

**New Jersey's Clean Energy Program
Energy Efficiency Committee Meeting
May 12th, 2015**

AGENDA

Introductions

Presentations

• GreenFaith

Rev. Fletcher Harper (Exec Director) and Anne Rahikainen (Program Director) of GreenFaith presented on their history and more recent achievements bolstering EE programs to low and moderate income families through faith-based organizations Statewide.

GreenFaith is an NGO based in Highland Park, NJ with over 20 years of experience in educational work, legislative advocacy and leadership training serving all types of faith-based institutions. Their "Energy Services" work began in early 2004 and continues today with their mission primarily focused on targeting low to moderate income groups or minority populations through faith-based institutions. They are now focusing on creating an Energy Services Program where they can be a "One-stop Shop" with their education, resources, and expertise that they have gained over the last decade with solar, energy audits, lighting, and other technologies.

Question from Betsy Ackerman (BA): Are these programs being extended to the schools and living facilities?

Rev. Harper responded: We have worked with a lot of Catholic Schools and there are sometimes pre-schools and nurseries that also become part of the program. We provide advice as to what the church can do for the rectory and often recommend them to the HPWES program.

2-part Question from Mike Ambrosio (MA).

1. Made reference to the direct install program, is it working, is it a good program? Any changes needed?

Program participants appreciate the program and the incentive levels and are eager to participate. 34% conversion rate from audit to DI program. The areas we face challenges is that typically they want to upgrade a boiler or furnace but are hampered by the boiler restriction. Boilers are 40 to 50 years old, the equipment today is so much smaller than the older models. If there was something that can be done on the flexibility on size of boilers.

2. Coming up with the 30% downpayment is often difficult, do they like taking out loans?

A lot of the denominations have building funds and facility funding. Non-profits are usually used to getting something at below-market rates. I wouldn't recommend creating a market-rate loan products just for the faith based sector.

• Mission:Data

Mission Data is a coalition of companies focused on the energy sector advocating for data access and sharing of customer energy use to empower customers to make better decisions. Klaar De Schepper, Data Manager with Bright Power presented on the mission. Bright Power is based out of New York City with 65 employees.

The 3 commonly stated objections to accessing utility data is 1. Privacy 2. Access by 3rd parties and 3.

Cost. Mission Data believes privacy can only be improved from its current state, Access by 3rd parties will be granted by only those customers that choose to share their data, and cost is actually low.

Currently, there are different kinds of energy data available depending on the situation 1. utility bills with monthly readings, 2. Interval meter readings ranging from hourly to every 15 minutes, and 3. Smart Meters. All that is needed is 12 data points in a year to do useful analysis and M&V.

The solution that has been developed is called "Green Button Connect. It is a One-time authorization, 3rd party registration, automated transfer between retail customer and data custodian to a 3rd party. California now mandating the sharing of utility data

Colleen Woodson (CW), Deputy Director of Energy Analysis with Bright Power presented on the Impacts of Utility Data and their activities in NJ using utility data to create Energy Score Cards/Benchmarking tools. The EnergyScoreCards are specially designed for multi-family buildings. Currently Bright Power is tracking over 18,000 buildings across the country by ongoing monitoring of energy performance.

In NJ, Bright Power is monitoring energy at over 100 properties in NJ. They are a Pay for Performance Partner and have done weatherization projects with HMFA.

Q&A:

BA Asked: On Slide 18 the expected savings are based on benchmarking? Based on what?

CW Reply: Yes. Based on actual usage during a particular time period. How this account is using energy. The grades are comparing it to its peers.

Maurice Kaiser (MK) of Honeywell asked: You would do this before a facility installs EE measures?

CW Reply: Yes, do this before any energy audit.

MA Question: Do your models adjust for occupancy or other factors? Is the initial period done after commissioning?

CW Reply: Benchmarking can be done at any time especially after work was done at the building.

Janja Lupse (JL) of CSG: The 100 building in NJ are all multi-family large or small? CW Reply: Mostly large MF buildings.

- Michael Wyman, President of SwitchorNot, presented on Better Access to Consumer Data: Enabling Distributed Sources

SwitchorNot is focused on the residential sector with a goal to be the link between bolstering residential solar and distributed resources and data access. Help residential solar developers use customer data with their permission to make informed decisions about whether to switch to Solar.

NJ Solar Developers encounter 2 main problem points, 1. How do you get access to at least 12 months of customer bill history to give them accurate price? And 2. How do you help customers benchmark their savings to avoid rebound effects post sale?

The current Situation in NJ is the lack of Green Button in most of NJ causing both Solar developers and consumers to lose out. Green Button is a Low capital cost to utilities as No AMI/hardware upgrades are needed. The benefits outweigh the risks as there would be better integration of distributed resources & ability to benchmark performance, a less friction-producing sale experience. The benefits would apply to distributed resources like battery storage in future.

Program Coordinator and Regulatory Updates

Elizabeth Ackerman, Sherri Jones, Mike Ambrosio

- Updates on Filings, Board Orders and Regulatory Items

May 19th is the next Board Agenda meeting. TRC has submitted a request to re-allocate \$6M out of residential EE programs into C&I programs that are seeing an increase in performance. TRC has confirmed with Honeywell that this will not have a significant impact on the current fiscal year. Only one month left in fiscal year so let's make sure all dollars in all programs are being spent.

- Discussion of NJCEP Program Administrator RFP

The RFP was issued a few weeks ago. Treasury has received numerous questions and staff is working on responses to those questions.

- FY15 Budget Reallocation/Status of CRA

Draft CRA and FY 2016 budgets/compliance programs have been issued by Staff. A public hearing is scheduled for May 22. The public comment period has been extended to May 29 with a target approval at the June 17 Board meeting.

Question: Regarding RFP questions. Do you happen to know if Treasury is holding off answering all questions at one time? BA reply: We won't know the answer until tomorrow's meeting.

Commercial & Industrial Program

TRC Team led by Carl Teter

- C&I Budget Reallocation Internally – Carl discussed the reallocation of funds from the residential EE programs into the commercial EE programs.
- Fiscal Year 2016 Proposed Program Changes – Carl presented and reviewed the latest changes to the Fiscal Year 2016 Commercial programs and incentive offerings.

Comment from BA: To clarify, these short-term changes proposed by TRC and Honeywell do not require contract mods. The compliance filings only reflect these short-term changes. However, longer term changes to the portfolio of programs that would require contract mods in FY 2016 can be accomplished once the new Program Administrator is on board.

Carl then reviewed the Commercial EE programs results to date.

□ Fiscal Year 2015 Program Results to Date

- C&I Retrofit – Electric Savings 91% of Installed Goal
Gas Savings 115% of Installed Goal
5,037 apps received & 99.6% of budget paid/committed
- C&I New Construction – Electric Savings 103% of Installed Goal
Gas Savings 77% of Installed Goal
183 apps received & 88% of budget paid/committed
- C&I Direct Install – Electric Savings 130% of Installed Goal
Gas Savings 147% of Installed Goal
1,148 apps received & 94% of budget paid/committed
- C&I CHP/FC – Electric Savings 142% of Installed Goal
Gas Savings 193% of Installed Goal
19 apps received & 41% of budget paid/committed

- C&I P4P Existing Buildings – Electric Savings 115% of Installed Goal
Gas Savings 124% of Installed Goal
86 apps received & 99.2% of budget committed/paid
- C&I P4P New Construction – Electric Savings 963% of Installed Goal
Gas Savings 2112% of Installed Goal
25 Apps Received & 95% of budget paid/committed
- C&I LGEA – 159% of Goal, 4 new projects received, 99.2% of budget paid/committed
- C&I LEUP – Electric Savings 149% Installed Goal
Gas Savings 0% of Installed Goal
8 approved enrollments & 89% of incentive budget paid/committed
- C&I SEP Non-IOU - \$475,150 Available funds in DI only; \$4,865 remaining funds
- C&I Sandy Relief – 3,011 apps received, \$33.2M estimated total incentive value for all apps
- C&I Lifetime Benefits – NJCEP has helped save 2.9M metric tons of CO₂

FY 2015 Program to Date Updates

11:20 – 11:50

Honeywell Team

Maurice Kaiser (MK) reviewed and discussed the Fiscal Year 2016 Residential proposed program changes and incentive offerings.

- RNC
EnergyEfficient Home (Tier 1)
This tier helps prepare the market for the pending adoption of IECC 2015 by incorporating many of the requirements of the new code.

BA Comment: DCA has moved to adopt the 2015 code. The public comment period ended in March and DCA is on schedule to adopt the code as of 7/1/15. There would be a six month grace period before they become the requirement.

- Exceptions from the IECC 2015 include:
Maximum infiltration ACH50 (IECC 2015=3) thresholds as noted below
 - MF 6 ACH50
 - MS 5 ACH 50
 - SF 4 ACH50
 Exception: Maximum HERS Threshold
 - MF: 75 HERS
 - MS: 70 HERS
 - SF: 65 HERS

ENERGY STAR Home (Tier 2)

- Builders that enroll in Tier 2 will satisfy the requirements for ENERGY STAR Version 3.0 utilizing the Performance Path, including full inspection checklist requirements. Homes that meet the requirements will be ENERGY STAR certified.
- Additional NJCEP RNC Program Requirements:
Construction documents required (R103.2)
Maximum HERS index:
 - MF HERS 75
 - MS HERS 70
 - SF HERS 65

Anne-Marie Peracchio (AMP) of NJNG: What is a multi-single? Ben Adams (Magrann) replied: 4 to 6 units with a building that share a wall. Attached individual entrances as opposed to a common entrance.

Zero Energy Ready Home (Tier 3) Requirements:

- Meet or exceed all DOE Zero Energy Ready Home technical standards including:
 - Comply with ENERGY STAR Home Program and all checklists
 - Meet 2012 IECC insulation levels
 - Certify to EPA's Indoor airPlus Program
 - Additional NJ CEP RNC Program Requirements:
 - Maximum 50 HERS Score

- Tier 3 Plus Requirements:
 - Meet or exceed all Tier 3 requirements as described above
 - Additional NJCEP RNC Program Requirements
 - 100% the building's modeled site energy usage be met by renewable energy systems installed onsite at the time of completion of the home.

ENERGY STAR Multifamily High Rise

- MF buildings at 4 to 6 floors are eligible for ENERGY STAR MFHR Program. The incentive structure within this program is variable based upon building performance.

<u>Savings over code before RE</u>	<u>Incentive per unit</u>
15%	\$1,250
20%	\$1,500
25%	\$1,750
30%	\$2,000
35%	\$2,260

MA: I thought incentives followed the HERS ratings? MK: For MF, the incentives don't follow a HERS ratings. It will be a baseline path.

MA: I think we should have a conversation with Scott so he knows that we are giving incentives for Solar. MK: The tier 3 Plus is what the current Tier 3 is. Some sites aren't conducive to solar. Making it a little bit easier to participate in Tier 3.

BA: How low of a HERS score can you get? MK: Can be in the negatives. Rebecca Foster (RF) of VEIC on phone said: DOE language is a zero energy ready home, ready to add renewable to it.

BA: Can you get zero with no renewables? Ben: Not really, low single digits.

BA: Wouldn't a passive house have some type of generation? MK: Not really. Comment from phone: Passive house would be at least Tier 3.

- Warm/Cool Advantage
 - Central A/C
 - Tier 2 SEER 18 EER 13 \$500
 - Tier 1 SEER 16 EER 13 \$300, currently the Sandy criteria, so Sandy customers will be eligible for the \$200 rebate.
 - Heat Pumps
 - Tier 2 SEER 18, EER 13 HSPF 10 \$500
 - Tier 1 SEER 16, EER 13, HSPF 10 \$300
 - Geothermal Heat Pump \$500
 - Ductless MiniSplit
 - SEER 20, EER 12.5, HSPF 10 \$300

BA: How many geothermals applications do we get per year? Kevin Burke (KB): About a dozen.

- Tier 1 Gas Furnace, 95% AFUE \$250
- Tier 2 Gas Furnace, 97% AFUE \$500
- Oil Furnace, 85% AFUE \$500
- Furnace & DHW Combo \$900
- Gas Boiler, Hydronic, 90% AFUE \$300
- Gas Boiler, Steam, 82% AFUE \$300
- Oil Boiler, Hydronic, 87% AFUE \$300
- Oil Boiler, Steam 82% AFUE \$300
- Boiler & DHW Combo \$900
- Water Heater, 0.82 EF or 90% Thermal Efficiency \$500
- Power Vented Water Heater, .67 EF \$500
- Heat Pump Water Heater 2.0 EF \$500
- Solar Water Heater, ENERGY STAR, \$1,200
- Boiler Reset Controls, Discontinued

BA Comment: Oil boilers are only incentivized from the SEP program.

EE Products:

- Incentives for ENERGY STAR qualified lighting products
 - Modest reductions (10%) in markdown incentives, continued market shift to higher performing LEDs and continued price reductions for standard CFLs.
 - The removal of most fixture incentives with the exception of down lights based on the growing market share of LED and CFL replacement lamps; and
 - Removal of incentives for standard single pack CFLs to reflect the low cost of multi-packs as a more cost effective option for customers and the program.
 - Incentives will vary by type of product and/or distribution channel
 - The FY16 markdown will be a max of \$0.50 per standard CFL bulb and \$1.50 per specialty CFL bulb and \$8.00 per LED bulb and a max of \$12.00 for LED Down light.
- Clothes Washer:
 - Tier 1 Front Load – IMEF at least 2.28/IWF at least 3.7 \$50
 - Tier 1 Top Load – IMEF at least 2.06/IWF at least 4.3 \$50
 - Tier 2 – IMEF at least 2.74/IWF at least 3.2 \$75
- Clothes Dryer:
 - Tier 1 Gas – CEF at least 3.48 \$100
 - Tier 1 Electric – CEF at least 3.93 \$100
 - Tier 2 – CEF at least 4.30 \$300
- Refrigerator:
 - Tier 1 – Energy use 10% below the minimum Federal Standard \$50
 - Tier 2 – Energy use 15% below the minimum Federal Standard \$75
- Advanced Power Strip
 - Tier 1 – Provides standby power management \$15
 - Tier 2 – Provides active power management \$40

MA: On the fridge pickup, one of the ERS recommendations was a lower tier for a 2nd unit. Is that in FY16? KB: No, it's part of broader changes.

▪ HPwES:

Basic tiered structure has been maintained, with adjustments to strengthen the focus on building shell measures while enabling a broader range of projects to participate in the program. These changes include:

- The program will require insulation in at least one location of the home for every HPwES project.
- The program will make it easier for contractors to seal ducts.
- Lowering the entry thresholds for TES.

- Contractor rebates reduce to \$500 from \$700.

BA: What code standard? MK: 2009.

BG: The 0% financing for 10,000 is for 7 years, is the 4.99% also 7? MK: No, ten years.

MA: Clarify the building measures for MF? MK: It's the same as SF. Lighting is not included in any of the HP programs.

- Janja Lupse of CSG led a discussion on Integrating the Renewable Energy Program with the Energy Efficiency Program

The goal is to get properly sized solar systems after EE measures are taken into account. To this end, we will be including educational materials on the NJCEP website showing the importance of performing EE measures prior to the solar being sized or installed. Materials will be available for installers/contractors to have the ability to download and educate customers. Include visuals (pyramid).

Include language on the website promoting all NJCEP programs.

- SREC Registration Program
- HPwES
- Direct Install
- Pay for Performance
- Local Government Audit

Current RE Solar brochure is available on the NJCEP website for download and can be distributed.

Mailing to all active solar customers to include language on benefits of EE measures.

All NJCEP Program presentations and outreach should include consistent message "efficiency first" prior to installation of solar. Develop a case study on project that completed Tier 3 measures.

BA: I am interested in getting contractor feedback on this proposal. Different skill sets and trades involved between EE measures and Renewable measures. Reduce your load before you generate. What is necessary and how to encourage those collaborations between RE/EE. Is an incentive necessary to advance this collaboration?

AMP: I think its great, but lets take a step-back and see how it ties back to Energy Master Planning.

EDF: Is there a timeline or a goal when you want this done by? BA: Yes, but it would be part of the broader changes that we are looking at for the portfolio program.

□ Fiscal Year 2015 Program Results to Date

- EE Products – Electric Savings 124% of Goal
Gas Savings 77% of Goal
Washer Completions 18,065 vs 24,000 goal
Refrigerator Completions 4,139 vs 14,000 goal
Lighting Completions 3.9M vs 3.6M goal
Fridge Recycling Completions 7,430 vs 16,500 goal
Consumer Electronics Completions 0 vs 35,000 goal
\$6.1 M Budget remaining
- HVAC – Electric Savings 42% of Goal
Gas Savings 71% of Goal
Total Completions 15,286 vs 25,498 goal
\$3.3M Budget remaining
- Home Performance – Electric Savings 142% of goal

Gas Savings 110% of goal
Tier 2 completions 380 vs 210 goal
Tier 3 completions 4,057 vs 4,110 goal
\$6.0M Budget remaining

- New Construction – Electric Savings 36% of goal
Gas Savings 33% of goal
Enrollments 4,103 vs 4,503 goal
Completions 2,283 vs 4,503 goal
\$3.3M budget remaining
- Hurricane Sandy Incentives – 6,183 incentives paid
\$1.6M Sandy relief dispensed

Utility Updates

None.

Other Business, Next Meeting

June Meeting – 6/9/15