritize CFL recycling as we want to balance what we are doing with purchase promotion with recycling as well
 - d) Opportunities on heat pump clothes dryers.
- 2) Budget - \$16.8M new allocation, noting in 2009 \$25.3M Total. \$8.3M in federal appliance incentives available, Key budget changes to optimize CFL incentives, pool pumps and timers, consumer electronics and refine Appliance Early Retirement .
- 3) Goals – 7M+ in CFL's, 40k refrigerator/freezer early retirement, 10k clothes washers, introduce consumer electronics and 2k pool pumps and timers.

f. Existing Homes

- 1) Changes –
- a) Coordinate with utility loan programs and HFMA programs and make sure the infrastructure is there to do so
 - b) Maintain Tier 2 and increase Tier 3 incentives to \$10k until end of June 2010 and re-evaluate at that time
 - c) Support activities that develop additional BPI Certified contractor resources
 - d) Open BPI training process.
 - e) Mike Ambrosio (BPU) inquired about the Market Manager involvement in Tier 1 this year which was initiated to support the program until the market was ready. Joe Gennello (Honeywell) confirmed that the intent is to reduce our involvement in the audits and believed the utilities will have a roll in that. Ultimately we are shooting for the market to handle most of it, with some involvement on our end in special situations. We will continue to develop contractor resources and in 2010 train who needs it, but have the market also take that over. Nikki Kuhn (VEIC) noted that CSG has expressed interest in phasing over to a mentoring or support role.
 - f) Mona Mosser wanted to know where we are in the process of the presentation of Intellidyne. TRC responded that they are in the process of setting up a meeting.
- 2) Budget - \$23.7M new allocation, in 2009 \$23.7M was the total. Key budget changes to support utility filings.
- 3) Goals – 9,400 completed audits (Tier 1), 9,856 completed air sealing jobs (Tier 2) and 3,021 completed comprehensive jobs (Tier 3). Note: These goals are based on utility filings.

g. Community Partners Initiative – 1) Implement collaboration with Sustainable New Jersey, 2) review Municipal incentives and 3) develop intense Community Partner initiatives. Overall great feedback on goals from communities.

- 1) Budget - \$1.7M (\$900k in incentives and \$800k administration and processing). Implement intensive initiatives.
- 2) Goals – 1) Develop NJ communities as a channel to increase participation in NJCEP, 2) provide single point of contact for NJCEP programs to NJ communities, 3) broaden value proposition for Community Partners, 4) promote NJCEP in support of EMP 20/20 goals.

Commercial/Industrial Programs.

Presenters: Roger Kliemish and Diane Zukas

Presentation/Handout – Program Updates and 2010 Proposed Enhancements.

1. **New Construction** – Approved applications volume continues to grow. Schools approved applications are ahead of goal. Completed projects are a little behind. Schools completed are above goal.
2. **Existing Construction** – Completed projects are below goal.
3. **Pay for Performance** – Report results is moving to a new format. Currently in energy reduction and what we are trying to show is what is coming in. Point being we have a lot of applications in the door, so we can see a good trend, as it takes time to complete these.
4. **Direct Install** – Still waiting for the start; waiting for board guidance.
5. **Local Government Energy Audit Program (LGEAP)** – Report is in a new agreed upon format. Applications continue to come in at a good pace. Asked how many buildings being audited right now – TRC did not have that number at that moment. Mike Ambrosio (BPU) says there is monthly report on the website which breaks down that data.
6. **Existing Programs – Contract Modifications Effective August 2009.**
 - a. LGEAP - Tier based on total square footage.
 - b. Pay for Performance - Want to encourage small customers Increases cap for specific customers (hospitals, non profits, universities, etc.) Question arose about if state agencies are eligible for PFP. Response was yes. Mike Winka (BPU) added that they may already have money out of budget to apply to state buildings, so there may be duplication there. Probably would not be fair to do that.
 - c. CFL - Incentive for PAR 30/38 with aluminum housing replacing incandescent - \$7 lamp.
7. **Proposed 2010 Budget:**

Proposed 2010 Budget

NJ Clean Energy	New Funding (Carryover TBD) 2010 (000's)	Original 2009 Budget (000's)	Revised 2009 Budget (000's) with 2008 Carryover
2010 C&I Programs			
<i>C&I New Construction</i>	\$ 5,000	\$ 9,999	\$ 10,692
<i>C&I Retrofit</i>	\$ 22,000	\$ 19,864	\$ 22,020
<i>New School Construction/Retrofit</i>	\$ 6,985	\$ 6,747	\$ 7,103
<i>CHP</i>	-	\$ 15,992	\$ 11,795
<i>Local Government Energy Audit</i>	\$ 10,000	\$ 4,998	\$ 13,276
<i>Direct Install</i>	\$ 11,400	\$ 10,189	\$ 10,296
<i>Pay for Performance</i>	\$ 29,000	\$ 23,252	\$ 23,245
<i>TEACH</i>	\$ 600	\$ 600	\$ 796
<i>Marketing</i>	\$ 1,600	\$ 1,555	\$ 1,555
<i>Business Conference</i>	<u>\$ 1,100</u>	<u>\$ 1,046</u>	<u>\$ 1,046</u>
	\$ 87,685	\$ 94,292	\$ 101,814

8. **ARRA Grant Funding – Programs for Non-IOU Customers** – Programs impacted are Pay for Performance (P4P), Direct Install, and LGEA.
9. **Existing Programs Funding Recommendations** – 1) Increase P4P budgets, 2) Increase in sector specific budget (add more sectors, data center and commercial and expand technical service offering to sectors) and 3) Maintain school and retrofit budgets.
10. **Custom Change in Programs**
 - a. Changes effective July 23, 2009 – 1) Cap in place to gear for overpayment. 2) In line with other regional programs. 3) Look at prescriptive measures and look at cap.

- b. Moving forward with app. in 2010 more like P4P, more performance based incentives. Want to be transparent. We look to move customer measures to prescriptive.

11. Proposed Prescriptive Program Changes

- a. Lighting:
 - T-8 to T-8 for delamping will require removal of ballast to address high THD.
 - Change in incentive from \$10/20 for T-12 to T-5 or T-8 to \$15 (1-4 lamps)
 - New incentive for T-8 to reduce wattage T-8 of fixture (1-4 lamps)
 - New incentive of \$50 (retrofit and \$70 (new) for exterior HID to induction fixtures.
 - Increase incentive for fluorescent day lighting dimming (office only) to \$50 per fixture controlled.
- b. Gas Heating – 1) Remove incentive for electronically commutated motor and 2) going to increase to \$500 for the customers for 90% AFRU or Estar gas furnace. Mike Ambrosio suggested that there be talks about consistency with energy efficiency programs. Noting there may not need to be consistency, but there should at least be an assessment. Roger agreed.
- c. Electric Chiller – Base incentives on kW/ton of the compressor and not the system.
- d. Gas Water Heater – Create incentive for natural gas tankless water heater to move customers toward that technology. Tankless should have an EF of .80-.82 or greater and be replacing a standing unit to received an incentive in the \$200-\$250 range.
- e. Other - Offer a certain amount of dollars per meter, currently noted at \$50/meter. It must enable 40kW of demand response and the meters must be accurate to <2%.

12. Proposed Policy Recommendations - Goal is to spread the money around. These are some suggestions, but they will have proposed recommendations soon. Mike Ambrosio says TRC's proposal was not to reinvent the wheel. The next steps are to develop and post. We do want to get something in place soon so we want peoples comments in the next week or two. Mona Mosser (BPU) What is the difference between account and meter? Mike Ambrosio says it depends on the utility.

- a. Implement entity caps for P4P, LGEAP and SmartStart. For example, under P4P if the building contains multiple electric accounts or meters, treated as single account/meter and help to cap of \$1M (still eligible for another \$1M on the gas side and \$1M if CHP is included). In addition establish maximum per entity annual and aggregate incentive caps: 1) \$3M over 12 months on P4P if electric, gas and CHP included and 2) \$5M over 3 years on P\$P if electric gas and CHP included.
- b. Define guidelines related to handling (single metered) campus type clients, for example, need to benchmark buildings, develop multi-year plan for addressing installation and develop specific M&V for campuses.
- c. LGEAP – Changing procedures to assign payment directly to auditing firm. Offer LGEAP audit type service to select not-for-profits (75/25 for incentive reimbursement). Need to define not for profit.
- d. TEACH – Increase quantity of kits to one per school. At the end of the process we would like to revisit them to see what their results are. What is the cost for kit? No one had it off hand. TRC is to get this information to Elaine Bryant.

13. Existing Programs – Proposed Enhancements.

- a. Allow multiple measure bonus for lighting and lighting controls. Drives customer to look at both simultaneously, more savings/building for overall lighting improvements.
- b. Increase multiple measures bonus to 15% from 10%. Supports move to holistic approach, more measures per building.
- c. Direct Install – Integrate financing options through utilities.
- d. Enhanced Tech Assistance – Customers want audits. This would be for customers with demand greater than 200kW. Want to offer assistance with a walk through, deliver high level assessment opportunities and recommend approach.

14. Proposed New Programs: Retro Commissioning – Conducts an analysis that will recommend specific improvement to attain maximum performance levels. Looks at a lot of programs across the nation.

- a. NJCEP defines Commissioning process (Industry Certification)
- b. Customer provides past bills. O&M history, problems, service contract info. etc.
- c. Planning phase has RCx firm conducting building walk through after analyzing past utility bills and other customer supplied information.
- d. Investigative phase includes analyzing data p[provided by building staff, outside contractors, O&M records, etc.. relative to occupancy, temps, etc.. This is followed by diagnostic monitoring to determine energy use baseline and submittal of recommendations report for improvements.
- e. Implementation of recommendation followed up by hand off to customer including O&M manuals and training.

Next meeting – Sept 22' 2009. Location suggested CSG Office in Iselin, NJ. Start time 9:30am