LYNX ELECTRIC CURRENTS

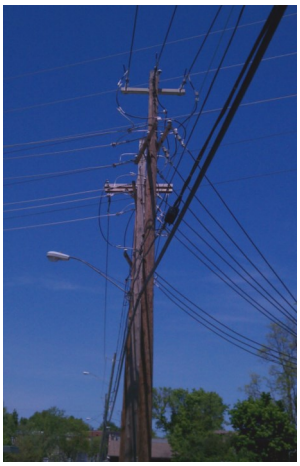
AUGUST 2014 NEWSLETTER

EDITOR'S NOTE

NY-PSC is not giving up their fight against the FERC ordered Lower Hudson Zone. The PSC is taking their case to the US Court of Appeals. NY, having the unenviable position of having the highest residential electric rates in the US, is claiming the FERC move will add additional millions to the rate payer's bills. Estimates for the cost to carry the new capacity zone vary between $280 and $500 million per year. FERC remains committed to the establishment of the new zone stating the move will foster pricing signals that will result in the development of new generation in the region and support regional reliability. The PSC continues to point out the current problem is in transmission constraints and new lines are being constructed, as well as transmission lines being upgraded and developed. While the process travels through legal channels, consumers are already feeling the squeeze. New York has been a leader in energy efficiency upgrades starting with the PSC mandates to have utilities promote and pay incentives for energy efficiency programs. The next step was expanding NYSERDA **'s** new standards for energy efficiency programs funded by SBC. The System Benefit Charge is a fee on each kilowatt sold by investor owned utilities, creating a pool of millions of dollars used to fund energy efficiency programs. The bureaucracy continued to grow and develop as more funds went into verification and compliance to satisfy state legislators. Programs grew and today we have EEPS (Energy Efficiency Standards), RPS (Renewable Portfolio Standards), RGGI (Regional Greenhouse Gas Initiative), and of course a state controlled utility NYPA (New York Power Authority). Each program adds costs to already high utility bills along with state excise and sales taxes. Cost to secure grants and tax incentives are a problem for many contractors. Applications to get funds, the required documentation and follow up verification has contractors question the value as grant recipients end up paying taxes on the grants.

It may be timely to re-evaluate the various programs and reduce overlapping programs along with making incentives and grants more user friendly. We have seen a market transformation driven by state legislators, NY-PSC, and agencies like NYSERDA. Their work has set new standards in energy efficiency and they should be commended for their work and efforts. However changes are needed to lower consumer costs and allow business NY business and residents to become competitive in a global economy.

INSIDE THIS ISSUE



TIP OF THE MONTH

HVAC, (Heating, Ventilation and Air Conditioning) is one of the largest energy consumers for most residential and commercial electric customers. To do a quick analysis of how much HVAC adds to your utility bill, look at your average monthly spend for the Spring and Fall months, then compare those numbers to you summer and winter months usage. That difference should give you a general idea what summer cooling and winter heating costs are. The next question is how can we reduce those costs? To begin that process, we start with the age and condition of your equipment. Tremendous advancements in technology can certainly lower you energy cost. Keep in mind that high ticket items like boilers can have as much as a thirty year payback. After reviewing your HVAC equipment look into grants and tax credits available. This newsletter lists multiple PON's that NYSERDA offers to help you upgrade equipment. Energy Management systems that allow you to control conditioned space in your buildings is the next major item to look at. For example, complying with OSHA regulations involves air exchanges for various occupied areas. That take conditioned air and exhausts it, bringing in fresh air. Using CO2 sensors can be more cost effective by making air exchanges based on CO2 levels rather than maximum occupancy standards. Technology such as the REGEN units, which

FERC UPDATES

Support for FERC Order 745 continues to grow across the country, pushing the US courts to reconsider their ruling on DR. RTO's, ISO's including CalISO, PJM, and state regulators such as California PUC and Maryland PUC are supporting the FERC position on DR. Demand Response fills significant gaps in capacity with the ability to provide cost effective capacity. The alternatives include building new high cost power plants, importing capacity from other regions and potentially rolling blackouts during peak demand periods. DR supplies provide around 9,000 MW's in the PJM region of DC Washington. The US court ruling is being challenged on the basis that only 4 judges out of the total 15 justices that sit on the bench decided on the now challenged decision. "En Bank" has been asked for as a petition is being circulated to have all 15 justices hear the case and review the ruling on FERC Order 745.

A narrow vote in the US Senate confirmed Obama nominee Norman Bay as a new FERC commissioner and future FERC chairman. Acting chair Cheryl LaFleur will continue in that post for the next 9 months and will then revert back to a FERC commissioner. In the remaining months of her term, Chairman La Fleur will be focusing on changes in the wholesale markets. Those changes include: EPA regulations and their impact on electric reliability, fuel switching from coal to natural gas, incorporating more renewable energy into the energy mix, and grid security both mechanical and cyber security. La Fleur points out that additional work needs to move forward with evolving capacity markets. Future Chairman Norman Bay will be working with La Fleur, getting exposure on FERC policies and experience in management.

One hot topic facing FERC is the new Lower Hudson Capacity Zone in NY. Both NY senators pushed the capacity zone issue with the majority Leader of the senate Harry Reid, before the committee voting for Mr. Bay's senate approval. Mr. Reid agreed to review the issue

This past March FERC ordered NERC to develop "Standards of Protecting Critical Electric Facilities". One of the recommendations from the report is allowing the federal government to add or remove facilities from the current list. New construction or changes in electric load can determine whether a facility is critical or not, and a mechanism to add or delete the critical designation is important. NERC wants tighter definitions of legal terms such as a nebulas term as "widespread". The report also includes physical reliability standards and stresses the importance of resiliency for delivery systems. FERC commented that the NERC report is a good start but more work is needed.

NY STATE UPDATES

New York electric rates are setting new record highs at $0.1956/kWh. The new record is 60% above the national average. AARP is expressing concern for NY senior citizens and has called for establishing a consumer advocate position that represents rate payers. With such high rates, will seniors have sufficient resources for their electric heating and cooling needs. The increased vulnerability of seniors to temperature extremes highlights the potential crisis. NY legislators in the state Assembly passed a bill to establish the advocate position. The state senate has not passed a similar bill to date.

In order to ensure sufficient capacity, the NY PSC is providing funding to upgrade or repower older plants. The Dunkirk NRG coal plant is being repowered to run on natural gas and will provide 435 MW of capacity. The PSC argues it is more cost effective than building new transmission lines. IPPNY, a pro generator lobby has filed a protest with FERC. The IPPNY claims that state subsidizing of older plants will impact capacity markets by suppressing payments generators receive for capacity. The PSC counters that their efforts will improve grid reliability and in Dunkirk's case, will create jobs and stabilize the property and school tax base. The NRG plant provides 30% of the Dunkirk school District tax revenue.

ESCO's are urging the NY-PSC to modify power marketing rules to allow full restructuring thereby realizing the full benefit of deregulation. Suppliers such as Infinite Energy claim that moving to full deregulation would solve many of the market abuse problems. Recommendations include: Faster switching times when choosing suppliers, consolidate billing, regulations that have retailers reimburse customers for slamming, making retailers hedge their product and have sufficient reserve capital to weather market volatility. There should be emphasis on providing value, new marketing innovations, and new service programs. Customer bills need to be more transparent so consumers can understand what they are purchasing. In addition customers should have the ability to switch suppliers quickly if the supplier is overcharging or not delivering what the contract states.

Several national organizations are asking the NY-PSC to limit allowing utilities to offer new services and entering into new ventures for utilities. As reliability is a major concern for today's consumers, the utilities should focus on providing efficient and reliable distribution. Weighing in are organizations as diverse as AARP, NEMA, and RESA . The consensus is to have distribution companies focus on their core competencies and exceptional service to their customers. Another point expressed by the various groups was ensuring that competition and new services, should be provided by service providers not the utilities. Historical changes in the markets show how utility involvement can make things complicated and costly. Examples can be found in the utility development of stand-by tariffs and how punitive they can be to DG programs. Examples of utility participation in DR programs has shown inefficiencies and unnecessary overlap with state authorities such as NYSERDA, that have the experience and staff to manage DG and DR programs. The concept of paying customers to use less of your product is a conflict and that should be self-evident. In the past, utilities had the ability to move DR and DG expense into their rate base thus being assured that the ratepayers paid for such measures. With deregulation assigning those costs becomes a major issue. Should energy consumption be charged to generation, distribution or suppliers?

PJM UPDATES

The Maryland PSC is supporting FERC Order 745, and the request for a re-hearing on the judicial ruling on capacity markets. The PSC indicated without wholesale markets many of the PSC initiatives would be limited. Without Order 745, many of the Maryland goals for energy efficiency, reduction, reliability and low costs would be challenged. Order 745 deals with DR and DG compensation encouraging customers to invest and participate in energy reduction programs.

The importance of DR programs is being voiced by many sources. Advocates of DR, including various state advocacy groups from: DC, PA, VA, MD, and NJ are calling for a re-hearing over the US Court of Appeals recent decision on FERC Order 745. The impact on reliability, providing a source of revenue to improve energy efficiency, and technology for reducing peak load are issues too important to ignore. PJM has shown that DR programs help moderate prices by diversifying capacity resources which save rate payers on energy costs. Without DR more expensive alternative generation will be required. Since the operation of the new facilities would have limited annual run hours, the unit price for capacity to cover operation, capital investment and maintenance would be extremely high. Imagine a fully staffed and operational power plant on stand-by until a need for additional capacity is called for by the RTO/ISO. The overhead cost would be expensive. Since the previous decision was ruled on by only four out of a possible fifteen US Court of Appeals judges, PJM is developing legal arguments for re-hearing with all fifteen judges.

Feedback on the TOU rate offered by PEPCO is positive. The "On Peak" rate is $0.1595 per kWh and the "Off Peak" rate is $.0685 per kWh. Customers are required to have a Smart Meter, in order to participate in the TOU rate. Surveys show that 69% of surveyed customers are very satisfied with their new tariff. Customers that did not participate state that they are satisfied with the PEPCO rate and uncertain about the new TOU rate. Overall participants are saving money by load shifting with the TOU rate. The challenge for the PA-PSC is getting more customers to participate in the new tariff.

PJM supports DR as it provides fast response and helps keep prices low. The PJM Monitoring Analytics reports that generators can fill the gap should DR not be available. DR provides 2% to 3 % of

NYISO

Getting ready for this coming winter heating season NYISO and ISO-NE are looking to fuel oil as gas pipeline constraints limit natural gas delivery. Industry leaders feel natural gas pipeline capacity remains constrained through 2020. During the peak of the "Polar Vortex", fuel oil provided 25% of the power generated in the northeast, specifically ISO-NE. The closing of 625 MW Vermont Yankee plant and the 587 MW Salem Harbor, already closed, will impact this winters need for additional capacity. DR and dual fuel generators will be needed to replace lost capacity. LNG is a technology that allows generators to store natural gas in liquid form and provides another option to meet FERC reliability standards. The ISO "pay for performance" and the ISO commitment to pay generators for dual fuel as needed to meet demand all add to the regions reliability. However, consumers can expect higher prices if the region has another harsh winter "Polar Vortex" experience.

US ENERGY

The aftermath of the recent winter's "Polar Vortex" and the resultant price spikes continues to impact energy markets. State regulators, RTO's, and ISO's continue analyzing price spikes trying to determine causes and more importantly, what can be done to prevent future unprecedented price spikes. Energy prices over $1,000 per MWH reflect actual costs during the spikes, while prices before and after the spikes are averaging $50 per MWH. That extreme highlights a major problem in the current marketing structure. PJM saw their billing jump from $8 billion to over $21 billion in Q1. The usual solutions are being bounced around such ideas as having suppliers have a higher cash reserve to enable them to weather price spikes. Other ideas call for eliminating variable rates. Some states are looking at removing utility purchase of receivables which places all the risk on the utility rather than the supplier. Placing the risk on suppliers will make the market forces of supply and demand work to become more efficient and cost effective. Government regulators however are an outside factor and can impact market prices. More coordination between FERC, RTO's, ISO's and state PSC's along with generators, suppliers, utilities, and transmission owners all need to work together in solving this problem.

A group of US firms have developed "Principals for Securing Renewable Energy REC's". It includes the following items:

- Greater choice in Procurement
- More access to cost competitive options
- Longer and variable term contracts
- Access to new emission reducing projects
- Streamlined third party financing

Increased Purchasing options Participating firms include: Bloomberg, Facebook, GM, Hewlett Packard, Intel, Johnson & Johnson, Mars, Novelis, Procter and Gamble, REI, Sprint and Wal-Mart, World Wildlife Fund. Wal-Mart Director of Energy David Ozmet stated their corporate goal, which is purchasing 100% renewable energy.

US ENERGY MARKETS

The "Analysis Group" has evaluated the impact of EPA's, GHG regulations and its impact on the US economy. Their study entitled "EPA's Clean Power Plan: State Tools for Reducing Costs & Increasing Benefits to Consumers" is now public. The Analysis Group took EPA's estimate of $4 to $7 billion needed between now and 2020 to meet a national energy expenditure of $363.7 billion in the US baseline of 2012. The Group states that health benefits and reduced energy consumption help contain costs and could eventually bring lower energy costs. The projections are based on early adopter states and their findings. The reality of fixed costs and meeting all the mandates, complying with federal and state regulations and laws most likely will reduce optimistic saving projections. Becoming more efficient should be encouraged regardless. The study shows that RGGI has produced $620 million for energy efficiency upgrades along with renewable energy capacity. Revenues obtained from marketing Carbon Allowances not only generate revenue but create jobs. These jobs include energy efficiency upgrades, renewable energy projects, along with continued service and maintenance jobs.

The state of Illinois has good news regarding electric marketing with over 3 million shoppers saving an average of $0.0024 per kWh. The majority of the customers are selecting the fixed price option and early termination fees. 68% of retail customers are enrolled in retail programs.

ISO-NE UPDATES

Connecticut PURA is being challenged by RESA over the new "procurement manager". RESA is claiming the newly created "procurement manager" is charged with overseeing utility procurements and that position mandates transparency. The manager states complexity of forward bilateral contracts and the timing of such contracts requires more flexibility. PURA is being urged by retailer groups to issue standard service procurement protocol to the public after 90 days.

Issues between FERC and the recent Capacity auction in ISO-NE continue. The move by Energy Capital Partners to retire Brayton Point plant triggered the latest round of controversy in the ISO markets. An independent consultant claims the Brayton Point plant can be profitable at$5/kW-month, and does not need to be retired. FERC raised concern about retiring power plants prior to the auction and its impact on auction prices. The ISO requires 33,855 MW of capacity to meet the ISO's needs. The recent auction shows a surplus of 1,038 MW's, well below the required reserve capacity needed. The auction fluctuated from a high of $115.82 MW-month to a low of $3.00 per MW-month. FERC is concerned over the bid numbers and insufficient reserve capacity and will issue a ruling Oct. 20. With early plant retirement and low new power plant numbers providing 2,160 MW's, lack of sufficient capacity can impact neighboring regions especially should ISO-NE need to import capacity.

PJM UPDATES *(CONTINUED)*

capacity; however they have a 60 hour annual run limit. The "Monitor" claims new generation can provide more run hours of capacity more cost effectively. While short term prices would boost reliability in the short term, long term reliability would decrease.

The Common Wealth of Virginia's governor Terry McAulife, is charging state regulators to develop new comprehensive energy policies for Virginia. Gov. McAulife stresses he wants an innovative policy which will attract business and entrepreneurs to relocate to Virginia and help move the state into the 21st century. A group of advocates called "Compete Coalition" is pushing for changes in energy, saying changes are needed and energy costs are a major cost issue for business. The group has pointed out that competition results in more efficient and cost effective electricity markets. Competition forces the market to meet any new capacity needs, new business needs, is compliant and must be cost effective .

NYSERDA PON UPDATES

Current PON's (Program Opportunity Notices), which are available to qualified customers from 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** through 2015

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

• **Multi Family Performance Partners:** Facilities with 5 or more housing units are eligible for energy audits and energy efficiency funding 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 2758 Gas Station Back up Power Program.** This PON provides emergency power for generators in Downstate gas stations, and will do so until the funding runs out.

• **PON 2689 Emerging Technologies and accelerated Commercialization through Dec.** 2016

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

• **PON 2846 Innovations in Data Center Information & Communications Technology Energy Efficiency:** This PON has funding through April 2015.

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

TIP OF THE MONTH *(CONTINUED)*

Lynx distributes, can help you control peak demand by turning units on and off as space conditioning is needed and where it is needed as opposed to running and conditioning the entire facility. Off peak chilling can lower bills, provided you have the appropriate meter to show when you actually used power. Another option is precooling, based on using market price signals which can also save HVAC dollars while maintaining building comfort. The building envelope is still important, but has a much longer payback. That involves insulation, windows, doors and related physical structural items. Economizers used with many rooftop HVAC units can use exhausted conditioned air to either precool or pre heat incoming air using air to air heat exchangers. Lynx has working relations with several HVAC mechanical contractors who can provide audits and perform the upgrades for you. Again tax credits, utility rebates for electric and natural gas are available along with federal tax credits. Call our Lynx office and let our staff can assist you with lowering your HVAC expenses.

GLOSSARY OF ACRONYMS

AEPS - Alternative Energy Credits

DG - Distributive Generation

DR - Demand Response

EEPS - Energy Efficiency Standards

GHG - Green House Gas

IPPNY - Independent Power Producers of New York

LNG - Liquid Natural Gas

NEMA - National Energy Marketers Associated

NERC - North American Electric Reliability Council

NYPA - New York Power Authority

NYSERDA - New York State Energy Research Development Authority

PEPCO - Potomac Electric Power Company

PURA - Public Utility Regulatory Association

RESA - Retail Energy Supply Assn.

RGGI - Regional Greenhouse Gas Initiative

RPS - Renewable Portfolio Standards

SBC - System Benefit Charge

TOU - Time of Use

August 2014

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

FUTURE DATES

August

8-11 NYISO ICAP Monthly Auction

13 NYISO ICAP Monthly Auction Results

21 Certification

25-26 NYISO ICAP Spot Auction

28 NYISO ICAP Spot Auction Results

September

9-10 NYISO ICAP Monthly Auction

12 NYISO ICAP Monthly Auction Results

17 SCR Enrollment (through October 9)

22 Certification

24-25 NYISO ICAP Spot Auction

26 NYISO ICAP Spot Auction Results

29-30 Strip Auction for Winter 2014-15

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. Call Lisa Klein or Bert Spaeth in our Lynx office at 716-774-1341.

COMMODITY PRICING

Historical - Flat DAM

	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14
NYISO-A	73.00	80.97	38.46	31.35	37.92	34.49
NYISO-F	135.16	106.16	43.82	33.91	38.03	36.39
NYISO-J	122.84	102.52	46.49	37.31	39.95	39.79
NYISO-K	145.94	108.43	50.75	48.89	44.75	46.55
PJM-PSEG	89.93	78.53	45.95	38.55	39.83	38.67
PJM-JCPL	78.12	73.97	41.79	37.75	39.20	38.66
PJM-APS	69.25	65.20	41.10	41.92	39.78	35.73
PJM-PECO	74.00	72.74	41.60	37.11	38.51	38.13
PJM-PPL	74.13	72.14	40.63	37.14	37.94	36.88
PJM-DLCO	57.65	52.31	38.13	40.25	38.08	32.77
PJM-PENELEC	72.96	67.47	41.47	45.19	39.45	36.68
PJM-METED	73.72	72.41	40.62	36.40	38.00	37.41
PJM-BGE	75.97	77.21	44.24	48.36	46.96	42.77
ISONE-CT	153.89	109.27	45.02	37.28	38.12	37.89

Current Projections

	Aug-14	Sep-14	Oct-14	Aug-14 to Jul-15		
	Flat	Flat	Flat	Flat	Peak	Off Peak
NYISO-A	35.70	33.04	33.32	39.70	47.18	33.13
NYISO-F	35.01	34.27	36.77	52.46	61.60	44.43
NYISO-J	42.49	38.63	38.26	54.91	65.77	45.37
NYISO-K	48.27	45.98	47.63	62.14	74.96	50.87
PJM-PSEG	41.16	37.47	36.80	44.61	54.39	36.02
PJM-JCPL	40.60	36.97	36.01	43.40	52.86	35.09
PJM-APS	36.86	34.51	34.12	38.99	46.39	32.48
PJM-PECO	39.86	35.70	34.86	41.77	50.60	34.02
PJM-PPL	38.78	35.47	34.75	41.24	49.84	33.69
PJM-DLCO	35.88	32.99	33.15	36.84	44.16	30.42
PJM-PENELEC	38.84	35.87	35.22	40.35	48.86	32.87
PJM-METED	40.09	36.36	35.02	41.68	50.41	34.01
PJM-BGE	45.01	39.88	38.10	45.82	55.95	36.92
ISONE-CT	37.21	34.99	35.26	62.10	72.32	53.12

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 or REC's will result in a default REC. PJM customers would pay Alternative Energy Credits (AEP) 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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