

# **New Jersey's Clean Energy Program Energy Efficiency Committee Meeting June 7th, 2011**

Conservation Services Group  
75 Lincoln Highway, Suite 100, Iselin, NJ

## ***Introductions***

### ***Technology Review and Discussion***

Daniel Bruder, Niagara Conservation

- Our .8 GPF Stealth Toilet's can save up to 40,000 gallons and up to 3,000 kWh per year per household. This can amount to a financial savings for customers of \$500 to \$600 per year.
- Toilet cost of installation can be from \$175 to \$250. The payback is quick.
- Question (Mike Ambrosio) – Is the energy savings related to the reduction in water usage at the customer lever, or is it at the system level?
- Answer – The energy savings is censored around funding available for public based funding. We have funding groups that show's it benefits both. There is an immediate felt savings to the individual. And it trickles up to the public savings as well. There is a savings to the homeowner as well as to the infrastructure at large.
- We are currently working with a number of states to identify exactly what amount is in savings.
- Question (Mike A) – Are there programs in other states that have different packages of measures that you sell to the customer? And if so, how much do the packages cost?
- Answer - Yes, there are various packages in other states. This is not just domestic, we work internationally as well. We just recently retrofitted Saudi Arabia. Those programs center on the Aquagy program which includes the new toilet, new efficient shower head, and the new lighting and electrical portion which is very customizable.
- Question (Mike A) – Can you tell us about the low flow? And the cost?
- Answer – The low flow is at 1.6. It is great once installed, but usually after time it reverts back up to a 3. The energy kit in this presentation is \$175. Installed its \$250. It really depends on what other items are included, and the installation process. It's flexible in how it all works.
- Question (Mike A) – In the past we had programs that gave out aerators and shower heads, and one year later people don't like them and want the old ones. Do you complete any kind of follow up?
- Answer – We have done studies that include customer satisfaction, and it is high.
- Question (Roger Kliemisch) – Have the energy companies ever worked with the water companies to put this program together?
- Answer – In California and in Texas they have. They had a Texas water day, and there was unity between the energy and water companies, making sure the mechanisms are there for everything to work well.
- Mike A commented that Niagara Conservation should work with the residential market manager to see what they think and figure out how it will fit.
- Ann Marie Peracchio suggested this might work with Comfort Partners.

Mike Ruff, Intellidyne

- There have been two different technologies in the past years dealing with home heating systems. Hydraulic based or water based.
- Our technology is called demand responsive technology, different from weather responsive.

- Weather looks at the average temperatures over time to develop a histogram of what the water temperature should be.
    - We use that real time information to determine the proper system operations differential.
  - Demand controls utilize multiple load variables to modify system operational differentials on a cycle by cycle basis.
  - Demand responsive controls can be effectively used on a wide range of heating and cooling systems.
- This is a very easy installation by the contractor's, installed right at the boiler.
  - The cost of the technology is less than a majority of outdoor resets.
  - This technology focuses on the cycle control.
  - This provides a substantial reduction in fuel consumption which is not limited to the particular type of fuel.
  - As opposed to the other outdoor technologies, we guarantee a written 10% reduction in fuel consumption.
  - The efficiency of the system has improved and the burner will not change the system. It is more efficient because we are able manage the cycle time.
  - This is typically installed from \$500-\$600. Payback is less than two years.
  - The warm air furnace is focused on managing the discharged air temperature. Typically when there is a call for heat, the air comes on. Once the air is stabilized, it continues to stay on. We look for that air temperature, and then determine how long it took to get to that point. It calculates how we can avoid the point of maximum inefficiency.
  - As you go through the heating cycle, the off periods get progressively longer. The savings are significant. Savings comes from a reduction in burner run time.
  - Back in 2007 there was an NYSERDA study report done showing:
    - Reduction in oil and gas consumption as much as 15%.
    - Reducing electricity consumption of compressors in air conditioning and refrigeration systems by as much as 20%
    - Reducing particulates and greenhouse gas emissions by as much as 47%
  - The incentives can range from \$100 to \$200. Something in that price range seems to be the kind of incentive that would be a good value for the consumer.
  - Question (Mike A) – What is your experience in dealing with the life of the technologies. Does or will this require more/less repairs?
  - Answer – One of the benefits from this technology is reduced cycling. It's not going to take a 30 yr old system and make it new, but it will definitely extend the life of a system. There is also less cleaning, making a longer burn cycle. The amount of soot is diminished.
  - The hot air furnace increases the cycling. We have not seen or had any complaints on the usage and life of the technologies.
  - Typical price range of \$500-\$600 installed, but we have seen it go higher.
  - Question – What about Air Conditioning on the furnace side?
  - Answer – There is a separate control for air conditioning. It decreases cycling time on the compressor.
  - Question (Joe Gennello) – Do you have a model that you can plug in the existing equipment, and be able to predict the energy efficiency savings?
  - We have a model we can plug in the size of the boiler, it's an effective usage time and the number of zones, and calculate a close range of what the projected savings would be for that. The more zones it has, the bigger the savings will be.
  - Question (Mike Winka) – Within the Direct Install program, how has that worked for you so far? Are the sub-contractors picking this up?
  - Answer – Hutchinson uses our technology in their DI program. The product is available for the contractors to go and purchase. What I am hearing back from the contractors is that they like the products and have had no issues.
  - Question (Joe G) – Is it possible to maybe have a special presentation or some kind of contractor training programs?

- Answer - We do have programs for contractor training throughout the year.
- Question (Joe G) – Is there any scheduled maintenance that has to occur?
- Answer – No. In the event of any kind of power loss or anything else damages on the unit, it does a self diagnostic and puts itself back into the circuit. If it should fail, it will fail safe. It will not jeopardize the heat in the building. It has a display screen on it which tells the homeowner how much run time has been saved, what the sensors are seeing, and there is a lot of indication that it is running.

### ***Program Coordinator and Regulatory Updates***

Presenters: Mike Winka, Mona Mosser, Mike Ambrosio

- Updates on Filings, Board Orders and Regulatory Items – Mike Winka
  - The Energy Master Plan will be released today. Public hearings start July 26.
  - On all the transition issues, the funding levels, RFP for the new program structure and the staff straw proposal on the transition will be out in July.
  - Next steps to start implementing some of the issues in the EMP include looking at revenue sources. There are meetings being set up with the treasury people who do the banking to talk about the different structures within the EMP.
- ARRA activities
  - Mike W – A meeting is scheduled to discuss different revenue sources.
  - Mike A - Next week the Board will consider the summer promotion for Home Performance which will run through September 30.
  - Mike A – A proposal for the large energy user pilot was circulated back in May and comments were received. It is now before the Board.
- 2012 Compliance Filing Concepts & Timeline – Mike Winka
  - PSEG draft filings are nearly complete. Second round of comments and then NJNG has a 30 day meeting scheduled.
  - From the last agenda there were 4 or 5 Pay for Performance rebates, and that programs activity is starting to increase.
  - EDA funds are on the agenda and out on the street as of May 23<sup>rd</sup>.
  - Funding solicitation under ARRA for CHP was released-due date June 15.
  - A second revised budget was approved by the Board. Will have an update on what that will be soon and the policy updates.
  - The backstop order was approved last month. Wrestling if we had enough applications in house to use up the SEP funds, and then we had a choice of as we fully committed the budgets do we send the applications back to customers or do we use the CEP fund to backstop that. The board decided to use the CEP funds to pay for the backstop.
  - All of the ARRA and EECBG applications were closed as of 5-31-11.
    - Proposing to set the budget to what is in-house; this is everything that came in through May 31<sup>st</sup>.
    - Now that the programs are shut down the numbers will only go down from this day forward, so at max if we were to approve everything in house today we would need about 9.5M of clean energy funds to approve the rest of the applications. If we were to approve all of the applications
    - The recommendation on the table is to authorize TRC to go ahead and approve all of those.
  - Draft 2012 funding levels
    - These are just the starting points for discussion. Between now and September we will take these numbers and they will be changed/modified based on comments/ proposals. September will be the final draft proposal.

## **Residential Programs**

Presenters: Honeywell Team

### 2012 Budget

- The timeline for 2012 NJCEP Filing is set:
  - June 23 – Program Suggestions to HW
  - Late June – High Level Budget Confirmed
  - July 12 – Plan Overview to EE Committee
  - August 9 – Final Overview to EE Committee
  - August 13 – Complete Draft Plan to OCE Staff
  - September 9 – Final Plan presented to NJ CEP
  - September 24 – Complete Final Plan filed with BPU
- Some key elements of the 2012 plan include:
  - Continue to upstream incentives
  - Develop loan opportunities
  - Incorporate Energy Master Plan
  - Continue to integrate with Utility Programs where available
- The Preliminary 2012 EE Budgets are similar to 2011.
  - Sub Total for 2012 New \$ is \$75,000,000. Estimated 2011 carryover is \$19,000,000. The total 2012 budget is \$94,000,000.
- 2012 RNC Program
  - Continue Open Rater; Evaluate climate choice homes
  - Consider new co-op marketing models
  - Evaluate behavioral approach based on home energy reports
  - Revisit incentive levels and treatment of renewable
- 2012 HVAC Program
  - Continue contractor support
  - Pilot upstream incentives
  - Consider stronger links to Home Performance
  - Evaluate ways to address health and safety issues
  - Continue to integrate with Utility Programs where available
- 2012 Marketing
  - Increase Co-op and support the Clean Energy brand
  - Develop generic program support
  - Support municipalities to drive residential program participation
  - Additional focus/efforts to Home Performance
- Preliminary 2012 EE budgets
  - Will be changed and modified over time.
- Home Performance with Energy Star ARRA as of May 31<sup>st</sup> 2011
  - Total projects are 686 with a total fund of \$7,662,118.
  - There are 221 projects claiming funds through 2011, 53 QC Inspections performed 170 projects with Comprehensive Work Scope Completed and Incentives processed, 9 projects Air Sealing Only with incentives processed, and 2 projects Audit only with incentives processed.
  - Pipeline Summary (2010 and 2011 projects)
    - Work Completions (total) – 162 projects
    - Need review for QC/Processing – 3 projects
    - QC to be scheduled – 7 projects
    - QC scheduled – 11 projects
    - QC failed and contractor notified – 75 projects
    - In queue for processing – 66 projects.
  - EFS Loans
    - Approved – 2860
    - Pre Approved – 119

- Withdrawn after pre-approval – 1015
  - Total pre-approved – 3994
  - Total denied – 1091
- HMFA HESP Loan
  - There are 14 projects for 2010 and 42 projects for 2011.
- NJNG On-Bill Repayment Program
  - For 2011, there are 113 projects
- 2011 Auto Proceed projects
  - Total of 221 projects for May and 45 contractors with projects
- There are training sessions and orientations throughout the summer:
  - New Contractor Orientation June 6
  - New Contractor Program Overview June 9
  - Contractor General Program Working Group June 14
  - Program Software In-Person Training June 15 and August 17
  - Contractor Program Update Webinar June 17
  - Contractor Technical Working Group July 21

### ***Commercial and Industrial Program***

Presenters: TRC Team

#### 2012 Budget - Program discussion points

- It is open for discussion whether CHP should remain under P4P or become a stand-alone program.
- Financing/Loan Service
  - To support existing programs (DI, Retrofit, etc.)
- Review of Existing Programs
  - Direct Install (70/30 post ARRA vs. current 60/40)
  - Revisit all prescriptive incentive levels
- RCx – Retro Commissioning (Pilot)
  - Reduced operational costs
  - Median energy savings of 16%
  - Increased equipment life
  - Reduced occupant complaints
  - Improved indoor air quality
  - Cuts greenhouse gas emissions cost effectively
- 2011 Program Results to Date
  - New Construction Approved Applications
    - 47 completions over a program goal of 35
  - New Construction Completed Projects
    - 39 completions over a program goal of 18
  - Retrofit Completed Projects
    - 501 completions over a program goal of 420
  - LGEAP Approved Audits
    - 92 over a program goal of 75
  - LGEAP Metrics
    - Audits received year to date is 144; Audits approved year to date is 137.
  - P4P Existing Building
    - 14 completions over a program goal of 12
  - P4P New Construction
    - 0 completions under a program goal of 2
  - Direct Install Completed Installations
    - 228 completions over a program goal of 225
- ARRA EECBG Program

- All 2010 applications have been approved
- \$10.24 million overall EECBG funding allocated
- \$2 million more for 2011 projects being committed
- Contractors ramping up to \$1 million/week lever for all DI

**Eastern Heating and Cooling Council**

- NJNG & EHCC's Non-BPI Contractor Breakfast Seminar was held on May 24<sup>th</sup>
  - 32 attendees with 21 new EHCC member companies
- Currently in discussions with SJG to offer same seminar to contractors
- Spoke with students at LTI – Mahwah on June 2<sup>nd</sup>
- Training during summer months with fall/winter schedule out July 1
- Over 500 tech's are trained year to date in NJCEP approved courses

**Other Business, Next Meeting**

- Screening process for technology presentations
  - New Jersey's Clean Energy Program process for considering new technologies
    - MM Team receives inquiry and sends screening questions
    - MM Team receives responses and reviews responses
    - MM Team develops proposal for BPU and BPU makes decision
  - Reference Handout for Screening Questions
- Other items
  - Next meeting is July 12<sup>th</sup>.

<u>Attendees:</u>	<u>Via Phone:</u>
Vincent Addona, Niagara Conservation	Bob Zoppa, CSG
Jake Berlin, Willdan	Colleen Makowiecki, First Energy
Brian Bovio, Bovio Heating	Nancy O'Brien, Energy Finance Solutions
Dan Bruder, Niagara Conservation	Elizabeth Ackerman, BPU
Brian Deluca, TRC	David Brooks, Gibbons
Brian Dolan, Intellidyne	Karen Paine, TRC
John Donohue, On behalf of Fuel Merchants Assoc.	Fairlie Firari, TRC
Sheila Foreman, One Change	Steve Hambric, OPOWER
Rebecca Foster, VEIC	Angela Bitner, EFS
Joe Gennello, Honeywell	Alice Napoleon, Synapse Energy Economics
Kim Hoff, CSG	Dawn Chaplin, Honeywell
Scott Hunter, BPU	Jill Sherako, EHCC
Roger Kliemisch, TRC	Don Swift, CSG
Scott Markwood, O&R	Elizabeth Teng, BPU
Len Rubra, MCR	Dave Wolk, BPU
Nathan Rushing, EMC	Doug Wong, BC Express Inc
Ed Schmidt, MCR	
Victoria Schmidt, TRC	
Tim Sealaus, EMC	