Spring 2013

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U.S. ENERGY POLICY EXPECTATIONS FOR 2013

By Amanda M. Alderson, Associate Consultant

The last few years have brought to the forefront a fundamental reversal in U.S. energy policy, from one focused on natural resource scarcity, to a policy focused on managing our ever-growing resource supply. Natural gas and oil production from shale rock formations has set us on course to become the largest global oil producer by around 2020 and a net oil exporter by around 2030[1], according to a recent International Energy Agency report. However, many political hurdles must be cleared in order to achieve these goals. This article presents an update on some of the major policy debates regarding energy and climate change going on in the country today. These policies will certainly affect energy prices and impact the investment decisions of large energy consumers in the United States.

The technology responsible for creating the boom in domestic fossil fuel production, that is hydraulic fracturing (fracking) used to extract oil and natural gas from shale rock formations, is under deliberation at both the state and federal levels. The broad issue here is whether the individual and sometimes disparate state laws currently in place afford citizens

[1] IEA World Energy Outlook 2012

enough protection from the environmental dangers that some claim that fracking presents. Although the Environmental Protection Agency (EPA) has issued multiple rules and guidelines on a variety of fracking-related topics, such as pre-treating wastewater, the use of diesel in injection fluids, etc., the EPA has not yet released any broader rules or policy statements regarding the use of fracking. The EPA is currently conducting its own research on fracking's effects on drinking water. Expect to see new EPA rules in 2014 as a result of that research.

FRACKING - EXPECT NEW EPA RULES IN 2014

The need for public reporting of the fluids used in fracking is mentioned in the new Sanders-Boxer Carbon Tax Bill, recently introduced in the Senate. Senators Barbara Boxer (D-CA) and Bernie Sanders (I-VT) penned the Climate Protection Act of 2013 (S. 332), along with a companion bill, the Sustainable Energy Act of 2013 (S. 329). Together, these bills call for a carbon tax of $20 per ton, increasing to $33 per ton over 10 years, on upstream fossil fuel producers. Sixty percent of the revenue collected by this tax would be credited back to all legal U.S. citizens as a per capita rebate. Twenty five percent of the revenue would go toward federal deficit reduction, and the remaining 15 percent to promoting green energy, energy efficiency, and energy infrastructure. The Sustainable Energy Act seeks to end fossil fuel tax benefits and extend certain renewable energy tax incentives. Some industry analysts believe that a carbon tax and other programs that promote renewable energy while also tackling the federal debt are the most likely strategies for passing climate legislation in the coming years.

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Climate Protection Act of 2013 (S. 332)
Sustainable Energy Act of 2013 (S. 329)

"Together, these bills call for a carbon tax of $20 per ton, increasing to $33 per ton over 10 years"

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Aside from imposing new taxes to help boost federal revenue, an opportunity to create more U.S. jobs and boost the overall economy lies in exporting liquefied natural gas (LNG). Currently, in the world market for LNG, U.S. supplies are approximately a third and a fifth of the price of supplies in Europe and Asia, respectively, although some industry experts expect this price gap to diminish by the end of the decade.[2] At present, the U.S. Department of Energy (DOE) is holding all applications for new export facilities wishing to trade with non-Free Trade Agreement countries pending studies on how increased exports will affect the U.S. in areas like domestic fuel prices, impact on production, job creation, balance of trade, etc. The most recent such study, released in December 2012, showed a net positive impact on households, comparing the projected increase in domestic energy costs with the projected growth in U.S. GDP. By Q2 or Q3 2013, at the earliest, look for the DOE to set an annual limit on LNG export quantities and make determinations on the outstanding export applications.

Besides DOE, the other primary energy department within the Executive branch is the EPA. Certain finalized and newly proposed rules are expected from the EPA in 2013. One is the New Source Performance Standard (NSPS) for greenhouse gas (GHG) emissions on both new and existing power plants. The proposed CO_2 standard for new power plants was released in 2012, and was highly controversial as it effectively bans new coal-fired plants that lack carbon capture capabilities. The final new plant NSPS was expected by April 13, 2013, but EPA let the deadline pass. Spokespersons for the EPA have said they are continuing to work on the new plant rule, and anticipate proposing a rule for existing plants within the next 18 months. Other EPA rules expected in 2013 concern cooling water intake standards for existing power plants, coal ash output, ozone standards, and effluent limitation guidelines for the discharge of pollutants from steam electric power

[2] http://www.bloomberg.com/news/2013-01-11/u-s-lng-profit-seen-elusive-as-price-gap-closes-energy-markets.html

generators. The Mercury and Air Toxics Standards (MATS, or Utility MACT) rule issued as final in February 2012 is currently being litigated. The challenge has separated into two tracks: one is regarding standards for new generating units, the other regarding standards for existing units. The case concerning new units is on hold as the parties review EPA's recently-published revised, less stringent, standard. The court decision regarding standards for existing units is expected in late 2013. The Cross State Air Pollution Rule (CSAPR) was vacated in late 2012. In January, the D.C. Court of Appeals denied EPA's request for a rehearing. EPA is yet to indicate whether it will petition the Supreme Court to hear the case. Expectations are that EPA may instead redraft CSAPR, but a rewrite is not anticipated in 2013.

There are quite a number of avenues at the disposal of both President Obama and Congress when it comes to addressing climate change, including policies on fracking, new legislation for a carbon tax, LNG export thresholds, and EPA rules. As the U.S. shifts its focus from natural resource scarcity to resource surplus, we are in need of a solid policy framework in order to manage these resources in a way that takes into consideration environmental protection, domestic energy prices, the national trade balance, industry input costs, bureaucratic costs of compliance, and many other concerns. Overall, these policies should seek to foster long-term investment to help grow our national economy. In 2013 and during the remainder of President Obama's second term, look for both legislative and executive actions on these fronts.

The Energy Information Administration (EIA) is projecting U.S. electric power companies to retire more than 27,000 megawatts of coal capacity over the next five years. The majority of retirements are expected in 2015.

About the author:

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SNL PROJECTED COAL CAPACITY RETIREMENTS (MW)

NERC REGION	2013	2014	2015	2016	2017	2018	TOTAL
ERCOT						871	**871**
MRO		173	481				**654**
NPCC	2,830	609			370		**3,809**
RFC	294	460	10,373	486			**11,613**
SERC	2,058	77	4,835	201	747	250	**8,168**
SPP		528	17	460			**1,005**
WECC	87	731	324		186		**1,327**
TOTAL	**5,269**	**2,577**	**16,030**	**1,147**	**1,303**	**1,121**	**27,447**

Source: SNL Financial Inc.

UNDERSTANDING POWER FACTOR CORRECTION

By Brian C. Collins, Associate

Introduction

Power factor often seems like a complicated subject. However, the basic concept is actually quite simple. Power factor measures the percentage of current that is actually doing useful work. A simple analogy to help understand power factor is to compare it to beer and the size of mug needed to hold it. Beer that has a lot of foam needs a larger mug to hold both the beer and the foam. This is analogous to power factor because much of the volume of the mug is wasted due to the large amount of foam it must hold. Because it does no useful work, the foam is analogous to reactive power.

Power factor refers to the ratio of "real power" to "apparent power" in alternating current loads. Apparent power is the product of voltage and current (measured in kVA). Real power is the electrical energy that is consumed, does real work, and is not stored in a magnetic field (measured in kW). Reactive power (measured in kVAR) is electrical energy that is stored in magnetic fields. In an electric system with no reactive power, the ratio of real power to apparent power is equal to 1.0 or 100% (unity power factor). In a system where the amount of real power equals the amount of reactive power, the power factor is 70.7%,[3] meaning 70.7% of the apparent power is real power. The measurement of power factor is useful as it indicates how much of the apparent power in an electric system is used for real power or useful work. Electric utilities often charge when real power falls below 95% of the apparent power.

When the power factor is something other than 1.0, it is an indication of the existence of reactive power, which is necessary to operate certain electrical equipment. Hence, electrical systems must be designed to accommodate both real and reactive power. A standard demand meter, which measures only real power, does not account for the existence of reactive power. Consequently, for large commercial and industrial customers, utilities seek compensation for the provision of reactive power through a variety of collection mechanisms. These typically fall into three categories: (1) billing for apparent power, in kVA, instead of real power, (2) billing for reactive power, in kVAR, directly, or (3) computing a surcharge based on power factor. Sometimes a certain power factor threshold must be met, i.e., poor power factor (typically less than 85%), before separate charges apply. Though these charges may look different on a bill, all three methods effectively collect for the provision of non unity power factor.

Industrial and manufacturing customers of electric utilities sometimes invest in power factor correction equipment in order to avoid low power factor penalties assessed by electric utilities or reactive power charges. Customer-installed power factor correction equipment generally only helps avoid these charges. We have seen some firms that sell power factor correction equipment tout large energy savings on electric bills as the justification for making the investment in power factor correction equipment. Though there may be some minor benefits of decreased line losses, resulting in reduced energy consumption, these benefits are of less value than the avoidance of applicable utility power factor penalties or reduction in reactive power charges. In some instances, the payback of the capital cost of correction, through lower utility charges, is not sufficient to warrant the investment. Investment in power factor correction equipment sometimes results from a misunderstanding of energy savings and whether the equipment will actually avoid utility charges, i.e., if the electric utility does indeed charge for poor power factors. Before deciding to invest in any power factor correction equipment, it is important to understand precisely how the electric utility charges for power factor penalties, if at all. Generally, power factor penalties and reactive power charges will be specified in the tariffs of your electric utility.

What is Reactive Power?

There are two types of reactive power, inductive and capacitive. Reactive loads such as inductors and capacitors do not dissipate real power, but any electrical system must be designed to handle the additional current from these reactive loads. Reactive power is necessary for normal operation of inductive loads such as electrical motors. Unlike resistive loads, like light bulbs, that create heat by consuming kilowatts, inductive loads require the current to create (or "induce") a magnetic field, and the magnetic field produces the desired work.

[3] Derived as kW/kVA, or $kW/(kW^2+kVAR^2)^{1/2}$, or $1 / (1^2+1^2)^{1/2} = 0.707$.

Why Improve Power Factor?

Power factor correction typically involves the installation of capacitors at a manufacturing site to improve power factor. Capacitors act in opposition to inductive loads, thereby minimizing the reactive power required to serve them, which would otherwise be delivered by the electric utility. As a result of installing the equipment, power factor improves. However, if the electric utility does not charge for reactive power or impose a power factor penalty, utility bill savings realized, if any, are very unlikely to compensate fully for the capital cost of the power factor correction equipment. When an electric utility charges a power factor penalty, then installing power factor correction often makes financial sense. The lower the power factor, the more incentive there is to correct it.

Power Factor Summary

$$\text{Power Factor} = \frac{\text{Real Power}}{\text{Apparent Power}} = \frac{\text{kW}}{\text{kVA}}$$

$$\text{kVA} = \frac{\text{Real Power}}{\text{Power Factor}} = \frac{\text{kW}}{\text{PF}}$$

$$\text{kVAR} = \sqrt{\text{kVA}^2 - \text{kW}^2}$$

100% Power Factor =	0	kVAR per 100 kW
95% Power Factor =	33	kVAR per 100 kW
90% Power Factor =	48	kVAR per 100 kW
85% Power Factor =	62	kVAR per 100 kW
80% Power Factor =	75	kVAR per 100 kW

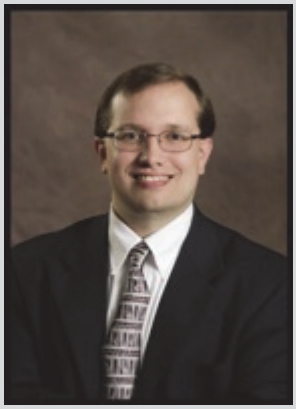
An additional potential benefit of adding power factor correction is reducing the line current in your industrial or manufacturing facility's electrical system. This reduction in line current in turn reduces voltage drop. For long distribution feeders with significant voltage drop, this can sometimes be an effective way of achieving savings on line losses while increasing voltage. When an electric utility supplies reactive power, the current must flow from the utility meter to the inductive load in one's facility. The wires between the utility meter and the load have resistive heating losses. The amount of line losses is dependent upon feeder sizes and length, as well as the load on the feeders. To maximize the savings for power factor correction, it is best to install power factor correction equipment as close as possible to the inductive load. This decreases line losses by reducing the distance that current has to travel in the system. Reducing losses may contribute to the justification for power factor correction, but it is generally not sufficient by itself to justify the cost of installing power factor correction equipment. Energy savings achievable from power factor correction equipment installations will generally be in the range of 0.5% to 1.5% of the average kW demand.

Conclusion

Raising the power factor to 95% and above, improves the efficiency use of electricity by customers of electric utilities. Economic benefits may result from reduced power bills, lower line and transformer losses, and improved voltage conditions, while electric utilities benefit from released system capacity. Most of the cost savings for end users are obtained by eliminating the power factor penalty charges.

BAI can assist customers in analyzing whether power factor correction makes sense for their industrial complexes. BAI can assist in the verification of power factor penalties on electric utility bills and assist in determining the pay-back period for power factor correction investments.

About the author:



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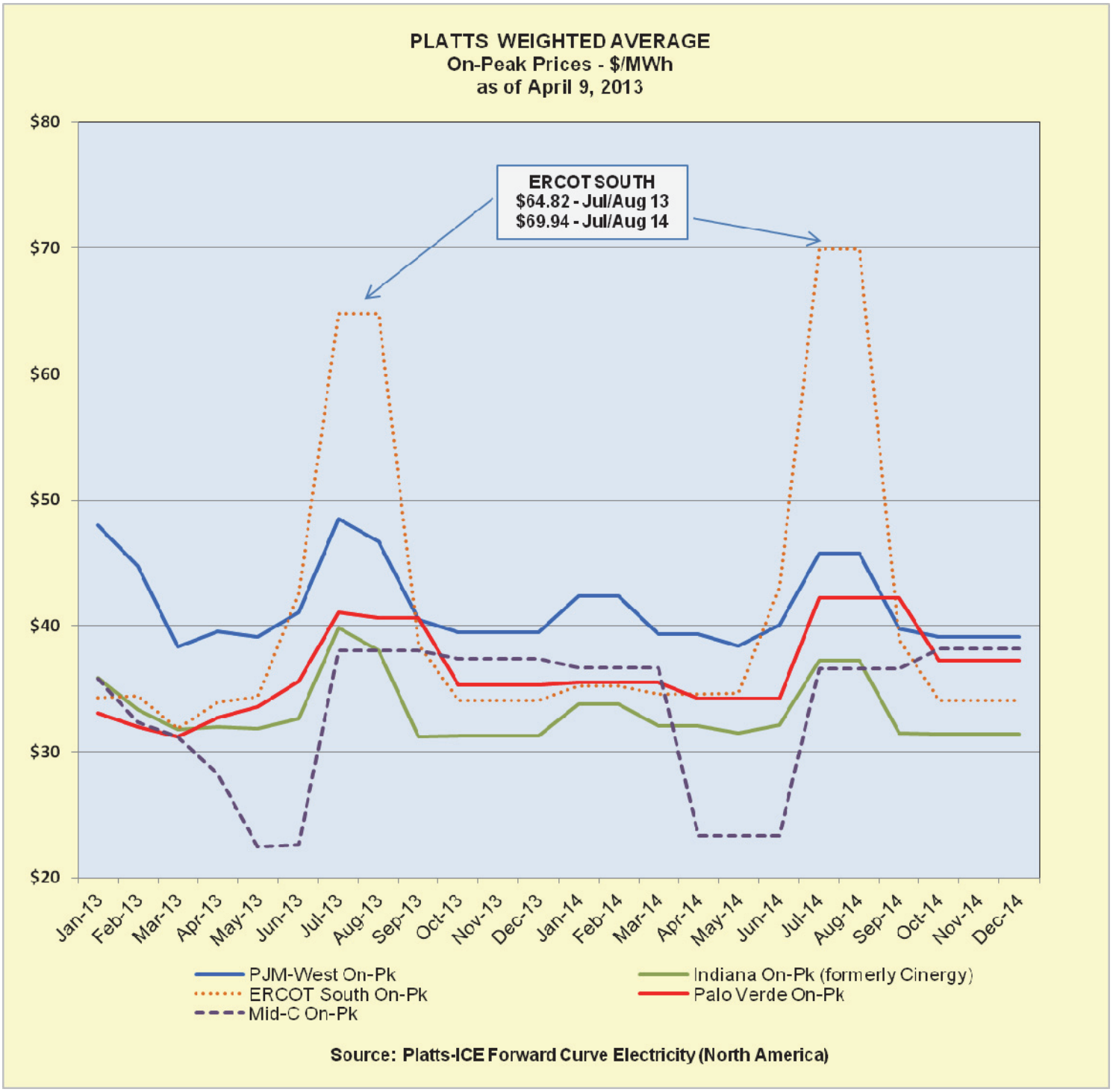
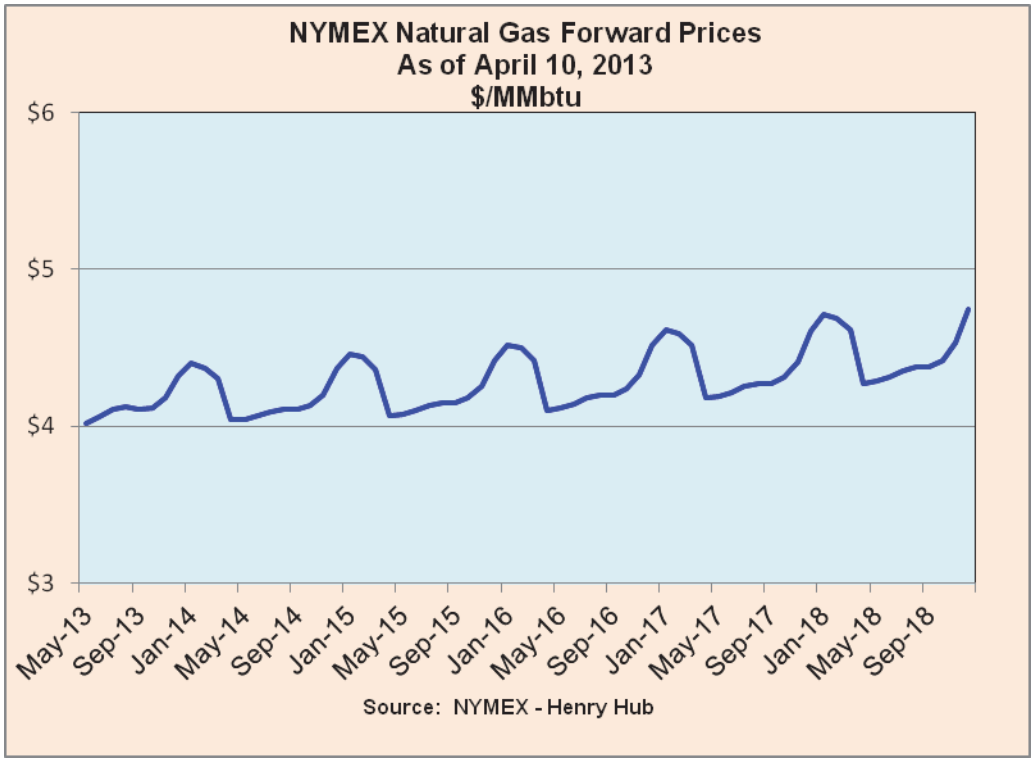
PLATTS DAY-AHEAD MARKET PRICES

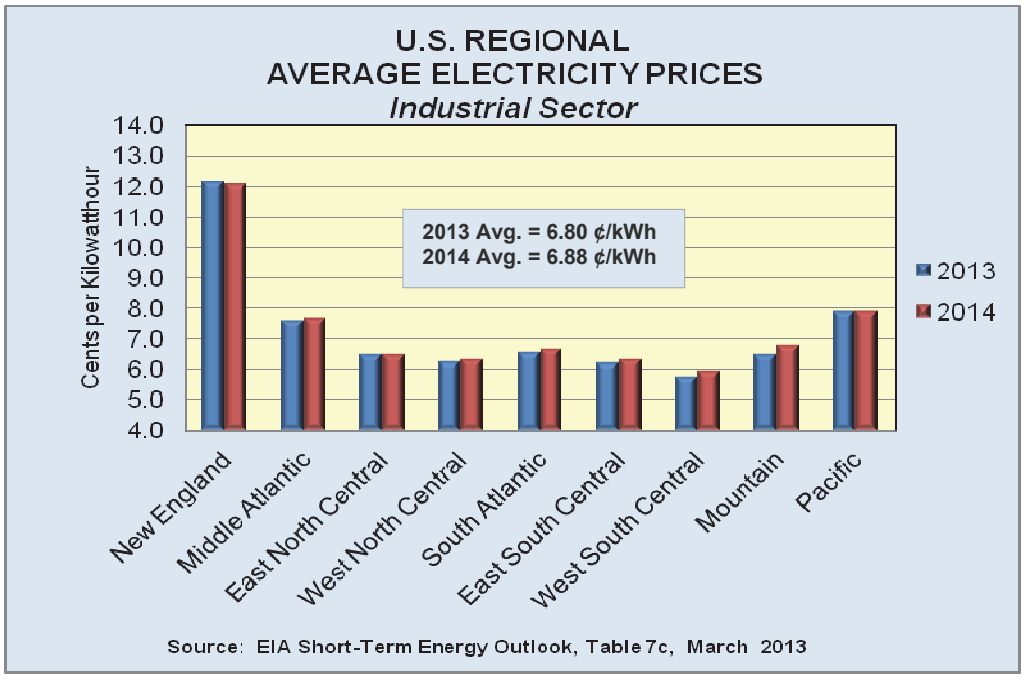


FORECASTED NATURAL GAS AND ELECTRICITY PRICES

NYMEX natural gas prices are projected to increase slightly over the next five years. Annual averages are expected to range from $4.13/MMbtu for the remainder of 2013 to $4.47/MMbtu by 2018.



EIA's Short-Term Energy Outlook projects the average industrial electricity price to remain under 7.0¢ per kWh through 2014. The highest average prices remain in the New England region.



ELECTRIC RATE CASES AUTHORIZED in 2012 and 2013

Utility	Order Date	Company Requested ($ millions)	Commission Authorized ($ millions)
ARIZONA			
Arizona Public Service Co.	05/15/12	95.5	0.0
CALIFORNIA			
California Pacific Electric Co.	11/29/12	16.2	12.5
Pacific Gas and Electric Co.*	12/20/12	(75.0)	(181.2)
San Diego Gas & Electric Co.	12/20/12	(6.9)	(28.0)
Southern California Edison Co.*	12/20/12	(128.0)	(217.0)
Southern California Edison Co.	11/29/12	809.0	271.9
COLORADO			
Public Service Co. of CO *	04/26/12	281.0	234.4
DELAWARE			
Delmarva Power & Light Co.*	11/29/12	34.9	23.2
DISTRICT OF COLUMBIA			
Potomac Electric Power Co.	09/26/12	39.7	24.0
FLORIDA			
Florida Power & Light Co. *	12/13/12	690.4	350.0
Florida Power Corp.	02/22/12	150.0	150.0
Gulf Power Co. *	02/27/12	101.6	68.1
GEORGIA			
Georgia Power Co.	12/20/12	50.2	50.2
HAWAII			
Hawaii Electric Light Co.	04/04/12	20.9	4.5
Hawaii Electric Light Co.	03/19/13	19.8	NA
Hawaiian Electric Co. *	06/29/12	93.8	43.1
Maui Electric Co. Ltd.	05/02/12	28.2	4.7
IDAHO			
Avista Corp.	03/27/13	11.4	7.8
Idaho Power Co.	06/29/12	59.9	58.1
PacifiCorp *	01/10/12	32.7	34.0
ILLINOIS			
Ameren Illinois *	09/19/12	(20.0)	(48.1)
Ameren Illinois *	01/05/12	39.0	Order Withdrawn
Ameren Illinois *	12/05/12	19.6	(5.1)
Commonwealth Edison Co.*	05/29/12	(59.1)	(133.4)
Commonwealth Edison Co. *	12/19/12	91.0	89.3
INDIANA			
Indiana Michigan Power Co. *	02/13/13	170.1	85.0
KANSAS			
Kansas City Power & Light	12/13/12	63.6	33.2
Westar Energy Inc.*	04/18/12	90.8	50.0
KENTUCKY			
Kentucky Utilities Co.	12/20/12	82.4	51.0
Louisville Gas & Electric Co.	12/20/12	62.1	33.7
LOUISIANA			
Southwestern Electric Power Co.	02/27/13	NA	107.0
MARYLAND			
Baltimore Gas and Electric Co.	02/22/13	130.1	80.6
Delmarva Power & Light Co.	07/20/12	23.5	11.3
Potomac Electric Power Co.	07/20/12	66.2	18.1
MICHIGAN			
Consumers Energy Co.*	06/07/12	180.9	118.5
Indiana Michigan Power Co.*	02/15/12	27.4	14.6
Wisconsin Electric Power Co. *	06/26/12	12.6	9.2
MINNESOTA			
Northern States Power Co.	03/29/12	150.6	72.9
MISSISSIPPI			
Mississippi Power Co.	03/05/13	170.5	156.0
MISSOURI			
Union Electric Co. d/b/a Ameren Missouri *	12/12/12	322.9	259.6
Empire District Electric Co.*	02/27/13	30.7	27.5
Kansas City Power & Light *	01/09/13	78.5	67.4
KCP&L Greater Missouri Op Co.*	01/09/13	24.3	21.7
KCP&L Greater Missouri Op Co. *	01/09/13	44.9	26.2

Utility	Order Date	Company Requested ($ millions)	Commission Authorized ($ millions)
MONTANA			
NorthWestern Corp. *	03/21/12	39.1	39.1
NEW JERSEY			
Atlantic City Electric Co.	10/23/12	90.3	44.0
NEW YORK			
Niagara Mohawk Power Corp.	03/14/13	145.4	43.4
Orange & Rockland Utilities Inc.	06/14/12	31.4	19.4
NORTH CAROLINA			
Duke Energy Carolinas LLC *	01/27/12	525.0	368.0
Virginia Electric Power Co. *	12/21/12	53.4	36.4
NORTH DAKOTA			
Northern States Power Co.	02/29/12	20.4	15.7
OKLAHOMA			
Oklahoma Gas and Electric Co.	07/09/12	73.3	4.3
OREGON			
Idaho Power Co.	02/23/12	5.8	1.8
Idaho Power Co.	09/20/12	3.0	3.0
PacifiCorp*	12/20/12	38.4	20.7
PENNSYLVANIA			
PPL Electric Utilities Corp.	12/05/12	104.6	71.1
RHODE ISLAND			
Narragansett Electric Co.	12/20/12	31.4	21.5
SOUTH CAROLINA			
Duke Energy Carolinas LLC	01/25/12	215.5	92.8
South Carolina Electric & Gas*	12/19/12	151.5	97.1
South Carolina Electric & Gas	09/26/12	56.7	52.1
SOUTH DAKOTA			
Northern States Power Co.	06/19/12	11.9	8.0
TEXAS			
Cross Texas	01/16/13	49.7	39.5
El Paso Electric Co.	05/18/12	26.3	(15.0)
Entergy Texas Inc.*	09/13/12	104.8	27.7
Lone Star Transmission LLC*	10/12/12	28.8	14.4
UTAH			
PacifiCorp *	09/19/12	155.7	154.0
VIRGINIA			
Appalachian Power Co.	01/03/12	26.9	26.1
Virginia Electric & Power Co.	03/20/12	2.8	(4.3)
Virginia Electric & Power Co.	03/23/12	50.1	46.8
Virginia Electric & Power Co.	03/16/12	6.4	6.4
Virginia Electric & Power Co.	02/02/12	35.3	34.1
Virginia Electric & Power Co.	03/12/13	2.7	1.7
Virginia Electric & Power Co.	03/22/13	5.8	5.5
Virginia Electric & Power Co.	02/19/13	6.6	4.2
Virginia Electric & Power Co.	02/19/13	52.0	48.9
WASHINGTON			
Avista Corp.*	12/26/12	41.0	27.7
PacifiCorp*	03/30/12	12.9	4.5
Puget Sound Energy Inc.*	05/07/12	125.4	63.3
WISCONSIN			
Madison Gas & Electric Co. *	11/09/12	22.5	14.9
Northern States Power Co.	12/14/12	39.1	35.5
Wisconsin Electric Power Co.	11/28/12	262.0	205.7
Wisconsin Public Service Corp.*	10/24/12	85.1	28.5
WYOMING			
Cheyenne Light Fuel Power Co. *	06/18/12	4.6	2.7
PacifiCorp*	07/16/12	56.6	50.0
AVERAGE ALL STATES		*$82.5*	*$46.0*

* BAI involvement

Includes 2013 electric cases authorized through April 1, 2013

Sources: SNL Financial, Regulatory Research Associates and State Public Service Commissions

PENDING
2013 RETAIL ELECTRIC RATE CASES

Utility	Filing Date	Company Requested Rate Increase ($ millions)
ARIZONA		
Tucson Electric Power Co.	07/02/12	127.8
UNS Electric Inc.	12/31/12	7.5
ARKANSAS		
Entergy Arkansas Inc.*	03/01/13	84.4
CALIFORNIA		
Pacific Gas & Electric Co.	11/15/12	796.0
San Diego Gas & Electric Co.*	12/15/10	201.8
CONNECTICUT		
United Illuminating Co.	02/15/13	94.5
DISTRICT OF COLUMBIA		
Potomac Electric Power Co.	03/08/13	52.1
DELAWARE		
Delmarva Power & Light Co.	03/22/13	42.0
FLORIDA		
Tampa Electric Co.*	NA	135.0
HAWAII		
Maui Electric Co.	07/22/11	27.5
IDAHO		
PacifiCorp *	NA	NA
LOUISIANA		
Entergy Gulf States LA LLC *	02/15/13	27.7
Entergy Louisiana LLC *	02/15/13	168.1
MARYLAND		
Delmarva Power & Light Co.	03/29/13	22.8
Potomac Electric Power Co.	11/30/12	66.5
MICHIGAN		
Consumers Energy Co.*	09/19/12	144.9
MINNESOTA		
Northern States Power Co.	11/02/12	219.7
MISSISSIPPI		
Entergy Mississippi Inc.	See Notes	NA
Mississippi Power Co.	See Notes	NA

Utility	Filing Date	Company Requested Rate Increase ($ millions)
NEW HAMPSHIRE		
Granite State Electric Co.	NA	15.2
NEW JERSEY		
Atlantic City Electric Co.	12/11/12	69.7
Jersey Central Power & Light Co.	11/30/12	112.3
NEW MEXICO		
Southwestern Public Service Co. *	12/12/12	22.4
NEW YORK		
Consolidated Edison Co. of NY*	01/25/13	375.0
NORTH CAROLINA		
Progress Energy Carolinas *	10/12/12	386.8
Duke Energy Carolinas LLC*	02/04/13	446.1
NORTH DAKOTA		
Northern States Power Co.	12/18/12	16.9
OHIO		
Duke Energy Ohio Inc.	07/09/12	86.6
OREGON		
PacifiCorp *	03/01/13	56.0
Portland General Electric Co.*	02/15/13	104.8
SOUTH CAROLINA		
Duke Energy Carolinas LLC*	03/18/13	220.1
SOUTH DAKOTA		
Black Hills Power Inc.	12/17/12	13.7
Northern States Power Co.	06/29/12	19.4
TEXAS		
Southwestern Electric Power Co.*	07/27/12	83.1
Southwestern Public Service Co.*	11/15/12	90.2
VIRGINIA		
Appalachian Power Co.	03/29/13	1.9
Appalachian Power Co.	03/29/13	2.5
Kentucky Utilities Co.	04/01/13	6.5
WASHINGTON		
PacifiCorp*	01/11/13	42.8
Puget Sound Energy Inc.*	02/01/13	32.2
WISCONSIN		
Wisconsin Public Service Corp.	03/29/13	71.1
AVERAGE ALL STATES		*$116.7*

**BAI involvement*

Includes 2013 electric pending cases as of April 10, 2013

Notes: Entergy Mississippi (Docket 2012-AD-302) and Mississippi Power (Docket 2012-AD-303) involve the investigation and review of current methods used to calculate ROE in formula rate plans.

Sources: SNL Financial, Regulatory Research Associates and various State Public Service Commissions.

ELECTRIC RETAIL INDUSTRIAL CUSTOMER SHOPPING

Over the past few years, little activity has occurred to move regulated states toward deregulation. However, 14 states continue to offer full retail choice including the District of Columbia. The table below summarizes the percentage of industrial customers currently shopping competitively. Another seven states offer choice to industrial customers on a limited basis depending on legislative or regulatory mandates.

STATES WITH FULL CHOICE

STATE	PERCENT	STATE	PERCENT	STATE	PERCENT
CONNECTICUT		**MASSACHUSETTS**		**OHIO (Industrial)**	
Connecticut Light & Power	60.2%	Boston Electric	25.9%	Cleveland Electric	76.6%
United Illuminating	58.9%	Cambridge Electric	25.0%	Duke Energy	67.5%
DELAWARE		Commonwealth Electric	57.4%	AEP-Ohio	33.5%
Delmarva Power & Light	28.4%	Fitchburg Gas & Electric	24.3%	Dayton Power & Light	65.0%
DISTRICT OF COLUMBIA		Massachusetts Electric	24.2%	Ohio Edison	75.1%
Potomac Electric Power Co.	33.3%	Nantucket Electric	12.1%	Toledo Edison	84.2%
ILLINOIS		Western Massachusetts	31.8%	**PENNSYLVANIA**	
Ameren IL (1MW or Greater)		**NEW HAMPSHIRE**	N/A	Duquesne Light	66.9%
Rate Zone I	87.0%	**NEW JERSEY** (>1,000 kW)		MetEd	84.4%
Rate Zone II	90.7%	Atlantic City Electric	86.6%	PECO Energy	87.4%
Rate Zone III	87.9%	Jersey Central Power & Light	83.7%	Penelec	81.5%
ComEd 400 kW & Above	91.5%	Public Service Electric & Gas	88.8%	Penn Power	97.7%
MAINE (Statewide)	88.0%	Rockland Electric	100.0%	PPL	86.7%
MARYLAND (Large C&I)		**NEW YORK** (NonRes LG-TOU)		UGI	38.4%
Potomac Edison	78.8%	Central Hudson	65.2%	West Penn Power	89.9%
Baltimore Gas & Electric	91.6%	Con Edison	85.5%		
Delmarva Power & Light	93.6%	New York State Electric & Gas	68.9%	**RHODE ISLAND**	
Potomac Electric Power Co.	88.8%	Niagara Mohawk	82.7%	National Grid	25.2%
		Orange & Rockland	26.4%	**TEXAS**	N/A
		Rochester Gas & Electric	90.0%		

STATES WITH LIMITED CHOICE

STATE	PERCENT
CALIFORNIA	23.9%
(All IOU Industrials >500 kW)	
MICHIGAN	
Consumers Energy	10% CAP
Detroit Edison	10% CAP
MONTANA	N/A
NEVADA	N/A
OREGON	
Pacific Power & Light	1.4%
Portland General	10.7%
VIRGINIA	N/A
WASHINGTON	N/A

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