

LYNX ELECTRIC CURRENTS

MAY 2015 NEWSLETTER

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EDITOR'S NOTE

As of this writing, we are still experiencing occasional snow flurries, however despite record setting cold temperatures during February, the policies and changes put in place after the "Polar Vortex" worked. This is a credit to the policies FERC and the ISO/ RTO's implemented. Prices remained reasonable with no major price spikes. Moving forward the ISO-NE group of six states are developing strategies for expanding both gas pipelines and new electric transmission lines. They are striving as a region to keep their winter energy prices competitive with other regions.

LNG storage on generator sites, along with firm purchase contracts with pipeline owners and gas brokers ensures generators have sufficient supply. This, along with dual fuel capabilities of either fuel oil or natural gas, helped stabilize prices. All these measures maintained generator capacity and avoided a repeat of 2014.

Looking forward, the energy markets are waiting for the Supreme Court ruling on FERC Order 745 and its impact on DR programs. In the interim, the various

TIP OF THE MONTH

Lynx has been working with suppliers that are participating in DR programs. The rules can be quite complicated. Using generators is an easy way to reduce load when called on. Certain regions receive funding for generators provided that the emissions are certified and meet EPA standards. Tier Four natural gas engines seem to be the most acceptable. With today's natural gas prices they are also more economical to run. The engine costs for natural gas generators ISO/RTO's have requested modifications from FERC and developed contingency plans to keep DR contracts and programs in place. NY is pushing forward with the REV program. Lynx staff has made some recommendations to NYISO and NYSERDA and will continue to forward comments addressing negative measures that are harmful for retail markets. One major change currently being addressed is the funding format for DR programs. Rather than sell I-Cap capacity into the market place, retailers who purchase power from the NYISO will receive credit from the ISO for having their own I-Cap. Suppliers will receive credit based on the amount of curtailed demand they provide. Aggregators will have to be participating in the market, in order to get credit for curtailment efforts. As more changes and programs are developed, we will keep you updated on the impacts to your business. Our customer's will be able to use their DR

that are larger than 500 kW are significantly higher than diesel engine generators. Diesel engine generators do not depend on natural gas pipelines for fuel, as the fuel is stored in a tank and diesel generators are more efficient with variable load and higher starting torques. However run hours are limited by EPA and DEC emission regulations. Customers also need to decide how they want to use their generator. Will it be strictly for stand- by or demand reductions to lower capacity costs and benefit by not having to purchase as much or all of their needed capacity from the ISO. DR programs. If the utilities are purchasing surplus power the REC value could be assigned to the utilities. The net effect in many states is positive for utilities, which means extra charges are not needed. Suppliers experiencing kWh sales reduction should be able to market excess kWh for the consumers' benefit. Proper regulation with tariffs and interval metering, along with developing new services can generate additional revenue. The current NY REV Pro-

gram as presented, is advocating such changes and should create opportunities for all players while supporting grid reliability, allowances for renewable energy and keeping energy costs competitive.

back-up purposes, will it be used for base load or some type of economic dispatch? Our staff can help you do an analysis. Funding opportunities exist, however, to qualify, one must follow very specific rules. Also, not all generators are eligible for grants, tax credits and funds. Lynx can help you through the red tape, as well as provide Cummins Tier Four generators.

FERC UPDATES

Ginna, a 581 MW nuclear power plant near Rochester NY is operating under a FERC approved RSSA. With the availability of cheap shale gas, nuclear plants are less economical to operate. Lack of sufficient transmission line capacity to move power into low capacity regions, will take several years to upgrade and be beneficial. In addition, nuclear plants are considered carbon emission free and are critical for NY to meet their carbon emission quota set by state legislation and EPA orders. With that background and set of circumstances, FERC is allowing Ginna owner Exelon to operate for 18 months under an RSSA provision. The extension is effective April 1, 2015, and is subject to suspension pending compliance filling and settleme4nt provisions for refund based on settlement hearings. RG&E is currently purchasing Ginna capacity. FERC will not allow Ginna to move back and forth between RSSA and market pricing. The nuclear plant will be responsible for reimbursing RG&E for any capital improvement costs Ginna received, plus interest under the current RSSA plan.



PJM UPDATES

PJM CEO Terry Boston

talked about the rapid transition in fuel sources for generation. Currently the resource diversity consisted of 40% coal, 30% natural gas%, and 19% nuclear, 11% other. CEO Boston stated that natural gas will surpass coal in the coming year. FERC chairman La Fleur pointed out that FERC orders and policies have allowed market forces to develop generation expanding fuel diversity and allowing renewable energy to enter the marketplace.

Last summer, air conditioning loads served 61 million people and resulted in a summer peak of 157,141 MW in 2014. To meet the summer 2015 forecast, assuming a 1.3% growth factor, operations VP Michael Kormos stated that transmission line upgrades will ensure capacity resources will be available throughout the region. Currently PJM has 183,220 MW of installed generation. An additional 10,600 MW of DR is contracted giving the RTO a 25.4

% reserve margin.

The "Pay for Performance" program developed by PJM has asked FERC permission to move their capacity auction. The RTO wants FERC approval for their proposed capacity plan before holding a capacity auction. The rational being any changes coming from FERC could impact capacity cost and eligibility. PJM stressed the "Pay for Performance" initiative was developed for reliability ensuring that generators perform. Andrew Ott, VP-Marketing is behind the push to change the auction date pending

FERC approval for the PJM plan. Mr. Ott points out the PJM capacity plan will provide benefits for rate payers by lowering prices through increased efficiency and more reliable power. The PJM filing to FERC wants the auction delayed until FERC either approves or modifies the "Pay for Performance" program. The capacity auction per the tariff is scheduled for May 1, 2015 and requires FEC approval for changing the published date.

NY UPDATES

A recent court ruling from the US Court of Appeals second Circuit rejected the NY appeal regarding the FERC ruling over the Lower Hudson Valley capacity zone. The court ruled in favor of FERC and rejected NYS appeal to disband Lower Hudson Valley Capacity Zone. Despite claims from NY officials that new transmissions lines are on the drawing board, the court ruled that the FERC plan would stimulate investment in getting new capacity where it is needed. Increased capacity would assure long term capacity cost reductions for the region. Failing to close the new FERC mandated

zone, NY officials pushed for a phase-in claiming the rate hike would have a negative economic impact in the region. FERC countered that the phase-in would send the wrong signals for market forces to develop new capacity. Immediate price increases would stimulate creation of new capacity. FERC also pointed out that the proposed new transmission lines are still in the planning and pre approval stage and will take years to bring new capacity relief to the lower Hudson Valley region.

NY State has announced a \$160 million plan to invest in renewable energy under the

REV program. NY Governor Cuomo announced that \$160 million is crucial to developing resources and infrastructure for renewable energy. Eligible projects include: biomass, renewable biogas, wind farms, fuel cells, and upgrading small hydro plants. In the past ten years 65 renewable energy projects have been developed providing 2,036 MW. The solicitations fall under the **RPS** program which is administered by NYSERDA. The governor asserts funding large scale renewable energy projects will provide clean energy to support the grid and build a cleaner sustainable future for New York.

As the REV program evolves, the current RPS will end in 2015. Various environmental groups are pushing for the percentage of renewable energy mix in NY power to be pushed to 50% by 2030. The current goal is 30% to be achieved by the end of 2015. NYSERDA weighed in to the discussion stating the 50% goal is achievable. The new goal requires approval by the NY-PSC. New RPS programs will need to include offshore wind power and have long term contracts for REC purchasing by NUPA and NYSERDA in order to attract private investors.

US ENERGY

By now we have all heard about Executive Orders. This time it impacts the nation's largest user of energy and emitter of carbon dioxide. Our own US government. President Obama signed an order calling for a 40% reduction in Greenhouse Gas by 2025. Each Federal department is directed to reduce their Greenhouse Gas emissions by 10% in 2016. The available options include: Energy conservation, electric efficiency upgrades, using clean energy, renewable energy and alternative energy. Interestingly, government reduction of red tape, overlapping agencies, and unnecessary programs are not options given for energy reduction. The complexity of funding programs and application forms discourages many would-be participants from taking advantage of government funding. The Executive Order also addressed purchasing REC's, and using bio-based products, recycling and using products and appliances that are water and energy efficient. DG/CHP and the onsite energy measures are

encouraged. Looking ahead, motor vehicle fleet, new building specifications and conservation standards are also part of the Executive Order.

Pepco, the utility that supplies our nation's capital in Washington DC experienced a power outage caused by transmission line failure. The outage resulted in the blackout of 200-500 MW's of customer load. The fault was caused when a 230 KV (230,000 Volt) broke at the Ryceville switching station in Charles County, MD, and grounded out the circuit. Protective safety equipment

worked as designed, thereby avoiding any major equipment failure. The switching station is jointly owned by Pepco and electric co-op SMECO. The co-op was able to reroute power in their switch station, restoring power in two hours. The incident shows the importance of grid reliability. early trouble detection, and having sufficient reserve capacity and switching ability to maintain grid capacity and keeping the power flowing.

NYISO UPDATES

NYISO and PJM are implementing a <u>CTS</u> system. NYISO Chairman <u>Stephen</u> <u>Whitley</u> stated that interregional collaboration will enable more efficient use of resources. The impacted areas are the Pennsylvania, New Jersey, and New York borders. Coordinating energy flows could save between \$9 million and \$26 million in regional electric production costs. With the CTS in place

the ISO/RTO will have the ability to select least-cost power source. PJM CEO Terry Boston stated the CTS agreement is the first of its kind and will facilitate more efficient use of transmission infrastructure.

NYISO's proposal to address winter reliability issues and shortage pricing was accepted by FERC. That proposal allows the market price to rise up to \$3,250 per MWH. The changes would facilitate greater market efficiency, pricing transparency and improve reliability standards according to NYISO. The changes received support from stakeholders and power generators. With FERC approval, the new rules will go into effect this November. FERC pointed out the rule change will make congestion management, reserve capacity scheduling, and pricing during capacity shortages, easier to manage. FERC has requested NYISO provide two week notice before the rules become effective.



ISO-NE UPDATES

New England governors met to address energy infrastructure issues. The region faces multiple challenges including: insufficient natural gas pipelines, transmission lines that might be capable of moving renewable energy from the power generators to high capacity load regions, and grid reliability. The region also recognizes the need to develop new policies to incentivize generators to purchase firm gas pipeline capacity to prevent fuel

shortages during periods of high demand which can cause price spikes. The goal is to keep energy prices low, allowing New England to remain competitive with the rest of the country. Massachusetts governor Charlie Baker stated that six governors have an opportunity to develop a realistic collaborative solution to strengthen regional energy infrastructure and reduce costs for the region's businesses and residents. Governor Baker

also pointed out that grid reliability, clean energy, and power cost relief for New England residents will also be addressed. Maine Governor <u>Paul</u> <u>Le Page</u> commented that the region must work together to bring stability. As a prelude to the governors meeting, ISO-NE CEO <u>Gordon van Wellie</u> will host a meeting at the Connecticut Convention Center to discuss energy issues with the public at large.

NYSERDA PON UPDATES

Remember that many of the PON's will expire this year. REV will be modifying funding parameters. If you have a project that requires outside funding such as grants, ACT NOW!

LYNX has developed 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. PON 1219 Existing Buildings: Provides rebates and performance incentives for existing buildings including lighting, motors, generators, HVAC equipment etc. through 12-31-2015. This PON has added natural gas incentives.

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

PON 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 Pro-

gram 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 2924 Portable Emergency Generator Project PON 3016 Plug-In Electric Vehicle Enabling Technologies Demonstration Program through 7/14/2015

US MARKETING

Recognizing the importance of sufficient shale gas supplies on energy costs, FERC has issued a policy statement entitled: **"Cost Recovery Mechanism for Modernization of Natural Gas Facilities**". While most agree new pipelines and distribution system upgrades are needed, paying for the upgrades in a fair and equitable way is the main concern for FERC. According to FERC policy statements five steps are needed, including: • Review Existing Rates-Establish base rates and surcharges to determine current pipeline costs

• Define Eligible Costs-Establish which costs can be justified for pipeline upgrades, replacement or new construction

Avoid cost shifts – Protect

rate payers from pipeline owners shifting base rate payments to new pipeline costs

• Periodic Review - Examine operating costs and cost recovery mechanisms to make sure base rates are just and reasonable

 Shipper Support - Need for agreement between pipeline owners and shippers of natural gas, which requires cooperation between both parties Staying within the FERC guidelines will ensure development of "Just and Reasonable" tariff for natural gas pipelines.

GLOSSARY OF ACRONYMS

AEC - Alternative Energy Credits

AEPS - Alternative Energy Portfolio Standard

CTS - Coordinated Transaction Scheduling LNG - Liquid Natural Gas

NYSERDA - New York State Energy Research Development Authority

REC - Renewable Energy Credits

REV - Reforming Energy Vision

RESA - Retail Energy Supply Association

RPS - Renewable Energy Portfolio Standard **RSSA** - Reliability-support service agreement

May 2015

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7 NYISO ICAP Monthly Auction PJM Bill Issued by 5 PM	8 NYISO ICAP Monthly Auction	9
10	11	12 NYISO ICAP Monthly Auction Results	13	14	15 PJM Bill Due by 12 PM	16
17	18	19	20 Certification	21	22 NYISO ICAP Monthly Spot Auction	23 NYISO ICAP Monthly Spot Auction
24 31	25 Memorial Day	26 NYISO ICAP Monthly Spot Auction	27	28 NYISO ICAP Monthly Spot Auction Results	29	30

FUTURE DATES

May

7 PJM Bill Issued 9-10 NYISO ICAP Monthly Auction 12 NYISO ICAP Monthly Auction Results 12 PJM Bill Due 20 Certification 22-26 NYISO ICAP Spot Auction 28 NYISO ICAP Spot Auction Results

June

5 PJM Bill Issued 7-8 NYISO ICAP Monthly Auction 12 NYISO ICAP Monthly Auction Results 12 PJM Bill Due 22 Certification 24-25 NYISO ICAP Spot Auction 29 NYISO ICAP Spot Auction Results

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.

Current Projections

COMMODITY PRICING

Historical - Flat DAM

							Current I rojections						
							May-15	Jun-15	Jul-15	May-15 to Apr-16			
	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	 Flat	Flat	Flat	Flat	Peak	Off Peak	
NYISO-A	32.83	30.44	35.69	70.28	33.29	23.81	26.86	30.54	41.18	37.05	44.71	30.36	
NYISO-F	40.01	35.50	61.50	121.60	53.34	26.66	28.11	31.42	41.32	48.12	56.96	40.39	
NYISO-J	41.29	36.23	57.34	112.33	51.26	27.39	30.29	35.46	48.32	49.40	59.04	40.98	
NYISO-K	47.12	42.37	79.91	128.75	55.62	29.93	45.45	47.60	62.09	61.09	71.46	52.04	
PJM-PSEG	41.92	33.05	45.71	104.16	41.71	27.84	30.53	36.27	48.68	43.37	51.86	35.95	
PJM-JCPL	41.44	30.97	44.60	97.28	38.03	26.87	29.88	35.30	47.80	41.97	50.14	34.84	
PJM-APS	38.91	32.99	37.68	73.22	39.04	32.32	34.13	36.46	45.71	40.56	47.61	34.39	
PJM-PECO	41.21	30.09	41.08	97.60	38.02	25.40	29.51	34.07	46.20	40.72	48.69	33.76	
PJM-PPL	40.43	29.92	39.98	97.50	37.36	25.78	29.78	34.22	45.80	40.57	48.47	33.67	
PJM-DLCO	38.96	31.94	32.69	39.93	34.92	31.08	31.79	34.60	42.52	36.52	42.38	31.41	
PJM-PENELEC	39.49	32.79	37.65	74.02	39.79	29.35	34.35	36.91	46.16	41.07	48.48	34.59	
PJM-METED	40.73	29.94	40.13	94.44	37.69	25.82	29.83	34.44	46.18	40.65	48.59	33.72	
PJM-BGE	42.98	37.80	44.58	91.38	44.26	41.06	41.25	43.28	55.01	48.00	56.99	40.14	
ISONE-CT	47.30	42.39	70.19	121.31	60.67	28.40	28.25	33.50	43.63	54.74	63.48	47.10	

Note: On-peak is defined as HEO8- 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.

Lvnx EMS

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