New Jersey's Clean Energy Program
Energy Efficiency Committee Meeting
May 16, 2014

Program Coordinator and Regulatory Updates
Betsy Ackerman, Sherri Jones, Mike Ambrosio

Updates on Filings, Board Orders and Regulatory Items

Betsy Ackerman: This month's board agenda meeting is May 21st. There are 2 items of interest:

- Staff will be recommending that the board adopt the updated protocols for determining energy savings.
- Sierra Club has a petition before the board to establish an energy efficiency portfolio standard.

Budget Revisions FY14

Carl Teter: TRC transferred approximately $2.8 million out of the P4P program, and distributed this money to other programs.

- New Construction received approximately $380,000.
- Direct Install received a little under $2.1 million.
- LGEA received approximately $375,000.

Kevin Burke: Honeywell transferred approximately $1.37 million out of the HVAC WarmAdvantage/CoolAdvantage programs, and split these funds between the Energy Star products program and the Home Performance with Energy Star (HPwES) program.

Bruce Grossman: Comfort Partners requested that each utility be able to transfer dollars amongst themselves in order to accommodate the state of NJ's needs, without going over the budget line.

FY15 Budget

Staff is recommending that the current suite of programs and funding levels be renewed for another year. There is clear direction now on the RFP for program administrator, which will be re-written. Betsy Ackerman will meet with the Division of Purchase and Property to discuss the process and timeline.

Contract extensions for the Market Managers/Program Coordinator will include revisions to reflect program changes. Market Managers were asked to fully re-think their marketing plans. CRA 2015 includes $30 million for the energy resiliency bank (limited to critical facilities).

In 2014, three work groups were formed. Staff will create a single report of the findings, which is intended to be issued by the end of the summer.

Evaluation Work Group: Studies will be conducted to establish why NJ's programs are underperforming as compared to peer states. Staff is also looking to do a process evaluation of clean energy programs. Contractors, participants, and employees may be contacted in a survey during this evaluation.

Utility Work Group: Staff and members of this group will and consider alternative administrative models for NJCEP and make a recommendation to the Board.

Data Work Group: All data collected for every clean energy program and utility program will be studied to see where uniformity can be created.

Goals for 2015 include setting funding levels that fully fund all current programs; continuing a trend of increased participation and setting clear energy savings targets.

Funding levels:

- $245 million in CEP, proposed to allocate as follows:
  -$195 million to EE programs.
  -$25 million to CHP/Fuel Cell programs.
  -$9.6 million to renewable energy programs.
  -$7.5 million to EDA programs.
  -$9 million to NJCEP Administration.
  -$81 million to residential programs.
  -$35 to low income.
  -$78 million to C&I programs.
- There is a $153 million carryover from FY14.

Sierra Club Presentation: Thomas Schuster
Petition for EE Portfolio Standard

<u>Citizen's Petition for Energy Efficiency Portfolio Standards</u>

Thomas Schuster: Mr. Schuster opens by saying that he is presenting in order to explain the Sierra Club's petition and receive feedback from those in attendance. He begins with the Beyond Coal Campaign, which is a campaign dedicated to reducing coal usage (ideally replacing coal entirely by the year 2030). Two things that the Sierra Club is trying to communicate to the public with this campaign:

- Efficiency is cheaper.
- Efficiency boosts job growth.

According to NEEP analysis, NJ is behind other states in efficiency due to frameworking issues. Some of these issues are:

- Lack of consistent funding in energy efficiency programs.
- Utility investment in efficiency.
- Withdrawal from RGGI means that funding took a hit.
- NJ is one of the few states that do not have binding efficiency targets.
  -States that do have mandates have over double the efficiency savings.

Question by attendee: Is Sierra Club on the defense to stop what's happening in Ohio and Indiana, where efficiency standards are currently under attack?

Answer by Thomas Schuster: Yes, these states are battlegrounds with Sierra Club at the forefront. There is a national attack on both clean energy standards and efficiency standards, led by fossil fuel interests. Sierra Club has people on the ground in Ohio, and although we lost in Indiana—which is a huge setback—the issues will likely be revisited.

Question by Mike Ambrosio: How do you define energy efficiency targets state by state? For example, some targets are set by legislation, others by the American Council for an Energy Efficient Economy (ACEEE), etc.

Answer by Thomas Schuster (paraphrased): The information in the slide is from the U.S. Energy Information Administration (EIA). If it were compared to information from the ACEEE, there could very well be some states that differ in their energy efficiency targets. With the ACEEE definition of energy efficiency, there is a binding target in place. States that have mandates would penalize either a utility or a program administrator for failing to reach that goal. Some penalties are more effective than others (for example, PA has a 20 million dollar fine for not meeting goals). The dividing line between EERS states and non-EERS states is that binding target.

Sierra Club's petition:

- "Petitioner respectfully asks that the board immediately open and fast track a rulemaking docket to set binding, long-term, fully-funded targets for the state's public utilities, i.e. 'energy efficiency portfolio standards.'"

Petition includes recommendations for key program features, but will be based in open stakeholder comments. Sierra Club's recommendations:

- Binding long term and interim targets.
- Recommend 1.5%/year for electricity and 1%/year for natural gas:
  -Consistent with EMP goals.

- Cost recovery for utilities:
  -State cannot touch money for programs.
- Performance incentives for utilities that exceed requirements, as well as penalties for utilities that fail, or fail badly, to meet goals.
- Include peak reduction targets.
- Bid 75% savings back into PJM market.

- Savings measured with technical reference manual:
  -No need to weather-normalize.
  -Measure against consistent baseline year.
- Cost-Effectiveness:
  -Total resource cost test should include wide range of quantifiable avoided cost
  -Cost-effectiveness can leave room for experimentation—for example, some measures in programs may not show cost-effectiveness immediately, but over a longer period of time.
- Clean Energy Program can remain in effect using SBC funds to complement utility programs.

DISCUSSION

Question by Mike Ambrosio (paraphrased): Is your proposal to decide who should run the programs? Is your conclusion that the utilities should run the programs?

Answer by Thomas Schuster: The utilities have an important role to play here—utilities have access to customers, data, etc. and the utilities are the ones who would be held to binding targets. The 1.5% and 1% standard for electric and gas can be split between the programs and the utilities, but the programs should then also be held to binding targets.

Question/Concern by Mike Ambrosio and others: Is a 1% standard too high for NJ natural gas?

Answer by Thomas Schuster: That is something that can be addressed while proceeding—if there is strong evidence within the first few years that a 1% standard is not feasible, we can be reasonable with that. But after an initial adjusting period, there should be no reason why NJ is unable to reach goals that are consistent with other states in the area.

Question by attendee on whole building programs/broad testing: Are these factors taken into account when determining energy savings? For example, some buildings are insulated—resulting in more savings.

Answer by Thomas Schuster (paraphrased): I am familiar with the concept, but unfamiliar with the details. Excluding deeper, longer term savings that may help to grow the market is an issue and Sierra Club is very interested in learning more.

Conversation evolves into discussing different ways of measuring energy efficiency and cost benefit, with building science included.

Question by Attendee: Have you looked at how much the state and utilities have spent on energy efficiency in the last 6 years (since statutes 87g and 98.1 were accommodated)? Has there been any analysis done on what the state has achieved, in order to take an all-encompassing look on how to get to the next level?

Answer and Closing Remarks by Thomas Schuster (paraphrased): We did an analysis, and compared to other states data. With binding targets, there is incentive to lower administration costs and get more creative with achieving efficiency goals.

Final comment by attendee indicates that the above-mentioned statutes have already incentivized NJ utilities to reach efficiency goals through programs as well as lower administration costs.

ENERGY STAR and DOE Century Club Award Presentations

13 award-winners, up from 8 last year. The firms have completed a minimum of 100 Home Performance projects and received a plaque presented by President Solomon.

- Home Energy Matters, Inc.
- Scungio Borst Assoc.
- The Energy Team
- Rubino Service
- O'Neil Contracting
- Energy Analysis Group
- Bovio Heating Cooling Insulation
- Building Sciences
- Laury Heating Cooling
- BC Express
- Mark Group of NJ
- Hutchinson Plumbing Heating Cooling
- Allied Construction

Environmental Defense Fund (EDF) Presentation: Matthew Golden

The Investor Confidence Project (ICP) aims to give investors a warm welcome and break down barriers to EE finance. The goal is to standardize projects in order to give investors an idea of consistent, reliable savings that are more easily invested in by public sector entities, building owners, finance companies, etc.

Ricks often include: asset risk, credit risk and performance risk. Since every project is a unique asset, it is difficult to do underwriting.

Near-term goals:

- Increase confidence in savings.
- Reduce transaction cost.
- Streamline origination process.

Long-term goals:

- Develop date to manage performance.
- Attract project finance investors.
- Enable portfolios and securitization.

Additionally, one main goal is to reduce complexity when explaining projects to investors. ICP takes the complexity inherent in projects, and packages it into energy performance protocols. The EDF is clear that they are not creating new standards, only contextualizing what is already present into something digestible for potential investors.

For different types of projects, there are 6 protocols in the market—3 for commercial, and 3 for multi-family (from single measures to deeper retrofits). ICP aims to organize these standards and document the process so that a third party can understand the project and label it as "investor ready". Software can be a tool to help originate projects, as well as give the public access to energy data.

Open Energy Data Initiative:

- Aims to capture data and build record that can be freely accessed.
- Data meant to support potential projects.

Investors in these projects are not always (or even usually) banks—i.e. for building owners, ICP is a way to describe projects in a way that lets investors know putting money into their buildings will save costs over time.

Potential Investors include building owners, project developers, financial markets, insurance industry, technology providers and utilities/capacity markets.

Next Steps for ICP include building a network of allies and creating alignment across public EE programs. For additional information, visit eeperformance.org.

DISCUSSION

Question by attendee: Do you have any examples of investors relying on ICP protocols?

Answer by Matthew Golden: Yes, the Texas-based program is relying on ICP currently. We are also working with Better Building Challenge in L.A., as well as some Benchmarking programs.

Mr. Golden explains a bit about the differences between a centralized program, or a distributed program, and the importance of consistency in each. The EDF plans to approach programs uniquely when trying to partner with them—for example, a program with a cost-effectiveness requirement would require a standard of savings and advanced calculations to determine that number. Energy efficiency is a calculated value, and agreeing on how to calculate that value is essential from several standpoints.

Question by attendee (paraphrased): In determining protocols, are you also making recommendations on what a loan financing package looks like? In our experience, when taking efficiency into the marketplace, the biggest challenge is not the availability of cash flow, but the term of the loan. For example, a loan term can be as short as 1-2 years, but it can take a building as long as 10 years to show energy savings. Are you trying to influence those terms?

Answer by Matthew Golden: On a certain level, yes, but within ICP—we are a neutral ally, and do not take a position on cost-effectiveness. Programs, and building owners who make decisions, may have requirements, but what we care about is whether or not the projected savings are actually present.

There is a mention of PACE, which allows loans to be extended for 20 years and may be a path towards getting building owners to think in longer terms.

Question by attendee: Is real-time monitoring something that would be included?

Answer by Matthew Golden (paraphrased): Yes, for larger projects performance monitoring is very important and provides data for investors.

Mr. Golden explains how ICP can work as a platform for building data, such as with the Open Energy Data Initiative (which is modeled off of open health data).

Question by Mike Ambrosio: What kinds of things can we do as a program—say, the HPwES program—to get competition with the banks?

Answer by Matthew Golden: Data can be used to show banks that there are higher performing loans for EE lending, which can produce market-based loans that are less costly than traditional unsecured credit. This creates a platform to sell home performance—a streamlined package is sometimes more important than low interest rates.

Comment by attendee (paraphrased): There is a realization that standardization is needed on the commercial side.

Response by Matthew Golden (paraphrased): If we can get the whole ecosystem on the same page, a lot more innovation will happen.

Comment by Betsy Ackerman: In light of the extended transition we seem to be in, and in light of staff's desire to advance the programs and set some direction, one of the recommendations for FY 15 is to form a work group to work with EDF in figuring out how to employ ICP protocols in the Clean Energy Programs. I believe, after sitting through many financing conferences, that one of the industry's greatest hurdles is the lack of uniformity and lack of simplicity in the way packages are put together.

Residential Program
Honeywell Team
FY14 Programs and Results

Both HVAC WarmAdvantage & CoolAdvantage programs are leveling off.

HVAC *Warm*Advantage & *Cool*Advantage Monthly Overview:

- Cool completions are at 68% of goal.
- Warm completion are at 96% of goal.
- HVAC completions are at 91% of goal.
- There is 18% remaining of the budget.

Numbers are trailing off slightly in Residential New Construction.

RNC Monthly Overview:

- Enrollments are at 70% of goal.
- Completions are at 70% of goal.
- There is 23% remaining of budget.

Energy Star products are above goal.

Energy Star Products Monthly Overview:

- Washer completions are at 163% of goal.
- Fridge Completions are at 62% of goal.
- Lighting Completions are at 118% of goal.
- Fridge Recycling is at 60% of goal.
- There is 24% remaining of budget.

Home Performance with Energy Star is tracking above goal.

HPwES Monthly Overview:

- Tier 2 Completions are at 174% of goal.
- Tier 3 Completions are at 134% of goal.
- Completions are at 137% of goal.
- There is 10% remaining of budget.

Hurricane Sandy Response Update

- WarmAdvantage rebates totaled 4,433.
- CoolAdvantage rebates were at 64.
- Central A/C rebates added to 758.
- Total incentive amount for all: $3,330,050.00.

Janja: HpwES monthly update:

- 4,505 completions.
- 83% of all enrollments include HPwES financing.

cuGreenLoan Pilot:

- 2 had enrolled.
- 9 were completed.

Budget for HPwES is up to 40 million dollars (including transferred funds).

Pipeline Summary:

- There are 1,503 total active and potential projects.

Question by attendee: How many active contractors do you have?
Answer by Janja: There are currently 115 active contractors.

Commercial & Industrial Program
TRC Team
FY14 Programs and Results

Retrofit:

- Completed projects are at 69% of goal.
- 366 new applications were received in April. There is trend up for applications received.
- 6% remaining of budget.

New Construction:

- Completed projects 25% of goal.
- 14 new applications were received in April
- 21% remaining of budget

Direct Install:

- 59% of goal
- 120 new applications were received in April.
- The budget has been increased through transfers.

CHP & Fuel Cell:

- 71 % of goal
- 5 new applications were received in April.
- 5 new applications were approved in April.
- 4% remaining of budget.

P4P Existing Buildings:

- 69% of goal.
- 5 new applications were received in April.
- 3 new ERPs received in April.
- 7 ERPs were approved in April.
- 1 installation was approved in April.

- 1 post-retrofit savings report was approved in April.

P4P New Construction:
- 76% of goal.
- No new applications were received in April.
- 4 ERPs were received.
- 1 ERP was approved.
- 1 as-built ERP/installation was approved.

LGEA:
- 85% of goal.
- 3 new projects were received in April.
- 5 RFPs were approved (representing 31 projects).
- 15 new projects were approved/committed.

LEUP:
- 82% of goal.
- 6 enrollments were approved in April.
- 2 enrollments were cancelled
- 2 enrollment reviews are pending.

Hurricane Sandy Response Update:

As of April 30th, 2014:
- 1,532 applications were received.
- 752 applications were committed.
- 528 applications were approved for payment (incentive value: $4,740,426.72).

Environmental Benefits:

Based on cumulative competed project lifetime kWh and therm savings, NJ's Clean Energy Program has helped save 2,197,341 metric tons of CO2.

Utility Updates

ACI Regional Conference is set for June 11th, 2014.

Outreach Event is scheduled for May 17th and 18th, 2014.

Other Business, Next Meeting

Next EE Meeting: June 10th, 2014.

Name	Company	In Person	By Phone
Ackerman, Elizabeth	BPU	X	
Adams, Ben	MaGrann Assoc.	X	
Ambrosio, Mike	AEG	X	
Anekstein, David	Goodman Manufacturing		
Blankenbuehler, Kevin	Concord Engineering		X
Bovio, Brian	Bovio Heating	X	
Bowen, Mark	Franklin Synergy		X
Boyd, MaryJo	Conservation Services Group		X
Burke, Kevin	Honeywell	X	
DeLuca, Brian	TRC	X	
Desimpel, Tom	CMC ENERGY SERVICES		X
Ellman, Susan	NJNG	X	
Evans, Frank	Willdan	X	
Flynn, Don	Nexant, Inc		X
Georgi, Anthony	HUS	X	
Grossman, Bruce	SJG	X	
Heise, Dani	Techniart – Energy Saving Outlet		X
Hoff, Kim	CSG	X	
Holmes, Bill	SJG	X	
Hutchinson, Ed	Hutchinson Mech. Services	X	
Jones, Sherri	BPU	X	
Lesch, John	Eneractive Solutions		X
Lupse, Janja	CSG	X	
Muench, Amanda	TRC	X	
Paine, Karen	TRC		X
Perracchio, Anne-Marie	NJNG	X	
Pollack, Avi	Energy Analysis Group	X	
Rahikainen, Anne	GreenFaith		X
Reichert, Tom	Conservation Services Group		X
Ryan, Jerry	NJNG	X	
Schuster, Thomas	Sierra Club	X	
Stewart, Patrick	PSI	X	
Teter, Carl	TRC	X	
Valora, Sam	South Jersey Gas	X	
Vieiva, Mario	New Millennium Lighting	X	
Wetzel, Linda	AEG	X	
Zukas, Diane	TRC		X