



LYNX ELECTRIC CURRENTS

FEBRUARY 2015 NEWSLETTER

EDITOR'S NOTE

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It has been interesting to observe the various state regulators push new marketing policies for retail power sales. If left unchecked, variable rates will be too onerous and difficult to manage, resulting in the loss of potential savings for millions of retail customers. Legislation, such as a Maryland proposal, would essentially require monthly contracts if variable prices change. National Energy Marketers are trying to educate state regulators on the impact of their marketing changes. FERC will have to weigh in as well.

DR programs and their future are being challenged. For now they are still in effect until the court ordered stay expires or the Supreme Court makes a ruling for [FERC Order 745](#).

In last month's newsletter we addressed the REV initiative proposed by NY Governor Cuomo. Since then, NYSERDA has been tasked with revamping their programs in order to support REV. Lynx provided input addressing funding for a variety of renewable energy generation and DR initiatives. Our suggestions addressed the goals of

increasing DG/CHP, renewable energy and more robust DR programs. We pointed out that while some research and pilots are useful what is needed for success includes:

- Less red tape
- Training programs from our technical and community colleges to develop a workforce to build and support the DG/CHP and DR projects
- Guidelines, handbooks of best practices and standards for DG/CHP and DR projects need to be developed. We should not be spending funds to "re-invent the wheel" for each project. Those funds should go towards hardware, new technology and actual construction.
- There should be a concerted effort by the PSC, NYISO, and the utilities for interconnection standards. While progress has been made over the years, EPA regulations and various utility standards need to be aligned. It should not take multiple years to get projects approved. We have seen examples of projects held up because a component for the project, be it generator, or switchgear was no longer

available or EPA approved. So the engineering study and interconnection process can experience additional delays and cost thousands of dollars for utility engineering to review. Meanwhile component prices and fuel costs analysis along with economic analysis numbers change.

- Incentives for waste water plants, large food processors plants, biomass and agricultural waste should be encouraged, resulting in waste-to-energy power plants, adding renewable capacity to the grid and reducing tonnage loads from landfills.

- The utilities should have a stake in the REV programs, whether it's having a ready supply of renewable power available or opportunities in servicing customer's onsite switchgear and transformers.

Changes are coming in the energy industry in policy marketing rules, fuel mix, utility billing and new technologies. Lynx will work to keep you informed as changes impact your business and customers.

NY STATE UPDATES

The REV continues to evolve as the PSC conducts hearings across the state with various stakeholders. The purpose of REV, according to the NY-PSC is to align electric utility practices with the commission's current policies. Changes resulting from new technological advances have resulted in alternatives to traditional

operating protocol for meeting capacity needs. A key concept will be incorporating DG power into the grid. The PSC has identified six policy objectives including:

- Customer awareness they have the ability to manage their utility bills
- Stimulate the market to encourage payer contributions

- Provide greater grid efficiency
 - Provide fuel diversity and supply for power generation
 - Harden grid reliability
 - Reduce carbon emissions
- Hearings are being conducted across the state to get stakeholders input. More information pertaining to Case 14-M-0101 Reforming Energy

Vision can be found by calling 800-335-2120 or e-mailing the NYS PSC website: Secretary@dps.NY.gov

FERC UPDATES

FERC is evaluating the latest PJM proposal trying to accommodate all of the stakeholders in the latest [RMR](#). PJM claims the additional capacity is needed as a result of significant coal plant retirement. PJM considers DR for reliability uncertain and not always available when additional capacity is required. Generators support the reliability concept but challenge importing power into the RTO. The RTO proposal would allow the outside purchase of capacity to maintain reliability. The

PSC in Delaware, along with the [Just Transition Coalition](#), are asking FERC to reject the PJM [RPM](#) as costly and not necessary, as capacity auction have already secured capacity through 2018. The Transition Coalition points out the previously cleared capacity of dual fuel generators and nuclear plants can provide over 33,000 MW which can be available if needed. Generators favor using market forces to upgrade and weatherize their units. PJM claims they need the ramp time be-

tween now and 2018 to make the transition.

Looking back to last winter's "Polar Vortex", no generators were fined as a result of not being available when needed. As a result, FERC wants stiffer rules and penalties to reduce the ability of generators to game the system. PJM is looking at \$4,000 per MWH fines for non-performance. The RTO rationalizes the fine is sufficient to cause generators to make needed upgrades ensuring generators perform when called. DR association [AEMA](#)

voiced their concern, stating the proposed RTO changes and policies will have a negative impact on DR providers. AEMA points out that PJM is trying to provide reliability by procuring more capacity and the proposed new rules and policies would reduce DR capacity. Once again FERC is faced with the challenge of providing reliability at a reasonable cost and having all parties comply with FERC Orders.

PJM UPDATES

The PA-PUC has announced plans to change annual retailer fees for both natural gas and electric suppliers. Traditionally the PUC has charged the suppliers and utilities between 30% to 40% of their annual operating costs. The fee is based on the number of hours the PUC spends for oversight, which is considered direct cost. Indirect cost will be based on the business volume of a given supplier or utility. Questions regarding infrastructure charges for transmission and wholesale markets currently need additional review and deliberation to determine the basis and process for allocating those costs.

In a recent news report PJM pointed out they deliver power to 61 million customers located in the District of Columbia and thirteen states. Concern over blackouts and lessons learned from hurricane Sandy and the "Polar Vortex" of 2014 has been a wakeup call. The RTO points out nuclear power plants proved to be the most reliable during the vortex crisis. Coal plants experienced frozen fuel supply and operational problems and shale gas had difficulty supplying gas to generators handicapped by pipeline capacity issues. Claim relying on more nuclear plants will drive up energy costs. Consumer advocates

claim relying on nuclear power will drive up the consumer costs. Currently many nuclear plants across the country are being mothballed as they are not competitive with shale gas power plants. PJM is looking to FERC to approve proposed incentives for reliable generation. Analysts suggest the cost would add \$2 to \$3 dollars per month to the average consumer bill to provide the needed support for reliability. PJM will be losing 8,000 to 10,000 MW to retirement of coal fueled power plant capacity in 2016. One of the RTO's proposals is to pay generators to delay retirement. Natural gas generators had poor reliability during the "vortex" event because of pipeline ca-

capacity delivery issues. FERC and PJM have worked out many of the delivery and communication issues between generators and natural gas pipeline/supplier shortfalls. Nuclear generators, such as Exelon, point out that the nuclear plants had a 96% performance record for their capacity during the "Vortex" period. The RTO will have to determine how to maintain reliability and compensate generators for maintaining reliability, reserve capacity and fuel contracts to avoid blackouts under extreme adverse conditions.

ISO-NE UPDATES

The Connecticut [PURA](#) has issued their proposed "[Electric Marketing Order](#)", which was developed in 2014. The Order will require Connecticut utilities to change their billing format and provide additional information regarding retail pricing along with utility pricing. Utilities or Distribution Companies will be required to include:

- Term and contract expiration dates
- Rate changes that will impact the next billing cycle
- Cancellation fees
- Type of rate the customer is receiving (Variable or Fixed)
- Standard Service rate (Distribution company rates compared Supplier Rates)
- Retailers will be required to

post their rates for the coming month for variable rate customers

- Daily and weekly supply postings would be cancelled

[Connecticut Light and Power](#) and [United Illuminating Company](#) are the major Connecticut utilities/Distribution companies that will be mandated by public law to make the billing changes, once the new PURA order is

approved. The intention of the changes is to make consumers aware of their cost, so they can make informed choices for their power purchasing. PURA has indicated they will not approve bill format changes until they are satisfied that the changes will meet their electric market objectives.

US ENERGY

[Secretary Ernest Moriz](#) released an update on the state of solar energy in the US. Mr. Moriz is very supportive of solar energy and sees it as a key provider of energy in the future. The secretary indicated the solar industry employs over 170,000 Americans. The annual growth shows the solar industry added 31,000 new jobs in 2014. The [DOE](#) Loan Program assisted in financing 100 MW of utility scale solar plants. The department [Sun Shot Initiative](#) is establishing Instructor

training networks so future technicians (about 50,000 workers are projected) meet installation and service needs for the solar industry. Secretary Moriz points to new to new solar generating facilities larger than 100 MW are being built by private industry, which shows solar generation is becoming competitive with established generation. *Editor's Note : State governments are helping the cause by mandating a percentage of solar REC's purchases are required by suppliers selling*

power. Such funds provide incentives for solar projects. However, in support of Secretary Moriz enthusiasm for solar energy, cost per kW of installed solar has dropped by over 50% in the last few years making solar more competitive. New technology and competitive manufacturing markets are advancing the solar industry. Since suppliers in several eastern states are required to purchase REC's, the construction of utility scale solar plants should be good news. Small commercial and residential

solar installations will decrease supplier markets has but opened up new opportunities for suppliers. Several suppliers are installing solar panels, taking the tax credits, grant dollars and REC's credits, resulting in the ability to provide solar energy to the participating customers. The customers pay a monthly fee for their power and maintenance. These projects are typically 20 contracts with no charge to the customer for the solar panels .

NYISO UPDATES

NYISO has proposed a new pricing model called ["Comprehensive Shortage Pricing"](#) for 2015-2016. This plan would provide incentives for performance on the "Day Ahead Market" and the "Real Time Markets" providing generators incentives to perform. Generators failing to perform will face stiff penalties. The plan is being reviewed by stakeholders as the scarcity pricing issue

moves from the stakeholders with their recommendations to the NYISO board for their approval. The next step in the process is for FERC to review and give their approval. The scarcity pricing measure is expected to cost \$231 million in operational costs, however expected savings coming from outside power purchases from PJM and ISO-NE which should provide savings in reserve capacity markets and potential

shortage pricing. The new price cap proposal will move the cap to \$3,000 per MWH.

Retailers should NOTE: FERC has directed NYISO to adjust billing for a Manhattan office building and the customer's electric supplier. Meter failure stemming from Hurricane Sandy, has resulted in estimated billing data causing \$700,000 over billing error. FERC has ordered NYISO to adjust billing invoices despite

the fact that the supplier missed the settlement deadline. The ISO will need the data from Con ED to recalculate the bills and issue a refund with interest to the supplier. FERC commissioner Moller wants the ISO's such as NYISO to work with stakeholders to develop a protocol to correct invoices resulting meter data issues.

TIP OF THE MONTH

Lynx staff will be involved in several Conferences in March. The [NYC Energy Marketers Conference](#) will be held on March 3rd. The keynote speaker will be [Deborah Merrill](#), Co-CEO of [Just Energy](#). Lynx CEO Kevin Schoener will be part of a panel discussing financing and risk management. The conference will include workshops changes in marketing and the numerous changes state regulators, ISO/RTO's and FERC are proposing or enacting along with their impact on your

business. Suppliers or ESCO's are encouraged to attend. Consider the conference a business investment helping you get valuable information and a chance to voice your concerns. It will also allow you to talk with our staff and learn what support we can provide for your business. We look forward to meeting with you.

On March 19th Lynx Technologies and LynxEMS will participate at the Ed Tech Conference, Ithaca College in Ithaca NY. During the technical sessions our staff will

be presenting two sessions. One session will address new technology and energy saving innovations for data storage, how virtualization can cut your costs and increase your computer efficiency thereby reducing your energy costs. The other technical session will address what you can do to lower energy usage and costs. We will cover grants, energy saving strategies, and measures along with updates in electric markets. If you are a direct energy purchaser or if you have any clients that can benefit from IT upgrades and energy efficiency

upgrades we urge you to attend. We hope to see many of you at the Ithaca Ed Tech Event. You may call our LYNX office at 716-774-1341 if you have questions.

These technical conferences are designed to make you aware of changes, and prepare you with information about of new technology so you can bring more value to your customers and have your business, school or enterprise thrive in 2015.

NYSERDA PON UPDATES

Many of these PON's will expire in 2015 or when funds are exhausted. If you or your customers have any plans for energy projects we urge you to act now. LYNX is developing some partnerships to assist you with NYSERDA funding, feasibility studies and developing projects which could be eligible for funding. You can call our office for more information if you have or are thinking about an energy project. For our Cond Ed customers we can provide Cummins Generators for DR programs with funding available from ConEd and NYSERDA. Current PON's (Program Oppor-

tunity Notices), which are available to qualified customers from NYSERDA, are listed below.

PON 1219 Existing Buildings: Provides rebates and performance incentives for existing buildings including lighting, motors, generators, HVAC equipment etc. through 12-31-2015.

PON 1601 New Construction Financial Incentives: Provides incentives for new and remodeled buildings, paying for architectural and engineering services, rebates on electric equipment, appliances, HVAC equipment, and building envelope, through 2015.

PON 1746 Flex Tech: Provides

funding for a variety of feasibility and energy related studies through 12-31-2015.

PON 2112 Solar PV Program Financial Incentive: This PON has funding through 2015

PON 2439 Wind Turbines: This PON pays incentives to certified installers of DG windmills under 2 MW through 2015.

2456 Industrial and Process Efficiency Program: This PON is can pay up to \$4.5 Million per project through Dec. 2015.

2568 CHP Acceleration: Funding for onsite generation with heat recovery (DG/CHP) packaged units through 2015.

PON 2689 Emerging Technologies and accelerated Commercialization through Dec. 2016

PON 2701 Combined Heat and Power CHP Performance Program through Dec. 2016

PON 2758 Gas Station Back-Up Power: **This PON has funding through May of 2015**

PON 2828 Renewable Portfolio Standard Customer-Sited Tier Anaerobic Digester Gas to Electricity Through 2015

PON 2846 Innovations in Data Center Information and Communication Technology Energy Efficiency

PON 3011 Community Solar NY (Municipal Solar Projects) through 1/30/2015

PON 3016 Plug-In Electric Vehicle Enabling Technologies Demonstration Program through 7/14/2015

US ENERGY MARKETS

A Republican delegation has requested FERC to provide an assessment on the impact of EPA's **CPP**. FERC chairman La Fleur is tasked with a series of questions regarding communications and interfacing with EPA concerning reliability, and frequency of inter-departmental meetings as each agency develops policies and orders. Congress' primary concerns are reliability of the grid, environmental compliance and the impact of regulations and policies on US jobs and the economy. FERC staff has been asked to re-

spond whether they are given adequate access to EPA documents to allow FERC the ability to determine how burdensome EPA regulations will be to the primary concerns already mentioned. Finally FERC was asked if their agency is doing enough to protect the US grid from physical, natural, terrorist, and operational interruptions and failure.

The EPA has issued a series of rules designed to lower emissions from power plants. The first rule applies to power plants that use 2005 emissions a baseline. The ruled

issued in June of 2014 calls for a 30% carbon emission reduction by 2030. The second rule which addresses biogenic carbon emissions was released in November of 2014. This rule looks at developing criteria for evaluating using forest by-products and **forest waste products** as biomass feedstock's for power plants in a sustainable way without creating environmental issues. The third rule pertains to new power plants and their compliance regulations. The EPA will work with individual states to develop compliance guidelines

based on the states resources and ability to utilize agricultural and forest waste into biomass feedstock for power generation. The new rules will impact power plants, reconstructed or re-powered power plants, and modified power plants. Simply burning biomass will not suffice as the EPA develops guidelines that the biomass is sustainable, and harvesting will not result in degradation of the agricultural and forest-ry lands.

GLOSSARY OF ACRONYMS

AEC - Alternative Energy Credits

AEPS - Alternative Energy Portfolio Standard

AEMA - American Exploration & Mining Association

CPP - Clean Power Plan

DOE - Department of Energy

DR - Demand Response

PURA - Public Utilities Regulatory Authority

REV - Reforming Energy Vision

RMR - Reliability-Must-Run Capacity

RPM - Reliability Pricing Model

February 2015

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5 <i>NYISO ICAP Monthly Auction</i>	6 <i>NYISO ICAP Monthly Auction</i>	7
8	9	10 <i>NYISO ICAP Monthly Auction Results</i>	11	12	13	14
15	16	17	18	19 <i>Certification</i>	20	21
22	23 <i>NYISO ICAP Monthly Spot Auction</i>	24 <i>NYISO ICAP Monthly Spot Auction</i>	25	26 <i>NYISO ICAP Monthly Spot Auction Results</i>	27	28

FUTURE DATES

February

5-6 NYISO ICAP Monthly Auction
 10 NYISO ICAP Monthly Auction Results
 19 Certification
 23-24 NYISO ICAP Spot Auction
 26 NYISO ICAP Spot Auction Results

March

10-11 NYISO ICAP Monthly Auction
 13 NYISO ICAP Monthly Auction Results
 19 SCR Enrollment
 20 Certification
 25-26 NYISO ICAP Spot Auction
 27 NYISO ICAP Spot Auction Results
 30-31 Strip Auction

NYISO SCR CURTAILMENT PROGRAM

Proposed changes by the NYISO will impact SCR customers. Lynx will work to keep you informed and updated as changes get approved. **Prices for participation in DR programs are up as Governor Cuomo is getting behind peak load reduction programs.** Lynx is providing assistance for our customers with event notification and supplying documentation to the NYISO verifying results. A major obstacle for customers having peak demand less than 500 kW is having an interval meter. Lynx can help you with securing grants for interval meters, and getting those meters installed. Many customers willing to participate in NYISO programs need help in determining what items can be curtailed and to determine the kW value of those items to be shut off. Lynx can help your customers determining kW loads that can be curtailed. In addition Lynx can now provide **Cummins Generators** which can be used for curtailment purposes along with providing protection for property and life during emergencies. Lynx will work with you to get customers registered in a NYISO program. So help your customers get some cash for shedding electric loads during peak load emergency events. ESCO's or suppliers will also earn funds. With Lynx guidance you can avoid costly pitfalls and potential fines. We urge our customers to get their information in to our office now before the summer strip starts. Should you miss the deadline customers can still participate on a monthly basis but will miss out on May payments for 2015. Call Lisa Klein or Bert Spaeth in our Lynx office at 716-774-1341.

COMMODITY PRICING

Historical - Flat DAM

	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15
NYISO-A	29.38	32.78	31.14	33.11	30.44	36.00
NYISO-F	30.45	31.80	30.76	40.79	35.50	60.55
NYISO-J	32.10	32.91	32.37	42.13	36.23	56.77
NYISO-K	37.00	38.07	38.38	48.07	42.37	79.56
PJM-PSEG	31.56	31.13	31.06	43.16	33.05	45.18
PJM-JCPL	31.33	29.94	30.68	42.64	30.97	44.69
PJM-APS	33.61	34.08	34.53	39.83	32.99	37.70
PJM-PECO	30.35	29.67	29.54	42.46	30.09	40.81
PJM-PPL	30.33	29.30	29.72	41.59	29.92	39.73
PJM-DLCO	31.71	31.54	33.44	39.96	31.94	32.40
PJM-PENELEC	33.12	33.01	33.22	40.47	32.79	37.54
PJM-METED	30.25	28.96	29.99	41.90	29.94	39.94
PJM-BGE	41.29	43.85	41.18	44.15	37.80	44.60
ISONE-CT	30.49	34.54	32.79	48.01	42.39	69.30

Current Projections

Feb-15	Mar-15	Apr-15	Feb-15 to Jan-16		
Flat	Flat	Flat	Flat	Peak	Off Peak
42.31	33.76	28.94	34.47	41.37	28.46
70.33	46.03	30.88	42.77	50.44	36.09
68.21	45.57	33.71	44.88	54.10	36.84
73.85	60.18	43.06	55.78	66.32	46.60
56.38	39.11	33.28	40.21	48.22	33.24
55.13	37.75	31.98	38.94	47.05	31.86
44.92	37.34	33.66	37.02	43.77	31.13
50.42	36.70	31.15	37.45	44.93	30.93
49.79	37.20	30.90	37.09	44.50	30.63
41.11	34.18	32.39	34.50	41.10	28.75
46.14	37.82	33.87	37.72	44.90	31.46
50.01	37.38	31.00	37.23	44.65	30.76
56.37	44.79	38.83	43.79	52.73	35.99
79.98	56.35	36.64	50.34	58.40	43.30

Note: On-peak is defined as HE08- HE23 Weekdays (less NERC Holidays)
 Commodity pricing at MWh reflects an estimate of pricing based on current information available at time of printing from various market sources. The prices are not intended to be used as hard data for contractual purposes. Prices are represented in dollar per MWh.

GREEN ENERGY

As state mandates are phased in, suppliers or ESCO's will be required to purchase REC's (Renewable Energy Credits) and show documented proof of purchase. Some states require a percentage of Solar REC's or offshore wind depending on the host states social policies. Each category, whether it is called Tier or Class has different pricing and some states mandate a mix. Suffice it to say, Solar is the most expensive and Tier or Class II is the least expensive. Failure to purchase green energy or [AEPS](#) (Alternative Energy Portfolio Standard) or REC's will result in a default REC. PJM customers would pay Alternative Energy Credits ([AEC](#)) at \$500 per credit. Connecticut has a default rate as well. Lynx will assist you in locating cost effective green REC's to meet your needs. In addition, Lynx can handle your reporting and assist you in purchasing REC's. The percentage of renewable energy is expected to increase up to 27% in certain states by 2025.

Note: To ease the burden of purchasing annually and the large cash expenditure, Lynx is recommending purchasing REC's on a quarterly basis to avoid higher prices at the end of the reporting period.

Lynx EMS

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