

LYNX ELECTRIC CURRENTS

JULY 2015 NEWSLETTER

EDITOR'S NOTE

Driving across this great nation of ours, one is always impressed with the diversity and the sheer immensity of it. In my family's recent travels from NY to Seattle, we noticed numerous road construction and improvement projects. Sad to say much more is needed, more so east of the Mississippi than west. The proliferation of windmills is plentiful, as well as large scale solar installations in western states. Residential applications for solar power can also be seen all across the country. Driving through Nevada, Idaho, Oregon and eastern Washington, the lush green of large scale farming (which relies on irrigation) was in stark contrast with the dry, cracked, desert brown. Irrigation provides abundant low cost food and is powered by electricity. Large farms are growing everything from hay for feeding our livestock, fruit and nut orchards, vineyards, and more traditional crops such as potatoes, along with miles and miles of cereal grain acreages. Nearing Seattle, which is under a heat wave, the water reservoir was noticeably

down and brush fire warnings were up. As this is an energy newsletter, there are some conclusions to be made. Energy and human ingenuity is the driving force that makes this country great. Our food supply depends on energy to: irrigate, harvest, process and transport our food. Statistics show there is growth in renewable energy but without a reliable continuous source of energy our lifestyles, food supply and ability to be a productive nation would be impaired.

Meanwhile, regulatory and political debates continue deciding the future of energy including fuel sources, tariffs, distribution policies, markets and the ever changing emission regulations. NY appears to be making great strides in the renewable energy and market transformation arena. More information can be found under [New York REV](#). As we move into the hazy summer days, possibly setting new peak demand records, keep in mind that a tremendous amount of effort is going into

making the world of energy cleaner, more cost effective and more reliable.

A coalition of bipartisan senators, lead by [Susan Collins](#) (R) from Maine and [Jeff Merkley](#) (D) from Oregon, have written a letter to the EPA urging them to recognize the benefits of bioenergy and incorporate bioenergy programs into federal policy. Following on the heels of the recent [MATS](#) ruling by the Supreme Court, such action is timely. The Supreme Court will also be watching the EPA CPP (Clean Power Plan) after its MATS decision, warning the EPA not to overreach and to consider the economic impacts of their programs before implementing them. As recent activities show, pushing programs and policies and rushing into implementation needs to be carefully weighed to minimize destroying essential sectors of our economy.

INSIDE THIS ISSUE

TIP OF THE MONTH	2
NY STATE UPDATES	2
PJM	2
NYISO UPDATES	3
ISO-NE UPDATES	3
US ENERGY	3
US MARKETING	4
NYSERDA PON UPDATES	4
GLOSSARY OF ACRONYMS	4
NYISO SCR CURTAILMENT	5
JULY CALENDAR	5
IMPORTANT FUTURE DATES	5
HISTORICAL FLAT DAM PRICING	6
CURRENT PROJECTED PRICING	6
GREEN ENERGY	6

FERC UPDATES

FERC and [CFTC](#) (the U.S. Commodity Futures Trading Commission) are conflicting over who has regulatory authority under the Commodity Exchange Act. FERC claims it already regulates the commodity markets in the ISO's and RTO's, as specified in the [Federal Power Act](#). CFTC is working on policies stemming from the [Dodd-Frank](#) legislation that regulates commodity markets. An understanding developed be-

tween the two agencies in 2013 addressing energy transactions and exempting them from CEA regulations. Advancement in energy markets, futures hedging and trading, has the CFTC now taking a closer look, stating it has authority over cases involving fraud and market manipulation. Recent FERC cases involving fines for market manipulation show that there is a need to regulate, but FERC

points out they are doing that and punishing violators. Energy trade groups want the rules clearly defined in order to understand the rules and regulations they need to operate under as it impacts futures trading, renewable energy funding, new power plant funding, hedging, and electric grid infrastructure such as transmission line development.





Our Lynx staff has been working with companies to enroll them in the various Demand Response (DR) programs. We will be upgrading generators to enable the customers to be compliant with their health care facilities but also enjoy the benefit of receiving revenue payments for participating in NYISO DR programs.

A frequently asked question is: "What can be curtailed in our facility"? Having a backup generator is a simple solution by merely turning the generator on and displacing the grid for a short period of time. The

generator should be 100 kW or greater, have interval metering and be connected to a 100 kW load. There are other options available. Some customers have energy management systems which allow them to shed load or have peak limiting options for load shedding. Simply pre-cooling a facility and turning off or raising the indoor temperatures to prevent the AC from operating, is a low cost effective option. Some facilities choose to turn off low traffic or non-essential lighting. Some industrial clients will select not to operate certain high demand operations and

perform maintenance during curtailment events. Our staff can help you determine what loads can be shed and estimate the value of those electric loads. When participating, not only are you earning money for load shedding, you are also avoiding expensive power purchases which can jump from \$0.05 per kWh to well over \$0.50 per kWh during major curtailment events. Enroll today to help the grid avoid brown or black outs and put some money back into your facility.

PJM UPDATES

The Pennsylvania Commission has issued new guidelines for interest charges and the handling of default reconciliation charges. Interest calculations will be based on commercial bank prime interest rates as published in the Wall Street Journal the last day of the month. The new ruling will apply to all under or over revenue collections. The

intent of the ruling is to reduce volatility in default interest charges and avoid over charging by Default Service Providers (DSP) or gaming with inaccurate forecasting regarding costs.

As a result of the numerous coal plant retirements PJM has filed retiring generator rules and policies with FERC. The rule changes

impact reactive power payments going to retired generators or how generators can substantiate why they should continue receiving reactive power payments. Power Generators will have to report various data including their Mega-volt ampere reactive data as well as their capacity and capability of their resources. In addition

generator nameplate data will be required. Power Generators have the opportunity to upgrade their data covering new or enhanced generating resources. FERC ruled the new informational filings satisfy their previous directives issued to PJM.

NY UPDATES

As REV continues to evolve, the NY-PSC is pushing "Distributed Energy Resources". As mentioned in previous newsletters, [DG](#) has power generators located at customer load sites. This departure from traditional centralized generation power plants that are capacity driven place power generation on site without the line losses and makes thermal energy available to on site customers. Utilities will become [DSP's](#), (Distributed System Platforms) interfacing with the NYISO and allowing renewable energy and DG sources to market their capacity and energy resources. The PSC continues to evolve and clari-

fy new initiatives and programs which provide the mechanism for achieving the stated goals and expected outcomes.

One such initiative is the [NY Clean Energy Plan](#) which was approved by the NYS Energy Planning Board on June 25, 2015. This program is designed to provide clean energy and stimulate private sector investment to develop clean community based energy solutions. The Plan calls for an 80% carbon emission reduction by 2050 which will include a 50% mix of renewable energy. A new major initiative includes a program called "Clean Organic Waste Management" which should

be of great interest to municipal waste water treatment plant, agricultural entities and food processors, all of which generate organic wastes. The funding focuses on anaerobic digesters and treating organic waste to create new revenue streams, provide renewable energy and reduce the landfill load from organic waste. More details can be found at: <http://energyplan.ny.gov>. Overall objective include:

- Developing community based energy resources
- Net energy neutral wastewater plants
- Water recovery facilities and resources
- Agricultural and food processing waste management

systems

Additional programs include [CEF](#) Clean Energy Fund. Details of that program can be found [NY-PSC website under Programs \(No. 14-M-0094\)](#).

This program will provide funding for:

- On site Power Programs (P 103)
- Agricultural based Programs (P-65)
- Large scale Renewable Energy (LSR -127)

The NY-PSC is looking for recommendations regarding the CEF program and will accept comments through July.

US ENERGY

While the ruling from the US Supreme Court is several months late, the decision over EPA's [MATS](#) determined the cost benefit analysis did not meet the provisions of the law. As MATS was being implemented before the Supreme Court ruling, many coal plants have already been retired. Chief Justice Antonin Scalia wrote that the billions of dollars in costs to implement MATS could not be cost justified to obtain questionable health benefit savings. EPA calculated the costs to implement MATS would be \$9.6 billion and may achieve a possible \$4 million in health benefits. Generators re-

ceived a break on meeting the stringent regulations, however the transition to cleaner power natural gas is already moving forward. Meanwhile economic hardships to coal mining operations, rail shipping, and coal fueled power plants have already taken place. To date 14,000 MW's of coal power plants have been retired, with an additional 5,000 MW, of new natural gas power plants going into operation. PJM auction statistics show the cost of MATS has impacted the 2015-2016 auction by increasing capacity prices from \$167 per MW Day to \$357 per MW Day.

Generators have a reprieve from MATS but retired plants are not expected to make a major resurgence. Once again the American public will have to bear the cost and consequences of government regulations, perhaps well-intentioned but not economically justifiable.

There is a new opportunity for retired coal fueled power plants. Google has announced it plans to spend \$600 million to transform a 63 year old power plant into a new data center in [Jackson County Alabama](#). The data center would employ around 100 people in a rural community of 2000. The facility will be powered by renewable power including hydroelectric,

wind and solar, helping to maintain Google's corporate "carbon neutral" stance. The proposed site is the TVA (Tennessee Valley Authority) Widow Creek Fossil 360 acre plant which will be "repurposed" to house the new Google Data center. Google will be working with TVA, Jackson County and the state of Alabama as construction is expected to start in 2016. To date TVA has retired 33 coal fueled plants, making the Google project an important example of how to bring economic life back to a previously coal driven community.

NYISO UPDATES

NYISO and NY large generators disagree on new buyer side regulations for smaller generators and new renewable generators. Large generators represented by [IPPNY](#) want to limit new buyer side market power purchases to large power generators. The ISO position is that they need to make allowances for smaller units to meet the new state REV programs

which encourages DR, DG and renewable energy. The ISO has indicated it favors limiting certain technologies but favors intermittent renewable energy sources up to 50 MW. NYISO does not support transmission lines that will bring in energy from outside the grid which would lower capacity market pricing. Repowering power plants, a term used when fuel switch-

ing or upgrading existing generation facilities, is supported by NYISO. Recent examples can be found in Dunkirk NY, as coal fired generators are being replaced with new natural gas fueled generators. NYISO has stated that if the NY PSC and FERC agree to the inclusion of the renewable and repowered generators it will support the changes. IPPNY representing the large power generators in

NY is expressing opposition to the changes and exemption for any uneconomic generation. IPPNY claims that allowing uneconomic generation to participate in the market will send negative or erroneous pricing signals and impact free market investments into new generation and developing new capacity.

ISO-NE UPDATES

Variable electric rates for residential customers have been banned, the result of [Bill SB 573 PA 15-90](#), signed into law by Connecticut Governor Malloy of Connecticut. The bill covers existing accounts renewables, as well as new accounts. The ban will greatly diminish suppliers' options to provide customer savings and supplier ability to make a profit. Bill SB 573-PA 15-90 also contains language that requires the Connecticut [PURA](#) to develop new regulations and protocols for suppliers to purchase power directly from

generators. Direct Contracting may provide some marketing options for suppliers. Additional information can be found at [PURA Docket No. 15-06-15](#).

After previous contentious capacity auctions, the 2018-2019 auction, which includes pay-for-performance provisions was accepted by FERC. Recent auctions were challenged on several fronts, making allegations of market manipulation. The new auction protocol called [FCA](#) (Forward Capacity Auction) includes new rules and pay for performance provi-

sions cleared at \$9.551/Kw month. Imported power from neighboring ISO's such as NYISO cleared at \$7.967/KW month and New Brunswick Canada cleared at \$3.941/KW

month. The FERC ruling for approval called the auction "just and reasonable" as market monitors also found the bidding process consistent with competitive bidding.



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 Con 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 Program through Dec. 2016

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

PON 3082 NY SUN Commercial/Industrial Incentive Program through 12/2023

US MARKETING

ERC has released energy statistics, showing energy prices continuing to drop. The reasons given for the lower prices, include a cooler summer in much of the country, and a glut of natural gas. The retirement of older inefficient power plants may also be playing a role. Fears of ground water contamination have been largely dispelled by EPA's publishing a 5 year

study which indicates a minimal instance of groundwater resulting from fracking. Failure to adhere to proven industry standards or mismanagement can be blamed for and fracking problems. Lower natural gas prices are starting to impact the number of drilling rigs in operation as numbers have decreased by 30%. In an effort to stabilize natural gas pricing,

the federal government is approving additional LNG plants to be developed to support overseas shipping of gas. As these plants are developed, over 10 BCF per day is expected to be exported making the US the leader. Meanwhile the American Public can enjoy lower energy prices, the result of natural gas fracking of gas wells and the retirements of inefficient older power plants.



GLOSSARY OF ACRONYMS

AEC - Alternative Energy Credits

AEPS - Alternative Energy Portfolio Standard

CEF - Clean Energy Fund

CFTC - Commodity Futures Trading Commission

DG - Distributed generation

DR - Demand Response

DSP - Distribution System Platform

ERC - Energy Research Council

FCA - Forward Capacity Auction

IPPNY - Independent Power Producers of NY

LNG - Liquid Natural Gas

MAT's - Mercury and Air Toxic Standards

PURA - Public Utilities regulatory Authority

REC - Renewable Energy Credits

REV - Reforming Energy Vision

July 2015

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

FUTURE DATES

July

- 7 PJM Bill Issued
- 10-11 NYISO ICAP Monthly Auction
- 15 NYISO ICAP Monthly Auction Results
- 17 PJM Bill Due
- 23 Certification
- 27-28 NYISO ICAP Spot Auction
- 30 NYISO ICAP Spot Auction Results

August

- 7 PJM Bill Issued
- 10-11 NYISO ICAP Monthly Auction
- 15 NYISO ICAP Monthly Auction Results
- 14 PJM Bill Due
- 21 Certification
- 25-26 NYISO ICAP Spot Auction
- 30 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.

COMMODITY PRICING

Historical - Flat DAM

	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15
NYISO-A	70.28	33.29	23.39	28.91	24.60	25.60
NYISO-F	121.60	53.34	26.64	26.23	20.63	21.14
NYISO-J	112.33	51.26	27.53	30.35	24.95	24.78
NYISO-K	128.75	55.62	30.39	35.24	30.72	34.35
PJM-PSEG	104.16	41.71	28.08	31.84	25.50	22.53
PJM-JCPL	97.28	38.03	27.23	31.67	25.26	22.12
PJM-APS	73.22	39.04	32.34	34.47	31.09	27.64
PJM-PECO	97.60	38.02	25.89	31.50	24.76	21.56
PJM-PPL	97.50	37.36	26.31	32.22	24.45	20.68
PJM-DLCO	39.93	34.92	31.22	34.44	30.35	26.26
PJM-PENELEC	74.02	39.79	29.41	33.06	28.56	25.06
PJM-METED	94.44	37.69	26.29	33.94	24.40	20.20
PJM-BGE	91.38	44.26	40.70	40.82	43.53	37.62
ISONE-CT	121.31	60.67	27.98	25.23	21.89	21.84

Current Projections

	Aug-15	Sep-15	Oct-15	Aug-15 to Jul-16		
	Flat	Flat	Flat	Flat	Peak	Off Peak
	29.72	26.68	27.75	34.62	44.82	25.84
	25.10	23.90	27.92	44.38	53.52	36.51
	29.99	26.95	30.15	45.32	55.67	36.41
	39.31	37.95	43.08	57.49	68.10	48.35
	30.64	30.50	29.55	39.90	47.66	33.21
	29.74	29.31	28.79	38.75	46.21	32.31
	34.32	32.62	32.87	38.61	45.53	32.65
	29.04	27.78	28.10	37.29	44.79	30.84
	29.43	28.04	28.27	37.20	44.77	30.69
	33.27	31.85	32.41	35.81	42.05	30.44
	33.73	31.95	32.70	38.45	45.70	32.20
	29.55	28.09	28.39	37.32	44.92	30.78
	44.89	39.98	39.19	47.19	56.25	39.39
	27.31	25.65	33.95	51.78	60.09	44.62

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

Address:

2680 Grand Island Blvd, Suite 2
 Grand Island, NY 14072
 Phone: 716-774-1341
 Fax: 866-316-8599
 Website: www.LynxEMS.com

Contacts:

Kevin Schoener: KHSchoener@LynxEMS.com
 Lisa Klein: LRKlein@LynxEMS.com
 Bert Spaeth: BASpaeth@LynxEMS.com
 Dennis O'Leary: DJOLEary@LynxEMS.com