Renewable Energy Committee Meeting

October 11, 2011
CSG Office - Iselin, NJ
1:00 pm to 3:00 pm

Meeting called to order at 1:05
Introductions

Regulatory Update (M. Winka)

Energy Master Plan and EMP Working Group Reports

On the agenda this week there are only three items. Two are rebate approvals, and one is an approval for a clean energy manufacturer. Last September's Board Agenda there were a number of items – 2011 protocols, there was the approval of the extension for reporting year 2011. That is part of the reason why buyers are waiting on the sidelines for truing up the 2011 portfolio standards. In terms of solar we haven't calculated that, based on the Solar Energy Advancement Act, there were exempted classes and non exempted classes, Scott and Ron are going through those calculations now to verify the numbers. The generation numbers went out last week. There's a true up period and then the reporting is December 1, so the report for energy year 2011 will be a little late, it will probably be out in January. The 5th revised budget for the CEP was approved by the board. There were several reallocations in the budget, mostly shifting dollars around. One of the other board approvals was the extension of the Home Performance with Energy Star "Summer Promotions" to through the fall. It increases the rebate on HP Tier 3 improvements to $5,000 and some contractor incentives. That is part of the proposal going forward in 2011. The Solar ACP schedule was submitted for comment; there is a 30 day public comment period until November14th. We will also be setting up the Solar Transition next step meetings, probably starting the 3rd week of October, depending on securing a location. Part of the agenda will be comments received on the Solar ACP. You can submit written comments to OCE@bpu.state.nj.us.

The state energy plan was approved by the board and also by the Department of Energy. This is Federal funding we received by the Department of Energy, using those funds to provide rebates to the other fuels and non IOUs in relationship to all of the Clean Energy Programs on the Energy Efficiency side. The offshore wind consultant was approved by the board, Letters went out if they were or weren't hired. Boston Specific was who was hired. The Funding level Comprehensive Resource Analysis for Energy Efficiency and Renewable Energy for 2013 to 2016 procedural questions were approved. There was a notice that went out last week for comments to be received. We're also in the process of doing a market potential study. We had done one in 2004 and updated it in 2008, this will be new study on EE and RE, that is being issued through Rutgers. From the comments received on the questions, staff will develop a straw proposal for the funding levels for 2013 to 2016, including the rate and cost impact of those budgets. Once that is released

there will be a 30 day comment period and a hearing, President Soloman will be the hearing officer, and will provide the hearing schedule for that.

The CRA order is out, and there is a 30 day public comment period through October 7th . The public hearing on the CRA process won't happen until sometime in 2012, January-February timeframe, based on that it will go to board for their consideration for the next four-year funding level. The board will be considering the budget hearing on Nov 3rd on in Trenton's multi purpose room from 1-5 pm. Notices went out last week about it. Honeywell and TRC have submitted requests for extensions and they are about to be filed with treasury. We're scheduling a submission to the November agenda for those extensions. The EMP working group reports are all in or just about in, and then there's a hearing scheduled for those reports through October. The Energy Master Plan website has the hearing schedule; the first one is on the Clean Energy funding levels. The transition portion of Clean Energy Program is tied into those reports and tied into the release of an RFP for program management structure, as well as the Honeywell and TRC extensions requested, and a transition schedule for that process. We're working on the finalizing the scope of work for that RFP based on the responses we got for the RFP that was issued two months ago.

The Solar Alliance filed a petition for the extension of capacity in the EDC programs. The Solar Alliance submitted a petition and it will be considered by the board and the parties to those stipulations. The order is based on the capacity in the solar RPS, but the filings have specific capacities.

Scott Hunter: The 8th solicitation is scheduled for Nov 9th to go to the board.

George St Onge: The 15 year SACP schedule- why was it set at such a high level?
MW: You can submit comments that it should be lower. Once the market comes down to some reasonable number, you decouple the solar ACP from the actual SREC number, and it becomes almost a moot point. The whole intent of the solar ACP was to help both sides of a contract to enter into a longer term contract, instead of the risk of future years to having to pay that higher solar ACP. The rationale of the REC market in the ACP was it was three times the going rate of a REC in the market. It's not just setting the ceiling, but it's setting some price to help move the market along to long term contracts.

Mike Ambrosio – Budget update

Draft 2012 Budgets

10/11/2011 13:28

Proposed 2012 Program Funding						
		Estimated	Other			2012 Funding
	New 2012	2011	Anticipated	2012	Estimated	Less
Budget Category	Funding	Carryover	New Funding	Funding	Commitments	Commitments
	(a)	(b)	(c)	(d)= (a)+(b)+(c)	(e)	(f)=(d)-(e)
Energy Efficiency	$298,250,000.00	$165,393,330.70		$463,643,330.70	$100,250,471.95	$363,392,858.75
Renewable Energy	$20,000,000.00	$38,831,421.20		$58,831,421.20	$31,329,907.95	$27,501,513.25
EDA Programs	$2,000,000.00	$50,599,136.38	$51,293.44	$52,650,429.82	$31,140,000.00	$21,510,429.82
OCE Oversight	$6,500,000.00	$1,726,926.01	$897,522.37	$9,124,448.38	$0.00	$9,124,448.38
True Grant	$0.00	$14,374,500.00		$14,374,500.00	$14,374,500.00	$0.00
Total NJCEP	**$326,750,000.00**	**$270,925,314.29**	**$948,815.81**	**$598,624,130.10**	**$177,094,879.90**	**$421,529,250.20**
Legislative Action	**$52,500,000.00**	**$0.00**	**$0.00**	$52,500,000.00	**$0.00**	$52,500,000.00
Total	**$379,250,000.00**	**$270,925,314.29**	**$948,815.81**	**$651,124,130.10**	**$177,094,879.90**	**$474,029,250.20**

(a) = 2012 funding level from September 30, 2008 CRA Board Order
(b) = estimated 2011 carry over from EE, RE, EDA and OCE Oversight budget sheets
(c) = Other Anticipated Funding: Trust Fund interest, Funding Reconciliation Adjustment, EDA interest and loan repayments
(d) = New 2012 funding, plus estimated carry over, plus other anticipated new funding
(e) = estimated program commitments as of December 31, 2011
(f) = 2012 estimated funding levels, less program commitments, as of December 31, 2011

Proposed 2012 Funding from 2008 CRA Order

C&I EE	$172,500,000.00
Residential EE	$115,000,000.00
Low Income	$30,000,000.00
Clean Energy Tech Fund	$7,500,000.00
Total EE	***$325,000,000.00***
RE	
Wind	$25,000,000.00
Biomass	$15,000,000.00
Small Solar	$6,750,000.00
Clean Energy Tech Fund	$7,500,000.00
Total RE	***$54,250,000.00***
Total 2011 Funding	**$379,250,000.00**

Proposed 2012 New Funding Allocation

Residential EE	$75,000,000.00
C&I EE	$168,250,000.00
Low-Income	$35,000,000.00
Other EE	$20,000,000.00
Total EE	**$298,250,000.00**
RE	**$20,000,000.00**
EDA	**$2,000,000.00**
OCE Oversight	**$6,500,000.00**
Legislative Action	**$52,500,000.00**
Total	**$379,250,000.00**

Note: draft allocations set out in the 2008 CRA are no longer relvant given the $52.5 M State

Q: Was there any leftover money from ARRA?
MA: At one point it was all committed, and staff is still looking at some of the projects that may not go forward. They're juggling ways to reuse that funding.
MW: The total from the State Energy Efficiency Appliance Rebate Program (SEEARP) and Energy Efficiency Conservation Block Grant (EECBG) was $95 million and change, almost all of that is obligated but not spent, some of those projects won't proceed. The approved plan B is to use those funds in updating state facilities, which was already approved by the DOE. EECBG is fully committed and half spent. SEEARP money is all spent.
MA: The goal is to spend every penny. Right now we're on track, out of the $95 million probably about 85% is spent or on projects that are substantially completed.

Status Update (S. Hunter)

The Chapter 8 rule amendments, RPS, and net metering & interconnection rules. Staff is working with legal council to develop a response to comments, with a November 9th or 30th agenda meeting for that rule adoption.

Small Wind Working Group: We have a set of recommendations for program design changes to the wind rebate program to bolster the consumer protections and safety aspects so that the program is stronger and is able to mitigate any turbine failures should they happen. We will circulate the draft of comments through the SWWG and the RE listserv this week we have a SWWG meeting here in Iselin next Tuesday here 9- 1:30. We are also 99.9% done with study with Enrel to find the cause of the two failed turbines.

September 16th Net Metering and Interconnection Meeting: The primary result of that were some comments on the staff straw for addressing the multiple property adjacency issue. Stakeholders wished to see the ability to construct a solar or any class 1 renewable energy project, on one property and be able to supply power to an adjacent property. That is currently not covered in our net metering and interconnection rules and we are in the process of developing some proposed draft language that would allow that practice. In house we have as many as six petitions requesting the board rule on that provision because it's not explicitly covered in our regulations. We're hoping to address all those petitions with this proposed rule making. We took the stakeholders comments from that meeting and revised the draft and circulated to the listerv and it is now on the net metering and interconnection webpage on NJCEP website as well.

Q: How is adjacent being defined?
SH: We borrowed a lot of concepts from the statute of on site generation, but we didn't use it old thought because that was for formal thought because the purpose of that definition was for CHP and thermal energy. What we envision is the ability to dedicate a solar facility on one property and to be able to cross right of way, similar to what the on site generation allows CHP to do. As long as you have a dedicated facility you can provide power to an adjacent property. The Concerns we have are on consumer

protection and utility law. In stakeholder meeting, someone raised the issue about safety- whether the underground facility or the interconnection facility between the generator and the customer would be marked out properly or addressed by code issues. We added language into the rule proposal that requires customer generator to comply with those rules.

John Teague: Also from that meeting, we talked about a technical meeting, and tried to schedule it for mid November, but due to scheduling issues, it will probably be in first full week of December. From the comments we've gotten from those who want to participate- we want to get the Department of Energy involved as well - we're waiting to see if they can participate. It may be December 8th or 9th. We'll send out information to listserv mentioning what subject matter we'll be covering.

Scott Schultz: If I own a property and I lease the property next to me in 20 year lease. Would that be covered under existing regulations?
SH: I don't think so now, but it would under the proposal.
SS: If I acquire property next to me, is that going by tax maps or block #'s? What is the criteria?
SH: I'm not sure, I think that might be a question for EDC's.
MA: Scott, with the new rules that will require older systems to get meters. Is there any roll for Honeywell for verifying?
SH: We've talked about it, Tammy and her team has reached out to GATS to start the ball rolling.
MA: We'd like to get that in the final filing, than having to redo it.
Charlie Garrison: For verification it's just one sentence. "At the request of the OCE, the market manager will perform site inspections to verify the installation of the meters."
SH: We've had in our contracts from the beginning, the ability to have Honeywell perform an inspection, called a REC inspection. To make sure that what is at GATS and creating RECs is actually installed.
MA: That was anticipated to be a handful of projects, but now it's several thousand I think.
SH GATS no longer does estimates, and they are going to be getting meter readings. We know what the system size is.
MA: How do you know it's a meter reading or if it was estimated? I just want to make sure we are ready because it's a big piece.
SH: I just don't think that verification is needed for all of them.
MA: I just want it to be in the compliance filing if we do want something.
SH: It may not need to be done in 6 months, it will be flexible.

Update on Interconnection Issues

A. Complaint Form (J. Teague and C. Garrison)

CG: The complaint form has been place for 4 weeks now. Not many complaints, and others EDC responds to very quickly. It seems to be working as intended.

JT: Volume has decreased, but I'm still getting a few sent directly to me, but I am working through those. There were some minor adjustments that were suggested by EDC, that Charlie has made now. It is working well otherwise.

B. ACE Interconnection Update Presentation (Rob Stewart, Josh Cadoret, Steve Steffel)

{See below for presentation}

Michael Fried: Can you elaborate on the stress of grid supply projects?
Rob S: There are some aspects, even though it's only 4kw system I think our engineering planning folks need to see what's around it. They have to look at it for each customer and make a determination. Internally there is some engineering work that needs to go on. We try to focus is how can we streamline some of that by putting adequate resources there so we can relieve any bottlenecks.
SS: 5 circuits being closed is one set of circumstances. You have 57 circuits that may be closing. If they come to fruition, you're looking at the circuits being fully utilized.
MW: Once they hit those limits, like the 5 that are already closed, there that's what would happen.
SH: That is one of the issues the tech working group wants to take on.
ACE: With our AMI vendor in other regions, we've had some discussions about the ability to actually talk to inverters through the communication network. I think we're going to see the evolution of technology that will help mitigate some of those problems.
SH: Would you mind looking at CRA order that we have issued, because there are issues on there about RE penetration issues and whether SBC funds should be used for equipment or studies that would enable greater penetration. If you can get comments into the public record it will help with 2013-2016 funding decisions we have coming up.
MW: Do you have info about the applications that were denied because of the 5 circuits that were closed?
Steve S: We can supply some information on the 57 circuits and the 5 circuits. The 57 circuits have enough large applications- 250 kW and above. What we've set as a limit for the large applications is an aggregate amount of 3MW. Once All the large projects have gone in then no more large projects would go in. Projects that were under 250 kW would be considered. The circuit actually closes when we detect voltage problems or violations. We could have cut off circuits sooner under the rules, but we're trying to allow as much as can on the circuits. The 57 wouldn't be necessarily be closed to homeowners, but they would have to close if we have a violation. The 5 circuits, there are some customers who have applied, but we don't have a log. On the circuits where there are large customers who have applied, we do keep a log of customers who want to get onto that circuit if someone drops out. The cri that close permanently we don't keep a waiting list. It wouldn't be easy to reopen those circuits.
SH: You talked about how to scrub apps in your net energy metering list that may not go forward. We expect to take that up in the rule making process. They have 60 MW of projects, with 1100 pending. Can you do an aging report on that?
Josh C: I should be able to do that by this year.
MA: What's driving the issue in your territory only? Is it larger number of projects in that area? Or do other EDCs have this issue to and I'm not aware of it?

Rob S: Initially it was largely agricultural so the design to build out of the distribution system was not to support as much load as it is in the northern part of the state. But the availability of space is in the southern part of the state. There are two opposing forces, one with the availability of space and the other is the distribution system wasn't necessarily sized to back feed that kind of energy.
Lyle Rawlings: Are the voltage violations, high voltage violations?
Steve: Yes in general, that's what the problem would be with generation going into a circuit. On a 120 volt basis, the limit is + /- 4%, so we have to operate within that bandwidth.
LR: PV inverters are supposed to match voltage pretty closely. Obviously you've got to have some push to push the electrons upstream, but it should be within a very tight limit. I'm a little surprised to hear we're having high voltage excursions, but you have seen that on heavy solar circuits?
Steve: Yes. Not just solar generation. It may seem infinitesimal for a small system, but for a large system, it will change voltage significantly. We have a lot of solutions we're looking into, but once you have high voltage you have do something.
LR: I'm just surprised that at this level you've already seen heavy voltage.
Steve: It's a location and a policy issue.
MW: The Solar Energy Advancement and Fair Competition act says you have to give the same incentives to everyone. We can't have a different incentive for large vs small customers or different locations.

MW: What are you guys doing about testing the chargers now?
Rob: We're actually testing the communication and control of the chargers to validate that we can actually communicate with the chargers and looking at an algorithm that would allow us to manage the chargers. We're looking if we have the capability to manage that and just update the infrastructure.

Jim McLeer: As of 3 months ago, you had three people processing interconnection applications. Has that increased?
Josh C: We did want to add more people, but now everyone is being restructured. We actually have 20-30 that are looking at the projects, not just 3 people.
JM: But everything still has to go through those three people?
RS(ACE): We've brought in additional resources in the company as well. The automated process will eliminate some of the need to go back and forth. Right now it's a manual process; eventually those things will happen automatically.
JM: When the meters change, I don't know when. It can take a month or two to find out.
RS (ACE): We are working to address that.
MF: Are these processes the same for solar and wind and others?
RS (ACE): Yes and there could be more, we would want the process to be the same.
Angela Sehein: I think the process changed in 2011, and it took a whole year for the process to come into play. Something might change again and it could take another year for the process to get into the flow again.
RS (ACE): Our internal process shouldn't change, and we want to ease a lot of frustration.

JM: Are you having another contractor symposium?
RS (ACE): Yes, hopefully by the 1st quarter of next year.

SS: When a project scrubs out of SRP queue. Can a note be sent to the EDC that it's cancelled?
SH: We've talked about a process, but it would have to be forward looking. There's no formal tie between the SRP and net metering.
CG: Maybe a grid connected project that is rejected for interconnection, are you notified of that rejection?
Steve (ACE): Yes we would eventually know that. If they elect not to pay the next level of study, they get one month response time if they want to move on.
CG: So at that point the project is no longer on your consideration?
Steve (ACE): Yes and we've had plenty of those, and keep them on a list.

2012 Program Planning (C. Garrison)

Events to Date
June 7 – Initial presentation of 2012 plans
July 12 – Identification of key issues & focus areas / input requested
August 9 – Framing specific program changes / addionall input requested
September 16 – Discuss draft overview of program changes with OCE
September 20 – Final draft presentation to REC
October 7 – Draft Compliance Filing submitted to BPU

Events to Come
October – BPU Solicits public feedback on filing comments due by November 10, 2011 at 5:00 pm Please submit comments in word format and submit to: publiccomments@njcleanenergy.com

November – MM incorporates feedback into final filing as needed, provides final version to the OCE

December – Final CF submitted to Board for consideration at Agenda meeting

New paperwork requirements for 2012

- Cost of equipment and installation
- Copy of one recent EDC bill for host facility (for Net Metered projects only)
- Site Map
- Contract (Full copy not required, must provide key elements such as host location, parties to the contract, project cost and signature page with dates.)
- Construction schedule

Maintain 10% rate of project verifications for SRP
Conduct meter verifications as requested by OCE

NJ REMI Incentive

- NJ REMI Incentive will end on 12/31/11.
- NJ EDA is developing a program to replace NJ REMI details of which will be found in the EDA Compliance Filing.

Projects must meet all requirements below to receive NJ REMI incentive payment:

- NJ REMI payments are limited to the $1 Million budget approved in the 2011 Plan and Budget.
- The project must have received an NJCEP REIP approval letter or SRP project acceptance letter prior to 12/31/11.
- The project must submit Final As-Built package demonstrating full compliance with the NJ REMI requirements on or before the earlier date of 1) expiration date listed in the original project approval or acceptance letter or 2) March 31, 2012.

Wind Program

- MM provided draft recommendations to OCE revising 2011 program requirements and structure based on previous working group input and written comments
- Small Wind Working Group meeting scheduled for Oct 18th in Iselin

Biopower Program

- Recommending more segment focus and outreach to high potential, high value industries and contractors

Barbara (EDA) – Update on Clean Energy Manufacturing Fund

EDA has submitted its compliance filing and is part of the overall OCE compliance filing that was submitted.

Two program arena's – The first is around the EDA Edison Innovation Green Growth fund, this program provides low cost financing with the possibility of a performance grant conversion to support the technology companies in NJ that are focused in the energy efficiency and class one renewable energy sectors. The other arena is Clean Energy Manufacturing Fund program. The parent company itself is unchanged, but we're looking to supplement this program with CEMI (a clean energy manufacturing incentive). It is a follow up to REMI by paying to manufacturer themselves. The entity must be certified as a certified manufacturer and this would be done through the clean energy manufacturing program. What we would look to do is provide an incentive for them selling their product in NJ, and in the CF is an incentive schedule that is close to the current REMI incentive schedule. There will be spot inspections done by the OCE to validate that the entity had sold the product in NJ. This is in the compliance filing and there is an open period for comments that we look forward to hearing.

SS: Do existing REMI manufactures need to re apply or are will they grandfathered in?
MW: They will be rolled in, but then will probably have to submit something.

SH: We also talked about if Edison Innovation Green Growth fund would be eligible for CEMI, there are manufacturers that are in the early the growth stages, but the green growth fund can help them get beyond that stage. They should be able to get the CEMI.
Barbara (EDA): Yes and it must be manufactured in NJ.
MW: And it expands it from solar from just renewable energy manufacturing to EE which is why it's clean energy manufacturing fund now.

2011 Program Update (C. Garrison)

The preliminary installed solar capacity as of 9/30/11 is approximately 448 MW.

- Approximately 18 mw installed in current month

The preliminary solar capacity project pipeline as of 9/30/11 is over 569 MW.

- Approximately 558 MW (98%) of pipeline projects are registered in the SRP program.

Scrub percentage from 10/1/2009 to 9/30/2011:
REIP: 20.9%
SRP: 16.1%

SH: Do you plan on putting this into the pipeline report?
CG: Yes as long as this makes sense to everyone.
SH: Was it implicit in the previous reports?
CG: No, I also used run rates.
SH: This is the request that came out of the solar transition meeting, to make the scrub rate explicit.
CG: This does show that?
SH: Yes. The idea is that it will be changing monthly. We don't have what it has been historically. With each pipeline you were giving, were you using a different scrub rate?
CG: This is the pipeline, the run rate was more important that the scrub rate.
MA: Is there a reason you can't make available the assumptions you used to develop the forecast?
CG: It's just the run rate. I would look at the previous quarter and then the current report I have.
MA: Yes we just want your methodology on developing the forecast.

2011 Operations Update (T. Gray)

September Applications received: 643
October Applications received as of 10/7: 150

September NJ Cert #'s processed:
REIP: 86
SRP: 574

September Volume Update:

Applications Submitted: 643
Approvals: 615, 51.89 MW
Rebate Processing/SRP Completions: 337, 17.9 MW

Upcoming events

a. RE Committee meeting schedule for 4th Quarter
November 14 (CHANGED DATE), December 20 (all in Iselin)

Solar Power in New Jersey

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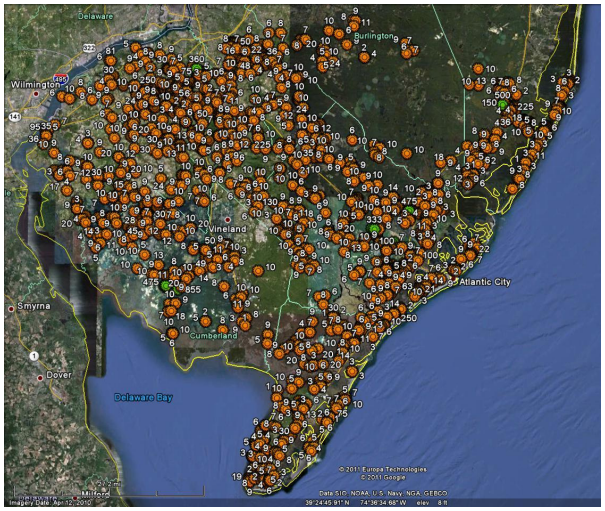
A Discussion of the Issues and ACE's Potential Solution Moving Forward

October 11, 2011

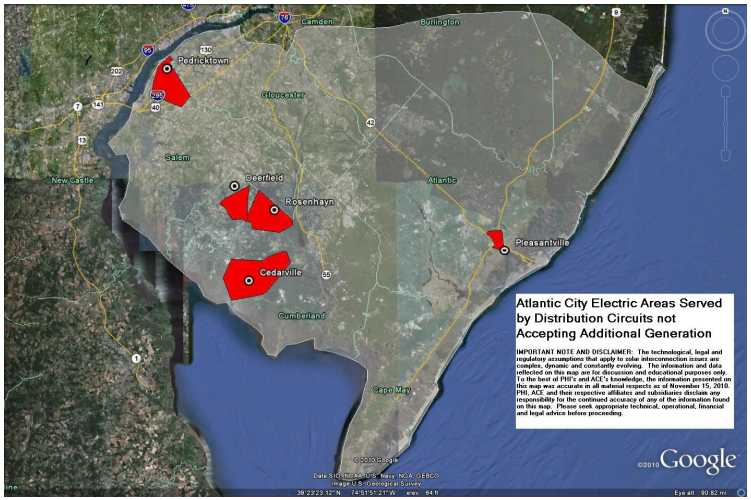
Current State in New Jersey

- ACE has successfully completed the interconnection of over 2,300 customers…greater than 99% acceptance.
- Some have incorrectly suggested that ACE has a weak and unreliable distribution system due to a few closed circuits. Like all other utility grids, power has traditionally flowed from the substation to the end user. Now it's reversing and is creating limits.
- Density of solar requests require detailed studies to prevent flicker and other power quality issues. High voltage complaints are on the rise.
- Only 5 out of 290 circuits are closed to any new intermittent generation.
- Up to 57 additional circuits may be closed to solar installations above 250 kW based on active/pending requests.
- Due to "zeroing out" of the bill, many NEM customers are no longer contributing to infrastructure improvements or to maintenance of the infrastructure.

Active Renewable in ACE



Circuits Closed



ACE Service Territory
Renewable Generation Projects

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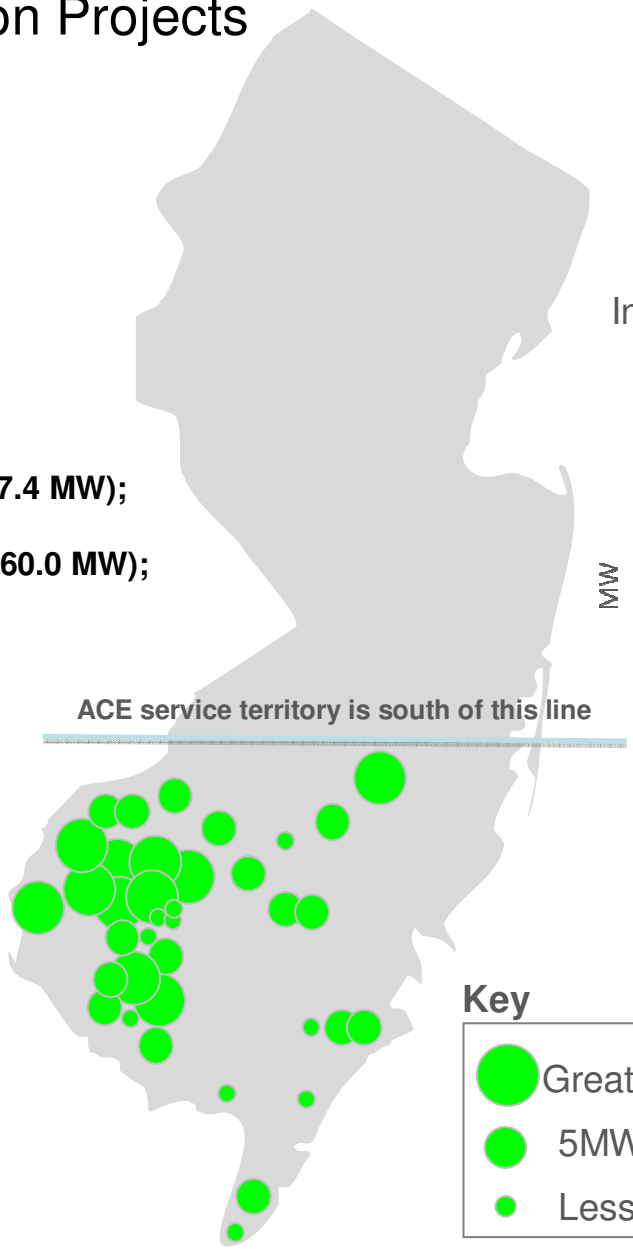
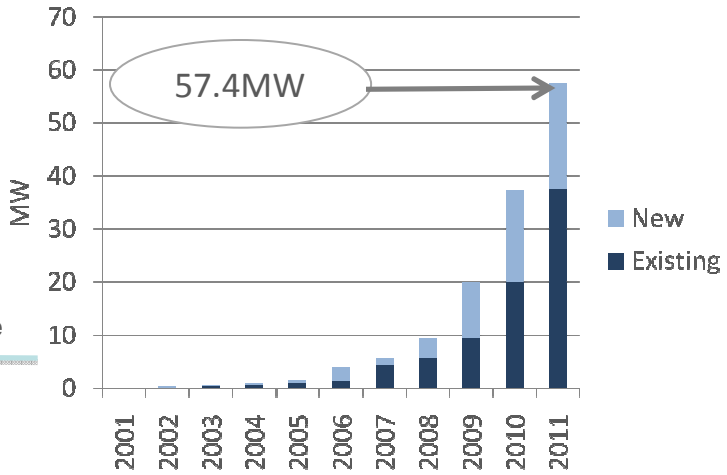
ACE Statistics (as of 9/1/11):

- **Net Energy Metering (NEM)**
  - **Active: 2,395 Customers (57.4 MW); 24.0kW avg. size**
  - **Pending: 1103 Customers (60.0 MW); 48.5kW avg.**
- **PJM Queue (Grid Connected)**
  - **In Service: 1 (18 MW)**
  - **Under Constr.: 2 (12 MW)**
  - **Pending: 73 (775MW)**



Installed Solar NEM PV Capacity* (ACE)



**As of September 1st 2011*

Key

- Greater than 10MW
- 5MW to 10MW
- Less than 5MW

Drivers for Change

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- Customer demand will continue to create pressure to integrate large amounts of distributed energy into the electric grid … Solar
- The state of New Jersey has declared, as part of the New Jersey Energy Master Plan, extreme support of distributed energy as a means of driving economic development in the state
- Current distribution system is designed and sized for one way power flow… now, large amounts of generation cause reverse power flow through many devices
- Quantity and scale of projects locating in South Jersey – with majority in rural areas. Some feeders have reached maximum capability and cannot accommodate additional solar
- Developers are frustrated with the required processes at both PJM and ACE with regard to the level of study needed and the time to complete
- Intermittency of Solar PV generation threatens integrity and reliability of system
  - Mitigating resulting power quality problems experienced by end-use utility customers
  - Additional wear and tear on utility equipment

Improvement Approach

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- Conducted a full-day company wide session to identify NEM issues and internal/ external process gaps
  - Participation included 75 employees representing all impacted areas
  - Collected 146 topics for further analysis and resolution
- Established Distributed Energy Resources Program Management Office to coordinate and provide governance to facilitate issue resolution
- Categorized issues/ process gaps into common areas of improvement and assigned for resolution
  - Project leads consist of high-level management personnel
  - Project teams comprised of key subject matter experts have been established to determine resolution
  - Resolutions will be reviewed/ approved by Executive Steering Committee
- Issues/ process gaps prioritized based on value on the overall effort versus time to complete
- Project teams have launched and provide bi-weekly status to the Program Management Office/ Executive Steering Committee

Solutions

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System/ Infrastructure

- Studying the solar installation impacts to ensure delivery of reliable power
- Defining approval criteria to promote fair access while ensuring reliability and power quality
- Developing infrastructure build-out alternatives and working with advanced inverter technology to accommodate increasing penetration

Engineering/ Strategic Direction

- Developing guidelines, criteria and standards
- Participating in PJM stakeholder groups and working with other utilities to address higher solar penetration in NJ
- Working with legislative leaders to enable solar interconnection to the transmission system

Process Management

- Establishing a DER Program to facilitate issue resolution and overall governance
- Contracting additional resources, as needed
- Enhancing the application process from customer completion of the application to meter installation and billing
- Creating/ executing a comprehensive customer communication and education plan

System/ Infrastructure

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- Supporting new industry design and operating standards for interconnecting renewables and operations of inverters
- Participating in research and development activities to expand capabilities of existing inverters and to screen new technology solutions for possible implementation
  - Hosting DOE SEGIS Conference in Mays Landing, NJ
  - Working with inverter manufacturers on advanced features
  - Preparing to implement an inverter firmware upgrade PHI requested from the vendor and helped vendor test in the ACE territory
- Revisiting long-standing system planning/ design policy and regulatory framework to provide proper guidelines for interconnection of intermittent generation
- Developing an improved standard interconnection guideline for large intermittent generators to minimize losses and streamline construction
  - Approved multiple Conductor types for use with large DG Projects
  - Created a matrix for engineers to rapidly identify the optimum conductor size for the project

Engineering/ Strategic Direction

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- Upper level management and executive leadership reviewing jurisdictional requirements to ensure appropriate alignment with corporate policies, procedures and processes
- Working with local jurisdictions and other utilities from other states to discuss interconnection challenges and identify potential solutions
- Dedicating resources to manage the system planning aspects of distributed generation across all jurisdictions (New Engineering Department formed to support DER)
- Identifying ways to improve contractor/ customer interaction within the application process to eliminate misrepresentation of information
- Utilizing more advanced modeling techniques to better understand the effects of additional solar on the distribution system
- Reviewing current methods and best practices for calculating customer usage to better determine system size
- Evaluating the use of on-line system design software to make it easier for customers and contractors to design their systems
- Building internal expertise and methods to eliminate outsourcing of detailed studies to reduce time to complete application processing and potentially decrease cost to applicant

Process Management

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- Several initiatives currently underway to review and improve processes related to NEM:
  - NEM and PJM application processes
    - Automating internal work flow to facilitate more timely application response
    - Aligning internal resources to promote effective information sharing throughout the application review process
    - Contracting outside resources to assist with application processing
  - Net capable meter installation process
    - Ensuring that meters continue to be installed efficiently to enable customers to turn on solar systems as soon as possible
  - Billing and settlement processes
    - Providing customers accurate credits
    - Facilitating customer and third party supplier access to billing/ settlement data
- Internal and external communication plans are being developed to better educate developers and customers
  - Enhancing the webpage content and navigation capabilities
  - Centralizing internal policies, procedures and information for employee reference

Next Steps

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- Continue Current Improvement Efforts
  - Complete planned near-term accomplishments by 12/31/11
  - ~75% of issues resolved

- Expected Near-Term Benefits
  - Improved process for fulfilling NEM and DG requests
  - Improved Developer / Customer information and communication
  - Improved approach for conducting detailed studies
  - Formalized company-wide policies to ensure consistent application across all jurisdictions

- 2012 and Beyond
  - Continue to address longer-term issue resolution as well as additional opportunities for improvement
  - Enhance strategic focus to include benefits and risks of emerging technologies (e.g. energy storage, dynamic inverters, EV charging)

Renewable Energy Committee Meeting
Attendees

Tuesday, October 11, 2011 1:00pm - 3:30pm
Conservation Services Group

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