

**New Jersey's Clean Energy Program
Energy Efficiency Committee Meeting
Monday, September 10, 2012
NJBP, Trenton**

EnerNOC's EE Market Potential Study

Presenter: David Costenaro and Ingrid Rohmund (EnerNOC Utility Solutions)

Presentation: New Jersey Market Assessment, Opportunities for Energy Efficiency, Final Results, Sept 10, 2012.

1. Mike Winka (BPU) Introduced EnerNOC – There is a contract with Rutgers CEEEP which all evaluations go through. In some cases Rutgers procures EnerNOC or the state issues a separate RFP and assigns them to Rutgers. The intent is to have an arms length assessment and to have transparency in the process.
2. The Market Potential Study is to help determine the appropriate funding levels for energy efficiency (EE) programs over the next four (4) years. The study addresses energy efficiency potential and informs the CRA process in the following ways:
 - Determines markets to address with EE programs.
 - Finds the potential for energy savings for the 2013-2016 period.
 - Provides high level recommendations regarding programs.
3. Analysis approach – They take research objectives and look at a base year of energy use by multiple segments, then end use forecast by segment, then determine technical and economic potential as well as achievable potential and then provide study results.
4. Market characterization by sector for 2010 – 1) Residential, 2) Commercial and 3) Industrial. Both electric and natural gas usage.
 - a. Residential Sector – Single Family, Single Family Low Income, Multifamily Rent, Multifamily Rent Low Income, Multifamily Own, Multifamily Own Low Income. How many households, electricity usage, electric intensity, natural gas and natural gas intensity.
 - b. Anne Marie Perracchio (NJNG) – Asked about the natural gas numbers and if any of it was normalized or if it was actual calendar usage. She added that the utility does not break the customers down into those same segments, but that the natural gas numbers look significantly low compared to their actual numbers. Ingrid Rohmund responded that the data is actual 2010 sales so they reflect weather in 2010. As they move forward and do actual potentials they do weather adjustments on end usage so they are projecting off a normal weather situation. David also responded that this is across the board and not only natural gas customers and if you were to look at only natural gas customers this would be a bigger number.
5. Market Adoption Rates – They run 2 scenarios: Achievable High and Achievable Low. Mike Ambrosio (AEG) asked if there are assumptions included about programs (e.g. rebates/incentives) available. David responded that it is built into the baseline.
6. Anne Marie Perracchio (NJNG) and Bruce Grossman (SJG) – Commented that they see different trends than what the report is showing. Ingrid responded that the purpose of the baseline forecast is not to develop a forecast per se, but to get started in a good spot to identify potential so that there is not an inadvertent over estimation of the potential. If this is a significant issue for the natural gas companies they can have a discussion with the BPU and Rutgers and see about making adjustments to the baseline. It would not have any impacts on the outcome of the potentials, but it could make the utility companies more comfortable.
7. Kenji Takahashi (Rate Counsel/Synapse Energy) commented that the consumption for cooling was about 20%, but that there was only a savings of 8% and asked what kinds of factors impact this result. David responded that for the achievable low for cooling they have 8% for 2016 and the cooling usage in the baseline report is 21% so this is a disproportionate low for cooling. This is because the incremental gains for these units are smaller when going from 13 SEER to 16 SEER and that it is less than 10% of the energy. In contrast in lighting for example, the savings when changing a bulb from an incandescent to a CFL, the savings are 70%/80% of the energy. Kenji asked what data source they used for the cost and savings for AC.

David said they used a DOE document they use for their technology analysis for preparation for the annual energy report. He added that they do have the comment from Kenji and they are finalizing their response for them.

8. Sarah Steindel (Rate Counsel) – Asked about the Commercial Energy Efficiency chart asking what the savings was a percentage of. In excess of what occurs in the baseline assumptions? David answered yes.
9. Kenji commented that the natural gas savings potential seems a lot lower than electric savings potential and maybe that is because the natural gas prices are much lower right now. He wondered compared to what NJ has been achieving each year, how do the results compare? He added that 0.3 % seems very low to him. David said he would look into it.
10. Ingrid – The baseline forecast does not include natural occurring conservation. It only includes the effect of codes and standards. They can go either way based on what the client requests. In this study they did not include the natural occurring in the baseline forecast so the potential estimates are estimates of growth savings. Includes both inside and outside programs and it includes the free-riders and free-drivers.
11. A question arose about how sensitive the results are to the market program adoption rate for the achievable potential? David said that he believed they have a good range based on good data. Of course there is potential to go outside the range, but he believed it is based on good data.
12. Kenji said he was curious if ENEROC included program costs into the potential? He added that he found the costs of LED's are very high compared to other studies of market price; Seemingly the CFL's are 28x more expensive than in other studies where it is only 16x. David responded saying they do not include program costs. Also that the data Kenji was commenting on was only for the 1st year which was 2010 and it was high and they have a data factor that decreases the cost by 50% over the cost of the study.
13. Mike Winka said they are going to publish the final as there was a distribution already for comments. David added that if there are subsequent comments they are keeping the communication channels open.
14. Kenji added a comment about LED pricing saying that for the current price it is still expensive even if you decrease it over time. He recommends they reconsider the pricing.
15. Meredith Nole (American Efficient Lighting) – If you take LED lighting in one umbrella, she finds that there is a big distinction in the savings from the 4 foot T8 as opposed to screw-ins because of the high efficiency of T8's on the market. David said they need to note a distinction of the technology of lighting.
16. Contacts on this are Frank Felder (Rutgers CEEEP) or Anne Marie McShea (BPU)
17. Sarah Steindel – Is there a document that shows the assumptions made in this study? David said there is, but it had not been distributed.

Program Coordinator and Regulatory Updates

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

Presentation: Program Budget Presentation

1. Agenda Items from last month (Mike Winka) – There were a couple of the C/I incentives on the agenda for Pay for Performance (P4P), a couple of waivers on the solar side for SREC's and a couple of greater than \$300K biomass incentives that the Board approved for Middlesex County Utility Authority, Sewage Authority and Park Ridge. There was an award of a Green Growth Fund Solicitation to Locus Energy and a modification of the loan agreement that they worked on with the EDA. There was a denial of a petition for AGFA.
2. On the Agenda for the 13th (Mike Winka) – You will see a lot of these coming through for P4P, for rebates greater than \$300K there is an exemption for the Smart Growth policy for a church which meets the criteria for the exemption. There is an adoption of amendments to RPS to address changes in the Solar Advancement Act adopted in 2010 (not the recent one). There is an extension of the solar RPS timeline for submission of the RPS report and given the changes in the Solar Advancement Act and some of the changes in the requirements they are allowing a 90 day extension of the filing timeframe. The protocols were submitted and drafts were commented on and they included those in the Order.
3. Filings (Mike Winka) - On the EE side, NJNG filed and SJG is going through their review. There was a PSE&G 30 day filling meeting and it is his understanding that PSE&G is in process of deciding to file for an E3 filing. The filing on the solar side for the Solar SREC Extension and PSE&G Solar Loan 3 was determined to be complete so the process is in finalization and there is a procedural schedule going around. Solar 4 All Round 2 was found to be deficient and they have 30 days to correct those deficiencies. JCP&L has filed their

extension and the Board has not determined completeness yet. The ACE extension just came in this past week. They have not seen anything for Rockland yet

4. Program Administrator RFP (Mike Winka) – 6 bids accepted. TRC, AEG, Honeywell, Comverge, Shaw and Nexant.
5. 2014 – The 2017 funding level draft was issued with a 60 day comment period which puts the period at Oct 22nd. They will go through their presentation at the Oct meeting and right now given the timing for the RFP, the transition and the budget issues they are going to take comments on the draft during that 60 day period and then revise it based on a few things they have heard in the Market Potential studies going on, BPU will issue a final Funding Level Proposal to hopefully go to a public hearing in Nov with a Board Agenda in Dec. So the transition is tied to the RFP and completing the 2014-2017 funding level and the RFP as issued had a 90 day transition period, plus a 90 day uptake period and for a total of 180 days. That coordinates with the timeframe of July 1st, 2013.
6. Items on the agenda today are the continuation of the funding levels for 2012 through June 30, 2013 and the budget revisions to address the \$313.5M lapsed to the General Fund including the \$200M lapsed in the Supplemental. The Straw Proposal, in terms of the funding level, just sets out the background conditions for the last 3 funding levels. One of the key points in the market potential study is that there is a lot more potential out there compared to where the “comfort level” of the Commissioners are in terms of the clean energy rate impact and bill costs. The incremental rate in this funding level proceeding is actually lower and it is a negative incremental rate and a decrease in terms of the bills costs over time because of the reduction in the funding levels between 2012 and the new 2013. The goals in that funding level help develop with the goals of the EMP. For the most part they have fallen short of achieving the goals set for the in the EMP probably because the market potential for achieving those probably cost more than the comfort level of what the Commissioners want to accept in terms of a funding level. That is the key point with the funding level - Where do you want to set that funding level compared to what is a reasonable rate impact and bill cost for the ratepayers. They also provide information on the utility EE programs and their costs over time and \$4M since 2008. It also goes through the cost for the EDC Solar Loan programs so that there is a complete picture. They summarize the residential electric and gas bill cost and rate impact and use the EMP which sets the direction for the funding.
7. Anne Marie Perracchio (NJNG) – In the opening description of the process it was noted that the comment period closes Oct 22nd. Are you saying the public hearing will be in November? Mike Winka responded saying it is probably not doable, but they will take it from the draft stage and see. Mike Ambrosio added that the goal is prior to end of the year. Anne Marie asked if there then would be 2 written comment periods. Winka said yes, there will be a comment on the draft and then an official on the final.
8. A comment was made that the indication from the BPU is to have a Clean Energy Program. And that perhaps adding a little more specifics to public announcements could spark more knowledge about the program. Winka responded that he believes there could never be enough spent on marketing and there has been a decrease in marketing because of the push to control administrative costs. They would take the comment under advisement.
9. Sarah Steindel – Wanted to follow up with Anne Maries’ comments/questions on scheduling. Are you aiming for the December Agenda meeting to resolve the 2014-2017 funding levels? Winka responded that, that would probably be a better timeframe given all that they have in-house and they will be able to better see as they get through the comments.
10. Mike Ambrosio went over line items within the program budget. Now that they have actual carryover, it is trued up. Due to the timing of everything there was a proposal to do an 18 month budget through June 2013.

Commercial/Industrial Programs

Presenters: Carl Teter (TRC)

Proposed Program Changes and temporary suspension suggestions.

Mike Ambrosio asked if they are trying to set a meeting for large CHP. Carl responded that they had not been able to confirm the date/time as of yet and that they are trying to reschedule, but no confirmation at this time.

Residential Programs

Presenters: Joe Gennello (Honeywell)

Due to time constraints the 18 Month Budget Proposal was the presentation discussed.

1. Kenji Takahashi asked why there was a proposal to eliminate central air incentives. Joe responded that there is a concern that the baseline units coming into the marketplace are such that the savings are not as great as they used to be. Kenji asked if there was consideration for just reducing the incentive. Joe responded that, that was looked at and that this is a program with significant participation and with only \$27M this year (less than half of the 2012 budget) there are some very hard decisions to be made on what to change/reduce.
2. Residential New Construction/ENERGY STAR Homes – They are extending the time for the transition of program requirements to support the Climate Choice Home tier. This is in response to comments made in the previous Friday’s hearing.
 - a. Mark MaGrann (MaGrann) commented that they appreciate that Tier 1 and 2 are continuing. Mike Winka noted not to expect it to be the same and that there is going to be reduction on this because of the reduction in the budget.
 - b. In June 2013 there will be more information on the transition to Climate Choice. They are also watching the adoption of new building codes. Maybe there is an opportunity for something in-between Climate Choice and what currently exists.
 - c. Commitments for this program are over a long period of time and the scrub rates are relatively high. There is a goal to resolve or come up with a method that would commit dollars more closely to where/when they are spent and meet the objective of getting the money out to the people that are using it. How can we work with builders to get the commitment time reduced or get commitments later in the process or any ideas to help in this process goal? We are open to suggestions.
 - d. A request to clarify scrub rate was made and how big the scrub rates are. Joe said that builders plan, design and build over long periods of time, sometimes a year or two. The program issues a commitment to the builder at the beginning of the process and incentives are not paid out until the homes have been inspected, rated and completed. If a builder commits to a number of homes and within a year they are not built, that commitment expires and the money become available again. Mike Winka added that in our budget when you get a rebate commitment letter from the program, they put that money in reserve with anticipation that you will complete and get paid. They account for expenditures as well as commitments. In Treasury Accounting they do not count commitments until an invoice is submitted for an obligation.
 - e. Kenji noted there had not been a large budget cut for the this program, although the it has been underperforming and asked why the incentives stay the same for this program and were cut on others. Joe said he was not sure what Kenji was basing this on and that the program is hitting its monthly goals. Dave Wolk added that the enrollments are at 94% and commitments are at 82% of goal and improving each month. Mike Ambrosio noted that there are commitments that have to be taken into consideration when looking at budget cuts.

Utility Updates

Anne-Marie Peracchio (NJNG) – NJNG signed on to become a DOE Home ENERGY STAR Partner and requested that it be placed on the agenda for future energy efficiency meetings. They are starting some their Schools outreach now.

Mona Mosser (BPU) asked a question about small CHP program from C/I - Do any of the gas utilities have a CHP program still? Utility representatives in the room all said that they do not.

Home Performance with ENERGY STAR®

Due to time constraints there was no presentation during the meeting.

Eastern Heating and Cooling Council

Due to time constraints there was no presentation during the meeting.

Other Business, Next Meeting

- Next Meeting – October 9th.

Attendees

<u>Name</u>	<u>Company</u>	<u>In Person</u>	<u>By Phone</u>
Ambrosio, Mike	AEG	x	
Betzel, Ming	Green Tech Energy	x	
Bitner, Angela	EFS		x
Bovio, Brian	Bovio Heating		x
Bowen, Mark	Franklin Energy	x	
Burack, Jeffrey	Comverge	x	
Chaplin, Dawn	Honeywell	x	
Costenaro, David	EnerNOC	x	
DeLuca, Brian	TRC		x
Dolan, Brian	Intellidyne	x	
Donohue, John	On behalf of Fuel Merchants Assoc	x	
Dumchus, Linda	NJR Home Services		x
England, Cheryl	Elizabethtown	x	
Evans, Frank	Comverge	x	
Felder, Frank	BPU	x	
Fischer, Scott	Ciel Power LLC		x
Flynn, Don	Nexant, Inc.		x
Gennello, Joe	Honeywell	x	
Graham, Marianne	ICF working in support of EPA ENERGY STAR		x
Grossman, Kate	Greenwich Energy Solutions	x	
Haddock, Kyle	EIC, Comfort Home	x	
Hambric, Steve	OPower	x	
Hazard, Caroline	SRA International Inc		x
Hoff, Kim	CSG	x	

Holland, Dave	Honeywell	x	
Holmes, Bill	SJG	x	
Ingelido, Richard	ConEdison Solutions		x
Janowiak, Ed	EHCC	x	
Jenkins, Jeff	Jenkins Jr. Plumbing		x
Jones, Sherri	BPU	x	
Kaplan, Matthew	Revireo	x	
Kliemish, Roger	TRC	x	
Lang, Nick	VEIC		x
Lupse, Janja	CSG	x	
MacCarrigan, Fran	Tozour Energy Systems, Inc	x	
Magrann, Mark	MaGrann Assoc.	x	
Marx, Rick	EAM Associates	x	
McKeever, Elizabeth	Bevan, Mosca, Giuditta & Zarillo, P.C. on behalf of Bloom Energy		x
McShea, Anne Marie	BPU	x	
Miller, Ashley	TRC		x
Mitchell, Allison	BPU	x	
Mosser, Mona	BPU	x	
Napoleon, Alice	Synapse Energy Economics Representing Rate Counsel		x
Nole, Meredith	American Efficient Lighting		x
O'Brien, Nancy	EFS		x
O'Donnell, Tony	Sustainable Jersey	x	
Orlando, Nicole	DH Services Group		x
Palmer, Bill	Kamson Corp	x	

Parlapiono, William J. III	PECI		x
Perracchio, Anne-Marie	NJNG	x	
Pollack, Avi	Energy Analysis Group		x
Price, Jim	Freedom Solar		x
Reinstadtler, Thomas	RJ Walsh Assoc		x
Rohmund, Ingrid	ENEROC		x
Ryan, Jeff	NJNG	x	
Schoen, Scott	Beehive Htg & Clg	x	
Seelaus, Andrew	EMC2 Development Co		x
Shamlian, Karine	Clean Markets, LLC	x	
Sherako, Jill	Eastern Heating and Cooling Council	x	
Siegel, John	Quanta Technologies, Inc	x	
Solomon, Randy	Sustainable Jersey	x	
Steindel, Sarah	NJ Division of Rate Counsel		x
Stewart, Patrick	Bovio Heating	x	
Sutcliffe, S. Lynn	EnergySolve LLC		x
Swift, Don	CSG	x	
Teng, Elizabeth	BPU	x	
Tesoriler, Steve	RRS	x	
Teter, Karl	TRC	x	
Tobian, Carol	National Resource Management, Inc.		x
Viera, Marid	New Millennium Lighting	x	
Vogel, Mike	Elizabethtown	x	
Weitzel, Charles	Free Lighting Corp.		x
Wetzel, Linda	AEG	x	

Whited, Melissa	Synapse Energy Economics Representing Rate Counsel		x
Winka, Mike	BPU	x	
Wolfe, Sharon	BPU	x	
Wolk, Dave	Honeywell	x	
Wong, Doug	BC Express Inc	x	
Woods, Emily	Honeywell		x
Zukas, Diane	TRC		x