10:00 a.m. (EST)
1-866-362-9768
940-609-8246#

Energy Committee
February 25, 2016

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2016 Energy Committee Calendar
Meetings will begin at 10:00am

Thursday, February 25, 2016
Thursday, May 26, 2016
Thursday, August 25, 2016
Thursday, November 17, 2016

OMA Energy Committee Meeting Sponsor:

OMA Energy Committee Agenda
February 25, 2016

Welcome and Introductions — Brad Belden, Belden Brick, Chair

State Public Policy Report — Ryan Augsburger, OMA Staff

Customer-Sited Resources Report — John Seryak, PE, RunnerStone, LLC

- Energy efficiency program updates
- EE Peer Network Activity
- Supreme Court on demand response
- Energy efficiency standards
- Advanced energy provisions in PPA

Counsel's Report — Kim Bojko, Carpenter Lipps & Leland; Ryan O'Rourke, Carpenter Lipps & Leland

- Utility power purchase agreements (PPAs)
- FES "polar vortex" charges
- AEP transmission charges

PPA Panel Discussion — Dr. Edward "Ned" Hill, The Ohio State Univ.; Competitive Suppliers Constellation & Dynegy

Special Presentation — Hon. Gene Krebs, Chair of the Governing Board, Office of the Ohio Consumers' Counsel

- *Everyone is Unhappy* a report by the governing board of the OCC

Presentations / Updates / New Business — Susanne Buckley, Scioto Energy; Richard Ricks, NiSource, Columbia Gas of Ohio

- Electricity Market Trends
- Natural Gas Market Trends

Lunch

Special Panel Presentation — Stephanie Howe, Voinovich School; Dr. Benjamin Cross, Voinovich School; Scott Miller, Voinovich School

Briefing on repurposing the Piketon site and upcoming DOE land transfer

Meeting sponsored by:

NEXUS GAS TRANSMISSION

Brief Biographies for Voinovich School Presenters
February 25, 2016

Stephanie Howe
Associate Director for Human Capital and Operations
Voinovich School of Leadership and Public Affairs at Ohio University

Stephanie is in her 19th year with the Voinovich School and in her current role, Stephanie is responsible for organizational operations for the School; ensuring fulfillment of external contract obligations; and implementing University human resources policy. Stephanie has extensive experience in securing and administering multi-million dollar, multi-disciplinary, innovative and collaborative grants and contracts that focus on utilizing university knowledge and resources to solve real-world problems in the State of Ohio and beyond.

From 2010 to present, Stephanie has served as the Project Director for a multi-year, multi-million dollar, multi-disciplinary grant with the U.S. Department of Energy (DOE) Office of Environmental Management focused on the cleanup and repurposing of public assets at a DOE former uranium enrichment facility in Piketon, Ohio. The project is in its 7th year, with $3 million in federal funding received to date with a $2.5 million, 5 year renewal recently approved by DOE. She collaborates with DOE officials, DOE National Laboratories, DOE citizen's advisory board, private sector remediation professionals (site contractors), State of Ohio regulatory agencies, local, state and national elected officials, private industries, economic development entities, and the general public.

Dr. Benjamin J. (Ben) Cross
Executive in Residence
Voinovich School of Leadership and Public Affairs at Ohio University

Ben has been involved in a broad range of energy related work activities for the past 34 years. Ben is the founder of NuSynergy Energy, LLC, a company focused on the synergistic integration of energy systems and energy collaborations. He serves as an Executive in Residence for Ohio University's Voinovich School of Leadership and Public Affairs providing support to their efforts to repurpose the DOE Portsmouth Site in Piketon, Ohio. Previously, Ben was with the DOE Savannah River Site and Savannah River National Laboratory (SRNL) for 25 years. His last assignment at SRNL was as a Senior Advisor for the Clean Energy Directorate providing strategic and technical support to renewable, alternative, and nuclear energy programs and projects. Additionally, Ben provided strategic and technical support to DOE-Portsmouth Site's repurposing efforts and to the Federal Southeast Regional Group for Energy Security/Sustainability (SERGES), a collaboration of regional Federal executives with a view to better implement Federal energy requirements and energy related matters in the southeastern United States.

From 2010 to 2011, Ben was a Senior Advisor to DOE-Headquarters Asset Revitalization Initiative and member of its core team. This special assignment included defining the "Energy Park" concept for revitalizing DOE sites and developing the framework for its implementation.

OCC Governing Board

Board Composition and Responsibilities

By law, the bipartisan board is made up of nine members, three each representing residential consumers, organized labor and family farmers. These board members are appointed by the Ohio Attorney General for a term of three years. They are confirmed by the Ohio Senate.

The board conducts regular public meetings in Columbus, usually at OCC's office on the 18th floor in the One Columbus building (10 West Broad Street, Suite 1800). Meetings are conducted under the Open Meeting Law.

Gene Krebs, chair

Chair, 2012 – present
Vice-Chair, 2011 – 2012
Board member, 2005 – 2016
Representing residential consumers
Hometown: Camden

Gene Krebs spent three years on the Eaton City School Board, eight years in the Ohio House of Representatives, and four years as a Preble County Commissioner. While in the Ohio House he saw ten of his bills and many amendments passed into law. Until recently he was a senior executive with a small think tank in Columbus where he enjoyed equal success in moving state policy, and even since leaving there he still suggests and drafts successful changes to Ohio law, but as a private citizen.

He has been published in the Wall Street Journal on federal policy. His innovations on his family farm has led to numerous articles in various farm magazines, including his pioneering work on the use of zinc as an enzyme inhibitor to protect against nitrogen loss. In addition, he is a former inter-collegiate fencing coach and has published in a peer reviewed scientific journal on animal behavior.

Since leaving state political office, he has served on the Joint Committee on High Technology Start-up Business, Sales Tax Holiday Study Committee (Chair), and the Eminent Domain Task Force, all by legislative appointment. He was appointed by Governor Ted Strickland to serve on Ohio's 21st Century Transportation Task Force and most recently by Governor John Kasich to the Local Government Innovation Council. He has been appointed or reappointed to the Ohio Consumers' Counsel Governing Board by both Republican and Democrat Attorney Generals. He is now chair of the board. Gene also appears on a regular basis on the television show Columbus on the Record and is sought by the media for insights on various policy developments.

Currently he is a Senior Fellow with The Center for Community Solutions and is working on their behalf on a series of video interviews of thought leaders, human service advocates and youthful entrepreneurs. He also is working on a book on why so many public policies fail. He has semi-retired to the family farm near Hueston Woods State Park with his wife Jan, who is a full time professional artist. His hobby is raising chickens.

To: OMA Energy Committee
From: Ryan Augsburger
Re: Energy Public Policy Report
Date: February 25, 2016

Overview
2016 is a presidential election year. We expect most legislative activity to occur by June with a post-election, “lameduck” session to follow in November. Energy matters most discussed among policymakers include ongoing PUCO rate cases governing electricity and the General Assembly’s report on alternative energy standards, presently frozen in Ohio.

Electricity Rates and Regulation
Significant utility rate cases are pending at PUCO. Distribution utilities FirstEnergy and AEP have filed cases proposing affiliate power purchase agreements (PPAs) whereby the utility companies impose billions of dollars of new charges on customers to subsidize “uneconomic” generation owned by their affiliate generation company. Late last year, the proposals were modified to attract supporters including the PUCO staff. At this point the proposals became a proposed “settlement”. A new round of litigation followed. The cases are highly controversial and have been heavily reported in the press. In the official proceedings at the PUCO have concluded and a final decision by the five-member commission is expected any day. The OMA has been an active opponent to the PPA proposed settlement fielding witness testimony. Contact staff for a copy of the OMA’s testimony in the cases.

In recent weeks the high-stakes utility case has spurred high dollar paid media campaigns being aired by competitive suppliers opposed to the PPAs and by utility companies supportive of the PPAs. Consumer groups including AARP are alerting members. Over 65,000 comments from concerned citizens have been filed with the PUCO. Several notable manufacturing leaders have filed their own comment.

Clean Power Plan / Federal Greenhouse Gas Regulations / 111(d)
US EPA issued a final rule in early August. The OMA filed comment together with the NAM and individually. Ohio EPA and the PUCO filed comment on behalf of the state as did the Ohio attorney general. The gist of the testimony: as proposed, 111(d) revisions are unworkable. Litigation on the rule is expected to delay effectiveness. If the provision goes into effect, states will need to adopt “state implementation plans” that will impose regulations on emissions to attain the federal goals. Ohio regulators intend to seek extension. The OMA is conducting research on the many ramifications of the CPP.

The US Supreme Court recently granted the stay requested in the Attorneys General lawsuit meaning that implementation steps will dependent upon legal finding. This week, the OMA joined with the National Association of Manufacturers and the U.S. Chamber in filing an amicus brief to highlight economic concerns with the Plan.

Natural Gas Infrastructure
The OMA has expressed public support for the Rover Pipeline and Nexus Pipeline. Billions of dollars of pipeline investment are underway by several different developers. Additionally the OMA has participated in discussions with JobsOhio and representatives of America Natural Gas Alliance to consider measures to spur industrial delivery off new transmission investments. Research recently conducted by Cleveland State University may be helpful in this vein. Natural

gas production continues to grow in the Buckeye state even with depressed pricing. Officials at JobsOhio have revisited their desire to advance the issue.

Transmission Charge Increase

Ratepayers within the AEP-Ohio service territory may have noticed a jump in on their electricity bills this summer. The increase is attributed to a new rider called the Basic Transmission Cost Rider (BTCR) that went into effect on June 1, 2015.

While lawyers for the OMA Energy Group contested the new rider, it was ultimately approved by the PUCO. Since the implementation of the new rider in June, some members (specifically, AEP-Ohio GS-2 and GS-3 customers) have seen a significant increase in their transmission costs.

Polar Vortex *Pass-Through* Charges

Generation customers of First Energy Solutions (FES) were notified by the provider that they would be billed for a regulatory event associated with the polar vortex power shortages in January 2014. The one-time charge is outside the terms of the contract. If allowed by regulators, the charges would result in an unfavorable precedent for all customers. Several OMA members are working collectively to contest the charges. See counsel's report for positive developments in the case.

Energy Efficiency Legislation

Legislation was enacted last year (SB 310) to revise Ohio's energy standards.   The issue has been reported and discussed at OMA meetings for over three years.

SB 310 froze the alternative energy standards for two years and created a legislative study committee to assess the impacts of the standards. A report was issued in September recommending an indefinite freeze. Governor Kasich subsequently commented that indefinite freeze was unacceptable, and that he did not favor the existing standards either. Legislation could come later this year.

Meanwhile, AEP and FirstEnergy have addressed plans for future renewable and energy efficiency programs in their PPA settlements in spite of the uncertain governing statutes…a move that has angered some in the General Assembly.

Manufactured Gas Plant Remediation Costs

No legislative activity to report. A decision by the Ohio Supreme Court is expected. A provision of the utility PPA settlements has ramifications on this type of cost-recovery.

kWh Tax Revisions?

Stalled legislative proposals to modify the tax revenue generated by power plants (via the tangible personal property tax) may be creeping into discussions to modify the kilowatt hour tax which is paid by customers. In contrast, the tangible personal property tax is paid by power plants. NO VISIBLE ACTION.

Proposed Power Purchase Agreement Riders: Bailouts for FirstEnergy and AEP, Higher Prices for Electric Consumers

EXECUTIVE BRIEFING

The Ohio distribution utilities of FirstEnergy (FE) and American Electric Power (AEP) have recently negotiated settlements with the Staff of the Public Utilities Commission of Ohio (PUCO) and several intervenors[1] for approval of non-bypassable Power Purchase Agreement (PPA) riders that all customers in each utility's service territory, respectively, would be required to pay to subsidize certain generating facilities owned partially or wholly by the utility or its unregulated competitive generation affiliates. The settlement also seeks approval of FE's Electric Security Plan (ESP) and other provisions. Specifically:

- FE's proposed ESP includes a rider that would allow FE to collect costs associated with a PPA with its unregulated competitive generation affiliate, FirstEnergy Solutions (FES), for power from FES's Sammis coal-fired generating plant, Davis-Besse nuclear generating plant, and its share of Ohio Valley Electric Corporation (OVEC) generating plants. FE seeks approval of its proposed rider for an eight-year period (June 2016 through May 2024), shortened from an initial request for a 15-year term.

- AEP's proposed settlement would allow AEP to purchase electricity from twenty coal-fired power plant units in which AEP or its affiliate has an ownership share at prices guaranteed to keep those plants profitable, including the output of AEP's entitlement share of the OVEC generating plants. If the settlement is approved, AEP has committed to convert two coal-fired power plant units to natural gas co-firing by December 31, 2017 if AEP receives cost recovery approval from the PUCO. AEP also would facilitate the largest investment in wind and solar power in Ohio history (projects that would be funded by yet-to-be-determined surcharges on customers' bills). AEP seeks approval of the costs associated with its Purchase Power arrangement for the same eight-year period as FE.

In both cases, PUCO staff initially rejected FE's and AEP's PPA proposals but ultimately agreed to amended versions of the PPAs (as well as other provisions) after behind-closed-doors negotiations with small groups of stakeholders, many of whose support was contingent on predefined financial benefits. If approved by the PUCO, the stipulated deals would represent a significant retreat from Ohio's 16-year transition to a competitive retail electricity marketplace.

[1] Signatory intervenor parties for the FE stipulation include the Ohio Energy Group, Nucor Steel, Material Sciences, Kroger, COSE, AICUO, AEP, City of Akron, Cleveland Housing Network, Consumer Protection Association, Council for Economic Opportunities in Greater Cleveland, Citizens Coalition, International Brotherhood of Electrical Workers Local 245, OPAE, and EnerNOC. Signatory intervenors for the AEP stipulation include the Ohio Energy Group, Ohio Power Company, Ohio Hospital Association, Mid-Atlantic Renewable Energy Coalition, Ohio Partners for Affordable Energy, Buckeye Power, Sierra Club, Direct Energy, First Energy Solutions, and Interstate Gas Supply.

How the PPAs and Proposed Riders Work

PPAs are a strategy to secure customer subsidization of older, increasingly uneconomic power generation plants owned by a utility or its competitive affiliate. Under a PPA, utilities agree to buy all the power they are entitled to from designated plants at prices guaranteed to keep the units profitable. Utilities claim it is in customers' best interest to keep otherwise uneconomic coal (and sometimes nuclear) plants running for the foreseeable future even though electricity generated by burning coal currently is more expensive than electricity generated by burning natural gas.

FE and AEP are seeking regulatory approval to sell into the PJM wholesale market all of the generation output to which they are entitled from their existing OVEC generation agreements and proposed PPAs with their affiliates at rates that may be higher – or lower – than the price FE or AEP pays for the OVEC/PPA generation. If the PUCO approves the proposed PPAs, the difference between the PJM market price and the OVEC/PPA contract price, whether it is a net cost or a net benefit, would be passed on to customers.

In other words, if the PJM market price is higher than the price FE or AEP pays for generation through its contracts, the resulting net increase in revenue would be reflected as a credit on customers' bills; alternatively, if the market price is lower than the price FE or AEP pays, customers would pay the net cost in the form of a surcharge. So, if coal-generated electricity continues to be more expensive than natural gas-generated electricity, customers would pay the extra costs. The utilities are always made whole and guaranteed recovery of the costs associated with their generation under the contracts with their affiliates.

The proposed PPA riders are non-bypassable. They would be paid by all customers in each utility's service territory – regardless of whether the customer purchases its generation service from the utility or a competitive generation supplier, unless a customer receives an exemption from the PUCO.

Expected Impact on Customers

Approval of the PPAs will impose increased energy costs on manufacturers without commensurate benefits; constrain customer choice and competitive opportunities for non-utility generators; and thwart development of future advanced and renewable energy technologies.

Cost estimates of the PPAs vary by stakeholder and by underlying assumptions. While agreeing that natural gas prices will affect electricity prices, the stakeholders do not agree on how to forecast natural gas prices. The same is true for electric capacity prices, electric load, etc. Generally, utilities assume pricing scenarios for most underlying assumptions that create favorable cost views for the consumer. Other stakeholders using more realistic assumptions have estimated higher costs and detrimental impacts on customers.

- FE Projected Impact: FE has projected that customers could save $561 million over the eight-year duration of the PPA. The Ohio Consumers' Counsel has estimated that the settlement could cost consumers $3.9 billion.
- AEP Projected Impact: AEP has projected that customers could save $721 million over the eight-year life of the PPA. The Ohio Consumers' Counsel has estimated that the settlement could cost consumers $2 billion.

For both FE and AEP, the proposed PPA riders include customer-subsidized guaranteed profits of 10.38 percent return on equity.

The tables below show estimates of the PPA costs to small, medium, large and extra-large manufacturers. For FE, annual cost estimates are based on FE's own estimates of costs for the first three years of its PPA. AEP's annual cost estimates, as well as estimated total eight-year costs for both FE and AEP, are based on estimates from an Ohio Consumers' Counsel expert.

		FirstEnergy	
Manufacturer Size	**Consumption (kWh/year)**	**Annual Cost Estimate**	**Total for 8-Year ESP**
Small(~$100k/yr in electricity costs)	1,000,000	$2,843	$29,410
Medium(~$600k/yr in electricity costs)	7,500,000	$21,322	$220,574
Large(~$6 million/yr in electricity costs)	100,000,000	$284,296	$2,940,991
Extra Large	1,000,000,000	$2,842,958	$29,409,914

		AEP	
Manufacturer Size	**Consumption (kWh/year)**	**Annual Cost Estimate**	**Total for 8-Year ESP**
Small(~$100k/yr in electricity costs)	1,000,000	$4,614	$36,908
Medium(~$600k/yr in electricity costs)	7,500,000	$34,602	$276,814
Large(~$6 million/yr in electricity costs)	100,000,000	$461,356	$3,690,850
Extra Large	1,000,000,000	$4,613,562	$36,908,497

If FE or AEP sells or transfers a plant included in its PPA, the rider continues unless the PUCO terminates it. There is no provision to terminate the rider if a plant retires; therefore, customers would be exposed to potential future retirement costs. Even if the rider is overturned by the Supreme Court of Ohio, refunds to customers are prohibited.

In addition to costs associated with the PPAs, both settlements contain other provisions that will increase costs to consumers. For example:

- FE's settlement would create new customer costs associated with grid modernization, distribution capital investments, energy efficiency programs (including financial incentives for utilities), battery storage, renewable energy investments (wind and solar), lost distribution revenue due to decoupling, low-income customer programs, events such as the "polar vortex" of 2014, and a new "straight-fixed-variable" rate design. Additionally, renewable energy resources could receive, in effect, their own PPA through another new non-bypassable rider. FE also would seek support from the PUCO to lobby the federal government for wholesale market changes that could stall investment in new, competitive electric generation in Ohio and the regional electricity market.

- AEP's settlement would create new customer costs associated with grid modernization, distribution capital investments, energy efficiency programs (including financial incentives for utilities), battery storage, and low-income customer programs. AEP also would seek support from the PUCO to lobby the federal government for wholesale market changes that could stall investment in new, competitive electric generation in Ohio and the region.

What the Utilities Say: ***A hedge against market price volatility***

Utilities characterize the proposed PPAs as a useful "hedge" or insurance policy against market volatility, which they claim will protect consumers over the long term. FE and AEP argue that a possible shortage of generation in Ohio and throughout PJM may cause increases in both energy and capacity prices and threaten reliability. FE has testified that its affiliate-owned generation units may not be economical and may be required to shut down if FE's PPA proposal to have customers pay the costs to run those units is rejected by the PUCO. Utilities contend that the PPAs will help ensure that coal-fired and nuclear power plants continue to operate so Ohio will continue to have adequate supplies of generation.

What Concerned Stakeholders Say: ***A subsidized bailout for utility business decisions***

Opponents of the proposed PPAs regard them as nothing more than a large-scale government and consumer bailout of FE and AEP, which already have received billions of dollars in stranded cost recovery from their customers as part of Ohio's transition to a competitive retail electricity market. Opponents believe utilities are seeking relief from financial pressures caused in part by the combination of an aging and increasingly uneconomical generation fleet; new supplies of natural gas driving down the price of power; and increased growth of energy efficiency, demand response programs and renewable energy – as well as bad business decisions by the regulated utilities and their competitive generation affiliates.

The proposed PPAs, opponents say, are an attempt by FE and AEP to secure, through regulatory intervention and customer subsidies, guaranteed profits and cost recovery for selected generation assets regardless of the market value of the power produced by those assets and regardless of their operational, maintenance and environmental compliance costs. Opponents believe the PPAs represent an unwarranted shifting of cost and risk from utility shareholders to utility customers, a reversal that is inconsistent with the intent of Ohio's electric restructuring law. In competitive markets, investors – not consumers – bear the risk of bad business decisions.

Reasons OMA Energy Group Opposes FE's and AEP's Proposed PPAs

The Ohio Manufacturers' Association Energy Group opposes FE's and AEP's proposed PPAs for the following reasons:

- **Customers will pay higher prices.** FE and AEP acknowledge that the proposed PPAs may result in higher costs for customers in the short term, but claim the locked-in PPA price will produce benefits in the long run. Numerous intervenors in the ESP cases contend, however, that the PPAs will result in a net cost for customers over the long run.

- **Customers will pay a generation surcharge with no new benefits.** Customers will not receive any certain or guaranteed benefits. The only "guarantee" is for the utility and/or its affiliate – a guaranteed 10.38 percent rate of return and guaranteed full cost recovery. Although FE and AEP claim that their settlements include a "risk-sharing mechanism," the alleged commitment by the utilities to include a credit of $10 million in year five of the PPA rider, which will be increased by $10 million each additional year through May 31, 2024, is not a guarantee that customers will receive at least $100 million in credits; nor is it a guarantee that FE and AEP will have to fund any portion of the $100 million in credits. If the utilities' projections come to fruition, the credits customers will receive in years five through eight are expected to exceed the "guaranteed" credits, resulting in no additional credits being provided to customers by the utility. The provision also does not guarantee that customers will not pay a charge during years five through eight. Thus, if customers are required to pay $20 million in year five, the “credit” would offset that charge, but customers would still be required to pay $10 million. In other words, customers are in no way guaranteed to receive a credit in years five through eight.

- **Customers will be forced to pay twice for generation service.** If the PPAs are allowed, customers will pay twice for electricity – first, for the power they purchase from their incumbent utility or their alternative supplier, and then additionally via a PPA surcharge. This amounts to an unfair tax on customers that already have procured a supply of power from a competitive retail electricity supplier.

- **Customers will lose access to lowest available market prices.** The proposed PPAs will deny customers the ability to purchase electricity at the lowest price available in the competitive market, putting Ohio businesses at a disadvantage *vis a vis* competitors in surrounding states that do not face similar non-bypassable generation charges.

- **Customers will have fewer choices.** By providing AEP, FE and/or their affiliates with what essentially is a “guaranteed rate of return” for generation plants owned by competitive suppliers, the proposed PPAs are inconsistent with Ohio’s transition to a competitive market for electricity. This anti-competitive step backward will thwart supplier participation in the Ohio market – participation that currently is helping to drive innovation and keep electricity prices low.

- **Ohio will suffer economic harm from the resulting disincentive to invest in new generation.** New sources of generation (e.g., natural gas) will not have the benefit of the PPA “subsidies” that have been proposed for power produced by certain inefficient and uneconomic generation plants in Ohio. This competitive disadvantage will serve as a disincentive to new generation investment in our state and region, which ultimately will drive prices upward and undermine economic development and job creation.

Additionally, as noted above, PUCO staff initially rejected FE’s and AEP’s proposals. Staff ultimately agreed to amended versions of the PPAs after behind-closed-doors negotiations with what OMA Energy Group consultant and Ohio State University economist Dr. Edward (Ned) Hill has described, in FE’s case, as a “redistributive coalition” – a relatively small group that promotes policies for their mutual own benefit. This excerpt from Dr. Hill’s August 10, 2015, testimony before the PUCO regarding FE’s ESP is instructive:

> “The redistributive coalition was assembled to present to the Commission and to the public the façade not only of broad support the ESP IV, but of a broad range of benefits flowing to the classes of customers represented by the Signatory or Non-opposing Parties. The stipulations and testimony are careful to state that the participation of the members of the redistributive coalition indicates broad support and benefits flowing to the classes that they represent. Unfortunately, the benefits only flow to the Signatory or Non-opposing Parties.”

A facade of broad support from a few pretending to represent the many is an unsound, unjustifiable basis for crafting public policy.

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http://www.dispatch.com/content/stories/editorials/2016/02/18/1-first-energy-aep-rates.html

The Columbus Dispatch

Thursday February 18, 2016 6:47 AM

The Public Utilities Commission of Ohio (PUCO) should reject the Affiliate Power Purchase Agreements proposed by American Electric Power and FirstEnergy as bailouts and bad public policy.

These proposals are about paying above-free-market rates for about 30 percent of the electricity AEP and FirstEnergy generate in Ohio. And, the proposals will transfer all of the business risk in operating these units from the companies' stockholders and management to all electricity users in their territories—even if they are not customers of the utility.

What is now before the PUCO is a combination of lemon socialism and corporate welfare. The utilities' losses will be paid by de facto taxes imposed by the PUCO on all ratepayers in their service areas, while AEP and FirstEnergy demand an extraordinarily high, risk-free rate of return.

The Office of the Ohio Consumers' Counsel estimates that the PPAs in the FirstEnergy and AEP stipulations alone are likely to cost Ohio's household and business ratepayers $5.5 billion over the eight-year period covered by the stipulation. This number is in stark contrast to the utilities' combined estimate of $1.3 billion in "savings" over the same period.

Why is there a $6.8 billion difference in these two numbers? It largely is due to assumptions about the future cost of natural gas. The Consumers' Counsel used current forecasts of the price of natural gas that are based on futures contracts. FirstEnergy used 2014 data and AEP used 2013 numbers. Why? It can only be because more current data would hurt their case. Additionally, the utilities assume increases in natural gas costs after the third year that are not supported by any current market data.

The Consumers' Counsel has no reason to stack the deck against the utilities. The utilities themselves acknowledge they have a problem. FirstEnergy states in its application that the two plants in question are losing money and likely to do so for at least the first three years covered by the deal. AEP executives testify that their plants are "on the economic bubble." Both companies show losses in the early years of the PPA, and I cannot see the financial miracle that is supposed to occur in the fourth year. Finally, both utilities have invested more than a year of time and effort to jam these Affiliate PPAs through the PUCO. They are doing so for a reason.

The utilities will argue that 10.38 percent is their normal regulated rate of return, but there is a major difference with Affiliate PPAs: They are free of business risk. All ratepayers in the service territories must pay whether they are customers of the utility or not.

The PPAs should be thought of as eight-year, risk-free bonds. Recently, eight-year revenue bonds issued by public authorities, which are about as risky as the PPAs, had coupon rates of return of 5 percent. The proposal before the PUCO is for a rate of return that is nearly double that.

That's not all. The proposals provide for another risk-free pool of cash for the utilities. The AEP plan states it will purchase 500 megawatts of wind-generated power and 400 megawatts of solar power as long as battery resources to store the power become part of the rate base and all costs can be recovered through an affiliate PPA. FirstEnergy's commitment to green energy includes investments in battery technologies at a 10.88 percent rate of return, and 100 megawatt solar-power generation coupled, of course, with another affiliate PPA. Rates of return for the wind and solar projects are not specified.

This is nice money if you can get it, giving a new meaning to "green energy."

Ned Hill is Professor of Public Affairs and City & Regional Planning at The John Glenn College of Public Affairs at The Ohio State University.

FirstEnergy just asks for too much

By Michael Douglas
Beacon Journal editorial page editor

Published: January 23, 2016 - 08:56 PM | Updated: January 25, 2016 - 10:27 AM

From afar, FirstEnergy makes more easily the villain. Up close, it gets more complicated, those of us in Akron, especially, aware of the many civic endeavors the power company supports, not to mention its 2,500 employees in Summit County, many at the headquarters downtown.

Are the good deeds just part of laying a veneer of corporate citizenship? That money for the levy campaigns of the Akron Public Schools has been real, crucial and substantial.

So, how, then, to measure the current FirstEnergy request before the Public Utilities Commission of Ohio? The company is asking the commission to approve subsidies, out of the pockets of ratepayers, to support the operation of the Sammis coal-fired power plant and the Davis-Besse nuclear power plant. Critics have declared the plan, among other things, a “bailout,” “outrageous,” “corporate welfare” and “lemon socialism.”

The company has opened the way to the harsh assessments. Its request amounts to its third position on deregulating the power industry since the concept arrived in Ohio 17 years ago. FirstEnergy opposed deregulation when state lawmakers weighed whether to take the leap. Once they jumped at the Statehouse, the company embraced the idea, even jabbing competitors for failing to do so with the same zeal. Now the market has turned, abundant natural gas resulting in lower prices, and FirstEnergy wants help from the regulators in the form of guaranteed revenue the next eight years.

Ballsy? Well, yes.

In its case for the request, the company cites the value of stability in the power market, Sammis and Davis-Besse providing large and steady supplies of electricity. Close the plants, and those in nearby communities would face job losses and other harmful results.

FirstEnergy projects that though consumers would see higher bills upfront, they would benefit overall through credits as electricity prices eventually increase. The company has added sweeteners. It would revive energy efficiency programs it shut down. It would provide a renewable energy component. It sets the goal of reducing by 2045 its carbon emissions across all of its operations 90 percent below 2005 levels.

That last commitment essentially mirrors the consensus of climate scientists. Keeping the carbon-free Davis-Besse plant in operation will help in meeting new federal rules for reducing carbon emissions.

So what is not to like? FirstEnergy just asks for too much.

It defines the benefits too narrowly. The proposal shifts considerable risk from shareholders to consumers. The Ohio Manufacturers Association has calculated that the proposal would cost manufacturers from $2,800 a year to $2.8 million a year, depending on the size of operation.

Belden Brick and Cooper Tire argue that they would rather take the lower prices now than see whether promised credits arrive.

PJM manages the flow of electricity. It maintains a power cushion of 15 percent to 20 percent, suggesting that the question of stable supply is exaggerated. What concerns some economists is that the FirstEnergy guarantees (American Electric Power has a similar plan) would bring distortions to the market. Competitors would face a disadvantage, and may seek their own protection, inviting the balkanization of the grid, defeating economies of scale.

The FirstEnergy proposal includes parts that surfaced late and deserve closer examination. One involves modernizing the transmission grid. That is a worthy pursuit, obviously. Yet it has advanced without hard numbers or the usual shared analyses of costs and other factors.

The same goes for restructuring the fixed monthly customer charge. FirstEnergy wants it reworked in a dramatic way, critics raising credible worries about discouraging the pursuit of energy efficiency.

Add how FirstEnergy would count efficiency gains. It does not put the necessary emphasis on achieving new advances. The renewable energy provisions are problematic in their own ways.

The utility business can seem like Wall Street, things so complicated they appear designed to conceal. In this case, the outlines are simple enough. FirstEnergy wants something big. Which raises the question: What is it willing to give?

Ideally, the state would have a mechanism or the leadership to craft an energy strategy that strives to balance interests, say, a financial hedge for FirstEnergy complemented by unfreezing the renewable energy and efficiency standards. What the state does have is the Public Utilities Commission. It must ensure the public benefits sufficiently and concretely. That is hard to see now.

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Hannah
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Legislative Leaders Discuss Variety of Issues at AP Forum

The General Assembly leaders' panel at Thursday's Associated Press (AP) 2016 Legislative Preview Session all agreed that now was not the time for Ohio to increase its severance tax. Speaker of the House Cliff Rosenberger (R-Clarksville), House Minority Leader Fred Strahorn (D-Dayton), Senate President Keith Faber (R-Celina) and Senate Minority Leader Joe Schiavoni (D-Austintown) all referenced the current market conditions as driving that assessment, with Rosenberger pointing to the problems being experienced in North Dakota and Oklahoma.

Rosenberger added that, if the market improves, then they will also need to look at how to help the local areas where the oil and gas is produced -- a thought strongly seconded by Schiavoni, who lives in that part of the state.

Faber, too, agreed but suggested that maybe now is the best time to work out a new formula for the severance tax, tying it to a "trigger" to implement the change.

They were also asked about efforts to approve a redistricting plan for Congress, with Faber explaining that it is a very different approach than that used to redraw state legislative lines. Changes that are being proposed in the redrawing of congressional lines, however, take away legislative authority and move it to another entity, making it "a different discussion."

Another question that surfaced Thursday was whether the Legislature has seen a slowing in the business of the state with the governor's presidential run. Rosenberger said it has "not stopped the House one iota. We talk anytime."

Faber agreed, saying the governor "has not stopped leading" because he is running for president and that he continues to be involved in decisions -- in fact, one issue the governor has been in contact on relates to the freeze on energy efficiency and renewable standards. On that topic, Faber observed that the recent U.S. Supreme Court decision staying the clean power plan (see *The Hannah Report,* 2/10/16) actually gives the state time to find a solution. He said Sen. Troy Balderson (R-Zanesville) will be introducing legislation soon on this.

Regarding the effect of the governor's presidential run, Schiavoni, who commented that the "governor doesn't call me to ask about legislation," said he believes the Legislature will be addressing "light, more feel good bills" as the spotlight falls on Ohio and what is going on here.

HB8 **OIL-GAS LAW** (HAGAN C) To revise provisions in the Oil and Gas Law governing unit operation, including requiring unit operation of land for which the Department of Transportation owns the mineral rights.

Current Status: 4/14/2015 - Senate Energy and Natural Resources, (First Hearing)

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HB-8

HB23 **OIL-GAS LEASE INCOME** (AMSTUTZ R) To use one-half of any income from oil and gas leases on state land to fund temporary income tax reductions, to modify the law governing the use of new Ohio use tax collections, and to require the Director of Budget and Management to recommend whether or not income tax rates should be permanently reduced.

Current Status: 11/18/2015 - Senate Ways and Means, (First Hearing)

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HB-23

HB64 **OPERATING BUDGET** (SMITH R) To make operating appropriations for the biennium beginning July 1, 2015, and ending June 30, 2017, and to provide authorization and conditions for the operation of state programs.

Current Status: 6/30/2015 - **SIGNED BY GOVERNOR**; eff. 6/30/15; certain provisions effective 9/29/2015, other dates

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HB-64

HB72 **ENERGY IMPROVEMENT DISTRICTS** (CONDITT M) To authorize port authorities to create energy special improvement districts for the purpose of developing and implementing plans for special energy improvement projects and to alter the law governing such districts that are governed by a nonprofit corporation.

Current Status: 5/6/2015 - **BILL AMENDED**, House Public Utilities, (Fourth Hearing)

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HB-72

HB83 **OIL-GAS ROYALTY STATEMENT** (CERA J) To require the owner of an oil or gas well to provide a royalty statement to the holder of the royalty interest when the owner makes payment to the holder.

Current Status: 3/10/2015 - House Energy and Natural Resources, (First Hearing)

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HB-83

HB122 **PUBLIC UTILITIES COMMISSION MEMBERSHIP** (LELAND D) To require that each major political party be represented on the Public Utilities Commission, to specify that not more than three commissioners may belong to or be affiliated with the same major political party, and to require that Public Utilities Commission Nominating Council lists of nominees include individuals who, if selected, ensure that each major political party is represented on the Commission.

Current Status: 3/24/2015 - Referred to Committee House Government

Accountability and Oversight

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HB-122

HB162 **SEVERANCE TAX RATES** (CERA J) To change the basis, rates, and revenue distribution of the severance tax on oil and gas, to create a grant program to encourage compressed natural gas as a motor vehicle fuel, to authorize an income tax credit for landowners holding an oil or gas royalty interest, and to exclude some oil and gas sale receipts from the commercial activity tax base.

Current Status: 5/12/2015 - House Ways and Means, (First Hearing)

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HB-162

HB176 **GAS-FUEL CONVERSION PROGRAM** (HALL D, O'BRIEN S) To create the Gaseous Fuel Vehicle Conversion Program, to allow a credit against the income or commercial activity tax for the purchase or conversion of an alternative fuel vehicle, to reduce the amount of sales tax due on the purchase or lease of a qualifying electric vehicle by up to $500, to apply the motor fuel tax to the distribution or sale of compressed natural gas, to authorize a temporary, partial motor fuel tax exemption for sales of compressed natural gas used as motor fuel, and to make an appropriation.

Current Status: 11/18/2015 - **REPORTED OUT**, House Finance, (First Hearing)

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HB-176

HB190 **WIND FARM SETBACKS-COUNTY** (BURKLEY T, BROWN T) To permit counties to adopt resolutions establishing an alternative setback for wind farms and to extend by five years the deadlines for obtaining the qualified energy project tax exemption.

Current Status: 11/18/2015 - **SUBSTITUTE BILL ACCEPTED**, House Public Utilities, (Second Hearing)

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HB-190

HB214 **PUBLIC IMPROVEMENT-PIPING MATERIAL** (THOMPSON A) To restrict when a public authority may preference a particular type of piping material for certain public improvements.

Current Status: 6/9/2015 - House Energy and Natural Resources, (First Hearing)

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HB-214

HB349 **STATE EMISSIONS PLAN** (SMITH R, GINTER T) To require the Environmental Protection Agency to submit a state plan governing carbon dioxide emissions to the General Assembly prior to submitting it to the United States Environmental Protection Agency, and to declare an emergency.

Current Status: 12/8/2015 - House Energy and Natural Resources, (Third Hearing)

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HB-349

HB390 **NATURAL GAS-TAX EXEMPTION** (SCHAFFER T, RETHERFORD W) To exempt the sale of natural gas by a municipal gas company from the sales and use tax.

Current Status: 2/24/2016 - Bills for Third Consideration

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HB-390

HCR7 **TAX EXEMPT MUNICIPAL BONDS** (SPRAGUE R) To urge the President and the Congress of the United States to preserve the tax-exempt status of municipal bonds.

Current Status: 2/23/2016 - Referred to Committee Senate Ways and Means

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HCR-7

HCR9 **SUSTAINABLE ENERGY-ABUNDANCE PLAN** (BAKER N) To establish a sustainable energy-abundance plan for Ohio to meet future Ohio energy needs with affordable, abundant, and environmentally friendly energy.

Current Status: 6/17/2015 - **ADOPTED BY SENATE**; Vote 32-1

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HCR-9

SB45 **LAKE ERIE SHORELINE IMPROVEMENT** (SKINDELL M, EKLUND J) To authorize the creation of a special improvement district to facilitate Lake Erie shoreline improvement.

Current Status: 3/17/2015 - Senate Energy and Natural Resources, (Second Hearing)

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-SB-45

SB46 **LAKE ERIE DRILLING BAN** (SKINDELL M) To ban the taking or removal of oil or natural gas from and under the bed of Lake Erie.

Current Status: 2/18/2015 - Referred to Committee Senate Energy and Natural Resources

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-SB-46

SB47 **DEEP WELL BRINE INJECTION PROHIBITION** (SKINDELL M) To prohibit land application and deep well injection of brine, to prohibit the conversion of wells, and to eliminate the injection fee that is levied under the Oil and Gas Law.

Current Status: 2/18/2015 - Referred to Committee Senate Energy and Natural Resources

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-SB-47

SB58 **CONDITIONAL SEWAGE CONNECTION** (PETERSON B) To authorize a property owner whose property is served by a household sewage treatment system to elect not to connect to a private sewerage system, a county sewer, or a regional sewerage system under specified conditions.

Current Status: 3/4/2015 - Referred to Committee Senate Energy and Natural Resources

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-SB-58

SB100 **SALES TAX HOLIDAY-ENERGY STAR** (BROWN E) To provide a three-day sales tax "holiday" each April during which sales of qualifying Energy Star products are exempt from sales and use taxes.

Current Status: 3/4/2015 - Referred to Committee Senate Ways and Means

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-SB-100

SB120 **OIL-GAS LAW REVISION** (SCHIAVONI J) To revise enforcement of the Oil and Gas Law, including increasing criminal penalties and requiring revocation of permits for violations of that Law relating to improper disposal of brine.

Current Status: 3/10/2015 - Referred to Committee Senate Energy and Natural Resources

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-SB-120

SB164 **UTILITY SMART METER CONSENT** (JORDAN K) To require electric distribution utilities to obtain a customer's consent prior to installing a smart meter on the customer's property

Current Status: 5/27/2015 - Referred to Committee Senate Public Utilities

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-SB-164

SB166 **HORIZONTAL WELL EMERGENCY PLAN** (GENTILE L) To require the owner of a horizontal well to develop and implement an emergency response plan for the purpose of responding to emergencies.

Current Status: 10/7/2015 - Senate Energy and Natural Resources, (First Hearing)

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-SB-166

SB185 **SPECIAL IMPROVEMENT DISTRICTS** (SEITZ B) To revise the law governing special improvement districts created for the purpose of developing and implementing plans for special energy improvement projects.

Current Status: 10/7/2015 - **BILL AMENDED**, Senate Energy and Natural Resources, (Third Hearing)

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-SB-185

SCR6 **EXPORT-CRUDE OIL** (BALDERSON T) The urge the U.S. Congress to lift the prohibition on the export of crude oil from the United States.

Current Status: 12/8/2015 - **ADOPTED BY HOUSE**; Vote 67-24

State Bill Page: https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-SCR-6

Energy

Commentary: Would FirstEnergy and AEP Rate Plans be Good for Consumers? No

February 19, 2016

Dr. Ned Hill, Professor of Public Affairs and City & Regional Planning at The John Glenn College of Public Affairs at The Ohio State University, is a frequent consultant to the OMA on a wide variety of manufacturing competitive issues.

Here he is on the record in a Columbus Dispatch op-ed about the Power Purchase Agreements proposed to the Public Utilities Commission of Ohio by AEP and FirstEnergy: "These proposals are about paying above-free-market rates for about 30 percent of the electricity AEP and FirstEnergy generate in Ohio. And, the proposals will transfer all of the business risk in operating these units from the companies' stockholders and management to all electricity users in their territories—even if they are not customers of the utility."

PPA Case Proponents & Opponents Take to Airwaves

February 19, 2016

The battle continues in the media while the Public Utilities Commission of Ohio (PUCO) evaluates proposed FirstEnergy and AEP Power Purchase Agreement (PPA) case settlements.

Here are TV/radio spots in which the Alliance for Energy Choice, a group of independent power producers, takes some pokes at the utilities' requests for guaranteed profits.

Here is FirstEnergy's comeback. And AEP's.

SCOTUS Delays Clean Power Plan

February 12, 2016

The Supreme Court of the United States (SCOTUS) this week granted a stay of the Obama administration's Clean Power Plan (CPP) regulation of greenhouse gas (GHG) emissions from the electric utility sector. This decision delays the implementation of the rule until the courts have the opportunity to determine the plan's legality.

The case against the plan is pending before the D.C. Circuit Court, where arguments will be heard June 2. A decision is possible in 2016, but might not be made until 2017.

Meanwhile, there is some legal question about whether the state implementation deadlines (the first is September of this year) are tolled until a final legal resolution is achieved. Read more on that here.

Manufacturers Oppose Subsidies for Utilities

February 12, 2016

ArcelorMittal, Whirlpool, BASF, William Sopko & Sons Co., Summitville Tiles, The Belden Brick Co., Cooper Tire & Rubber Co., and Sheoga Hardwood Flooring and Paneling Co. were among companies that sent a letter to the PUCO urging it to reject a request by AEP and FirstEnergy that would raise electric rates for up to eight years to subsidize some of their inefficient power plants.

The Cleveland Plain Dealer summarized the arguments made by these industry leaders.

Concerned manufacturers should send a letter to the PUCO to convey your opposition to the bad deals. This alert will give you tips on how to calculate your potential costs and file your letter.

New Study, Same Result: FE Plan Would Cost $4B

February 12, 2016

A new study by the Institute for Energy Economics & Financial Analysis (IEEFA) has analyzed the effects of FirstEnergy's proposal to utility regulators to allow it to pass long-term costs and risks of three aging coal-fired plants and one aging nuclear plant onto captive customers of the utility.

The report finds that: "FirstEnergy is using greatly inflated forecasts of future natural gas prices and PJM electricity market prices to justify its proposal."

And, "FirstEnergy's proposal—under an uninflated, reasonable natural gas price outlook—would in truth result in a net cost to ratepayers of approximately $4 billion, rather than the net $561 million gain that the company promises.

"IEEFA concludes that FirstEnergy proposal is a bad deal for Ohio customers and would lock Ohio into subsidizing the continued operation of aging and uneconomic power plants while hindering opportunities for lower cost and cleaner energy resources that could provide jobs and significant economic benefits for the state."

IEEFA proposes: "…. rather than propping up these struggling plants, Ohio policymakers work instead for an orderly transition away from outmoded energy generation by supporting the development of cleaner, modern and more efficient resources."

OMA Energy Efficiency Peer Network Kicks Off 2016 Programming

February 12, 2016

The OMA Energy Efficiency Peer Network (EEPN) is gearing up for 2016, and will include: plant tours, peer-learning webinars, do-it-yourself tools, and up to 3 hours of no-charge technical assistance & consulting. The EEPN is open to all manufacturing members of the OMA at no charge.

The first EEPN event is a plant tour on Friday, March 18 at F&P America, an ISO/TS-16949 and ISO 14001 Certified Tier-One International Automotive Systems Supplier in Troy, Ohio. (Max. of 20 participants; no direct competitors.)

Join the EEPN to get all event invitations. Questions? Contact OMA's energy engineer, John Seryak.

PJM and its Market Monitor: AEP Proposal Will Hurt Customers and Investment

February 5, 2016

PJM, the regional transmission organization (RTO) and administrator of the wholesale power markets in Ohio this week filed a post-hearing brief expressing concerns about the negative effects on electricity markets of AEP' s power purchase agreement (PPA) case pending before the Public Utilities Commission of Ohio (PUCO).

PJM said of its reason for filing, "(Addressing faults in the proposal) is critical in order to send the right signal as to Ohio's interest in attracting competitive generation to meet the state's future economic development needs. Silence on this issue will only make it harder for investors in new generation to view Ohio as a place where their investment is welcome and can compete fairly with existing legacy generation of the sort covered by the Stipulation."

As to the claim that system reliability will be threatened if the PPA is not approved, PJM wrote, "There has been significant new generation entry that, combined with demand response and imports within PJM's capacity import limit, has consistently kept PJM's reserve margins on target. Indeed, as various witnesses noted, there are several substantial new plants under construction or proposed for Ohio."

PJM Independent Market Monitor Dr. Joseph Bowring also filed a brief, in which he stated, "The purpose of the PPA Rider is to transfer the costs and market risks associated with the PPA Rider Units from AEP's shareholders to AEP's ratepayers. AEP has not demonstrated and cannot demonstrate why customers should bear these costs and take these risks, if a well-informed generation owner is not willing to do so."

OMA to PUCO: Protect Electricity Market

February 5, 2016

Manufacturers, and other electricity consumers, have benefited from Ohio's move to a deregulated electricity market. This week, the OMA Energy Group filed a brief in the AEP case which would undermine the market and force large costs on its customers for the next eight years for no benefit.

"Electricity is a critical cost component for manufacturers in producing their products. By allowing manufacturers to shop for their electricity supply, and having suppliers compete to provide that electricity, the cost component compared to what would otherwise be available to manufacturers under the utilities' tariffed rates has come down. The downward pressure on prices created by a competitive market should be fostered," the OMA Energy Group wrote in its brief.

Yet, the brief states, "If accepted, the (proposal) … will saddle distribution customers with the generation costs of a fleet of aging and expensive coal units and threaten to erase the gains made by Ohio manufacturers and other consumers in the competitive market. That outcome is unfaithful to the General Assembly's unambiguous market-based directive and will thwart the state's effectiveness in the global economy. Indeed, as one of the top generators of electricity in the nation, the harms to Ohio could be especially painful. Given the interconnectedness of the electrical grid and the competitive markets, these harms will have ripple effects beyond Ohio's borders."

SCOTUS Saves Demand Response

February 5, 2016

Last week the U.S. Supreme Court breathed new life into "demand response" programs across the nation. Specifically, in a 6-2 decision the justices upheld the Federal Energy Regulatory Commission's authority to regulate wholesale demand response programs. Therefore, Ohio energy consumers can continue to participate in the PJM demand response programs.

Read more about benefits of participating in demand response programs in this OMA Energy Guide blog.

Each month OMA Energy Guide posts a blog with energy news, purchasing and management advice. Subscribe at My OMA.

Use OMA Calculator to Estimate Your Cost of Utility Deals

January 29, 2016

Litigation continues at the Public Utilities Commission of Ohio (PUCO) regarding proposed FirstEnergy and AEP "power purchase agreement" (PPA) case settlements.

The PUCO is expected to decide the cases in the coming months.

If the PUCO approves the utilities' proposals, all customers in each utility's service territory would be required to pay non-bypassable PPA riders.

Use this calculator to estimate what your company might pay.

Concerned members should send a letter (on company letterhead) to the PUCO to express opposition. Include the case numbers in the subject line: PPA Cases 14-1693-EL-RDR; 14-1297-EL-SSO, and email to the PUCO.

Here's a model letter that you can customize and send. Please consider sending a copy of your letter to Governor Kasich and to your state representative and state senator, as well as to OMA's Ryan Augsburger.

"FirstEnergy Just Asks for Too Much"

January 29, 2016

"FirstEnergy just asks for too much" is what Akron Beacon Journal editorial page editor, Michael Douglas, says of the FirstEnergy request before the Public Utilities Commission of Ohio.

"It defines the benefits too narrowly. The proposal shifts considerable risk from shareholders to consumers."

What he's talking about is FirstEnergy's request of the regulators to provide guaranteed revenue for the next eight years in the form of a Power Purchase Agreement whereby the utility would purchase power from its own generation plants at customer-subsidized prices.

Read the January 23 editorial here.

Parties Ask FERC to Review Power Purchase Agreements

January 29, 2016

This week John Funk of the Plain Dealer reported that the Electric Power Supply Association and the Retail Energy Supply Association have asked for an immediate FERC review of AEP and FirstEnergy special deals called "power purchase agreements" that are before the Public Utilities Commission of Ohio (PUCO). And, separately, the Office of the Ohio Consumers' Counsel has filed its own objections with the FERC this week.

The complaining parties say that the utilities' proposals do not meet the competitive standards the PUCO established in previous cases and are disruptive to the electricity market.

PUCO Commissioner to be Appointed

January 29, 2016

The Public Utilities Commission of Ohio (PUCO) Nominating Council met this week to interview applicants for the position of commissioner of the PUCO to fill a five-year term commencing on April 11, 2016.

The Nominating Council subsequently selected four candidates to submit to Gov. John R. Kasich for his consideration: Asim Z. Haque, who currently holds the seat that is up for appointment, Robert E. Burns, Alan L. Erenrich, and Allan Sears.

The PUCO Nominating Council is a broad-based, 12-member panel charged with screening candidates for the position of commissioner.

"Everyone is Unhappy"

January 22, 2016

The board of the Ohio Consumers' Counsel released a report this week that it titled, "Everyone is Unhappy."

Referring to the state's electricity system, the board noted that "thirty-two states have cheaper electricity for residential consumers than Ohio," and that among the states that have enacted some form of generation deregulation Ohio's "rate of cost increase stands alone as the highest."

"So what to do? Consumers have grounds to be unhappy, commerce and business have grounds to be unhappy, and utility executives and stockholders have grounds to be unhappy. In fact, they all might have grounds to be very unhappy in the future, if some analysts are correct and the investor-owned utilities plunge into a death spiral," wrote the board.

The group calls for the legislative creation of a task force to study reforms in Ohio electricity law.

Leaders Oppose AEP & FirstEnergy Power Purchase Agreements

January 22, 2016

CEOs of some of the country's largest competitive electric suppliers traveled to Columbus this week to meet with state leaders to express their opposition to AEP and FirstEnergy utility power purchase agreement settlement proposals before the PUCO that will guarantee utility profits and bypass competitive bidding for electricity.

As reported in The Columbus Dispatch: "The number one biggest lie is that it's going to save consumers money," said Robert Flexon, president and CEO of Dynegy, a Houston-based electricity company that owns power plants in Ohio.

The Findlay Courier highlighted a Jan. 11 letter to Governor Kasich from Cooper Tire & Rubber Co. Chairman, CEO & President, Roy Armes, who urges the rejection of the subsidy proposals.

OSCO Industries, Inc. CEO, John Burke, sent a letter to the PUCO saying: "… AEP's PPA proposal will significantly impair OSCO's ability to compete in today's marketplace." And, "The PPA is a complete reversal of about 15 years of migration toward deregulating electric generation in our state and provides an unjustified wind-fall for AEP."

PUCO Will Hear "2014 Polar Vortex" Complaint Against FES

January 22, 2016

In the FirstEnergy Solutions (FES) RTO Expense Surcharge Case, the Public Utilities Commission of Ohio (PUCO) denied FES' motion to dismiss the complaint that was filed by numerous OMA members (complainants). Complainants alleged that FES unlawfully passed through charges associated with the 2014 polar vortex.

The PUCO also granted the complainants' request to prevent termination of service and ordered that the case be set for an evidentiary hearing. Contact OMA's Ryan Augsburger for more information.

OMA Engages Media on Electricity Cost Increase Proposals

January 15, 2016

This week the OMA held a media briefing on the pending AEP and FirstEnergy applications for Power Purchase Agreements (PPAs). OMA Energy Group expert witnesses joined with manufacturing member representatives to describe how the proposed agreements will add significant costs to manufacturers, while constraining market competition for electric generation.

Hannah News Service, Inc. reported concerns expressed by Dr. Edward "Ned" Hill, an economist with The Ohio State University. Ohio Public Radio featured Brad Belden, Director, Support Services, The Belden Brick Company, who said it is unfair for manufacturers to shoulder the cost of the utility companies' subsidies, after already paying for the transition to a competitive electricity market in Ohio.

Also this week, as reported in the Cleveland Plain Dealer, competitive electric supplier Dynegy, an opponent to the PPA settlements, submitted a proposal to the PUCO to supply the contested electricity at a savings of $5 billion over the PPA subsidy proposals.

If you haven't already, consider expressing your concern regarding the costs of the PPA proposals (see your estimated impact here) to your elected officials.

Act Now to Prevent Electricity Cost Increases

January 8, 2016

A projected $6 billion in additional electricity costs are at stake in two cases pending before the Public Utilities Commission of Ohio (PUCO). Each case would provide massive subsidies, at customer expense, to FirstEnergy and AEP for power plants that are not clearing the markets in competitive auctions.

These cases are on a political fast track. It is critical for manufacturers to act now to urge defeat of the utililty proposals. Use the tools of OMA Manufacturing Action Center to communicate to public officials.

Read an analysis of potential costs you might pay. And, read an executive briefing and talking points on the matter.

PUCO, the 2015 Holiday Scrooge

January 8, 2016

The Public Utilities Commission of Ohio (PUCO) said "bah, humbug" to the holidays and moved to fast track consideration of the pending power purchase agreement cases of both FirstEnergy and AEP. The process is now so rushed that observers are questioning the effect on stakeholders' rights of due process.

The OMA Energy Group worked through the holidays to prepare and file additional testimony in both cases.

In supplemental testimony to the FirstEnergy case, OSU economist Dr. Edward (Ned) Hill said: "(The proposal) re-imposes an oligopoly in the electric generation market," deterring new entry and hurting long term reliability.

Also in supplemental testimony in that case, OMA consulting engineer John Seryak said: "(The new stipulation) creates costs and precedents for years to come." He noted a lack of "thorough, transparent cost analysis," which should be a minimum requirement for PUCO consideration of the proposal.

In the AEP case, Hill testified: "Typically, if a market participant cannot compete in a competitive market, it will fail. Subsidizing an existing market participant in the hope that it may be able to compete at some point in the future is not in the public interest, nor is it good public policy. It will only deter entry and keep prices higher than they would otherwise be in a competitive market."

And, Seryak in the AEP case testified that the renewable energy proposed in the case, which would be financed by a non-bypassable rider (that is, every AEP customer would have to pay, including those who have shopped competitively for power), would cause many customers to pay twice for energy.

Exelon Offers Power at $2 Billion Less than FirstEnergy

January 8, 2016

In bombshell testimony in the FirstEnergy power purchase agreement case before the Public Utilities Commission of Ohio (PUCO), Exelon offered power at a cost $2 billion less than FirstEnergy is proposing, over the eight-year term of the proposal.

Exelon opposes the FirstEnergy proposal and suggested that the PUCO should let the competitive marketplace set prices. It noted that other competitors might have a better price than even Exelon.

Sierra Club and AEP Make Deal: To Increase Electricity Costs

December 18, 2015

This week, the Sierra Club and AEP, with a few other parties, including PUCO staff, announced a deal in the AEP case pending before the Public Utilities Commission of Ohio (PUCO), a deal that will cost consumers billions of dollars, according to the Sierra Club's own statements before the PUCO.

The deal would shift the risks of operating AEP's uneconomical plants to consumers. The state's consumers' counsel estimates this will cost consumers $2 billion over the life of the proposal.

The deal now also says AEP will install 400 megawatts of solar and 500 megawatts of wind power by 2020. No mention of costs, which will all be born by customers.

The new deal is worse for customers than the initial costly proposal. Not only will customers be mandated to subsidize uneconomical old coal generating plants, but also customers will be saddled with large costs for the solar and wind generation, which'll be at least partly owned by the utility.

The markets for electricity in Ohio are working to the benefit of consumers. This deal is a massive setback to the consumer-friendly efficiency of those markets. If approved by the full PUCO, it will put an unnecessary and anti-competitive layer of costs on consumers, constrain competition, and dampen technological innovation in Ohio.

Timeline Set in FirstEnergy Settlement

December 11, 2015

Last week Public Utilities Commission of Ohio (PUCO) staff stunned interested parties when they entered into an agreement with FirstEnergy in the company's request for customer subsidies to pay for certain uneconomic generation assets, bypassing the competitive marketplace.

This week the regulators at the PUCO set a hearing schedule to consider the settlement proposal. The settlement proposal needs to be approved by a majority of the five-member commission. The five commissioners are appointees of Governor Kasich.

The hearings will commence on January 14, 2016. The OMA Energy Group has opposed the FirstEnergy rate proposal; OMA Energy Group will participate in the hearings. The Cleveland Plain Dealer reported on the development and says FirstEnergy hopes to have the settlement approved by February 10.

Ohio Oil and Natural Gas Production Reaches New Highs

December 11, 2015

As of the third quarter of 2015, Ohio's horizontal shall wells produced 15,707,339 barrels of oil and 651,193,106 Mcf of natural gas, according to the Ohio Department of Natural Resources. The quarterly production continues to set new drilling records in the Buckeye state.

Ohio's horizontal shale wells have produced more oil and gas in the first nine months of this year than all of Ohio's wells produced in 2014. In 2014, Ohio's wells produced 15,062,912 barrels of oil and 512,964,465 Mcf of gas.

All horizontal production reports can be found here.

PUCO Staff Supports FirstEnergy Bailout

December 4, 2015

In an abrupt about face, the staff of the Public Utilities Commission of Ohio (PUCO) filed an agreement with FirstEnergy this week that'll put the risk of operating two old and uncompetitive generating units on the backs of customers.

The agreement would provide for a power purchase agreement between FirstEnergy Solutions (the unregulated generation affiliate of FirstEnergy) and the FirstEnergy distribution company. The agreement would be in place for eight years. That is, the distribution company would be mandated to buy power from the affiliated company, rather than have the affiliated company compete in electricity auctions.

Customers in Ohio are benefiting from an electricity market place that is working to provide lower prices and more market options. This agreement, if eventually approved by the PUCO commissioners, would add a new layer of mandated costs onto customers. It is estimated to cost $3.9 billion over the eight years.

This would be a giant step backward for Ohio's economy, and particularly to cost-sensitive manufacturers.

Read more about this in this article by the Columbus Dispatch's Dan Gearino and this article by the Cleveland Plain Dealer's John Funk.

Double Digit Annual Increases Forecast for CPP

December 4, 2015

NERA Economic Consulting, using its proprietary energy/economy modeling software, projects U.S. electricity costs increases of between 11% and 14% annually from 2022 to 2033 under the Clean Power Plan (CPP).

The forecast assumes states will use the "mass base" compliance mechanism. It models both intra-state and regional compliance strategies.

NERA finds that annual average expenditures increase between $29 and $39 billion/year for that time period. It concludes that, by 2031, annual CO^2 emissions are 36% to 37% lower than they were in 2005.

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CUSTOMER-SITED RESOURCES REPORT

ENERGY EFFICIENCY - DEMAND RESPONSE - CHP - RENEWABLE ENERGY - STORAGE

ENERGY COMMITTEE – FEBRUARY 2016

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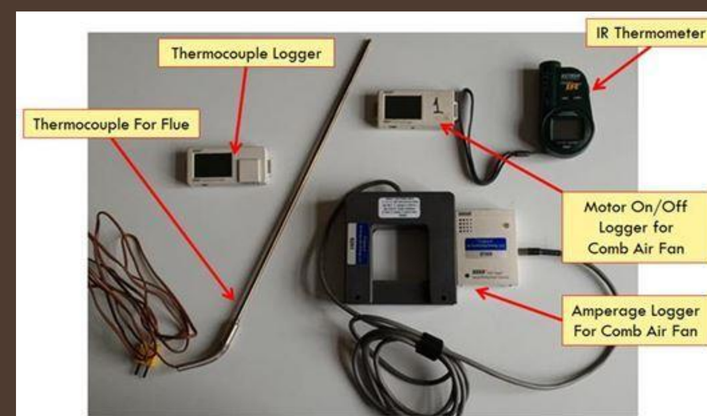
Energy Efficiency Peer Network

- Tour at F&P America – Friday, March 18th
  - See efficiency upgrades to dust collection, new lighting, new HVAC, and well sequenced air-compressors

- 2016 calendar
  - Plant tours – November @ AB, July
  - Educational webinars – May, September
  - Technical assistance
  - DIY tools, logging kits



- Join - http://www.ohiomfg.com/omas-chpweree-work-group/

Questions?
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ENERGY EFFICIENCY

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- ❑ **Utility planning** – All four investor-owned utilities (AEP, DP&L, Duke, FE) will submit plans for 2017-2019
  - ❑ Generally, utilities seek input from customer groups
  - ❑ We're seeking input – what is working / not working
  - ❑ FE will be offering EE programs again. Maybe.

- ❑ **2017 Opt-Out** – All above-primary and tax self-assessing manufacturers can opt-out of participation in energy-efficiency programs. We're seeking input:
  - ❑ If you're opting out – What could you still use? Ex. – PJM payments, tracking energy use, information, etc.
  - ❑ If you'd like to stay in – What would you need to stay in?

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ENERGY EFFICIENCY - UTILITIES

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DEMAND RESPONSE UPDATE

ENERGY COMMITTEE – FEBRUARY 2016

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- **<u>Demand Response</u>** is the temporary curtailment of electrical load during grid peaks
  - Turn on back-up generators
  - Turn off equipment
  - Temporarily load shift
- FERC Order 745 allows grid operators to pay full market price (locational marginal price (LMP) for DR in wholesale energy markets

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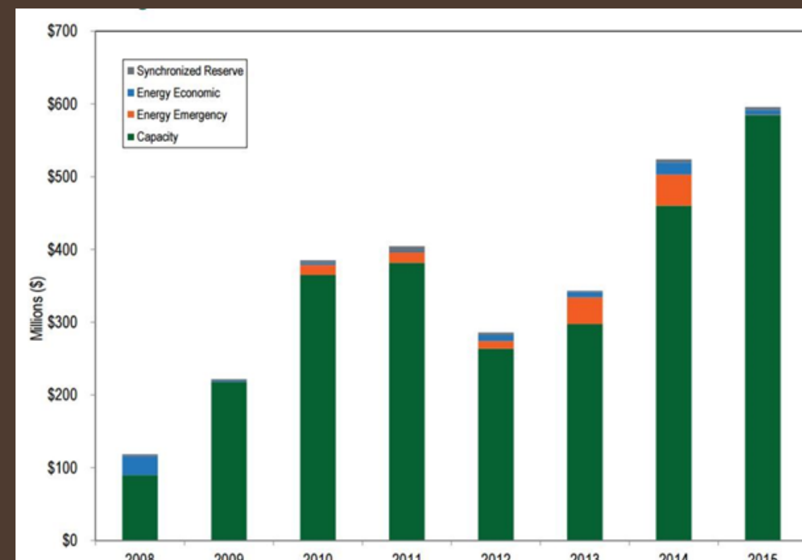
DEMAND RESPONSE – BENEFITS

- Creates revenue for manufacturers
(See side charge ~**$600** million in 2015)

- Independent Market Monitor - **$9 billion** /year extra if DR and EE taken from markets
  - Controlling your costs reduces price for everyone



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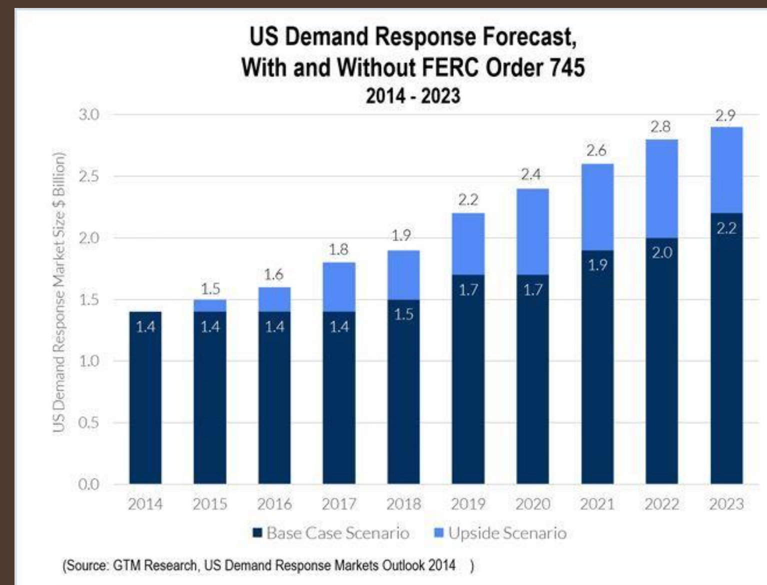
- **EPSA** (Electric Power Supply Association)
  - EPSA challenged FERC's authority to allow payments for DR in energy markets
  - Could have extended to capacity markets; energy efficiency

- PJM would have defaulted to a regulated approach
  - No payments, penalties for non-compliance for DR & EE

- $9 billion /year in costs; ~several hundred million in revenue



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- **<u>Supreme Court</u>** – Overturned lower court decision, maintained that DR is a wholesale electric resource and FERC may regulate it

- Related – ways in which DR is regulated

  Already passed

  - Limits on DR quantity in capacity auction
  - Capacity performance will require aggregation of resources

  To come?

  - Is DR and EE pushed “off the books”? → Load forecasts may be overestimated
  - Long term capacity product

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DEMAND RESPONSE – RELATED

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ADVANCED ENERGY & THE PPAS

ENERGY COMMITTEE – FEBRUARY 2016

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- **<u>Energy efficiency</u>** – 800 MWh/year of efficiency starting in 2017. Of concern:
  - Already required to do so by law
  - Utility shareholder profit raised from $10 million to $25 million /year, <u>after tax</u>
  - Special carve-outs for low-income groups, OPAE, City of Akron, COSE, colleges and universities

- **<u>Battery storage</u>** – Unspecified amount of storage; would be owned by distribution utility with full rate recovery. Of concern:
  - Pre-regulates new assets; batteries are currently unregulated competitive resources

- **<u>Renewable energy</u>** – 100 MW of wind or solar with its own power-purchase agreement rider. Of concern:
  - Only required if PUCO staff deems it necessary
  - Pre-regulates new assets

- **<u>Rate design</u>** – Straight-fixed-variable residential rate design; efficient and inefficient users pay similar costs; diminishes price signal

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FE PPA – ADVANCED ENERGY PROVISIONS

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- **Energy efficiency** – 1.33% of efficiency per year
  - Of concern – AEP already achieving this, 1% required by law
  - Special carve-outs for IGS, Direct Energy, EnerNOC
    - OHA - $3.2 million for OHA, $4.8 million for its members
    - OPAE - $8 million annually for low-income EE programs

- **Battery storage** – Unspecified amount of storage; would be owned by distribution utility with full rate recovery
  - Pre-regulates new assets; batteries are currently unregulated competitive resources

- **Renewable energy** – 500 MW of wind, 400 MW of solar within the power-purchase agreement. Of concern:
  - AEP affiliate may own a percentage
  - Pre-regulating new assets

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AEP PPA – ADVANCED ENERGY PROVISIONS

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- **Load Forecasts**
  - Utilities relying on old load forecasts; typically overestimate load
  - PJM recently slashed it’s load forecast by 3.5%-5%

- **Interactivity**
  - RE, EE, and storage all lower generator sales and suppress prices; have costs and benefits in their own right
  - PPA costs may increase as a result of stipulation provisions
  - In other words – PPA takes back some of the benefits of EE, RE, and storage

- **No Analysis** – No updated analysis was provided by any party, even though stipulation significantly changed costs and benefits of PPA, and new data was available

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PPAS – OVERARCHING CONCERNS

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280 NORTH HIGH STREET
COLUMBUS, OHIO 43215

MEMORANDUM

To: OMA Energy Committee
From: Kim Bojko and Ryan O'Rourke, OMA Energy Counsel
Re: Energy Committee Report
Date: February 25, 2016

Active Administrative Actions in which OMAEG is Involved:

American Electric Power (AEP):

- PPA Rider Expansion Case (Case No. 14-1693-EL-RDR, et al.)
  - AEP, Staff, Sierra Club, Ohio Energy Group, Ohio Hospital Association, IGS and others filed a stipulation seeking PUCO approval to populate the PPA Rider with the costs associated with certain plants owned by AEP Generation Resources as well as the costs of AEP's entitlement to the OVEC output. IEU-Ohio Agreed to not oppose.
  - The Stipulation contains several other provisions unrelated to the PPA Rider, including: extension of the ESP III plan; expansion of the IRP program; and a proposal to develop wind and solar facilities.
  - The evidentiary hearing is over, briefs have been submitted, and parties are awaiting the PUCO's decision.
- ESP Application (Case No. 13-2385-EL-SSO, et al.)
  - Order issued on February 25, 2015, wherein PUCO approved establishment of the PPA Rider, but AEP was not authorized to collect any PPA costs through the PPA Rider.
  - Entry on Rehearing subsequently issued – PUCO deferred ruling on applications for rehearing related to the PPA Rider.
  - Rehearing is pending.
- Fuel Adjustment Clause Cases (Case No. 11-5906-EL-FAC, et al.)
  - An audit estimated that AEP double recovered certain capacity-related costs in the amount of $120 million.
  - The PUCO reversed an earlier decision and held that parties have the right to receive copies of a draft audit report previously withheld from disclosure.

Duke Energy Ohio (Duke):

- ESP Application (Case No. 14-841-EL-SSO, et al.)
  - Order issued on April 2, 2015, wherein PUCO approved establishment of the Price Stabilization Rider (PSR) regarding a PPA, but Duke was not authorized to collect any PPA costs through the PSR.
  - Several parties, including OMAEG, filed applications for rehearing of the PUCO's decision – the applications for rehearing are still pending.
- 2013/2014 EE/PDR Recovery (Case Nos.14-457-EL-RDR and 15-534-EL-RDR)
  - Duke and Staff filed a stipulation seeking to resolve the shared savings mechanisms relating to Duke's 2013 and 2014 programs.
  - Parties are considering settlement options and preparing for a March hearing.
- Shared Savings Mechanism Extension Case (Case No. 14-1580-EL-RDR)
  - Duke sought PUCO approval of its request to extend the use of its shared savings incentive mechanism in 2016.
  - The parties are awaiting a PUCO decision.

FirstEnergy (FE):

- ESP IV Application (Case No. 14-1297-EL-SSO)
  - FE, Staff, Ohio Energy Group, OPAE, IGS, and others filed a stipulation seeking PUCO approval of FE's ESP IV Application together with authority to establish and populate the Retail Rate Stability Rider (Rider RRS) with the costs associated with certain plants owned by its affiliate, FirstEnergy Solutions.
  - The Stipulation also contains provisions addressing: grid modernization; energy efficiency; and a plan to transition to decoupled rates.
  - The evidentiary hearing has concluded and briefing is underway.

Dayton Power & Light (DP&L):

- Distribution Rate Increase (Case No. 15-1830-EL-AIR, et al.)
  - The PUCO set June 1, 2015 to May 30, 2016 as the test period and September 30, 2015 as the date certain.
  - Discovery is ongoing and parties are awaiting a forthcoming Staff report.
- Electric Security Plan (Case No. 16-395-EL-SSO, et al.)
  - DP&L is requesting a ten-year PPA with its unregulated affiliate.
  - A Distribution Investment Rider and a Clean Energy Rider are also being sought.

Statewide:

- Challenge to FirstEnergy Solutions RTO Expense Surcharge (14-1610-EL-CSS)
  - The PUCO decided that it has jurisdiction to hear the complaint filed by members of the opt-in group.
  - The PUCO issued an order preventing termination of service for the disputed charges.

- Net Metering Rules (Case No. 12-2050-EL-ORD)
  - OMAEG filed comments urging the PUCO to adopt rules that align the compensation schemes applicable to shopping and non-shopping customers.

- Duke Class Action Settlement
  - Duke settled for $80 million to resolve a class action regarding separate side agreements it had with 24 industrial/commercial customers.
  - Non-residential claimants could receive $200 to $4,000.
  - Eligible customers include those that received retail electric generation service from Duke Energy Corp. and/or Cinergy Corp. or their subsidiaries/affiliates at any time between January 1, 2005, and December 31, 2008 in the CG&E/Duke Energy Ohio electric service territory and who did not receive rebates under the side agreements.
  - For more information and to complete a claim form, please visit: http://www.dukeclassaction.com/.
  - Claim forms must be submitted by April 13, 2016.

Judicial Actions—Active Cases Presently on Appeal from the PUCO to the Supreme Court of Ohio

Duke Energy Ohio:

- Increase to Natural Gas Distribution Rates, Case No. 2014-328 (Appeal of Case No. 12-1685-EL-AIR, et al.)
  - The matter is fully briefed; however the Court has not yet set the case for oral argument.
  - OMA, OCC, Kroger, and Ohio Partners for Affordable Energy appealed a PUCO order that permitted recovery from ratepayers for environmental remediation costs associated with two former manufactured gas plant sites.

Federal Actions—Active Cases Presently at the Federal Energy Regulatory Commission (FERC)

FERC Complaints:

- Complaints against AEP, FirstEnergy and their unregulated generating affiliates
  - RESA, EPSA, Dynegy, and a few others filed complaints seeking to rescind the waiver on affiliate power sales transactions granted to AEP, FirstEnergy, and their unregulated generating affiliates.

- OMAEG filed comments in support of the complaints.

Court Cases:

- U.S. Supreme Court Demand Response Ruling
  - On January 25, 2016, the Court upheld a FERC rule directing wholesale market operators to compensate demand response commitments at LMP prices.
  - Court recognizes reliability benefits and price suppression benefits from demand response programs.
- U.S. Supreme Court Stays the Clean Power Plan
  - On February 9, 2016, the U.S. Supreme Court stayed implementation of the Clean Power Plan.
- U.S. Supreme Court Case on Maryland's PPA Plan
  - On February 24, 2016, the Court heard oral arguments on Maryland's plan to boost in-state generating capacity by fixing the rate received by a generator for its sales into PJM.
  - 4th Circuit struck the plan down on preemption grounds, holding that it interfered with FERC's exclusive power to oversee the wholesale markets.

Utility Dive

Supreme Court preps for hearings on Maryland power subsidies case

By Robert Walton | February 16, 2016

Dive Brief:

The U.S. Supreme Court is expected to hear arguments this month in a case regarding power subsidies created by the state of Maryland to guarantee sufficient supply, but which competing generators say impact wholesale prices, which are under the purview of the Federal Energy Regulatory Authority (FERC).
Four years ago, the Maryland Public Service Commission ordered construction of a gas-fired facility, and directed utilities to purchase the output for 20 years in order to make the plant feasible. Opponents sued, saying the plan unfairly impacts regional wholesale prices.
The Baltimore Sun points out that the arrangement is not uncommon among states, and the court's decision could impact billions of dollars in investments.

Dive Insight:

The U.S. Supreme Court will hear a case sometime this month which closely mirrors the FERC Order 745 case decided just weeks ago, and which underscores the increasing role of the courts in energy policy and rising importance over the so-called "bright line" between state and federal jurisdiction.

Within a month's time, the court has stayed implementation of the Clean Power Plan (http://www.utilitydive.com/news/supreme-court-puts-clean-power-plan-on-hold/413613/) , affirmed FERC's role in demand response markets (http://www.utilitydive.com/news/what-the-supreme-court-decision-on-ferc-order-745-means-for-demand-response/413092/) , and could consider the place (http://www.utilitydive.com/news/supreme-court-takes-up-new-federal-state-power-authority-case/407690/) of state power subsidies in regional markets.

"There's a lot riding on it for people in Maryland who use electricity," Public Citizen attorney Scott Nelson told the Baltimore Sun. "For ratepayers, the issue is: Are they going to be assured of adequate supply to meet the demand?"

In 2012, Maryland regulators called for the construction of a 725 MW gas-fired facility in Charles County, and directed Baltimore Gas and Electric Co. to purchase the output for two decades. That made the plant economically viable, which in turn will help stave off power shortages, according to state officials. But large generators in the regional sued, saying the plan unfairly disadvantages them.

"State subsidies for generation development degrade the integrity of competitive electricity markets, which were established to shift the financial risk of plant construction from consumers to generators," Talen Energy spokesmai Todd Martin told the Sun in a statement.

Similar to the FERC Order 745 case, the Maryland case will hinge on whether action in one market constitutes regulation of another. In the demand response case, the Supreme Court determined federal officials' jurisdiction over demand response in wholesale markets did not constitute retail rate regulation, traditionally under the purview of state agencies.

"What's at stake here is how much autonomy does a state or ... a locally controlled utility have to determine what our resource mix should be, what kind of generation we should have," American Public Power Association President and CEO Sue Kelly told the Sun. "We should be able to make those decisions."

Recommended Reading

The Baltimore Sun: Supreme Court to review Maryland electricity subsidies (http://www.baltimoresun.com/news/maryland/bs-md-supreme-court-electric-maryland-20160215-story.html)

Filed Under:

Generation

Time running out to file for Duke settlement

The Enquirer *1:20 p.m. EST January 6, 2016*

Roughly a million customers of Duke Energy Ohio's predecessor company have about 100 days to respond to postcards sent out over the holiday, asking if they want to be part of a proposed federal court settlement involving the utility.

A group of plaintiffs sued in federal court, alleging from 2005 to 2008 that Duke Energy Ohio and others unlawfully paid rebates through an affiliate to 22 large industrial or commercial customers pursuant to separate side agreements. The plaintiffs contended that Duke, which then was Cinergy Corp., violated antitrust laws as well as state and federal corrupt activities laws.

The defendants denied the allegations, asserting that the agreements with big customers such as General Electric, Procter & Gamble and AK Steel and the payments to them did not violate any laws. They are settling the suit, although they maintain they did not engage in any wrongdoing.

The allegations came to light in a whistleblower lawsuit filed in Hamilton County by a former Duke employee who lost his job in 2005 after complaining about the rebates. That suit was settled in 2008 for an undisclosed amount.

Duke initially refused to disclose the companies that received the rebates, but The Enquirer went to court in 2008 to get the names. A Hamilton County judge later ordered them released.

Here are some answers to some common questions about the settlement, which was reached in October 2015 after roughly a decade of litigation.

Who is eligible?

All residential and business (non-residential) ratepayers who received retail electric generation service from Duke Energy Corp. or Cinergy Corp. or its Ohio subsidiaries/affiliates at any time between Jan. 1, 2005 and Dec. 31, 2008, if they didn't receive rebates under the side agreements, according to a website about the settlement.

What will you get back?

Under the settlement, residential customers could each receive payments of $40 to $400 from the company, while commercial customers could get as much as $6,000 each. People who qualify for lesser time periods will receive lesser total payouts so long as they are $10 or more.

About $8 million of the nearly $81 million settlement will go toward improving energy efficiency programs.

When will you be paid?

After a federal court judge in Columbus gives final approval to the deal, assuming your claim is ruled valid. The case is scheduled for a settlement on April 16.

You didn't get a postcard but you were a Duke customer in Ohio during the period from 2005 to 2008. How do you make a claim?

You can file for a claim online at https://cert.gardencitygroup.com/dei/fs/home. Or you can call (844) 322-8220. Either way, you will have to file your claim by April 13.

What if you object to the settlement?

To object, an eligible class member must deliver by hand or send by first class mail, written objections and copies of all papers and briefs in support of any such objection delivered or postmarked by March 14 to each of the following:

- Clerk of the court; United States District Court; Southern District of Ohio; 85 Marconi Blvd.; Columbus OH 43215
- Markovits, Stock & DeMarco LLC; W.B. Markovits, Paul M. DeMarco and Christopher Stock esqs.; 119 E. Court St., Suite 530; Cincinnati OH 45202
- Freking, Myers & Ruel LLC; Randolph H. Freking, Kelly Mulloy Myers and George M. Reul Jr. esqs.; 525 Vine St., 6th floor; Cincinnati OH 45202

What if you miss the deadline or forget to file a claim?

You will get nothing.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Electric Power Supply Association, Retail Energy Supply Association, Dynegy, Inc., Eastern Generation, LLC, NRG Power Marketing LLC and GenOn Energy Management, LLC, Complainants, v. FirstEnergy Solutions Corporation, Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company, Respondents.	)	Docket No. EL16-34-000

MOTION TO INTERVENE AND COMMENTS IN SUPPORT SUBMITTED ON BEHALF OF THE OHIO MANUFACTURERS' ASSOCIATION ENERGY GROUP

In accordance with the Federal Energy Regulatory Commission's (Commission) Rules of Practice and Procedure 212 and 214,[1] the Ohio Manufacturers' Association Energy Group (OMAEG) hereby submits this motion for intervention and comments in support of the Complaint filed in the above-captioned proceeding. To protect Ohio's consumers, including manufacturers, it is imperative that the Commission rescind the waiver on affiliate power sales restrictions previously granted to Respondents and review the proposed affiliate power purchase agreement (Affiliate PPA) to ensure that its rates,

[1] 18 C.F.R. 385.212 and 385.214.

terms, and conditions are just and reasonable, and free from affiliate abuse.[2] Accordingly, OMAEG supports the relief sought by Complainants and requests that such relief be promptly granted.

I. Communications

Correspondence and communications concerning this submission should be directed to:

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Ryan P. O'Rourke
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Bojko@carpenterlipps.com
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II. Motion to Intervene

The OMAEG is a non-profit entity created by the Ohio Manufacturers' Association (OMA) for the purpose of educating and providing information to energy consumers, regulatory boards and suppliers of energy; advancing energy policies to promote an adequate, reliable, and efficient supply of energy at reasonable prices; and, advocating on behalf of manufacturers in critical cases at the state and federal levels. The OMAEG's members are all members of the OMA. OMA has over 1,400 member

[2] 16 U.S.C. 824d; *Boston Edison Co. Re: Edgar Electric Energy Co.*, 55 FERC ¶ 61,382 at 62,167-169 (1991) (*Edgar*); *Allegheny Energy Supply Co., LLC*, 108 FERC ¶ 61,082 at 61,417-418 (2004) (*Allegheny*).

companies of all different sizes and energy use profiles, all of which are Ohio retail customers and many of which purchase electric services from FirstEnergy.[3]

Like the OMA, OMAEG is comprised exclusively of manufacturers who work together to protect and grow Ohio manufacturing. OMAEG strives to improve business conditions in Ohio and drive down the cost of doing business for Ohio manufacturers. OMAEG is regularly and actively involved in proceedings before the Public Utilities Commission of Ohio (PUCO) and its unique knowledge and perspective will contribute to the full development and equitable resolution of the issues in this proceeding. OMAEG has a direct, real, and substantial interest in the issues raised in this proceeding and is so situated that the disposition of the proceeding may, as a practical matter, impair or impede its ability to protect that interest.

Under the Commission's Rules of Practice and Procedure, "[a]ny person seeking to intervene to become a party * * * must file a motion to intervene."[4] The motion to intervene must state the movant's position and provide a basis for that position.[5] Additionally, the movant must demonstrate that it has a right to participate as granted by "statute or by Commission rule, order, or other action" and show that it has "an interest which may be directly affected by the outcome of the proceeding * * * ."[6] As explained below, OMAEG satisfies these standards, and, therefore, its motion for intervention should be granted and it should be made a party to this case.

[3] The term "FirstEnergy" denotes the Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company.

[4] 18 C.F.R. 385.214(a)(3).

[5] 18 C.F.R. 385.214(b)(1).

[6] 18 C.F.R. 385.214(b)(2)(i)-(ii).

Without the Commission's necessary oversight, the Affiliate PPA contemplated between FirstEnergy Solutions Corporation (FES) and FirstEnergy threatens to not only harm the competitive power markets subject to the Commission's exclusive jurisdiction but also steeply raise customers' costs. OMAEG has vigorously advocated before the PUCO that the Affiliate PPA is an anticompetitive subsidy flowing from a regulated distribution utility to its generating affiliate. OMAEG also argued that the PUCO is preempted under the Supremacy Clause of the U.S. Constitution, as illustrated in *PPL EnergyPlus, LLC v. Nazarian*, 753 F.3d 467 (4th Cir. 2014) and *PPL EnergyPlus, LLC v. Solomon*, 766 F.3d 241 (3rd Cir. 2014). OMAEG reasserts and incorporates those arguments by reference herein.[7]

Ohio's manufacturing sector is one of the top consumers of electricity in the state of Ohio, and any impacts arising from future increases to electricity prices will have a significantly negative effect on their businesses. To this end, several of OMAEG's members have stated their opposition to the Affiliate PPA proposal pending before the PUCO, explaining the estimated direct impact on their facilities and operations in Ohio, including future investment in Ohio.[8] As explained by the Office of the Ohio Consumers' Counsel (OCC), another intervenor in the PUCO case, the bailout contemplated by the Affiliate PPA could herald an increase of over three-billion dollars in electricity costs.[9] An increase of this magnitude will negatively affect Ohio

[7] OMAEG's Initial Brief, PUCO Case No. 14-1297-EL-SSO (February 16, 2016), https://dis.puc.state.oh.us/TiffToPDf/A1001001A16B16B71429C02435.pdf

[8] See attached letters filed in opposition from OMA members in PUCO Case No. 14-1297-EL-SSO. OMAEG Attachment 1.

[9] Second Supplemental Direct Testimony of James F. Wilson on behalf of OCC at 12-13, PUCO Case No. 14-1297-EL-SSO (December 30, 2015),

manufacturers' competitiveness and have a chilling effect on future investments in Ohio markets.[10] Unquestionably, OMAEG has a real and substantial interest in this complaint proceeding, which asks this Commission to review the Affiliate PPA in order to protect consumers from a non-bypassable charge associated with the Affiliate PPA. As such, OMAEG's interest will be directly affected by the outcome of this proceeding and cannot be represented by any other party.

III. Comments

OMAEG supports the grounds asserted and the relief requested in the January 27, 2016 Complaint filed in this case. The Commission should rescind the waiver on affiliate power sales restrictions it previously granted to Respondents and make it clear that the Affiliate PPA will be reviewed in accordance with the standards articulated in *Edgar*[11] and *Allegheny*.[12] Without the waiver rescission, the Affiliate PPA will escape review at both the state and federal levels. FirstEnergy has stated that the PUCO has no jurisdiction to approve the Affiliate PPA.[13] And, due to the waiver previously granted to Respondents, the Affiliate PPA will also evade Commission review unless the

https://dis.puc.state.oh.us/TiffToPDf/A1001001A15L30B45750G02894.pdf. See also OCC's Motion to Intervene and Comments in Support at 2, FERC Docket No. EL16-34-000 (January 27, 2016).

[10] Direct Testimony of Dr. Edward W. Hill on Behalf of OMAEG at 5-6, PUCO Case No. 14-1297-EL-SSO (December 22, 2014), https://dis.puc.state.oh.us/TiffToPDf/A1001001A14L22B72650F23754.pdf.

[11] 55 FERC ¶ 61,382 at 62,167-169.

[12] 108 FERC ¶ 61,082 at 61,417-418.

[13] Vol. III, Tr. at 660-661, PUCO Case No. 14-1297-EL-SSO (September 2, 2015), https://dis.puc.state.oh.us/TiffToPDf/A1001001A15I17B51328H00492.pdf. Vol. II, Tr. at 444, PUCO Case No. 14-1297-EL-SSO (September 1, 2015), https://dis.puc.state.oh.us/TiffToPDf/A1001001A15I16B63656C00322.pdf.

Commission affirmatively acts.[14] Given the change in circumstances since the waiver was granted, it is imperative that the Affiliate PPA be reviewed to ensure that its rates, terms, and conditions are just and reasonable, and free from affiliate abuse.[15]

The Affiliate PPA threatens to harm competition in the wholesale markets by guaranteeing a revenue stream to a fleet of aging and uneconomic generating units (Affiliate PPA Units) through a non-bypassable rider assessed to Ohio retail customers (Rider RRS). The guaranteed revenue stream from captive retail customers will make the Affiliate PPA Units agnostic to wholesale-market prices, distort wholesale-market price signals, and deter new entry from competitive generation suppliers. As the Independent Market Monitor for PJM Interconnection, LLC (PJM) testified:

> The logical offer price for these resources in the PJM Capacity Market, under these conditions, would be zero. A zero offer would be rational because this would maximize the revenue offset to the customers would be required to pay 100 percent of the costs of this capacity and bear all of the performance risks. Offers at or near zero would have an anti-competitive, price suppressive effect on the PJM Capacity Market as would any offers at less than the competitive offer level.[16]

An anticompetitive arrangement of this sort is decidedly against the public interest and warrants Commission scrutiny.

[14] *FES*, 125 FERC ¶ 61,356 (2008), on reh'g, 128 FERC ¶ 61,119 (2009).

[15] 16 U.S.C. 824d; *Edgar*, 55 FERC ¶ 61,382 at 62,167-169; *Allegheny*, 108 FERC ¶ 61,082 at 61,417-418.

[16] First Supplemental Direct Testimony of Dr. Joseph E. Bowring on Behalf of the Independent Market Monitor for PJM at 5, PUCO Case No. 14-1297-EL-SSO (December 30, 2015), https://dis.puc.state.oh.us/TiffToPDf/A1001001A15L30B52627E02902.pdf.

FirstEnergy has touted the Affiliate PPA as a way to promote grid reliability, retail-rate stability, and resource adequacy;[17] however, the simple fact is that the Affiliate PPA is being proposed because the Affiliate PPA Units are unable to withstand the demands of competition. The evidence adduced before the PUCO shows that the competitive markets are working,[18] retail rates are not subject to volatility,[19] and sufficient resource adequacy exists in the region managed by PJM.[20] The Affiliate PPA is not needed for consumer protection. Rather, it is being driven by shareholders and the investment community.

While the Commission originally granted the waiver on the grounds that retail choice has taken effect in Ohio, that justification no longer applies due to the rate-design mechanism of Rider RRS, which will flow through the costs of the Affiliate PPA to all of Ohio's retail customers. Regardless of whether Ohio retail customers have the choice to select their provider of generation services, customers will have *no* choice about whether to pay Rider RRS and subsidize FirstEnergy's generating affiliate. Given the non-bypassable nature of Rider RRS, the Commission's reasoning that retail customers in retail choice states are not captive because they can select a generation supplier of their choosing, and thereby bypass charges associated with an affiliate contract, is inapplicable

[17] Application of FirstEnergy, PUCO Case No. 14-1297-EL-SSO (August 4, 2014), https://dis.puc.state.oh.us/TiffToPDf/A1001001A14H04B60017D82700.pdf.

[18] Direct Testimony of Dr. Edward W. Hill on Behalf of OMAEG at 13-14, PUCO Case No. 14-1297-EL-SSO (December 22, 2014), https://dis.puc.state.oh.us/TiffToPDf/A1001001A14L22B72650F23754.pdf.

[19] Second Supplemental Direct Testimony of Dr. Joseph P. Kalt on behalf of the PJM Power Providers Group and the Electric Power Supply Association at 5, PUCO Case No. 14-1297-EL-SSO (December 30, 2015), https://dis.puc.state.oh.us/TiffToPDf/A1001001A15L30B65912G02996.pdf.

[20] Supplemental Direct Testimony of James F. Wilson on Behalf of OCC at 8-11, PUCO Case No. 14-1297-EL-SSO (May 11, 2015), https://dis.puc.state.oh.us/TiffToPDf/A1001001A15E11B43721G33255.pdf.

here.[21] Insofar as the costs associated with the Affiliate PPA are concerned, *all* Ohio retail customers served by FirstEnergy are captive.

Given that over three-billion dollars are at stake, it is of paramount importance that the Affiliate PPA's terms and conditions be subject to Commission review and evaluated in accordance with the *Edgar/Allegheny* standards. In *Edgar*, the Commission explained that "in cases where affiliates are entering agreements for which approval of market-based rates is sought, it is essential that ratepayers be protected and that transactions be above suspicion in order to ensure that the market is not distorted."[22] To protect against abusive affiliate transactions, *Edgar* requires assurances that (1) a competitive solicitation process was designed and implemented without unduly favoring the affiliate; (2) the analysis of the bids did not favor the affiliate, particularly with respect to nonprice factors; and (3) the affiliate was chosen because of some reasonable combination of price and nonprice factors.[23]

Building on *Edgar's* guidance, *Allegheny* clarified the standards the Commission would consider when evaluating a competitive solicitation process:

1. Transparency – the competitive solicitation process should be open and fair;
2. Definition – the product or products sought through the competitive solicitation should be precisely defined;
3. Evaluation – evaluation criteria should be standardized and applied equally to all bids and bidders; and

[21] *Duquesne Light Holdings, Inc.*, 117 FERC ¶ 61,326 at page 38 (2006).

[22] 55 FERC ¶ 61,382 at 62,167.

[23] Id.

4. Oversight – an independent third party should design the solicitation, administer bidding, and evaluate bids prior to the company's selection.[24]

Taken together, the "*Edgar* criteria and *Allegheny* guidelines are designed to ensure that the transactions between affiliates do not unduly favor affiliates, and thereby protect captive customers from affiliate abuse."[25]

At its core, the Affiliate PPA is not a competitive solution. Thus it would almost certainly fail the *Edgar/Allegheny* standards for the simple reason that FirstEnergy did not employ a competitive solicitation process. Rather than putting out a request for proposal for the purpose of procuring power at the least cost for the benefit of its Ohio retail customers, FirstEnergy struck a deal with its affiliate, FES, for the purpose of delivering value to the parent company's shareholders. The economic incentive for the wholesale buyer (FirstEnergy) to favor its affiliate wholesale seller (FES), in this situation is at its apex and plainly necessitates Commission scrutiny. Indeed, as *Edgar* explained:

> In an arm's-length (unaffiliated) transaction, the buyer has no economic incentive to favor anyone but the least-cost supplier (considering price and nonprice factors). * * * By contrast, where a traditional utility is buying from an affiliate not subject to cost-of-service regulation, the buyer has an incentive to favor its affiliate even if the affiliate is not the least-cost supplier, because the higher profits can accrue to the seller's shareholders.[26]

A rescission of the waiver and a directive that the Affiliate PPA will be reviewed under the *Edgar/Allegheny* standards will protect against injury to the wholesale markets and to Ohio's captive retail customers.

[24] 108 FERC ¶ 61,082 at 61,417.

[25] *Southern Power Company*, 153 FERC ¶ 61,068 at page 5 (2015).

[26] 55 FERC ¶ 61,382 at 62,168.

III. Conclusion.

For the foregoing reasons, OMAEG requests that the Commission grant this motion to intervene and permit OMAEG to be made a full party to this proceeding with all of the rights granted thereto.

In support of the complaint, OMAEG urges the Commission to rescind the waiver on affiliate power sales restrictions granted to Respondents, establish the effective date of the rescission as January 27, 2016, state that the Commission will not entertain any request for waiver of the prior notice filing requirements in any proceeding in which FirstEnergy and FES file the Affiliate PPA for Commission review, and determine that the Affiliate PPA will be reviewed in accordance with the *Edgar/Allegheny* standards to protect Ohio's captive retail customers from affiliate abuse.

Respectfully submitted,

Kimberly W. Bojko
Ryan P. O'Rourke
Carpenter Lipps & Leland LLP
280 Plaza, Suite 1300
280 North High Street
Columbus, Ohio 43215
Telephone: 614.365.4100
Fax: 614.365.9145
Bojko@carpenterlipps.com
O'Rourke@carpenterlipps.com

Counsel for OMAEG

Columbus, Ohio
February 23, 2016

CERTIFICATE OF SERVICE

Pursuant to Rule 2010 of the Commission's Rules of Practice and Procedure, 18 C.F.R. 385.2010, I hereby certify that I have this day served the foregoing document by electronic means upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Columbus, Ohio this 23rd day of February, 2016.

Ryan P. O'Rourke
Carpenter Lipps & Leland LLP

OMAEG
Attachment
1

FILE

Whirlpool Corporation

Government Relations

701 Pennsylvania Avenue, NW • Suite 750 • Washington, DC 20004

LUKE M. HARMS
Senior Manager, Government Relations

RECEIVED-DOCKETING DIV
2016 FEB -5 AM 11:34
PUCO

January 25, 2016

Public Utilities Commission of Ohio
180 East Broad Street
Columbus, OH 43215

RE: Cases 14-1693-EL-RDR; 14-1297-EL-SSO

Dear PUCO:

Find attached correspondence by Mr. Jeffrey Noel on behalf of Whirlpool Corporation regarding the referenced cases pending review by the Public Utilities Commission of Ohio. I trust you will contact us if you have questions or need further information.

Sincerely,

Luke M. Harms
Senior Manager, Government Relations

Phone: +1 202 639 8420 • Fax: +1 202 639 8421 • Luke_M_Harms@whirlpool.com

Whirlpool Corporation

ADMINISTRATIVE CENTER ▪ BENTON HARBOR, MICHIGAN 49022

JEFFREY NOEL
CORPORATE VICE PRESIDENT
COMMUNICATIONS AND PUBLIC AFFAIRS

January 25, 2016

Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215

Dear Commission:

Whirlpool Corporation strongly urges you to oppose the negotiated settlements of FirstEnergy and AEP that will allow for the implementation of Power Purchase Agreement (PPA) riders and other cost-driving provisions.

Whirlpool is the number one appliance manufacturer in the world, with more than 70,000 employees. In Ohio, Whirlpool operates five manufacturing facilities with more than 10,000 employees. Our facilities are located in Marion, Findlay, Clyde, Ottawa and Greenville.

Approval of the FirstEnergy and AEP settlements will allow both utilities to collect costs, via *non-bypassable riders* from all customers, to subsidize uneconomical generation plants. These actions would guarantee the profits and cost recovery of FirstEnergy and AEP, and transfer all cost risk to customers for a period of eight years.

According to the Ohio's Consumers' Counsel, these two settlements could cost consumers $5.9 billion over the *eight year duration. These settlements would constrain competition with no commensurate benefits to consumers.*

Competitive electricity markets in Ohio are working for the benefit of all Ohio electricity customers; these deals would be a major setback. Whirlpool Corporation strongly urges the commission to protect competition and ensure electricity customers are not forced to subsidize uncompetitive generation plants.

Please contact me if you have any questions or if I may provide additional information.

Sincerely,

Jeffrey Noel

JN/bll

FILE

BASF
We create chemistry

RECEIVED-DOCKETING DIV
2016 FEB -5 AM 11: 34
PUCO

February 1, 2016

The Public Utilities Commission of Ohio
180 East Broad Street
Columbus, OH 43215

Subject: Case 14-1297-EL-SSO (FirstEnergy)

To the Public Utilities Commission of Ohio (PUCO):

Attached is a letter on behalf of the BASF Corporation facility located in Elyria regarding the referenced case pending review by the PUCO. Please contact me if you have questions.

Sincerely,

Michele Barney

Michele Barney
Site Director

This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business. Technician Am Date Processed 2/5/16

BASF Corporation
120 Pine Street
Elyria, Ohio 44035-5223 USA

Telephone: 440-322-3741
Fax: 440-323-2830

BASF
We create chemistry

February 1, 2016

The Public Utilities Commission of Ohio
180 East Broad Street
Columbus, OH 43215

Dear PUCO Commissioners:

The BASF Corporation facility in Elyria, Ohio understands that the commission is considering a draft settlement with FirstEnergy that, according to the Ohio Consumers Counsel, could cost consumers as much as $3.9 billion. We respectfully ask that the draft settlement not be approved.

BASF Corporation is the largest affiliate of BASF SE and the second largest producer and marketer of chemicals and related products in North America. At BASF, we create chemistry - and have been doing so for 150 years. As the world's leading chemical company, we combine economic success with environmental protection and social responsibility. Through science and innovation we enable our customers in nearly every industry to meet the current and future needs of society. Our Elyria facility contributes to this mission through the production of metal based catalysts and of cathode materials that are used in the lithium-ion batteries that power full electric and plug-in hybrid vehicles. BASF has 10 facilities in Ohio, including the site in Elyria.

The BASF site in Elyria is among the FirstEnergy customers that would be impacted if the draft settlement is adopted. We do not accept the premise for these proposed rate increases via an eight year power purchase agreement, *i.e.* to subsidize aging and under-utilized generating plants. This runs counter to Ohio's status as deregulated energy market that allows customers to choose their energy suppliers and thereby promote competitive rates. Competitive rates in turn have helped to generate business investment in Ohio, especially for the business of chemistry, which is energy-intensive. Chemistry is the second largest manufacturing industry in Ohio.

Thank you for your consideration. We once again ask that the draft settlement not be approved and instead the commission continue to focus efforts on promoting competitive energy rates in Ohio.

Sincerely,

Michele Barney

Michele Barney
Site Director

BASF Corporation
120 Pine Street
Elyria, Ohio 44035-5228 USA

Telephone: 440-322-3741
Fax: 440-323-2430

FILE

2

BELDEN
THE BELDEN BRICK COMPANY

700 W. Tuscarawas Street
P.O. Box 20910
Canton, Ohio 44701-0910
Phone 330 456-0031
Fax 330 456-2694

The Standard of Comparison Since 1885

RECEIVED-DOCKETING DIV
2016 JAN 28 AM 8:19
PUCO

January 27, 2016

Public Utilities Commission of Ohio
180 East Broad Street
Columbus, OH 43215

RE: Opposition Comment to PPA Cases 14-1693-EL-RDR; 14-1297-EL-SSO

Dear PUCO:

I am writing to urge you to act to reject the negotiated settlements of FirstEnergy and AEP (and a small group of others who have negotiated certain benefits) that will enable the utilities to implement costly Power Purchase Agreement (PPA) riders and other cost-driving provisions.

Should the PUCO approve the deals, both utilities will be able to collect costs (via non-bypassable PPA riders) from all of their customers to subsidize their uneconomical generation assets, thus protecting the utilities from cost risk and guaranteeing their profits and cost recovery. And put it all on the backs of their customers for an eight-year term.

Ohio's Consumers' Counsel has estimated that the FirstEnergy settlement could cost consumers $3.9 billion over the eight-year duration of the PPA, and the AEP settlement could cost consumers $2 billion.

Our company consumes approximately 21 million kWh/year. We estimate the additional costs of this new rider to be $940,000 over the eight year term of the case. The construction industry is still feeling the effects of the real estate collapse of several years ago. Our company is still struggling to turn a profit, so this type of regulation will surely be felt by our employees and shareholders. Belden Brick did not have the government to turn to during this recent downturn. We do not agree that FirstEnergy and AEP should have this option either once they decided to deregulate their industry.

If approved by the full PUCO, these deals will put an unnecessary and anti-competitive layer of costs on consumers with no commensurate benefits, constrain competition, and dampen technological innovation in Ohio. In addition, both settlements contain other provisions that will increase costs to consumers.

The markets for electricity in Ohio are working to the benefit of consumers. These deals are a massive setback to the consumer-friendly efficiency of those markets.

Please protect Ohio manufacturers and all consumers in FirstEnergy and AEP territories, the lion's share of the state in terms of utilities, from this substantial bailout/giveaway.

Sincerely,

Bradley H. Belden
Director -- Support Services

cc: Governor John Kasich
State Senator Oelslager
State Representative Landis

FILE

2

Neloms, Tim

From: Hauge, Eric <Eric.Hauge@arcelormittal.com>
Sent: Thursday, February 04, 2016 1:37 PM
To: Puco Docketing
Subject: ArcelorMittal comments re: PPA Cases 14-1693-EL-RDR; 14-1297-EL-SSO
Attachments: ArcelorMittal Cleveland - Ohio PPA Letter from Eric Hauge FINAL.pdf

Dear Public Utilities Commission of Ohio:

I am writing to urge you to act to reject the negotiated settlements of FirstEnergy and AEP (and a small group of others who have negotiated certain benefits) to enable the utilities to implement unwarranted and costly Power Purchase Agreement (PPA) riders and other cost-driving provisions.

Should the Public Utilities Commission of Ohio (PUCO) approve the deals, both utilities can use riders to collect costs from all of their customers to subsidize their generation assets they have determined are otherwise uneconomical. In an unprecedented request in an unregulated market, they propose to protect the utility shareholders from cost risk and to guarantee profits and cost recovery for eight years at the expense of their customers and to the detriment of the Ohio economy.

The State of Ohio has chosen to deregulate its electricity markets, a process that has worked well for both the consumer and the utilities. During the ups in the market, the Ohio utilities made exceptional profits. Now that there is a downturn in the markets, these same utilities are looking to take advantage of the system by not having their shareholders bear any of the financial risk associated with their prior business decisions.

Ohio's Consumers' Counsel estimated the FirstEnergy proposal could cost consumers $3.9 billion over eight years, while the AEP proposal could cost consumers $2 billion. ArcelorMittal would face cost increases of more than $20 million in that eight year span, with no concomitant benefits.

The timing could not be worse. As a company, we've been transparent about the challenges facing our USA business and our industry. Global steel overcapacity has resulted in a flood of record-level imports that have eroded the increase in demand we would normally experience from an improving U.S. economy. The influx of imports has drastically reduced domestic steel pricing, with hot-rolled coil spot pricing down by more than 40 percent since Q1 2014. In the United States alone, the steel industry has announced a temporary or permanent loss of more than 12,000 jobs in 2015.

We have been forced to implement a number of cost savings initiatives including a reduction in purchasing, supplier and operating costs and a revised health care plan for our salaried employees. We are also working hard to improve our business performance through strategies that include asset optimization planning, stronger trade enforcement to battle the flood of unfairly traded imports, and labor negotiations with the United Steelworkers.

The loss of tens of millions of dollars over the next several years could have a significant impact on the 3,000 jobs we provide in Ohio, take away from innovation and reduce scarce capital investments, hurting the long-term viability of our Ohio facilities and our USA business.

If PUCO approves these proposals, it will not only increase costs to customers, but open the door to other proposals that undermine the very basis of deregulation. Such a decision may result in the following: discourage good management practices; constrain competition; and dampen technological innovation in Ohio.

The markets for electricity in Ohio are currently working to the benefit of consumers. The proposals on the table will harm the consumer-friendly efficiency of Ohio's markets and important energy-intensive manufacturers like ArcelorMittal.

Sincerely,

Eric Hauge
Vice President & General Manager
ArcelorMittal Cleveland

Mailed copies to the following: Honorable John Kasich, Ohio Governor
Wayne Struble, Chief of Staff to the Governor
Jai Chabria, Senior Advisor to the Governor
Honorable Tom Patton, Ohio Senate
Honorable Michael J. Skindell, Ohio Senate
Honorable Sandra R. Williams, Ohio Senate
Honorable Kenny Yuko, Ohio Senate
Honorable John Barnes, Jr., Ohio House of Representatives
Honorable Janine R. Boyd, Ohio House of Representatives
Honorable Nicholas J. Celebrezze, Ohio House of Representatives
Honorable Mike Dovilla, Ohio House of Representatives
Honorable Stephanie D. Howse, Ohio House of Representatives
Honorable Bill Patmon, Ohio House of Representatives
Honorable Martin J. Sweeney, Ohio House of Representatives

Eric D. Hauge | Vice President & General Manager

ArcelorMittal Cleveland/Warren

3060 Eggers Avenue, Cleveland, Ohio 44105-1012

T +1 216 429 6002 | F +1 216 429 6019 | www.arcelormittal.com

Campbell Soup Supply Company
12773 State Route 110
Napoleon, OH 43545

February 18, 2016

Public Utilities Commission of Ohio
180 East Broad Street
Columbus, OH 43215

RE: Opposition Comment to PPA Cases 14-1693-EL-RDR; 14-1297-EL-SSO

Dear PUCO:

I am writing to urge you to act to reject the negotiated settlements of FirstEnergy and AEP (and a small group of others who have negotiated certain benefits) that will enable the utilities to implement costly Power Purchase Agreement (PPA) riders and other cost-driving provisions.

Should the PUCO approve the deals, both utilities will be able to collect costs (via nonbypassable PPA riders) from all of their customers to subsidize their uneconomical generation assets, thus protecting the utilities from cost risk and guaranteeing their profits and cost recovery, and put it all on the backs of their customers for an eight-year term. Ohio's Consumers' Counsel has estimated that the FirstEnergy settlement could cost consumers $3.9 billion over the eight-year duration of the PPA, and the AEP settlement could cost consumers $2 billion.

Our company consumes approximately 100,000,000 kWh/year. We estimate the additional costs of this new rider to be $5,000,000 over the eight year term of the case. That is real money that could be used on more productive purposes such as capital investment, infrastructure improvements, and training investments that would help secure and grow jobs at our manufacturing plants that today employ more than 2000 Ohioans in Napoleon and Willard.

If approved by the full PUCO, these deals will put an unnecessary and anti-competitive layer of costs on consumers with no commensurate benefits, constrain competition, and dampen technological innovation in Ohio. In addition, both settlements contain other provisions that will increase costs to consumers.

The markets for electricity in Ohio are working to the benefit of consumers. These deals are a massive setback to the consumer-friendly efficiency of those markets.

As a resident of this state, and a manufacturing leader dedicated to insuring our Ohio operations remain competitive, I ask that you please protect Ohio manufacturers and all consumers in FirstEnergy and AEP territories from this substantial bailout/giveaway.

Mark Cacciatore
Vice President, Manufacturing – Campbell Americas Simple Meals & Beverages

cc: Governor John Kasich
State Senator Clifford Hite
State Representative Robert McColley

3M Home Care Division
1301 Lowell Street
Elyria, OH 44035

February 12, 2016

Public Utilities Commission of Ohio
180 East Broad Street
Columbus, OH 43215

RE: Opposition Comment to PPA Cases 14-1693-EL-RDR; 14-1297-EL-SSO

Dear PUCO:

I am writing in regards to the Purchase Power Agreement Cases with First Energy and the PUCO. First Energy, AEP and a small group of others have negotiated certain benefits that will enable the utilities to implement costly Power Purchase Agreement (PPA) riders and other cost-driving provisions.

Should the PUCO approve the deals, both utilities will be able to collect costs (via non-by passable PPA riders) from all of their customers to subsidize their uneconomical generation assets, thus protecting the utilities from cost risk and guaranteeing their profits and cost recovery. All of this is at the cost of their customers for an eight-year term.

Ohio's Consumers' Counsel has estimated that the FirstEnergy settlement could cost consumers $3.9 billion over the eight-year duration of the PPA, and the AEP settlement could cost consumers $2 billion.

Based on our current energy usage the impact from this change will increase the 3M Elyria Electric bill by 11% per month. This is money that could be used in a more productive fashion at the 3M Elyria site. Over the past couple of years 3M Elyria has been proactive regarding our energy usage. We have made capital investments with the specific goal of reducing our energy consumption. The result from the invested capital has reduced our electrical usage by 750,000 kW per year. Should the PUCO approve the deals, these investment dollars for energy reduction may be side tracked toward paying the higher energy rates.

If approved by the full PUCO, these deals will put an unnecessary and anti-competitive layer of costs on consumers with no commensurate benefits, constrain competition, and dampen technological innovation in Ohio. In addition, both settlements contain other provisions that will increase costs to consumers.

The markets for electricity in Ohio are working to the benefit of consumers. These deals are a massive setback to the consumer-friendly efficiency of those markets. Please protect Ohio manufacturers and all consumers in FirstEnergy and AEP territories, the lion's share of the state in terms of utilities, from this substantial bailout/giveaway.

Regards,
John Akey

3M Elyria Plant Manager

cc: Senator Gayle Manning
Representative Nathan Manning

SHERWIN-WILLIAMS.

Robert J. Wells
Senior Vice President
Corporate Communications
and Public Affairs
Phone: 216-566-2244
Fax: 216-566-2947
E-mail: rjwells@sherwin.com

February 22, 2016

Public Utilities Commission of Ohio
180 East Broad St.
Columbus, OH 43215

RE: Opposition Comment to PPA Cases 14-1693-EL-RDR; 14-1297-EL-SSO

Dear PUCO:

I am writing to urge you to act to reject the negotiated settlements of FirstEnergy and AEP (and a small group of others who have negotiated certain benefits) that will enable the utilities to implement costly Power Purchase Agreement (PPA) riders and other cost-driving provisions.

Should the PUCO approve the deals, both utilities will be able to collect costs (via non-bypassable PPA riders) from all of their customers to subsidize their uneconomical generation assets, thus protecting the utilities from cost risk and guaranteeing their profits and cost recovery. And put it all on the backs of their customers for an eight-year term.

Ohio's Consumers' Counsel has estimated that the FirstEnergy settlement could cost consumers $3.9 billion over the eight-year duration of the PPA, and the AEP settlement could cost consumers $2 billion.

Our company consumes approximately 16,381,149 kWh/year with AEP and 50,223,474 kWh/year with FirstEnergy. We estimate the additional costs of this new rider to be $734,301 with AEP and $2,504,645 with FirstEnergy over the eight year term of the case. That is real money that could be used on more productive purposes. For example, it would fund the opening of 10 new Sherwin-Williams paint stores in Ohio, which translates to about 60 new jobs.

If approved by the full PUCO, these deals will put an unnecessary and anti-competitive layer of costs on consumers with no commensurate benefits, constrain competition, and dampen technological innovation in Ohio. In addition, both settlements contain other provisions that will increase costs to consumers.

The Sherwin-Williams Company 101 W. Prospect Avenue, Cleveland, OH 44115-1075

SHERWIN-WILLIAMS.

Public Utilities Commission of Ohio
February 22, 2016
Page 2

The markets for electricity in Ohio are working to the benefit of consumers. These deals are a massive setback to the consumer-friendly efficiency of those markets.

Please protect Ohio manufacturers and all consumers in FirstEnergy and AEP territories, the lion's share of the state in terms of utilities, from this substantial bailout/giveaway.

Sincerely,

Robert J. Wells

RJW/klj

cc: Governor John Kasich
Representative Marcia Fudge
Senator Sherrod Brown

FILE

MARK R. GRINDLEY
CHIEF OPERATING OFFICER
PLASKOLITE, LLC

RECEIVED-DOCKETING DIV
2016 JAN 19 PM 2:48
PUCO

January 13, 2016

Public Utilities Commission of Ohio
180 East Broad Street
Columbus, OH 43215

RE: Cases 14-1693-EL-RDR (AEP); 14-1297-EL-SSO (FirstEnergy)

Dear PUCO:

We are writing this letter to you to express our serious and grave concerns about the imminent PUCO settlement on the Power Purchase Agreements (PPA) with First Energy and AEP. This PUCO settlement will require Plaskolite, along with all the other residential, commercial and industrial ratepayers in Ohio, to subsidize the unprofitable power plants of these two utilities, and it is uncompetitive, costly, and unjust by fair business practices.

If approved, this action will hinder competition in the Ohio electric market, including the entry of well-managed, competitive power plants into Ohio, regardless of whether they are fueled by coal, natural gas, nuclear or renewables. As a result, Ohio will, over time, be left with uncompetitive, old, inefficient power plants that will likely not be able to meet the tightening EPA emission standards (e.g., Clean Power Plan). Rather than improving the reliability of the electric grid, once these uncompetitive power plants are "shut down" by the EPA regulations, the reliability and stability of the electric grid would be adversely affected. This PPA settlement, if approved, will also set a legal precedent and open-the door for these utilities, along with the other investor-owned utilities, to pass on all their uncompetitive operations to the Ohio ratepayers through an "affiliated PPA".

Plaskolite has manufacturing plants in Columbus and Zanesville with a combined total of 400 employees. We are poised to aggressively grow our Ohio operations this year and in the coming years. Electricity is our largest utility cost, so the PUCO PPA settlement will negatively affect our competitiveness in the market place. Our Ohio plants are within the AEP service area, and we estimate that this PPA settlement will cost us almost

POST OFFICE BOX 1497
COLUMBUS, OHIO 43216
614/294-3281
FAX 614/297-7318
Email: Mark.Grindley@plaskolite.com

$300,000 per year for our Ohio operations, or an estimated $2,400,000 over the 8-year ESP. It is hard for us to fathom having to pay this extra, significant cost to continue getting electricity dispatched to our Ohio operations, and to know that this amount will be subsidizing one or more unprofitable AEP power plants, even though our electricity does not come from any of these AEP power plants.

We are very disappointed in PUCO's support of this PPA settlement for it demonstrates that our state government is "utility-friendly" to the exclusion of the residents and businesses of Ohio. We strongly urge you to reconsider and to disapprove this settlement decision to allow the First Energy and AEP PPAs, which will roil the Ohio electric markets, make the regional electric grid less stable, and increase the cost of electricity in Ohio.

Sincerely,

Mark R. Grindley

MRG/jmc

Graphic Packaging
INTERNATIONAL, INC.

February 15, 2016

Public Utilities Commission of Ohio
180 East Broad Street
Columbus, OH 43215

RE: Opposition Comment to PPA Cases 14-1693-EL-RDR; 14-1297-EL-SSO

Dear PUCO:

I am writing to urge you to reject the negotiated settlements of FirstEnergy and AEP (and a small group of others who have negotiated certain benefits) that will enable the utilities to implement costly Power Purchase Agreement (PPA) riders and other cost-driving provisions.

Should the PUCO approve the deals, both utilities will be able to collect costs (via non-by passable PPA riders) from all of their customers to subsidize their uneconomical generation assets, thus protecting the utilities from cost risk and guaranteeing their profits and cost recovery and put it all on the backs of their customers for an eight-year term. Ohio's Consumers' Counsel has estimated that the FirstEnergy settlement could cost consumers $3.9 billion over the eight-year duration of the PPA, and the AEP settlement could cost consumers $2 billion.

For Graphic Packaging International, we estimate the additional costs of this new rider to be $5 million over the eight year term of the case. That is real money that could be used on more productive purposes and reinvested in the state of Ohio.

Graphic Packaging International ("GPI") is North America's largest manufacturer of folding cartons and a leading manufacturer of packaging for consumer products. GPI has 7 paperboard mills, 44 converting plants, 3 machinery facilities and 12,000 employees worldwide. GPI employs over 600 team members in our three facilities across the state of Ohio.

If approved by the full PUCO, these deals will put an unnecessary and anti-competitive layer of costs on consumers with no commensurate benefits, constrain competition, and dampen technological innovation in Ohio. In addition, both settlements contain other provisions that will increase costs to consumers.

Ohio has seen resurgence in manufacturing in part to positive electricity markets. These deals impose a massive setback to the growing economy and to Graphic Packaging International's success in Ohio.

Please protect Ohio manufacturers and all consumers in FirstEnergy and AEP territories, the lion's share of the state in terms of utilities, from this substantial bailout/giveaway.

Spencer H. Maurer
Spencer H. Maurer
VP Supply Chain

cc: Governor John Kasich
Senator Coley
Senator Burke
Senator Patton
Representative Pelanda
Representative Derickson
Representative Anielski

1500 Riveredge Parkway NW · Suite 100 · Atlanta GA 30328
Phone: 770-240-7200 · FAX: 770-952-8751

FILE

3

COOPER TIRES

COOPER TIRE & RUBBER COMPANY
701 Lima Avenue • Findlay, OH 45840

THOMAS N. LAUSE
VICE PRESIDENT & TREASURER

(419) 427-4741

January 13, 2016

The Public Utilities Commission of Ohio
180 East Broad Street
Columbus, OH 43215

Subject: Cases 14-1693-EL-RDR (AEP); 14-1297-EL-SSO (First Energy)

To The Public Utilities Commission of Ohio,

Attached is the letter pertaining to Cases 14-1693-EL-RDR (AEP); 14-1297-EL-SSO (First Energy), sent by our CEO, Roy Armes, to key parties and we felt it was appropriate to share this letter with The Public Utilities Commission of Ohio.

Sincerely,

Cooper Tire & Rubber Company

Thomas N. Lause
Vice President & Treasurer

TNL/pmp

Attachment

cc: Anthony Smith
Frank Schrum
Ryan Augsburger

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2016 JAN 15 PM 1:36
PUCO

COOPER TIRES

Cooper Tire & Rubber Company
701 Lima Avenue • Findlay, OH 45840-2315

ROY V. ARMES
CHAIRMAN
CHIEF EXECUTIVE OFFICER
PRESIDENT

Telephone (419) 423 1321
Facsimile (419) 420-6050
Internet www.coopertire.com

January 11, 2016

Office of the Governor
Honorable John Kasich
77 S. High Street – 30th Floor
Columbus, OH 43215

Dear Governor Kasich,

I am writing to urge you to act to prevent the Public Utilities Commission of Ohio from approving the recently negotiated settlements of FirstEnergy and AEP. These settlements will enable the utilities to implement costly Power Purchase Agreement riders (PPAs) and other cost-driving provisions that will make it more difficult for Cooper Tire and other Ohio manufacturers to remain competitive in the global markets. Should the PUCO approve the deals, both FirstEnergy and AEP will be able to collect fees over 8 years from all of their customers to subsidize their uneconomical generation assets, thus protecting these utility companies from cost and risk, and also guaranteeing their profits by requiring customers to reward the utilities with significant profit margins on these otherwise uneconomic assets. Ohio's Consumers' Counsel has estimated that *the FirstEnergy settlement could cost manufacturers and consumers* $3.9 *billion over* the eight-year duration of the PPAs, and the AEP settlement could cost manufacturers and consumers $2 billion. We have estimated the specific impact on Cooper Tire's Ohio operations and it is significant and impactful.

These proposed PPAs *serve only to benefit First Energy and AEP while* severely compromising the competitiveness of all Ohio manufacturers and other businesses who must use these providers for their electricity needs. The PPAs would allow First Energy & AEP to run unproductive and non-competitive operations and then simply pass these costs onto their customers. Even worse, these PPAs would actually allow First Energy & AEP to become less productive and they would simply be able to pass these costs (plus a guaranteed profit margin) on to their customers. Thus while the entire utility deregulation efforts of 16 years ago were meant to enhance productivity within the utility industry, these proposed agreements would actually move the entire state back to an era of uncompetitiveness.

In an industry like the global tire industry, where margins are extremely tight and business is won or lost based on cost competitiveness, forcing our Findlay, Ohio tire plant, our Findlay, Ohio mold manufacturing plant, our Findlay, Ohio technical centers and our Findlay, Ohio corporate headquarters to bear these higher cost burdens adds risk to our business in Ohio and impedes our ability to sustain or grow our operations here. Every day, Cooper Tire competes for business with other American manufacturers and with foreign manufacturers from lower cost parts of the world. Every day, Cooper Tire strives to sustain and improve its cost competiveness through innovation, improved productivity and in some unfortunate cases, staff reductions….all to stay competitive in the global market. And every day, Cooper determines where to allocate its production and resources among its global network of facilities, with cost being a significant factor. To give First Energy & AEP a blank check with these proposed PPAs is fundamentally wrong and a severely incorrect direction for our great state. Approval of these agreements will put Cooper Tire's Ohio facilities at a competitive disadvantage compared to other states, as *electricity costs are a significant* part of our expenses.

The PUCO *is expected to act in early 2016. We respectfully request that you express* your opposition of these PPAs to the PUCO. Cooper Tire would be glad to discuss this issue in more detail so as to provide you with greater context and details if you should so desire. Please feel free to contact me (419-424-4363; rvarmes@coopertire.com) or our General Counsel Steve Zamansky (419-420-6059; szamansky@coopertire.com) if you have any questions or would like to discuss this matter further.

Respectfully yours,

Roy V. Armes
Chairman, Chief Executive Officer & President
Cooper Tire & Rubber Company

RVA/smd

cc: Wayne Struble
Senator Cliff Hite
Representative Robert Sprague

FILE

Summitville

David W. Johnson
President and CEO

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2016 FEB -5 AM 11:34
PUCO

January 19, 2016

Public Utilities Commission of Ohio
180 E Broad Street
Columbus, Ohio 43215

RE: Cases 14-1693-EL-RDR (AEP); 14-1297-EL-SSO (FirstEnergy)

Dear PUCO:

I want to go on record as strongly opposing the recent negotiated settlements that I gather the staff of the PUCO have concluded with First Energy and American Electric Power, at the expense of Ohio's consumers and small to mid-sized companies.

It is my understanding that the First Energy settlement will cost consumers in Ohio an estimated $3.9 Billion over the eight year period of the agreement while the AEP settlement will cost its consumer customers as much as $2 Billion for that same period of time. Meanwhile, these two utility monopolies will be guaranteed a 10.38% return on equity. What a deal…*for the utilities!*

These two utility monopolies have already received billions of dollars in so called "stranded cost recovery" from their customers as part of Ohio's transition to a competitive retail electricity market. This new settlement merely shifts more costs and more risk from utility shareholders to utility customers, *which is patently inconsistent* with the intent of Ohio's electric restructuring law.

As it is, the KWH generation costs that we are absorbing today at Summitville Tiles, Inc. are already some 50% higher than they were just six years ago. The distribution component of our electricity costs have increased by a *staggering* 100% *during the same period of time*. Additionally, we have been socked with three new monthly charges since 2008: the retail stability rider, the deferred asset phase-in rider, and the phase-in recovery rider – utility charges which did not even exist six years ago. Added to this will be these new charges, costing Summitville Tiles tens of thousands of dollars, with no compensating benefits…all the while the *big utilities are raking in excessive, state-guaranteed profits.*

Nobody that I know in business is happy about these "sweet heart" settlements with Ohio's utility monopolies. It is bad for Ohio's business climate, it will make Ohio uncompetitive even with neighboring states, and put a dagger in the heart of everything John Kasich has done to make Ohio strong again. *I urge that the PUCO kill the Power Purchase Agreement Riders.*

Sincerely yours,

David W. Johnson
CEO – Summitville Tiles, Inc.

CC: Governor Kasich
Speaker Rosenberger
Senate President Faber

Summitville Tiles Inc. • Summitville, Ohio 43962
(330) 223-1511 • Fax: (330) 223-1414 • E-mail: dwjohnson@summitville.com

FILE

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2016 FEB -1 PM 2:59
PUCO

January 29, 2016

Public Utilities Commission of Ohio
180 East Broad Street
Columbus, OH 43215

RE: Opposition Comment to PPA Cases 14-1693-EL-RDR; 14-1297-EL-SSO

Dear PUCO:

I am writing to urge you to reject the negotiated settlements of FirstEnergy and AEP (and a small group of others who have negotiated certain benefits) that will enable the utilities to implement costly Power Purchase Agreement (PPA) riders and other cost-driving provisions.

Should the PUCO approve the deals, both utilities will be able to collect costs (via non-bypassable PPA riders) from all of their customers to subsidize their uneconomical generation assets, thus protecting the utilities from cost risk and guaranteeing their profits and cost recovery... At the expense of placing it all on the backs of their customers for an eight-year term.

Ohio's Consumers' Counsel has estimated that the FirstEnergy settlement could cost consumers $3.9 billion over the eight-year duration of the PPA, and the AEP settlement could cost consumers $2 billion.

Our company consumes approximately 2,122,000 kWh/year. We estimate the additional costs of this new rider to be $105,834 over the eight year term of the case. That is real money that could be used on more productive purposes updating our equipment, increasing our inventories and building a new finishing plant for our hardwood flooring products — ALL OF WHICH BRING MORE TAXABLE INCOME TO THE STATE OF OHIO AND INCREASE OUR CONSUMPTION OF ELECTRICITY.

If approved by the full PUCO, these deals will put an unnecessary and anti-competitive layer of costs on consumers with no commensurate benefits, constrain competition, and dampen technological innovation in Ohio. In addition, both settlements contain other provisions that will increase costs to consumers.

These deals are a **massive setback** to the consumer-friendly efficiency of the market.

Please protect Ohio manufacturers and all consumers in FirstEnergy and AEP territories, the lion's share of the state in terms of utilities, from this substantial bailout.

Respectfully,

Barbara Titus

Barbara Titus,
Vice President

15320 Burton-Windsor Road, Middlefield, Ohio 44062
Mailing address: P.O. Box 510, Burton, Ohio 44021
(800) 834-1180 / (440) 834-1710 / Fax (440) 834-9310
www.sheogaflooring.com email: info@sheogaflooring.com

FILE

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2016 FEB -5 AM 11:34
PUCO

January 26, 2016

The Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215

Subject: Cases 14-1693-EL-RDR (AEP); 14-1297-EL-SSO (First Energy)

To The Public Utilities Commission of Ohio,

Attached is an email pertaining to Cases 14-1693-EL-RDR (AEP); 14-1297-EL-SSO, sent by me to key parties and I felt it was appropriate to share this email with The Public Utilities Commission of Ohio.

Sincerely,

William E. Sopko

William E. Sopko,
President

Bill Sopko Sr.

From: [redacted]
Sent: Tuesday, January 26, 2016 3:44 PM
To: Bill Sopko Sr.
Subject: Confirmation of: Utility Bailouts/Giveaways -- Consumer Cost Increases

Please do not reply to this email--this confirmation simply lets you know that your message was sent.

William Sopko, Sr.:

Thank you for *protecting and growing* Ohio manufacturing.

Your message has been sent to the following recipients:

* Governor John Kasich
* Senator Tom Patton
* Senator Kenny Yuko
* Representative Marlene Anielski
* Representative Kent Smith

1-26-16

The content of your message is as follows:

[The message(s) you sent had each recipient's salutation here]:

I love the State of Ohio. I love our Cleveland Browns. I hate the fact First Energy paid BIG money to name Cleveland Stadium and call it good will or "advertising" and then they want "special" treatment with a PPA.

I am writing to urge you to act to prevent the Public Utilities Commission of Ohio from approving the negotiated settlements of FirstEnergy and AEP (and a small group of others who have negotiated certain benefits) that will enable the utilities to implement costly Power Purchase Agreement (PPA) riders and other cost-driving provisions.

Should the PUCO approve the deals, both utilities will be able to collect costs (via non-bypassable PPA riders) from all of their customers to subsidize their uneconomical generation assets, thus protecting the utilities from cost risk and guaranteeing their profits and cost recovery. And put it all on the backs of their customers for an eight-year term.

Ohio's Consumers' Counsel has estimated that the FirstEnergy settlement could cost consumers $3.9 billion over the eight-year duration of the PPA, and the AEP settlement could cost consumers $2 billion.

The PUCO is expected to act in early 2016.

If approved by the full PUCO, these deals will put an unnecessary and anti-competitive layer of costs on consumers with no commensurate benefits, constrain competition, and dampen technological innovation in Ohio. In addition, both settlements contain other provisions that will increase costs to consumers.

The markets for electricity in Ohio are working to the benefit of consumers. These deals are a massive setback to the consumer-friendly efficiency of those markets.

Please protect Ohio manufacturers and all consumers in FirstEnergy and AEP territories, the lion's share of the state in terms of utilities, from this substantial bailout/giveaway.

All of you were elected by the PEOPLE, who like you pay our electric bills, Please don't let these few companies get a special break on our backs !!!!!

Sincerely,

William Sopko Sr.
[Your postal address was included here]

1/26/2016

Everyone is Unhappy
A Report by the Board of the Ohio Consumers' Counsel
January 19, 2016

We now live in the Age of Electricity. In a manner similar to the previous Ages of Mankind, Stone, Bronze, Iron and Industrial, electricity is a key aspect of all our lives. It keeps us warm in the winter (even natural gas furnaces require a blower to distribute the air), makes the latitudes below the 35th parallel north habitable in the summer, and provides the current to keep our communications current. But increasingly all across Ohio, and indeed America, many are unhappy with the electrical system. Consumers, businesses, industrial users and even the investor owned utilities (IOUs) and their shareholders are unhappy.

For the past year, the Governing Board of the Ohio Consumers' Counsel has been looking at the state of the investor-owned utilities' (IOUs) electrical system for serving Ohioans. Nothing has been pre-conceived, and nothing has been off the table. The following report is a starting point for further discussion.

The mood of the country is anything but upbeat right now. And that mood is reflected in how the state of Ohio's investor-owned electrical industry is viewed by customers and by the industry itself and others.

First to the customers: thirty-two states have cheaper electricity for residential consumers than Ohio. Some of these are understandable, such as Washington and Idaho, as they have far more options for less expensive hydroelectric power where the infrastructure was developed and has been paid for decades ago. See Chart 1.

Yet, other states that rely on their fossil fuel resources, like Ohio, manage to have significantly less expensive electricity for their consumers than Ohio. As shown in

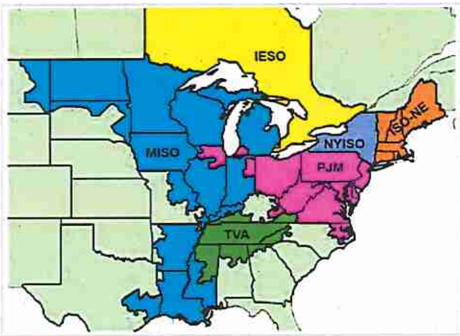
Chart 1, West Virginia's 9.33 cents and Louisiana's 9.49 cents per kilowatt hour (Kwh) are nearly 25 percent less expensive than Ohio's 12.38 average cents/Kwh for consumers.

Some may suggest that pressures to increase the share of electricity generated by renewable sources are responsible for Ohio's higher costs. However, solar and wind generation currently produce less than two percent of Ohio's electricity. Iowa, Colorado and North Dakota are heavily dependent on coal, like Ohio. Those states generate 29 percent, 11.5 percent and 17 percent respectively from wind, solar and related renewable resources, and all have cheaper electricity for consumers than Ohio. (See Copy of EIA-Net Generation by State by Energy Source Summary 2014.xls in the Addendum.)

It is fair to point out that the considerable variation in the electric generation fuel profiles among the states yield interesting data regarding the impact of various fuels. For example, Hawaii's extraordinarily high costs reflect their high import costs for the petroleum and coal on which they depend. And Texas, with its relatively large natural gas resources significantly reducing its need for coal, has costs about 10 percent below Ohio's. See
http://apps1.eere.energy.gov/states/renewable_energy.cfm/state=IA#wind
http://www.puco.ohio.gov/puco/?LinkServID=07FEA955-9818-B02E-9006A6E6834F7BA6#sthash.ZfveQbUM.iKWk6VVX.dpbs

Clearly, factors other than fuel sources and costs affect the prices consumers pay. Some states, such as Texas, operate under a single state regional system. This limits its ability to respond to sudden needs or slowdowns in electrical demand. Ohio, along with all or parts of 12 other states and the District of Columbia, operates under the auspices of PJM Interconnection, L.L.C., a regional transmission organization, combining the various generation capabilities of 32 electric distribution utility companies. Stretching from the Chesapeake Bay to Lake Michigan and the border of

Iowa, PJM's multiple suppliers, differing weather patterns and even time zones should moderate and even-out electrical usage and costs.



So, what is going on here? Let's take a look at Chart 2, which shows the rate of increase of electrical rates in those states that have adopted some form of deregulation. Of all the states, our rate of cost increase stands alone as the highest.

Chart 3 is attached, showing AEP's own data placing Ohio consumers at the highest electric rate and profit for AEP in the states in AEP's territory. Could it be that AEP has Ohioans potentially subsidizing the citizens of other states? What does this mean for Ohio consumers in the near future as these trends continue?

How unhappy are the investor-owned utilities, the IOUs? Seemingly very unhappy; the previous head of FirstEnergy gave a speech a couple of years ago bemoaning the new era he found himself in; longing for the good old days of regulation. It was a full-throated roar for the previous status quo.

https://www.firstenergycorp.com/content/fecorp/newsroom/featured_stories/AJA-Chamber-Speech.html

One quote from Tony Alexander's speech stands out: *"But quite frankly, the challenges we now face from government interference in the electric business are far more intrusive and disruptive, and I believe far more significant to our industry's future, and to your future. That's because whether it impacts our traditional regulated business or our competitive operations, government policy is now aimed at stifling the growth and use of electricity – and picking winners and losers in the competitive marketplace."*

This statement ignores the role technology has played in changing the electrical landscape, and the very structure of the electrical system in America has for over a hundred years had governmental interference, largely at the request of the investor-owned electric utilities. In this regard, Ohio's 2008 energy law (Senate Bill 221) has ratemaking terms that favor electric utilities and disfavor Ohio consumers, resulting in higher electric rates. Remember, it was a hundred years ago that independent generators and distributors would service a city, having lines crisscrossing and zigzagging around town, with costs high and customer satisfaction low. What has been lost is the perspective that the IOUs were formed to have a regulated monopoly and to serve the citizens and their businesses; they were not formed to serve themselves.

The tradeoffs for the electric utilities involved the granting of a monopoly subject to economic regulation, with a set return for profit on investments, and the duty to serve consumers. There has been no free market for electricity in America for over a hundred years. If the utilities were really free market companies they would be seeking to open up territories for distribution competition; they are not. Even in Ohio, in a modestly free market environment, that option has never been on the table.

But what is the free market saying about the investor-owned electric utilities and their service to consumers? In a famous article in the Wall Street Journal it forecast the utilities marching toward a "Death Spiral" that once begun, like the event horizon surrounding a black hole, cannot be escaped.

What is this death spiral? In short, current costs are spread around throughout the whole electrical system. Utilities have incurred debt to finance very expensive generating plants, wires, poles, transformers and the like to create and move electrons. As Einstein did, let's play an imaginative mind game. Just pretend that residents and companies that comprise the service territory of an investor-owned electrical company decide one morning to institute efficiencies and other subtle changes. Everyone trades in incandescent light bulbs for LEDs. In 2012, about 49 million LEDs were installed in the U.S., saving about $675 million in annual energy costs. If everyone changed to LEDs over the next two decades, this could save the U.S. $250 billion in energy costs and reduce electric consumption for lighting by nearly 50%. Now multiply that by the commercial and industrial sector looking for cost savings. (Industry, commercial and residential uses all tend to cluster at about a third each.) http://apps1.eere.energy.gov/states/electricity_generation.cfm/state=OH

This will put more pressure on the utilities to raise their rates to consumers, so they have the income to pay debt. In turn this means more push by consumers for cost savings. If this continues, and as a variation of Moore's Law applies to renewable energy technology costs, more companies and then consumers begin to engage in distributed generation, either through solar cells, wind, waste heat recovery or on site natural gas driven generation combined with various forms of new electric storage technologies. As less electricity is used, then of course the price goes up for the remaining customers to pay for already incurred fixed costs. At some point in time, according to speculation by some industry watchers, the IOUs might not be able

to keep up, and go into the aforementioned death spiral, of higher prices driving more users to alternative means. The electric grid could be placed under considerable stress; this is not a good thing as those lowest on the economic food chain will be the last and least able to adapt.

Forbes Magazine has covered this story http://www.forbes.com/sites/jeffmcmahon/2014/02/04/utilities-want-regulatory-rescue-from-death-spiral/ , and Morning Star Investments has issued warnings to investors to be cautious with many electric IOUs. http://www.morningstar.com/cover/videocenter.aspx?id=641194

However, there is not universal acclaim for the death spiral theory http://www.forbes.com/sites/jeffmcmahon/2014/02/04/utilities-want-regulatory-rescue-from-death-spiral/ The claim can be made that the industry has faced changes before, as in the replacement of natural gas street lamps with electric street lights almost a century ago. But, at least for Ohio, this overlooks the fact that natural gas is surprisingly non-fungible; it can only be moved through a rather limited number of pipelines. Currently, and projected for a generation to come, Ohio will be producing much more natural gas than needed. While some environmentalists view the idea of a sea of solar panels bringing the investor-owned utilities to bankruptcy as a golden era, it is much more likely that in the near term, on-site generation, especially during peak times, by natural gas powered generators and capturing waste heat is the more likely scenario.

As a result of this uncertainty, the investor-owned electric utilities are experiencing drops in stock prices. http://money.cnn.com/data/markets/dowutil/

This decline in stock price makes it more difficult for IOUs to gain financing for changes and reforms. In turn, the IOUs are seeking bail-outs subsidized by consumers, or to paraphrase Milton Freidman, "rent seeking," through devices such as power purchase agreements, or PPAs. This rent seeking leads to increasing their wealth but without increasing the GDP. That is, the electric utilities are taking money from the consumer by seeking various schemes at the PUCO to increase their solvency in the short term (including by asking government to layer regulatory charges above market prices). Perhaps the utilities do this under the belief there is no long term in their industry. Whether or not that belief is founded, it is, in the words of one industry watcher from the fossil fuel industry, the "eight hundred pound gorilla in the room no one wants to talk about."

So what to do? Consumers have grounds to be unhappy, commerce and business have grounds to be unhappy, and utility executives and stockholders have grounds to be unhappy. In fact, they all might have grounds to be very unhappy in the future, if some analysts are correct and the IOUs plunge into a death spiral.

Where is the Governor's office? It seems to be watching the trends carefully, but making no sudden moves.

Where is the General Assembly? Growing increasingly concerned, but unsure of what is actually happening and who the main actors are, or villains, or heroes, if any, and at the urging of IOU lobbyists, going after the renewable industry, which is a minor player in this kabuki dance.

In addition, there are now a variety of energy marketers and other free market energy jobbers who are jabbing at the IOUs, sometimes offering electrons to consumers for less money, and undercutting the business model that stood for a hundred years. "Smart metering" is on the horizon where various technologies may have an impact on demand.

So, why can't this problem be fixed readily?

Much of the problem is perceptual blindness. In short, this just can't be happening.

The story goes that when Captain Cook arrived on the shores of Australia in 1770, the natives simply could not see the ship anchored in the bay. The ship was so far removed from their understanding, it was not until a shaman, by pointing at the ship's reflection on the water, created a situation where the Aborigines could look up and actually see the vessel.

This is called perceptual blindness. It occurs when what is happening in front of people is so outside their realm of everyday life and possibility, that they simply reject it.

Perceptual blindness is happening right now regarding the investor-owned electric utilities.

So how to fix it, including for consumers? First, there has to be a recognition of a problem; the problem is how we currently regulate this industry. There can be no other explanation as to why consumers' electric costs are so very high when compared to all the gifts Ohio has inherited.

How to get to a solution? Unfortunately the best tool in this case is yet another task force, but this time, the mere creation of it is an affirmation of the existence of the problem. In Ohio, this is progress.

How much time do we have? Experts believe the system will start to show serious stresses by 2017, 2018 by the latest, so time is of the essence.

Either we can take action or consumers will end up about as well off as the Aborigines did after Cook sailed to Australia.

The proposed task force will not directly fix anything, but it will begin the process to get everyone to the table to at least admit there is a problem, and the problem should be solved jointly.

SECTION 1. (A) There is hereby created the Legislative Task Force to Study Reforms in Electric Utility Law in the State. The Task Force shall consist of the following fifteen members:

(1) Three members of the House of Representatives, appointed by the Speaker of the House of Representatives in consultation with the Minority Leader of the House of Representatives. The Speaker of the House of Representatives shall designate one of the members the Speaker appoints to serve as co-chairperson of the Task Force.

(2) Three members of the Senate, appointed by the President of the Senate in consultation with the Minority Leader of the Senate. The President of the Senate shall designate one of the members the President appoints to serve as co-chairperson of the Task Force.

(3) The Chair of the Public Utilities Commission of Ohio;

(4) One member representing the agricultural industry in the state appointed by the Speaker of the House;

(5) One member representing large utility users appointed by the President of the Senate;

(6) One member representing electric utilities in the state, appointed by the Governor;

(7) One member representing the publicly owned utilities in the state, appointed by the Governor;

(10) One member who shall be a professor who is knowledgeable on the issues confronting the Task Force, appointed by the Chancellor of the Board of Regents;

(11) The Ohio Consumers' Counsel;

(12) The Director of the Development Services Agency or the Director's designee;

(13) One member representing the Attorney General of Ohio;

(B) Appointments to the Task Force shall be made not later than thirty days after the effective date of this section. Any vacancy in the membership of the Task Force shall be filled in the same manner as the original appointment. Members of the Task Force shall serve without compensation.

(C)(1) The Task Force shall study each of the following:

(a) The current state of electric utility law in Ohio and any reforms needed;

(b) How the changes in technology have impacted electric consumers and electric utilities for serving the public good in Ohio and to consider reforms if needed;

(c) The overall impact of state laws governing the electric utilities on economic development, consumers, and governments in Ohio.

(2) The Task Force shall prepare and submit to the General Assembly

by not later than December 15, 2016, a report that shall include the findings of its study and recommendations concerning electric utilities and electric utility consumers in Ohio. On submission of the report due not later than December 15, 2016, the Task Force shall cease to exist.

(D) The Legislative Service Commission shall provide any technical, professional, and clerical employees that are necessary for the Task Force to perform its duties.

(E) All meetings of the Task Force are declared to be public meetings open to the public at all times. A member of the Task Force shall be present in person at a meeting that is open to the public in order to be considered present or to vote at the meeting and for the purposes of determining whether a quorum is present. The Task Force shall promptly prepare and maintain the minutes of its meetings, which shall be public records under section 149.43 of the Revised Code. The Task Force shall give reasonable notice of its meetings so that any person may determine the time and place of all scheduled meetings. The Task Force shall not hold a meeting unless it gives at least three days of advance notification to the news media organizations and others that have requested such notification.

Chart 1

2014 RESIDENTIAL ELECTRIC RATES by STATE

	State	December 2014 YTD Cents/Kwh		State	December 2014 YTD Cents/Kwh
1	Washington	8.71	27	Arizona	11.98
2	North Dakota	9.25	28	Kansas	12.13
3	West Virginia	9.33	29	Minnesota	12.14
4	Arkansas	9.49	30	Colorado	12.18
5	Louisiana	9.49	31	South Carolina	12.27
6	Idaho	9.76	32	New Mexico	12.33
7	Oklahoma	9.96	33	Ohio	12.39
8	Kentucky	10.05	34	Dist. of Columbia	12.78
9	Montana	10.26	35	Nevada	12.88
10	Tennessee	10.33	36	Pennsylvania	13.34
11	Nebraska	10.44	37	Delaware	13.37
12	Oregon	10.47	38	Maryland	13.62
13	South Dakota	10.51	39	Wisconsin	13.89
14	Wyoming	10.53	40	Michigan	14.50
15	Missouri	10.59	41	Maine	15.32
16	Utah	10.73	42	New Jersey	15.80
17	North Carolina	11.12	43	California	16.29
18	Virginia	11.19	44	Massachusetts	17.40
19	Indiana	11.25	45	Vermont	17.50
20	Iowa	11.35	46	New Hampshire	17.54
21	Mississippi	11.37	47	Rhode Island	17.56
22	Illinois	11.41	48	Alaska	19.31
23	Alabama	11.52	49	Connecticut	19.59
24	Georgia	11.57	50	New York	20.05
25	Texas	11.82	51	Hawaii	37.34
26	Florida	11.98		U.S. Total	12.50

Source: U.S. Energy Information Administration (EIA Table 5.6.B. Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, by State, Year-to-Date through December 2014 (Cents per Kilowatthour)

Chart 2

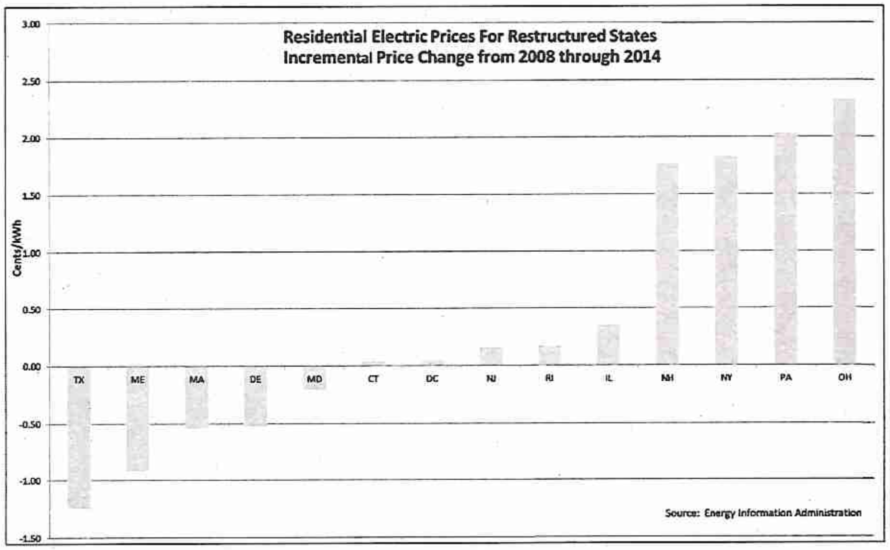
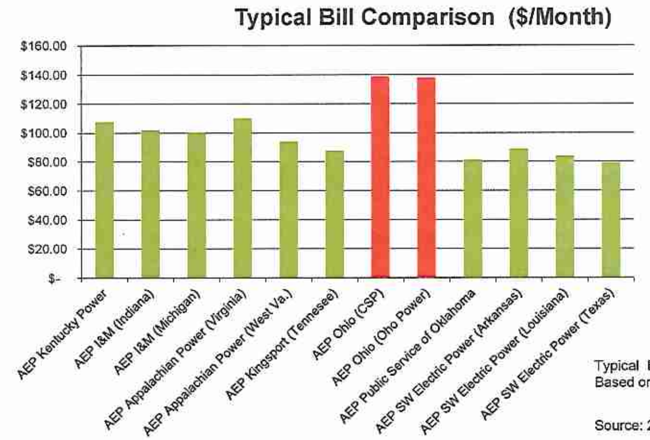


Chart 3

AEP Companies
Typical Bill Comparison

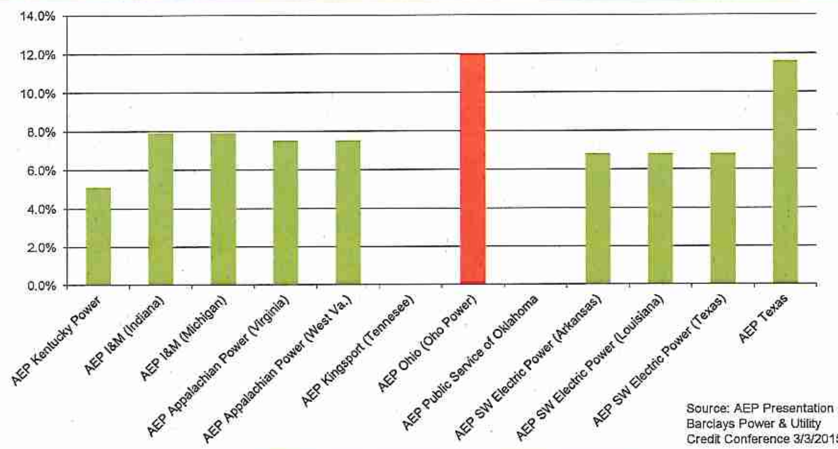


Typical Bills are displayed in $/month,
Based on 1,000 kWh usage.

Source: 2014 AEP Fact Book

AEP Companies

2014 Return On Equity (Profit)



Source: AEP Presentation at Barclays Power & Utility Credit Conference 3/3/2015

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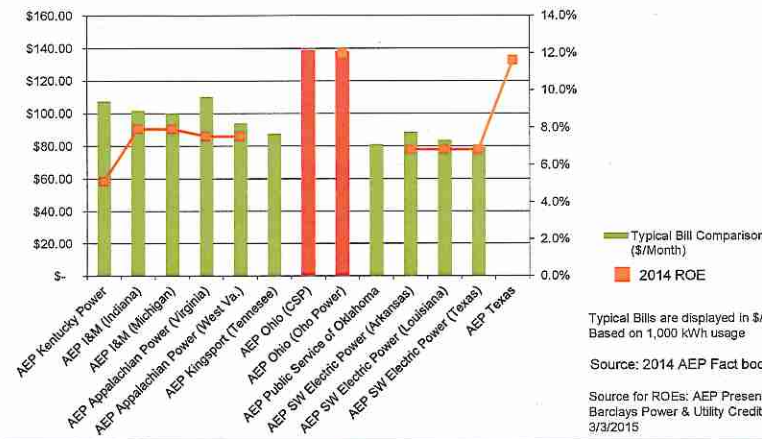
AEP Typical Bill Comparison

VS

Return On Equity (Profit)



Typical Bills are displayed in $/month, Based on 1,000 kWh usage

Source: 2014 AEP Fact book

Source for ROEs: AEP Presentation at Barclays Power & Utility Credit Conference 3/3/2015

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Pro-forma 2015 Regulated ROE's

Expected Earned ROE's (Operating Earnings*)

Expected Regulated Operations ROE of 9.5%
Pro-forma 2015

* *operating adjusts GAAP results by eliminating any material non operating items and is not weather normalized*

Source: 2015 Evercore ISI Utility CEO Retreat, Palm Beach, FL Jan. 8-9, 2015

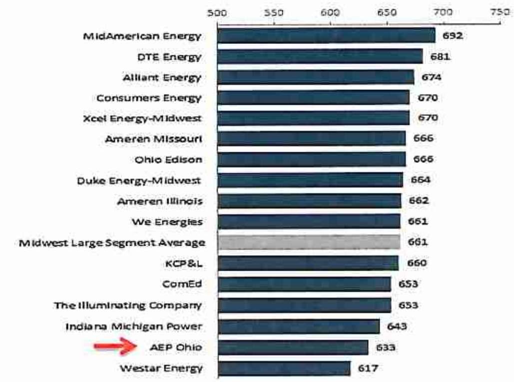
Consumer Satisfaction Survey

J.D. Power

2015 Electric Utility Residential Customer Satisfaction Study[SM]

Midwest Region: Large Segment
Customer Satisfaction Index Ranking

(Based on a 1,000-point scale)



Source: J.D. Power 2015 Electric Utility Residential Customer Satisfaction Study[SM]

Charts and graphs extracted from this press release for use by the media must be accompanied by a statement identifying J.D. Power as the publisher and the study from which it originated as the source. Rankings are based on numerical scores, and not necessarily on statistical significance. No advertising or other promotional use can be made of the information in this release or J.D. Power survey results without the express prior written consent of J.D. Power.

EIA-Net Generation by State, Type of Producer and Energy Source

State Historical Tables for 2014
Released: October 2015 (Revised: November 2015)
Next Update: November 2016

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	AK	Total Electric Power Industry	Total	6,042,830	
2014	AK	Total Electric Power Industry	Coal	558,292	9.2%
2014	AK	Total Electric Power Industry	Hydroelectric Conventional	1,538,738	25.5%
2014	AK	Total Electric Power Industry	Natural Gas	3,288,022	54.4%
2014	AK	Total Electric Power Industry	Other	-2,313	0.0%
2014	AK	Total Electric Power Industry	Petroleum	445,621	7.4%
2014	AK	Total Electric Power Industry	Other Biomass	62,512	1.0%
2014	AK	Total Electric Power Industry	Wind	151,957	2.5%
2014	AK	Total Electric Power Industry	Wood and Wood Derived Fuels	0	0.0%
2014	AL	Total Electric Power Industry	Total	149,340,447	
2014	AL	Total Electric Power Industry	Coal	47,301,626	31.7%
2014	AL	Total Electric Power Industry	Hydroelectric Conventional	9,466,872	6.3%
2014	AL	Total Electric Power Industry	Natural Gas	48,270,074	32.3%
2014	AL	Total Electric Power Industry	Nuclear	41,243,689	27.6%
2014	AL	Total Electric Power Industry	Other Gases	180,403	0.1%
2014	AL	Total Electric Power Industry	Other	661	0.0%
2014	AL	Total Electric Power Industry	Petroleum	98,100	0.1%
2014	AL	Total Electric Power Industry	Other Biomass	46,937	0.0%
2014	AL	Total Electric Power Industry	Wood and Wood Derived Fuels	2,732,084	1.8%
2014	AR	Total Electric Power Industry	Total	61,592,137	
2014	AR	Total Electric Power Industry	Coal	33,220,755	53.9%
2014	AR	Total Electric Power Industry	Pumped Storage	67,070	0.1%
2014	AR	Total Electric Power Industry	Hydroelectric Conventional	2,639,776	4.3%
2014	AR	Total Electric Power Industry	Natural Gas	9,613,708	15.6%
2014	AR	Total Electric Power Industry	Nuclear	14,478,259	23.5%
2014	AR	Total Electric Power Industry	Other	13,078	0.0%
2014	AR	Total Electric Power Industry	Petroleum	29,274	0.0%
2014	AR	Total Electric Power Industry	Other Biomass	102,274	0.2%
2014	AR	Total Electric Power Industry	Wood and Wood Derived Fuels	1,427,943	2.3%
2014	AZ	Total Electric Power Industry	Total	112,257,187	
2014	AZ	Total Electric Power Industry	Coal	42,665,011	38.0%

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EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	AZ	Total Electric Power Industry	Pumped Storage	13,892	0.0%
2014	AZ	Total Electric Power Industry	Hydroelectric Conventional	6,118,261	5.5%
2014	AZ	Total Electric Power Industry	Natural Gas	27,241,879	24.3%
2014	AZ	Total Electric Power Industry	Nuclear	32,320,917	28.8%
2014	AZ	Total Electric Power Industry	Other	0	0.0%
2014	AZ	Total Electric Power Industry	Petroleum	56,862	0.1%
2014	AZ	Total Electric Power Industry	Solar Thermal and Photovoltaic	3,141,508	2.8%
2014	AZ	Total Electric Power Industry	Other Biomass	61,053	0.1%
2014	AZ	Total Electric Power Industry	Wind	468,115	0.4%
2014	AZ	Total Electric Power Industry	Wood and Wood Derived Fuels	169,690	0.2%
2014	CA	Total Electric Power Industry	Total	198,807,622	
2014	CA	Total Electric Power Industry	Coal	804,760	0.4%
2014	CA	Total Electric Power Industry	Geothermal	12,101,728	6.1%
2014	CA	Total Electric Power Industry	Pumped Storage	-104,740	-0.1%
2014	CA	Total Electric Power Industry	Hydroelectric Conventional	16,531,340	8.3%
2014	CA	Total Electric Power Industry	Natural Gas	120,426,435	60.6%
2014	CA	Total Electric Power Industry	Nuclear	16,985,978	8.5%
2014	CA	Total Electric Power Industry	Other Gases	1,332,951	0.7%
2014	CA	Total Electric Power Industry	Other	847,835	0.4%
2014	CA	Total Electric Power Industry	Petroleum	66,305	0.0%
2014	CA	Total Electric Power Industry	Solar Thermal and Photovoltaic	9,931,815	5.0%
2014	CA	Total Electric Power Industry	Other Biomass	2,913,292	1.5%
2014	CA	Total Electric Power Industry	Wind	12,992,498	6.5%
2014	CA	Total Electric Power Industry	Wood and Wood Derived Fuels	3,977,425	2.0%
2014	CO	Total Electric Power Industry	Total	53,847,386	
2014	CO	Total Electric Power Industry	Coal	32,544,849	60.4%
2014	CO	Total Electric Power Industry	Pumped Storage	-225,264	-0.4%
2014	CO	Total Electric Power Industry	Hydroelectric Conventional	1,769,801	3.3%
2014	CO	Total Electric Power Industry	Natural Gas	11,953,808	22.2%
2014	CO	Total Electric Power Industry	Other	46,874	0.1%
2014	CO	Total Electric Power Industry	Petroleum	9,932	0.0%
2014	CO	Total Electric Power Industry	Solar Thermal and Photovoltaic	253,065	0.5%
2014	CO	Total Electric Power Industry	Other Biomass	79,074	0.1%
2014	CO	Total Electric Power Industry	Wind	7,368,614	13.7%
2014	CO	Total Electric Power Industry	Wood and Wood Derived Fuels	46,633	0.1%

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EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	CT	Total Electric Power Industry	Total	33,676,980	
2014	CT	Total Electric Power Industry	Coal	824,948	2.4%
2014	CT	Total Electric Power Industry	Pumped Storage	6,782	0.0%
2014	CT	Total Electric Power Industry	Hydroelectric Conventional	433,960	1.3%
2014	CT	Total Electric Power Industry	Natural Gas	14,683,905	43.6%
2014	CT	Total Electric Power Industry	Nuclear	15,840,619	47.0%
2014	CT	Total Electric Power Industry	Other	604,506	1.8%
2014	CT	Total Electric Power Industry	Petroleum	513,414	1.5%
2014	CT	Total Electric Power Industry	Solar Thermal and Photovoltaic	11,706	0.0%
2014	CT	Total Electric Power Industry	Other Biomass	650,102	1.9%
2014	CT	Total Electric Power Industry	Wood and Wood Derived Fuels	107,038	0.3%
2014	DC	Total Electric Power Industry	Total	67,612	
2014	DC	Total Electric Power Industry	Natural Gas	67,612	100.0%
2014	DC	Total Electric Power Industry	Petroleum	0	0.0%
2014	DE	Total Electric Power Industry	Total	7,703,584	
2014	DE	Total Electric Power Industry	Coal	865,384	11.2%
2014	DE	Total Electric Power Industry	Natural Gas	6,297,458	81.7%
2014	DE	Total Electric Power Industry	Other Gases	226,379	2.9%
2014	DE	Total Electric Power Industry	Petroleum	183,282	2.4%
2014	DE	Total Electric Power Industry	Solar Thermal and Photovoltaic	49,530	0.6%
2014	DE	Total Electric Power Industry	Other Biomass	76,499	1.0%
2014	DE	Total Electric Power Industry	Wind	5,051	0.1%
2014	FL	Total Electric Power Industry	Total	230,015,937	
2014	FL	Total Electric Power Industry	Coal	52,053,689	22.6%
2014	FL	Total Electric Power Industry	Hydroelectric Conventional	211,388	0.1%
2014	FL	Total Electric Power Industry	Natural Gas	140,034,070	60.9%
2014	FL	Total Electric Power Industry	Nuclear	27,868,270	12.1%
2014	FL	Total Electric Power Industry	Other Gases	6,669	0.0%
2014	FL	Total Electric Power Industry	Other	2,890,816	1.3%
2014	FL	Total Electric Power Industry	Petroleum	1,877,927	0.8%
2014	FL	Total Electric Power Industry	Solar Thermal and Photovoltaic	241,684	0.1%
2014	FL	Total Electric Power Industry	Other Biomass	2,291,816	1.0%
2014	FL	Total Electric Power Industry	Wood and Wood Derived Fuels	2,539,608	1.1%
2014	GA	Total Electric Power Industry	Total	125,837,224	

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EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	GA	Total Electric Power Industry	Coal	45,295,113	36.0%
2014	GA	Total Electric Power Industry	Pumped Storage	-780,633	-0.6%
2014	GA	Total Electric Power Industry	Hydroelectric Conventional	3,064,347	2.4%
2014	GA	Total Electric Power Industry	Natural Gas	40,960,798	32.6%
2014	GA	Total Electric Power Industry	Nuclear	32,570,182	25.9%
2014	GA	Total Electric Power Industry	Other	66,997	0.1%
2014	GA	Total Electric Power Industry	Petroleum	377,810	0.3%
2014	GA	Total Electric Power Industry	Solar Thermal and Photovoltaic	119,227	0.1%
2014	GA	Total Electric Power Industry	Other Biomass	413,496	0.3%
2014	GA	Total Electric Power Industry	Wood and Wood Derived Fuels	3,749,886	3.0%
2014	HI	Total Electric Power Industry	Total	10,204,158	
2014	HI	Total Electric Power Industry	Coal	1,511,184	14.8%
2014	HI	Total Electric Power Industry	Geothermal	253,841	2.5%
2014	HI	Total Electric Power Industry	Hydroelectric Conventional	94,083	0.9%
2014	HI	Total Electric Power Industry	Other Gases	62,204	0.6%
2014	HI	Total Electric Power Industry	Other	405,019	4.0%
2014	HI	Total Electric Power Industry	Petroleum	6,925,919	67.9%
2014	HI	Total Electric Power Industry	Solar Thermal and Photovoltaic	39,262	0.4%
2014	HI	Total Electric Power Industry	Other Biomass	334,030	3.3%
2014	HI	Total Electric Power Industry	Wind	578,617	5.7%
2014	IA	Total Electric Power Industry	Total	56,853,282	
2014	IA	Total Electric Power Industry	Coal	33,732,765	59.3%
2014	IA	Total Electric Power Industry	Hydroelectric Conventional	878,605	1.5%
2014	IA	Total Electric Power Industry	Natural Gas	1,372,515	2.4%
2014	IA	Total Electric Power Industry	Nuclear	4,152,468	7.3%
2014	IA	Total Electric Power Industry	Other	0	0.0%
2014	IA	Total Electric Power Industry	Petroleum	143,929	0.3%
2014	IA	Total Electric Power Industry	Other Biomass	264,470	0.5%
2014	IA	Total Electric Power Industry	Wind	16,306,755	28.7%
2014	IA	Total Electric Power Industry	Wood and Wood Derived Fuels	1,776	0.0%
2014	ID	Total Electric Power Industry	Total	15,184,417	
2014	ID	Total Electric Power Industry	Coal	77,671	0.5%
2014	ID	Total Electric Power Industry	Geothermal	78,799	0.5%
2014	ID	Total Electric Power Industry	Hydroelectric Conventional	9,002,210	59.3%
2014	ID	Total Electric Power Industry	Natural Gas	2,552,538	16.8%

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EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	ID	Total Electric Power Industry	Other	74,878	0.5%
2014	ID	Total Electric Power Industry	Petroleum	1	0.0%
2014	ID	Total Electric Power Industry	Other Biomass	175,414	1.2%
2014	ID	Total Electric Power Industry	Wind	2,805,800	18.5%
2014	ID	Total Electric Power Industry	Wood and Wood Derived Fuels	417,105	2.7%
2014	IL	Total Electric Power Industry	Total	202,143,878	
2014	IL	Total Electric Power Industry	Coal	87,282,390	43.2%
2014	IL	Total Electric Power Industry	Hydroelectric Conventional	132,298	0.1%
2014	IL	Total Electric Power Industry	Natural Gas	5,465,425	2.7%
2014	IL	Total Electric Power Industry	Nuclear	97,857,900	48.4%
2014	IL	Total Electric Power Industry	Other Gases	338,093	0.2%
2014	IL	Total Electric Power Industry	Other	281,632	0.1%
2014	IL	Total Electric Power Industry	Petroleum	86,756	0.0%
2014	IL	Total Electric Power Industry	Solar Thermal and Photovoltaic	50,117	0.0%
2014	IL	Total Electric Power Industry	Other Biomass	566,372	0.3%
2014	IL	Total Electric Power Industry	Wind	10,082,894	5.0%
2014	IL	Total Electric Power Industry	Wood and Wood Derived Fuels	0	0.0%
2014	IN	Total Electric Power Industry	Total	115,395,392	
2014	IN	Total Electric Power Industry	Coal	97,548,739	84.5%
2014	IN	Total Electric Power Industry	Hydroelectric Conventional	371,153	0.3%
2014	IN	Total Electric Power Industry	Natural Gas	9,572,346	8.3%
2014	IN	Total Electric Power Industry	Other Gases	2,161,219	1.9%
2014	IN	Total Electric Power Industry	Other	390,684	0.3%
2014	IN	Total Electric Power Industry	Petroleum	1,362,544	1.2%
2014	IN	Total Electric Power Industry	Solar Thermal and Photovoltaic	102,127	0.1%
2014	IN	Total Electric Power Industry	Other Biomass	390,539	0.3%
2014	IN	Total Electric Power Industry	Wind	3,496,042	3.0%
2014	IN	Total Electric Power Industry	Wood and Wood Derived Fuels	0	0.0%
2014	KS	Total Electric Power Industry	Total	49,728,363	
2014	KS	Total Electric Power Industry	Coal	28,752,282	57.8%
2014	KS	Total Electric Power Industry	Hydroelectric Conventional	16,214	0.0%
2014	KS	Total Electric Power Industry	Natural Gas	1,452,523	2.9%
2014	KS	Total Electric Power Industry	Nuclear	8,558,384	17.2%
2014	KS	Total Electric Power Industry	Other	1	0.0%
2014	KS	Total Electric Power Industry	Petroleum	44,881	0.1%

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EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	KS	Total Electric Power Industry	Other Biomass	59,217	0.1%
2014	KS	Total Electric Power Industry	Wind	10,844,861	21.8%
2014	KY	Total Electric Power Industry	Total	90,896,435	
2014	KY	Total Electric Power Industry	Coal	83,601,961	92.0%
2014	KY	Total Electric Power Industry	Hydroelectric Conventional	3,143,567	3.5%
2014	KY	Total Electric Power Industry	Natural Gas	2,499,599	2.7%
2014	KY	Total Electric Power Industry	Other	49,941	0.1%
2014	KY	Total Electric Power Industry	Petroleum	1,153,377	1.3%
2014	KY	Total Electric Power Industry	Other Biomass	93,534	0.1%
2014	KY	Total Electric Power Industry	Wood and Wood Derived Fuels	354,455	0.4%
2014	LA	Total Electric Power Industry	Total	104,229,402	
2014	LA	Total Electric Power Industry	Coal	19,221,019	18.4%
2014	LA	Total Electric Power Industry	Hydroelectric Conventional	1,090,038	1.0%
2014	LA	Total Electric Power Industry	Natural Gas	56,120,564	53.8%
2014	LA	Total Electric Power Industry	Nuclear	17,311,330	16.6%
2014	LA	Total Electric Power Industry	Other Gases	1,942,575	1.9%
2014	LA	Total Electric Power Industry	Other	533,197	0.5%
2014	LA	Total Electric Power Industry	Petroleum	5,231,074	5.0%
2014	LA	Total Electric Power Industry	Other Biomass	93,877	0.1%
2014	LA	Total Electric Power Industry	Wood and Wood Derived Fuels	2,685,727	2.6%
2014	MA	Total Electric Power Industry	Total	31,118,591	
2014	MA	Total Electric Power Industry	Coal	2,794,889	9.0%
2014	MA	Total Electric Power Industry	Pumped Storage	-458,158	-1.5%
2014	MA	Total Electric Power Industry	Hydroelectric Conventional	902,077	2.9%
2014	MA	Total Electric Power Industry	Natural Gas	18,497,715	59.4%
2014	MA	Total Electric Power Industry	Nuclear	5,769,154	18.5%
2014	MA	Total Electric Power Industry	Other	878,130	2.8%
2014	MA	Total Electric Power Industry	Petroleum	1,004,834	3.2%
2014	MA	Total Electric Power Industry	Solar Thermal and Photovoltaic	306,321	1.0%
2014	MA	Total Electric Power Industry	Other Biomass	1,073,422	3.4%
2014	MA	Total Electric Power Industry	Wind	224,971	0.7%
2014	MA	Total Electric Power Industry	Wood and Wood Derived Fuels	125,237	0.4%
2014	MD	Total Electric Power Industry	Total	37,833,652	
2014	MD	Total Electric Power Industry	Coal	17,603,291	46.5%

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EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	MD	Total Electric Power Industry	Hydroelectric Conventional	1,615,523	4.3%
2014	MD	Total Electric Power Industry	Natural Gas	2,505,890	6.6%
2014	MD	Total Electric Power Industry	Nuclear	14,343,334	37.9%
2014	MD	Total Electric Power Industry	Other	313,284	0.8%
2014	MD	Total Electric Power Industry	Petroleum	463,456	1.2%
2014	MD	Total Electric Power Industry	Solar Thermal and Photovoltaic	98,118	0.3%
2014	MD	Total Electric Power Industry	Other Biomass	416,719	1.1%
2014	MD	Total Electric Power Industry	Wind	323,612	0.9%
2014	MD	Total Electric Power Industry	Wood and Wood Derived Fuels	150,426	0.4%
2014	ME	Total Electric Power Industry	Total	13,248,710	
2014	ME	Total Electric Power Industry	Coal	79,104	0.6%
2014	ME	Total Electric Power Industry	Hydroelectric Conventional	3,623,249	27.3%
2014	ME	Total Electric Power Industry	Natural Gas	4,344,381	32.8%
2014	ME	Total Electric Power Industry	Other	405,129	3.1%
2014	ME	Total Electric Power Industry	Petroleum	305,132	2.3%
2014	ME	Total Electric Power Industry	Other Biomass	205,386	1.6%
2014	ME	Total Electric Power Industry	Wind	1,097,329	8.3%
2014	ME	Total Electric Power Industry	Wood and Wood Derived Fuels	3,189,000	24.1%
2014	MI	Total Electric Power Industry	Total	106,816,991	
2014	MI	Total Electric Power Industry	Coal	52,899,844	49.5%
2014	MI	Total Electric Power Industry	Pumped Storage	-700,889	-0.7%
2014	MI	Total Electric Power Industry	Hydroelectric Conventional	1,600,022	1.5%
2014	MI	Total Electric Power Industry	Natural Gas	12,522,837	11.7%
2014	MI	Total Electric Power Industry	Nuclear	31,245,848	29.3%
2014	MI	Total Electric Power Industry	Other Gases	1,119,846	1.0%
2014	MI	Total Electric Power Industry	Other	403,801	0.4%
2014	MI	Total Electric Power Industry	Petroleum	1,051,330	1.0%
2014	MI	Total Electric Power Industry	Other Biomass	1,055,106	1.0%
2014	MI	Total Electric Power Industry	Wind	3,868,118	3.6%
2014	MI	Total Electric Power Industry	Wood and Wood Derived Fuels	1,751,129	1.6%
2014	MN	Total Electric Power Industry	Total	56,998,330	
2014	MN	Total Electric Power Industry	Coal	27,956,679	49.0%
2014	MN	Total Electric Power Industry	Hydroelectric Conventional	548,488	1.0%
2014	MN	Total Electric Power Industry	Natural Gas	3,869,633	6.8%
2014	MN	Total Electric Power Industry	Nuclear	12,707,166	22.3%

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EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	MN	Total Electric Power Industry	Other	396,987	0.7%
2014	MN	Total Electric Power Industry	Petroleum	62,536	0.1%
2014	MN	Total Electric Power Industry	Solar Thermal and Photovoltaic	2,653	0.0%
2014	MN	Total Electric Power Industry	Other Biomass	614,241	1.1%
2014	MN	Total Electric Power Industry	Wind	9,691,019	17.0%
2014	MN	Total Electric Power Industry	Wood and Wood Derived Fuels	1,148,927	2.0%
2014	MO	Total Electric Power Industry	Total	87,834,468	
2014	MO	Total Electric Power Industry	Coal	72,409,212	82.4%
2014	MO	Total Electric Power Industry	Pumped Storage	18,853	0.0%
2014	MO	Total Electric Power Industry	Hydroelectric Conventional	697,336	0.8%
2014	MO	Total Electric Power Industry	Natural Gas	4,044,294	4.6%
2014	MO	Total Electric Power Industry	Nuclear	9,276,356	10.6%
2014	MO	Total Electric Power Industry	Other	26,315	0.0%
2014	MO	Total Electric Power Industry	Petroleum	106,655	0.1%
2014	MO	Total Electric Power Industry	Solar Thermal and Photovoltaic	8,707	0.0%
2014	MO	Total Electric Power Industry	Other Biomass	83,226	0.1%
2014	MO	Total Electric Power Industry	Wind	1,131,105	1.3%
2014	MO	Total Electric Power Industry	Wood and Wood Derived Fuels	32,409	0.0%
2014	MS	Total Electric Power Industry	Total	55,127,092	
2014	MS	Total Electric Power Industry	Coal	10,742,566	19.5%
2014	MS	Total Electric Power Industry	Natural Gas	32,605,949	59.1%
2014	MS	Total Electric Power Industry	Nuclear	10,252,183	18.6%
2014	MS	Total Electric Power Industry	Other	4,344	0.0%
2014	MS	Total Electric Power Industry	Petroleum	14,101	0.0%
2014	MS	Total Electric Power Industry	Other Biomass	17,345	0.0%
2014	MS	Total Electric Power Industry	Wood and Wood Derived Fuels	1,490,603	2.7%
2014	MT	Total Electric Power Industry	Total	30,257,616	
2014	MT	Total Electric Power Industry	Coal	15,579,415	51.5%
2014	MT	Total Electric Power Industry	Hydroelectric Conventional	11,482,751	37.9%
2014	MT	Total Electric Power Industry	Natural Gas	515,454	1.7%
2014	MT	Total Electric Power Industry	Other Gases	10	0.0%
2014	MT	Total Electric Power Industry	Other	264,814	0.9%
2014	MT	Total Electric Power Industry	Petroleum	428,369	1.4%
2014	MT	Total Electric Power Industry	Wind	1,973,794	6.5%
2014	MT	Total Electric Power Industry	Wood and Wood Derived Fuels	13,009	0.0%

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EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	NC	Total Electric Power Industry	Total	128,143,588	
2014	NC	Total Electric Power Industry	Coal	49,238,197	38.4%
2014	NC	Total Electric Power Industry	Pumped Storage	78,009	0.1%
2014	NC	Total Electric Power Industry	Hydroelectric Conventional	4,756,083	3.7%
2014	NC	Total Electric Power Industry	Natural Gas	28,737,608	22.4%
2014	NC	Total Electric Power Industry	Nuclear	40,967,020	32.0%
2014	NC	Total Electric Power Industry	Other	631,153	0.5%
2014	NC	Total Electric Power Industry	Petroleum	459,687	0.4%
2014	NC	Total Electric Power Industry	Solar Thermal and Photovoltaic	729,130	0.6%
2014	NC	Total Electric Power Industry	Other Biomass	519,931	0.4%
2014	NC	Total Electric Power Industry	Wood and Wood Derived Fuels	2,026,770	1.6%
2014	ND	Total Electric Power Industry	Total	36,462,508	
2014	ND	Total Electric Power Industry	Coal	27,394,068	75.1%
2014	ND	Total Electric Power Industry	Hydroelectric Conventional	2,531,360	6.9%
2014	ND	Total Electric Power Industry	Natural Gas	234,315	0.6%
2014	ND	Total Electric Power Industry	Other Gases	40,143	0.1%
2014	ND	Total Electric Power Industry	Other	31,440	0.1%
2014	ND	Total Electric Power Industry	Petroleum	26,117	0.1%
2014	ND	Total Electric Power Industry	Other Biomass	2,652	0.0%
2014	ND	Total Electric Power Industry	Wind	6,202,412	17.0%
2014	NE	Total Electric Power Industry	Total	39,431,291	
2014	NE	Total Electric Power Industry	Coal	24,922,175	63.2%
2014	NE	Total Electric Power Industry	Hydroelectric Conventional	1,157,781	2.9%
2014	NE	Total Electric Power Industry	Natural Gas	405,712	1.0%
2014	NE	Total Electric Power Industry	Nuclear	10,101,838	25.6%
2014	NE	Total Electric Power Industry	Other	0	0.0%
2014	NE	Total Electric Power Industry	Petroleum	42,660	0.1%
2014	NE	Total Electric Power Industry	Other Biomass	64,185	0.2%
2014	NE	Total Electric Power Industry	Wind	2,736,939	6.9%
2014	NE	Total Electric Power Industry	Wood and Wood Derived Fuels	0	0.0%
2014	NH	Total Electric Power Industry	Total	19,538,395	
2014	NH	Total Electric Power Industry	Coal	1,310,999	6.7%
2014	NH	Total Electric Power Industry	Hydroelectric Conventional	1,381,362	7.1%
2014	NH	Total Electric Power Industry	Natural Gas	4,388,291	22.5%

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EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	NH	Total Electric Power Industry	Nuclear	10,168,265	52.0%
2014	NH	Total Electric Power Industry	Other	49,639	0.3%
2014	NH	Total Electric Power Industry	Petroleum	287,450	1.5%
2014	NH	Total Electric Power Industry	Other Biomass	125,393	0.6%
2014	NH	Total Electric Power Industry	Wind	411,581	2.1%
2014	NH	Total Electric Power Industry	Wood and Wood Derived Fuels	1,415,415	7.2%
2014	NJ	Total Electric Power Industry	Total	68,051,086	
2014	NJ	Total Electric Power Industry	Coal	2,519,106	3.7%
2014	NJ	Total Electric Power Industry	Pumped Storage	-236,904	-0.3%
2014	NJ	Total Electric Power Industry	Hydroelectric Conventional	17,296	0.0%
2014	NJ	Total Electric Power Industry	Natural Gas	31,410,341	46.2%
2014	NJ	Total Electric Power Industry	Nuclear	31,507,121	46.3%
2014	NJ	Total Electric Power Industry	Other Gases	161,682	0.2%
2014	NJ	Total Electric Power Industry	Other	640,134	0.9%
2014	NJ	Total Electric Power Industry	Petroleum	496,776	0.7%
2014	NJ	Total Electric Power Industry	Solar Thermal and Photovoltaic	514,252	0.8%
2014	NJ	Total Electric Power Industry	Other Biomass	998,426	1.5%
2014	NJ	Total Electric Power Industry	Wind	22,855	0.0%
2014	NM	Total Electric Power Industry	Total	32,306,210	
2014	NM	Total Electric Power Industry	Coal	20,355,631	63.0%
2014	NM	Total Electric Power Industry	Geothermal	8,736	0.0%
2014	NM	Total Electric Power Industry	Hydroelectric Conventional	98,381	0.3%
2014	NM	Total Electric Power Industry	Natural Gas	8,975,656	27.8%
2014	NM	Total Electric Power Industry	Other	665	0.0%
2014	NM	Total Electric Power Industry	Petroleum	63,157	0.2%
2014	NM	Total Electric Power Industry	Solar Thermal and Photovoltaic	515,054	1.6%
2014	NM	Total Electric Power Industry	Other Biomass	14,179	0.0%
2014	NM	Total Electric Power Industry	Wind	2,274,750	7.0%
2014	NV	Total Electric Power Industry	Total	36,000,537	
2014	NV	Total Electric Power Industry	Coal	6,547,864	18.2%
2014	NV	Total Electric Power Industry	Geothermal	2,728,788	7.6%
2014	NV	Total Electric Power Industry	Hydroelectric Conventional	2,389,000	6.6%
2014	NV	Total Electric Power Industry	Natural Gas	22,961,355	63.8%
2014	NV	Total Electric Power Industry	Other Gases	5,151	0.0%
2014	NV	Total Electric Power Industry	Other	14,965	0.0%

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EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	NV	Total Electric Power Industry	Petroleum	15,030	0.0%
2014	NV	Total Electric Power Industry	Solar Thermal and Photovoltaic	1,013,682	2.8%
2014	NV	Total Electric Power Industry	Other Biomass	24,568	0.1%
2014	NV	Total Electric Power Industry	Wind	300,134	0.8%
2014	NV	Total Electric Power Industry	Wood and Wood Derived Fuels	0	0.0%
2014	NY	Total Electric Power Industry	Total	137,122,202	
2014	NY	Total Electric Power Industry	Coal	4,592,054	3.3%
2014	NY	Total Electric Power Industry	Pumped Storage	-491,330	-0.4%
2014	NY	Total Electric Power Industry	Hydroelectric Conventional	26,086,902	19.0%
2014	NY	Total Electric Power Industry	Natural Gas	54,379,759	39.7%
2014	NY	Total Electric Power Industry	Nuclear	43,038,624	31.4%
2014	NY	Total Electric Power Industry	Other Gases	0	0.0%
2014	NY	Total Electric Power Industry	Other	933,084	0.7%
2014	NY	Total Electric Power Industry	Petroleum	2,136,484	1.6%
2014	NY	Total Electric Power Industry	Solar Thermal and Photovoltaic	70,616	0.1%
2014	NY	Total Electric Power Industry	Other Biomass	1,668,768	1.2%
2014	NY	Total Electric Power Industry	Wind	3,968,407	2.9%
2014	NY	Total Electric Power Industry	Wood and Wood Derived Fuels	738,834	0.5%
2014	OH	Total Electric Power Industry	Total	134,476,405	
2014	OH	Total Electric Power Industry	Coal	89,879,052	66.8%
2014	OH	Total Electric Power Industry	Hydroelectric Conventional	478,007	0.4%
2014	OH	Total Electric Power Industry	Natural Gas	23,636,445	17.6%
2014	OH	Total Electric Power Industry	Nuclear	16,284,440	12.1%
2014	OH	Total Electric Power Industry	Other Gases	929,388	0.7%
2014	OH	Total Electric Power Industry	Other	-3,393	0.0%
2014	OH	Total Electric Power Industry	Petroleum	1,246,673	0.9%
2014	OH	Total Electric Power Industry	Solar Thermal and Photovoltaic	53,908	0.0%
2014	OH	Total Electric Power Industry	Other Biomass	470,881	0.4%
2014	OH	Total Electric Power Industry	Wind	1,153,418	0.9%
2014	OH	Total Electric Power Industry	Wood and Wood Derived Fuels	347,586	0.3%
2014	OK	Total Electric Power Industry	Total	70,155,504	
2014	OK	Total Electric Power Industry	Coal	29,905,952	42.6%
2014	OK	Total Electric Power Industry	Pumped Storage	-105,798	-0.2%
2014	OK	Total Electric Power Industry	Hydroelectric Conventional	1,428,473	2.0%
2014	OK	Total Electric Power Industry	Natural Gas	26,641,474	38.0%

EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	OK	Total Electric Power Industry	Other	-2,279	0.0%
2014	OK	Total Electric Power Industry	Petroleum	12,494	0.0%
2014	OK	Total Electric Power Industry	Other Biomass	91,651	0.1%
2014	OK	Total Electric Power Industry	Wind	11,936,833	17.0%
2014	OK	Total Electric Power Industry	Wood and Wood Derived Fuels	246,705	0.4%
2014	OR	Total Electric Power Industry	Total	60,119,907	
2014	OR	Total Electric Power Industry	Coal	3,192,593	5.3%
2014	OR	Total Electric Power Industry	Geothermal	183,467	0.3%
2014	OR	Total Electric Power Industry	Hydroelectric Conventional	35,261,936	58.7%
2014	OR	Total Electric Power Industry	Natural Gas	12,698,958	21.1%
2014	OR	Total Electric Power Industry	Other	43,004	0.1%
2014	OR	Total Electric Power Industry	Petroleum	9,884	0.0%
2014	OR	Total Electric Power Industry	Solar Thermal and Photovoltaic	24,042	0.0%
2014	OR	Total Electric Power Industry	Other Biomass	348,095	0.6%
2014	OR	Total Electric Power Industry	Wind	7,555,402	12.6%
2014	OR	Total Electric Power Industry	Wood and Wood Derived Fuels	802,526	1.3%
2014	PA	Total Electric Power Industry	Total	221,058,365	
2014	PA	Total Electric Power Industry	Coal	78,985,629	35.7%
2014	PA	Total Electric Power Industry	Pumped Storage	-578,653	-0.3%
2014	PA	Total Electric Power Industry	Hydroelectric Conventional	2,641,157	1.2%
2014	PA	Total Electric Power Industry	Natural Gas	53,021,235	24.0%
2014	PA	Total Electric Power Industry	Nuclear	78,714,659	35.6%
2014	PA	Total Electric Power Industry	Other Gases	490,777	0.2%
2014	PA	Total Electric Power Industry	Other	900,134	0.4%
2014	PA	Total Electric Power Industry	Petroleum	803,004	0.4%
2014	PA	Total Electric Power Industry	Solar Thermal and Photovoltaic	62,392	0.0%
2014	PA	Total Electric Power Industry	Other Biomass	1,904,224	0.9%
2014	PA	Total Electric Power Industry	Wind	3,564,730	1.6%
2014	PA	Total Electric Power Industry	Wood and Wood Derived Fuels	549,077	0.2%
2014	RI	Total Electric Power Industry	Total	6,281,748	
2014	RI	Total Electric Power Industry	Coal	0	0.0%
2014	RI	Total Electric Power Industry	Hydroelectric Conventional	3,964	0.1%
2014	RI	Total Electric Power Industry	Natural Gas	5,962,951	94.9%
2014	RI	Total Electric Power Industry	Petroleum	88,419	1.4%
2014	RI	Total Electric Power Industry	Solar Thermal and Photovoltaic	9,803	0.2%

EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	RI	Total Electric Power Industry	Other Biomass	206,694	3.3%
2014	RI	Total Electric Power Industry	Wind	9,917	0.2%
2014	SC	Total Electric Power Industry	Total	97,158,465	
2014	SC	Total Electric Power Industry	Coal	28,914,307	29.8%
2014	SC	Total Electric Power Industry	Pumped Storage	-884,495	-0.9%
2014	SC	Total Electric Power Industry	Hydroelectric Conventional	2,569,126	2.6%
2014	SC	Total Electric Power Industry	Natural Gas	11,406,640	11.7%
2014	SC	Total Electric Power Industry	Nuclear	52,418,553	54.0%
2014	SC	Total Electric Power Industry	Other	46,265	0.0%
2014	SC	Total Electric Power Industry	Petroleum	245,574	0.3%
2014	SC	Total Electric Power Industry	Solar Thermal and Photovoltaic	4,785	0.0%
2014	SC	Total Electric Power Industry	Other Biomass	194,059	0.2%
2014	SC	Total Electric Power Industry	Wood and Wood Derived Fuels	2,243,652	2.3%
2014	SD	Total Electric Power Industry	Total	10,995,240	
2014	SD	Total Electric Power Industry	Coal	2,689,216	24.5%
2014	SD	Total Electric Power Industry	Hydroelectric Conventional	5,498,214	50.0%
2014	SD	Total Electric Power Industry	Natural Gas	464,817	4.2%
2014	SD	Total Electric Power Industry	Other	0	0.0%
2014	SD	Total Electric Power Industry	Petroleum	6,700	0.1%
2014	SD	Total Electric Power Industry	Other Biomass	0	0.0%
2014	SD	Total Electric Power Industry	Wind	2,336,293	21.2%
2014	TN	Total Electric Power Industry	Total	79,506,886	
2014	TN	Total Electric Power Industry	Coal	35,874,582	45.1%
2014	TN	Total Electric Power Industry	Pumped Storage	-491,183	-0.6%
2014	TN	Total Electric Power Industry	Hydroelectric Conventional	8,900,650	11.2%
2014	TN	Total Electric Power Industry	Natural Gas	6,199,618	7.8%
2014	TN	Total Electric Power Industry	Nuclear	27,670,006	34.8%
2014	TN	Total Electric Power Industry	Other Gases	13,047	0.0%
2014	TN	Total Electric Power Industry	Other	14,041	0.0%
2014	TN	Total Electric Power Industry	Petroleum	185,127	0.2%
2014	TN	Total Electric Power Industry	Solar Thermal and Photovoltaic	27,481	0.0%
2014	TN	Total Electric Power Industry	Other Biomass	89,567	0.1%
2014	TN	Total Electric Power Industry	Wind	51,140	0.1%
2014	TN	Total Electric Power Industry	Wood and Wood Derived Fuels	972,810	1.2%

EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	TX	Total Electric Power Industry	Total	437,629,668	
2014	TX	Total Electric Power Industry	Coal	148,173,726	33.9%
2014	TX	Total Electric Power Industry	Hydroelectric Conventional	385,898	0.1%
2014	TX	Total Electric Power Industry	Natural Gas	204,721,155	46.8%
2014	TX	Total Electric Power Industry	Nuclear	39,287,443	9.0%
2014	TX	Total Electric Power Industry	Other Gases	2,306,672	0.5%
2014	TX	Total Electric Power Industry	Other	381,027	0.1%
2014	TX	Total Electric Power Industry	Petroleum	278,033	0.1%
2014	TX	Total Electric Power Industry	Solar Thermal and Photovoltaic	282,351	0.1%
2014	TX	Total Electric Power Industry	Other Biomass	733,454	0.2%
2014	TX	Total Electric Power Industry	Wind	40,005,124	9.1%
2014	TX	Total Electric Power Industry	Wood and Wood Derived Fuels	1,074,785	0.2%
2014	US-Total	Total Electric Power Industry	Total	4,093,606,005	
2014	US-Total	Total Electric Power Industry	Coal	1,581,710,350	38.6%
2014	US-Total	Total Electric Power Industry	Geothermal	15,876,941	0.4%
2014	US-Total	Total Electric Power Industry	Pumped Storage	-6,173,548	-0.2%
2014	US-Total	Total Electric Power Industry	Hydroelectric Conventional	259,366,622	6.3%
2014	US-Total	Total Electric Power Industry	Natural Gas	1,126,608,958	27.5%
2014	US-Total	Total Electric Power Industry	Nuclear	797,165,982	19.5%
2014	US-Total	Total Electric Power Industry	Other Gases	12,021,786	0.3%
2014	US-Total	Total Electric Power Industry	Other	13,461,295	0.3%
2014	US-Total	Total Electric Power Industry	Petroleum	30,231,862	0.7%
2014	US-Total	Total Electric Power Industry	Solar Thermal and Photovoltaic	17,691,031	0.4%
2014	US-Total	Total Electric Power Industry	Other Biomass	21,649,719	0.5%
2014	US-Total	Total Electric Power Industry	Wind	181,655,282	4.4%
2014	US-Total	Total Electric Power Industry	Wood and Wood Derived Fuels	42,339,725	1.0%
2014	UT	Total Electric Power Industry	Total	43,784,526	
2014	UT	Total Electric Power Industry	Coal	33,376,688	76.2%
2014	UT	Total Electric Power Industry	Geothermal	521,582	1.2%
2014	UT	Total Electric Power Industry	Hydroelectric Conventional	632,823	1.4%
2014	UT	Total Electric Power Industry	Natural Gas	8,376,420	19.1%
2014	UT	Total Electric Power Industry	Other Gases	0	0.0%
2014	UT	Total Electric Power Industry	Other	117,979	0.3%
2014	UT	Total Electric Power Industry	Petroleum	24,318	0.1%
2014	UT	Total Electric Power Industry	Solar Thermal and Photovoltaic	2,235	0.0%
2014	UT	Total Electric Power Industry	Other Biomass	72,530	0.2%

EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	UT	Total Electric Power Industry	Wind	659,951	1.5%
2014	VA	Total Electric Power Industry	Total	77,137,438	
2014	VA	Total Electric Power Industry	Coal	20,818,584	27.0%
2014	VA	Total Electric Power Industry	Pumped Storage	-1,295,354	-1.7%
2014	VA	Total Electric Power Industry	Hydroelectric Conventional	955,188	1.2%
2014	VA	Total Electric Power Industry	Natural Gas	20,881,566	27.1%
2014	VA	Total Electric Power Industry	Nuclear	30,220,977	39.2%
2014	VA	Total Electric Power Industry	Other	499,767	0.6%
2014	VA	Total Electric Power Industry	Petroleum	1,204,907	1.6%
2014	VA	Total Electric Power Industry	Other Biomass	1,097,011	1.4%
2014	VA	Total Electric Power Industry	Wood and Wood Derived Fuels	2,754,793	3.6%
2014	VT	Total Electric Power Industry	Total	7,031,394	
2014	VT	Total Electric Power Industry	Hydroelectric Conventional	1,175,321	16.7%
2014	VT	Total Electric Power Industry	Natural Gas	2,465	0.0%
2014	VT	Total Electric Power Industry	Nuclear	5,060,582	72.0%
2014	VT	Total Electric Power Industry	Petroleum	5,473	0.1%
2014	VT	Total Electric Power Industry	Solar Thermal and Photovoltaic	23,536	0.3%
2014	VT	Total Electric Power Industry	Other Biomass	23,489	0.3%
2014	VT	Total Electric Power Industry	Wind	311,310	4.4%
2014	VT	Total Electric Power Industry	Wood and Wood Derived Fuels	429,218	6.1%
2014	WA	Total Electric Power Industry	Total	116,334,363	
2014	WA	Total Electric Power Industry	Coal	6,719,928	5.8%
2014	WA	Total Electric Power Industry	Pumped Storage	-4,753	0.0%
2014	WA	Total Electric Power Industry	Hydroelectric Conventional	79,463,144	68.3%
2014	WA	Total Electric Power Industry	Natural Gas	11,058,815	9.5%
2014	WA	Total Electric Power Industry	Nuclear	9,497,321	8.2%
2014	WA	Total Electric Power Industry	Other Gases	336,932	0.3%
2014	WA	Total Electric Power Industry	Other	131,267	0.1%
2014	WA	Total Electric Power Industry	Petroleum	23,541	0.0%
2014	WA	Total Electric Power Industry	Solar Thermal and Photovoltaic	729	0.0%
2014	WA	Total Electric Power Industry	Other Biomass	313,080	0.3%
2014	WA	Total Electric Power Industry	Wind	7,267,794	6.2%
2014	WA	Total Electric Power Industry	Wood and Wood Derived Fuels	1,526,564	1.3%
2014	WI	Total Electric Power Industry	Total	61,064,796	

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EIA-Net Generation by State, Type of Producer and Energy Source

YEAR	STATE	TYPE OF PRODUCER	ENERGY SOURCE	GENERATION (Megawatthours)	% of Total
2014	WI	Total Electric Power Industry	Coal	37,449,264	61.3%
2014	WI	Total Electric Power Industry	Hydroelectric Conventional	2,471,773	4.0%
2014	WI	Total Electric Power Industry	Natural Gas	8,053,503	13.2%
2014	WI	Total Electric Power Industry	Nuclear	9,447,096	15.5%
2014	WI	Total Electric Power Industry	Other	61,737	0.1%
2014	WI	Total Electric Power Industry	Petroleum	319,032	0.5%
2014	WI	Total Electric Power Industry	Solar Thermal and Photovoltaic	1,194	0.0%
2014	WI	Total Electric Power Industry	Other Biomass	542,315	0.9%
2014	WI	Total Electric Power Industry	Wind	1,618,001	2.6%
2014	WI	Total Electric Power Industry	Wood and Wood Derived Fuels	1,100,881	1.8%
2014	WV	Total Electric Power Industry	Total	81,059,577	
2014	WV	Total Electric Power Industry	Coal	77,514,645	95.6%
2014	WV	Total Electric Power Industry	Hydroelectric Conventional	1,241,974	1.5%
2014	WV	Total Electric Power Industry	Natural Gas	653,302	0.8%
2014	WV	Total Electric Power Industry	Other Gases	30,878	0.0%
2014	WV	Total Electric Power Industry	Other	0	0.0%
2014	WV	Total Electric Power Industry	Petroleum	162,780	0.2%
2014	WV	Total Electric Power Industry	Other Biomass	4,615	0.0%
2014	WV	Total Electric Power Industry	Wind	1,451,383	1.8%
2014	WY	Total Electric Power Industry	Total	49,696,183	
2014	WY	Total Electric Power Industry	Coal	43,408,651	87.3%
2014	WY	Total Electric Power Industry	Hydroelectric Conventional	868,710	1.7%
2014	WY	Total Electric Power Industry	Natural Gas	557,121	1.1%
2014	WY	Total Electric Power Industry	Other Gases	336,768	0.7%
2014	WY	Total Electric Power Industry	Other	74,053	0.1%
2014	WY	Total Electric Power Industry	Petroleum	45,123	0.1%
2014	WY	Total Electric Power Industry	Wind	4,405,757	8.9%

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- Gas storage is 18% above 5 year average
- Overall gas production is flat (Texas down, OH/PA up)
- Drilling economics are getting cheaper:
    - Break even costs $1.86/MMBTU Utica, $2.39/MMBUT Marcellus
- Coal to gas switching is strong due to coal vs. gas spread
- Gas burns for power 24% than 5 year average
- 2015 coal generation output slightly higher than gas generation
- Forward market continues backwardation near historic lows
- 2017 forwards continue to be below 3 year index

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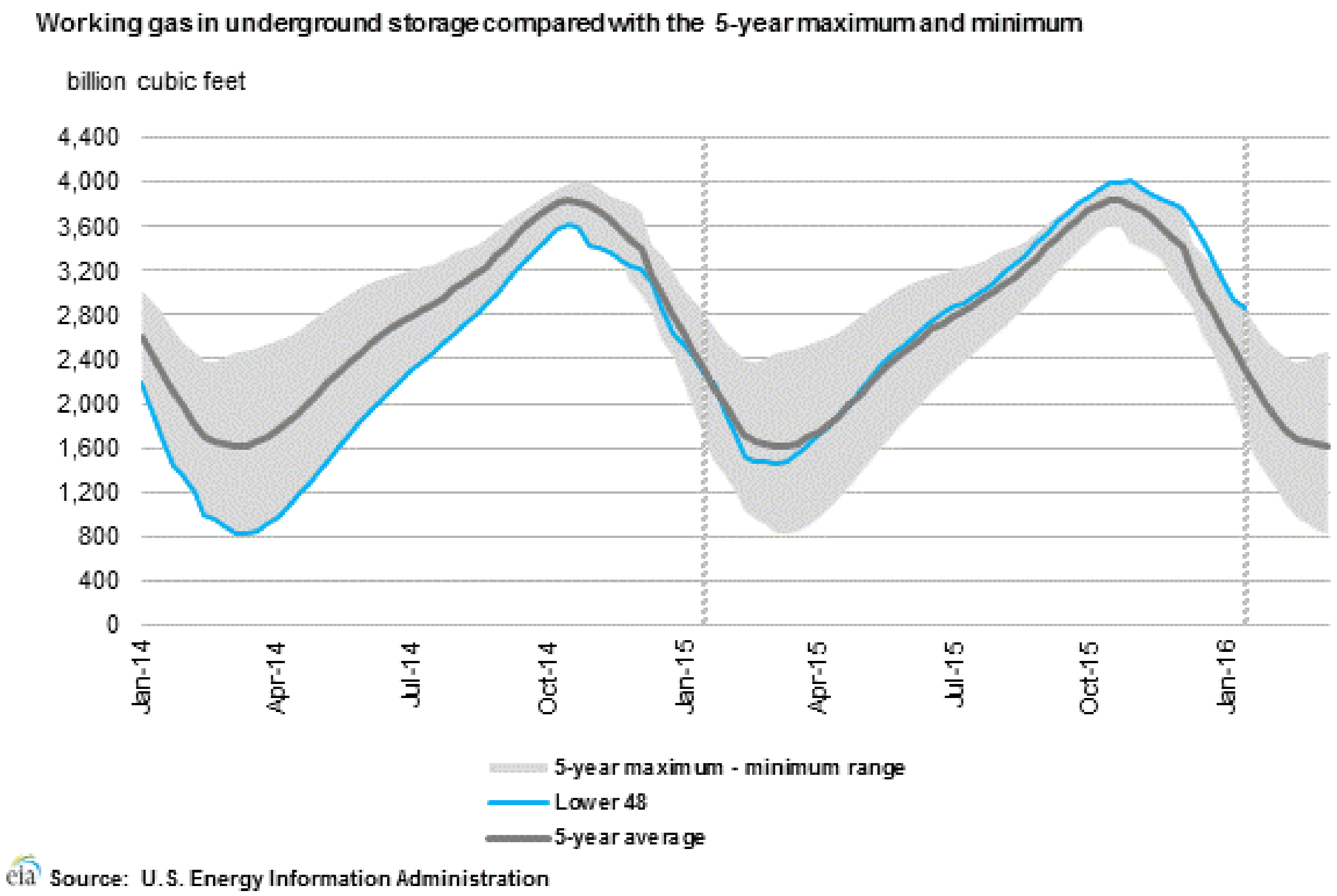
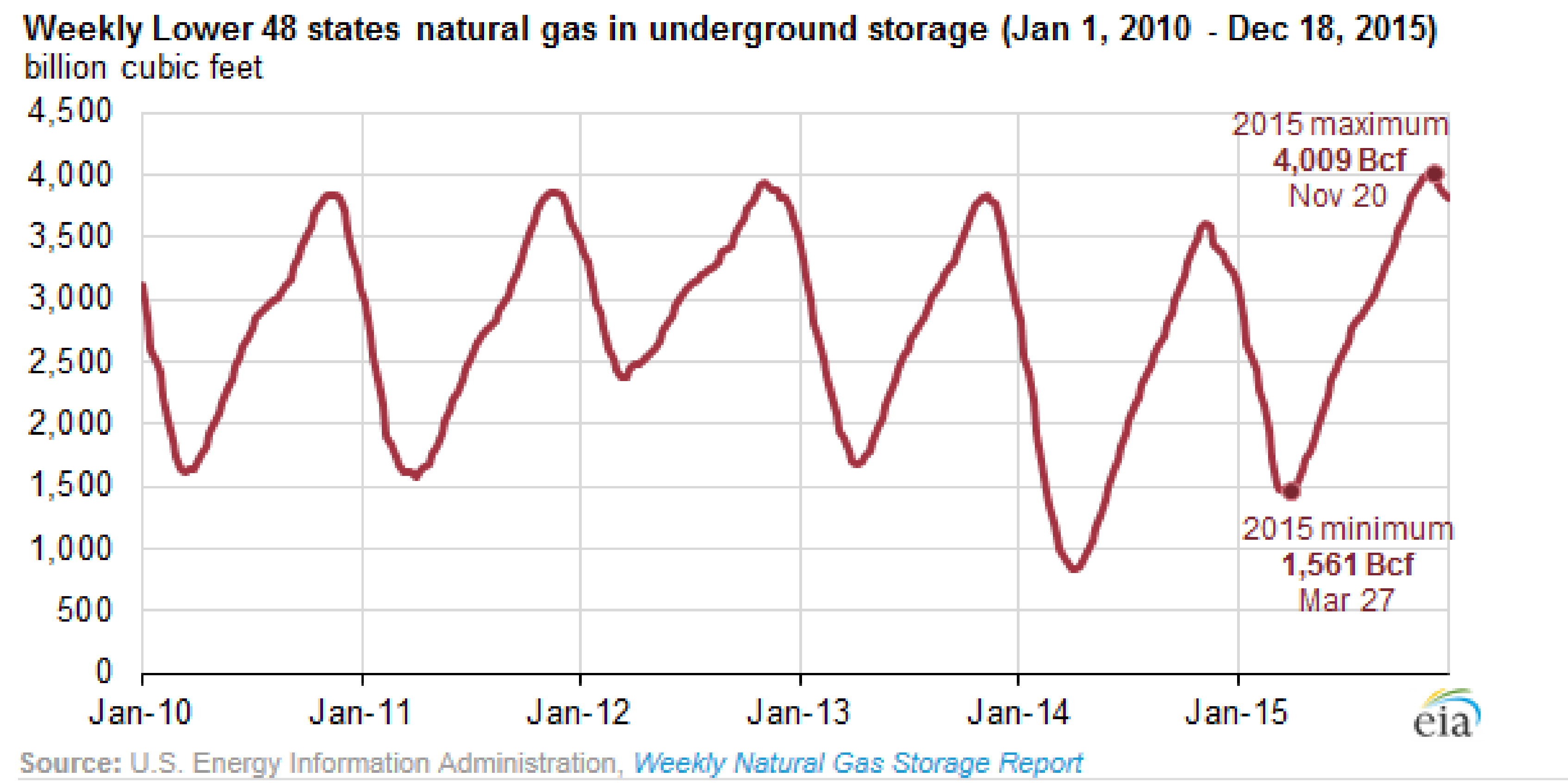
Gas storage is 18% above 5 year average





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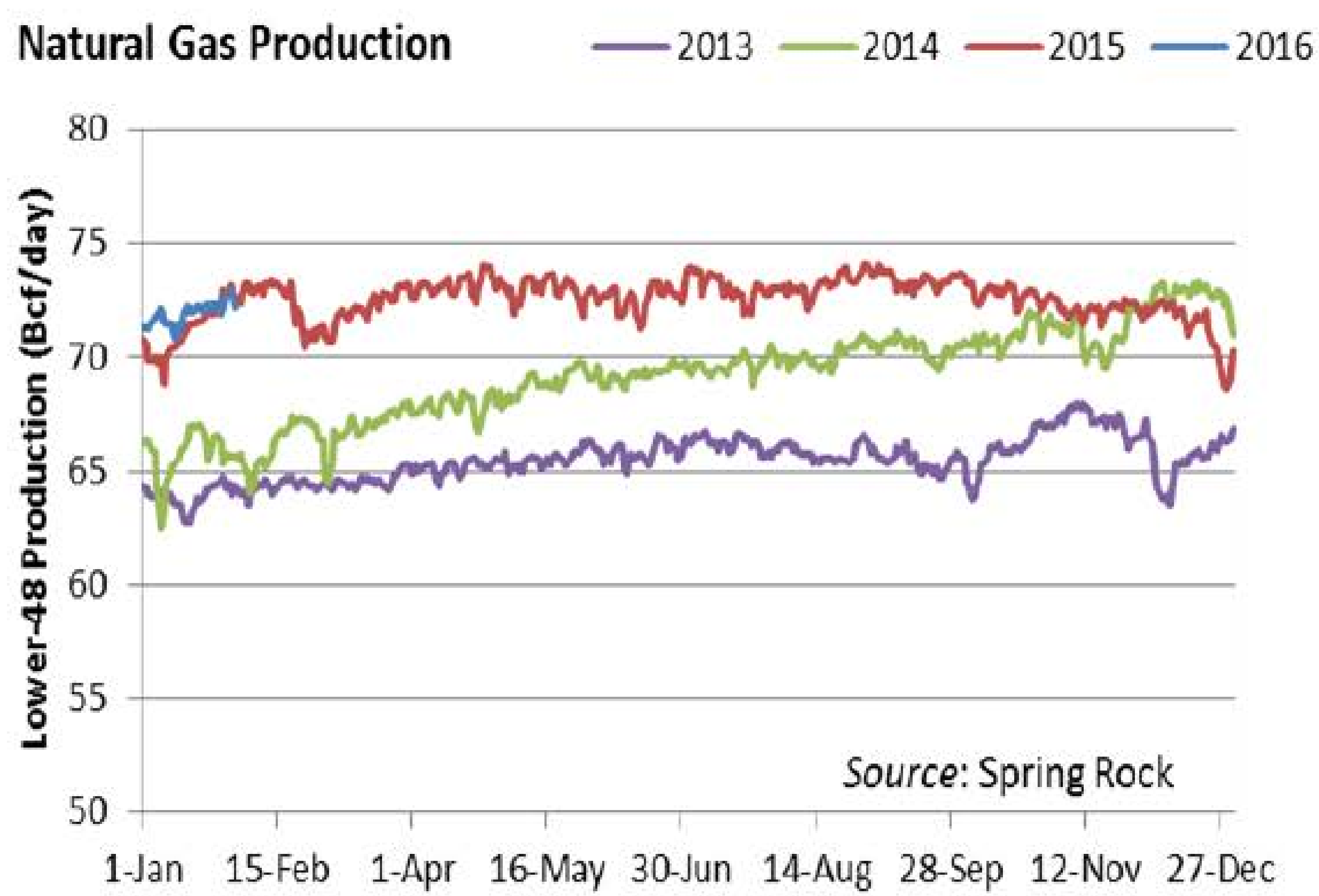
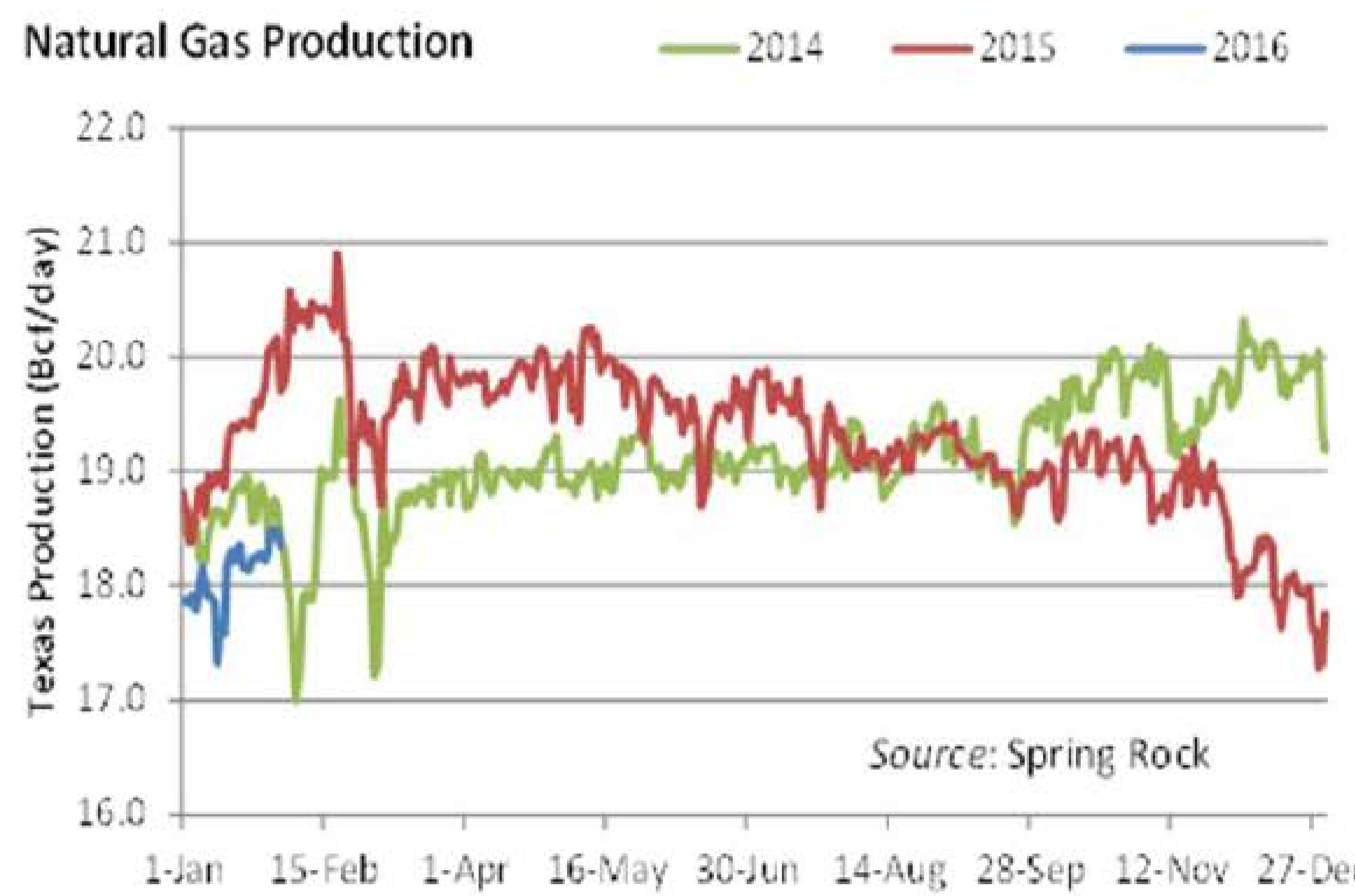
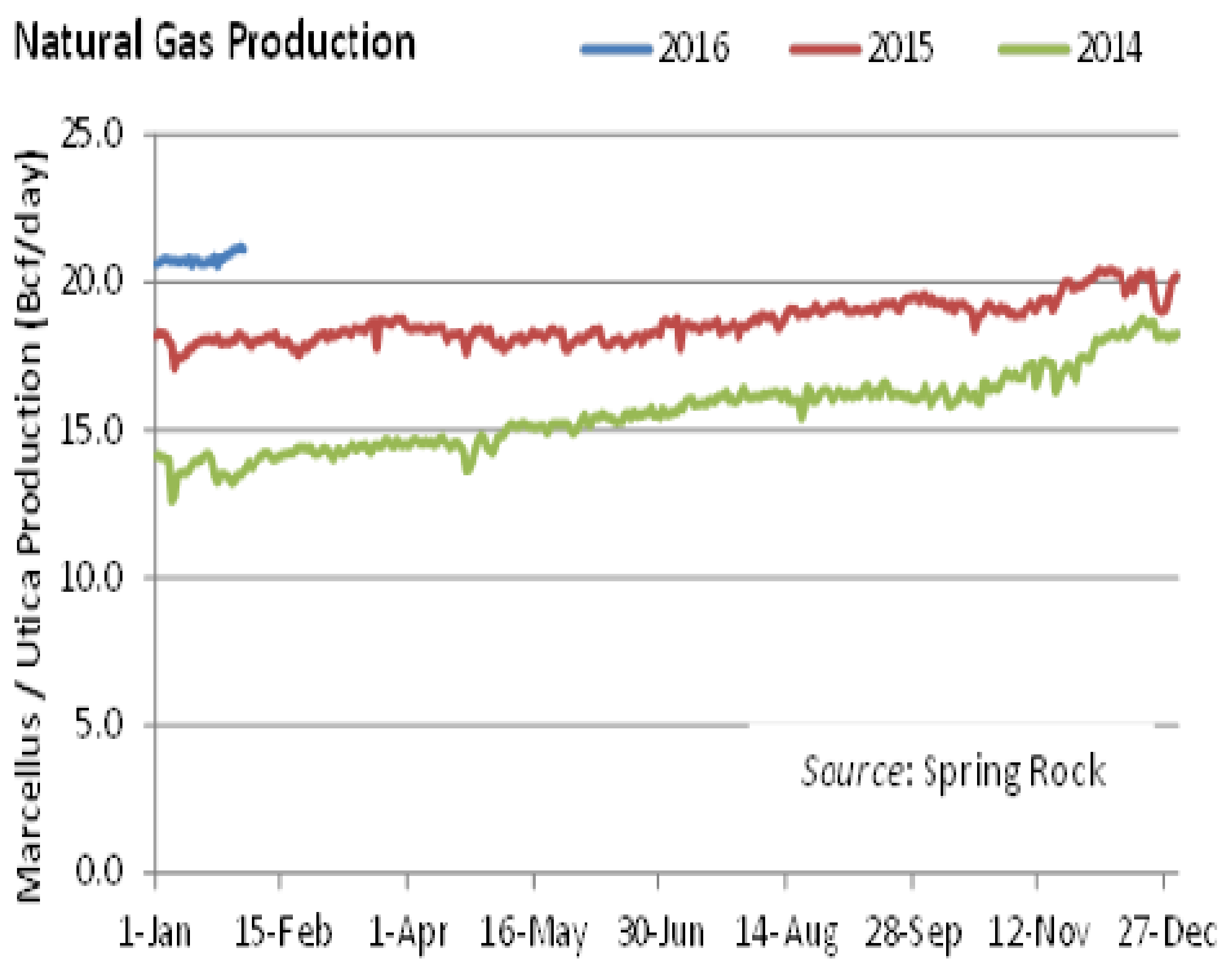
Overall gas production is flat (Texas down, OH/PA up)





Northeast Drilling Economics Improve

Supply & Demand



- Northeast drillers continue to show strong productivity improvements in 2015 that are driving down lateral cost and completion costs as above example of National Fuel Gas Company (above right).
- Since peaking in 2014, there has been a -77% decline in Utica and a -69% decline in Marcellus rig counts.
- Consol Energy drilled five wells in Monroe County, OH. From the first well to the fifth, it reduced days to drill by 60% and drilling costs by 55%. Consol stated that they have lowered all-in break even costs in Utica to $1.86/MMBtu in Utica and $2.39/MMBtu for Marcellus in Q4 '15.

Customer Takeaway: Despite a steep drop in rig counts since 2014, a combination of increased efficiencies along with drilled but uncompleted wells has kept Northeast production setting new highs as drilling costs continue to decline.

Source: National Fuel, EIA, Spring Rock

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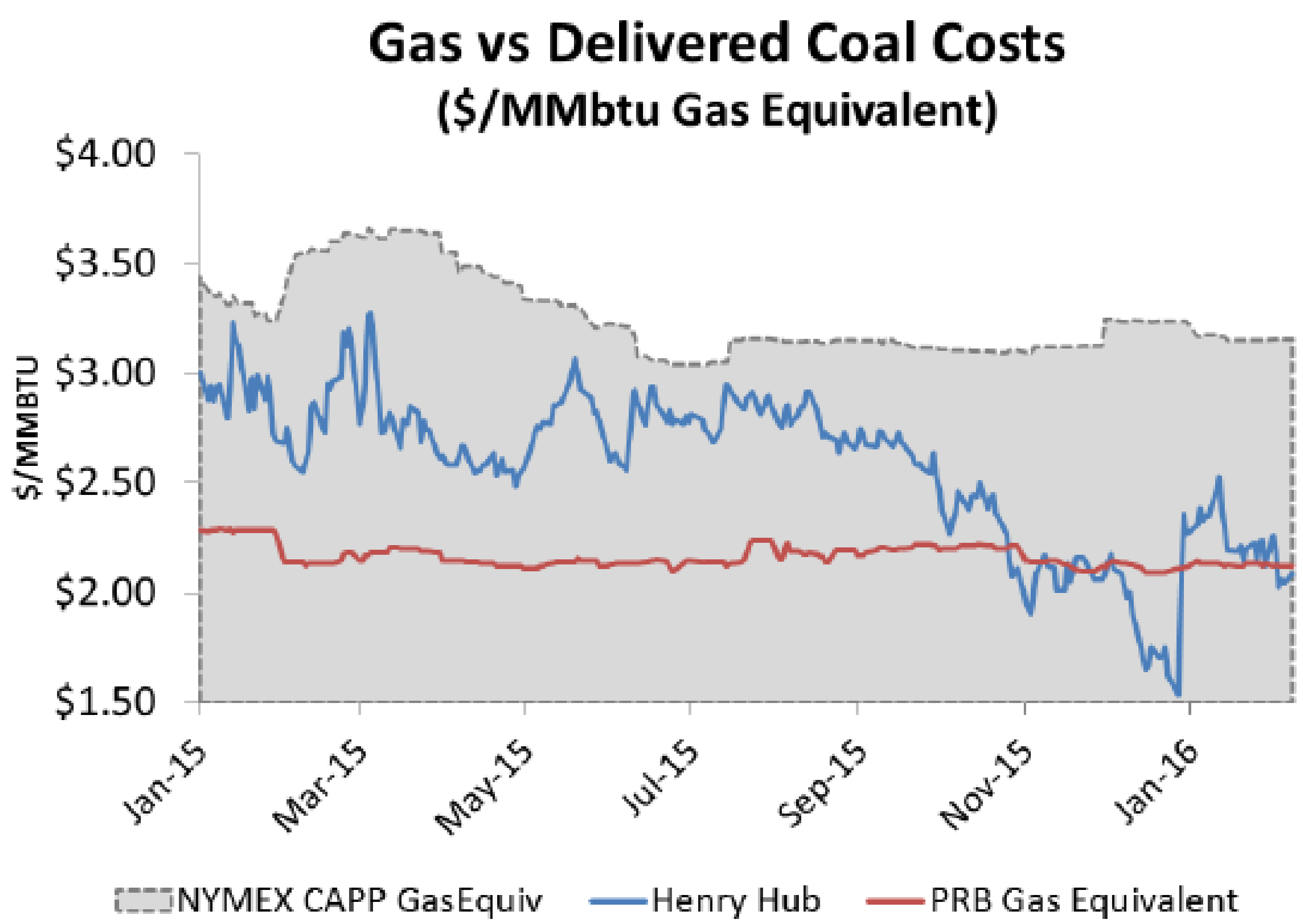
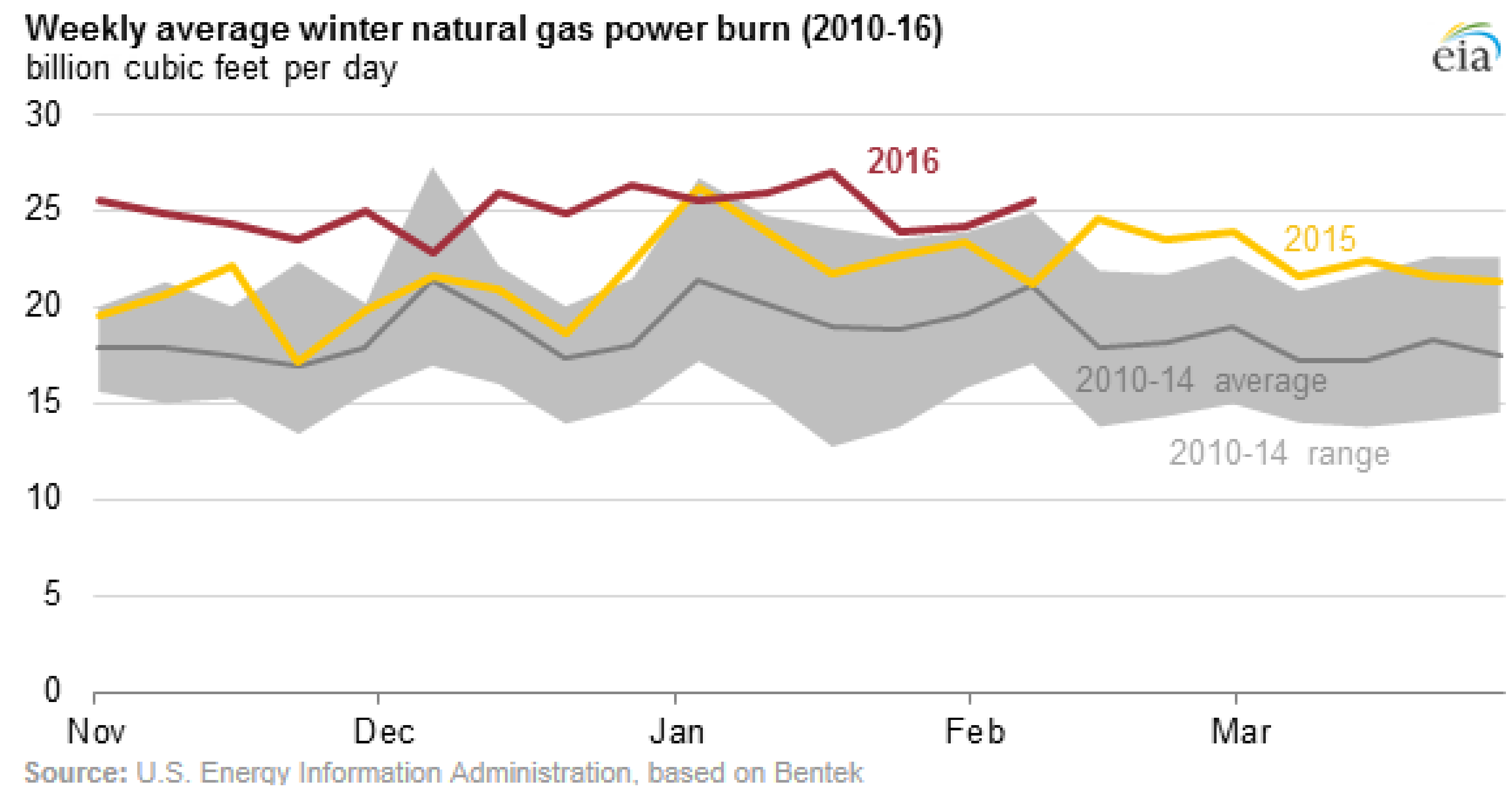
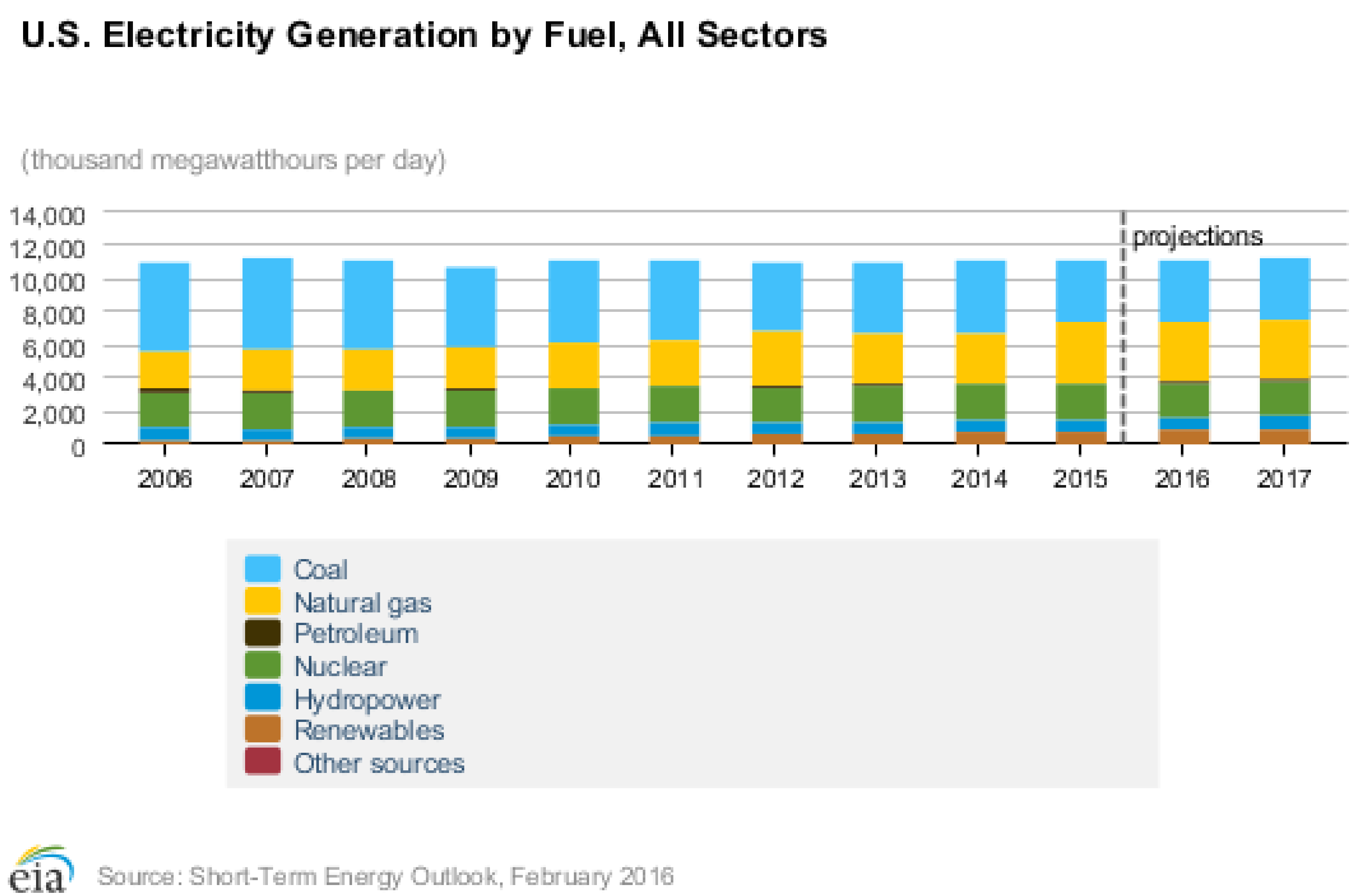
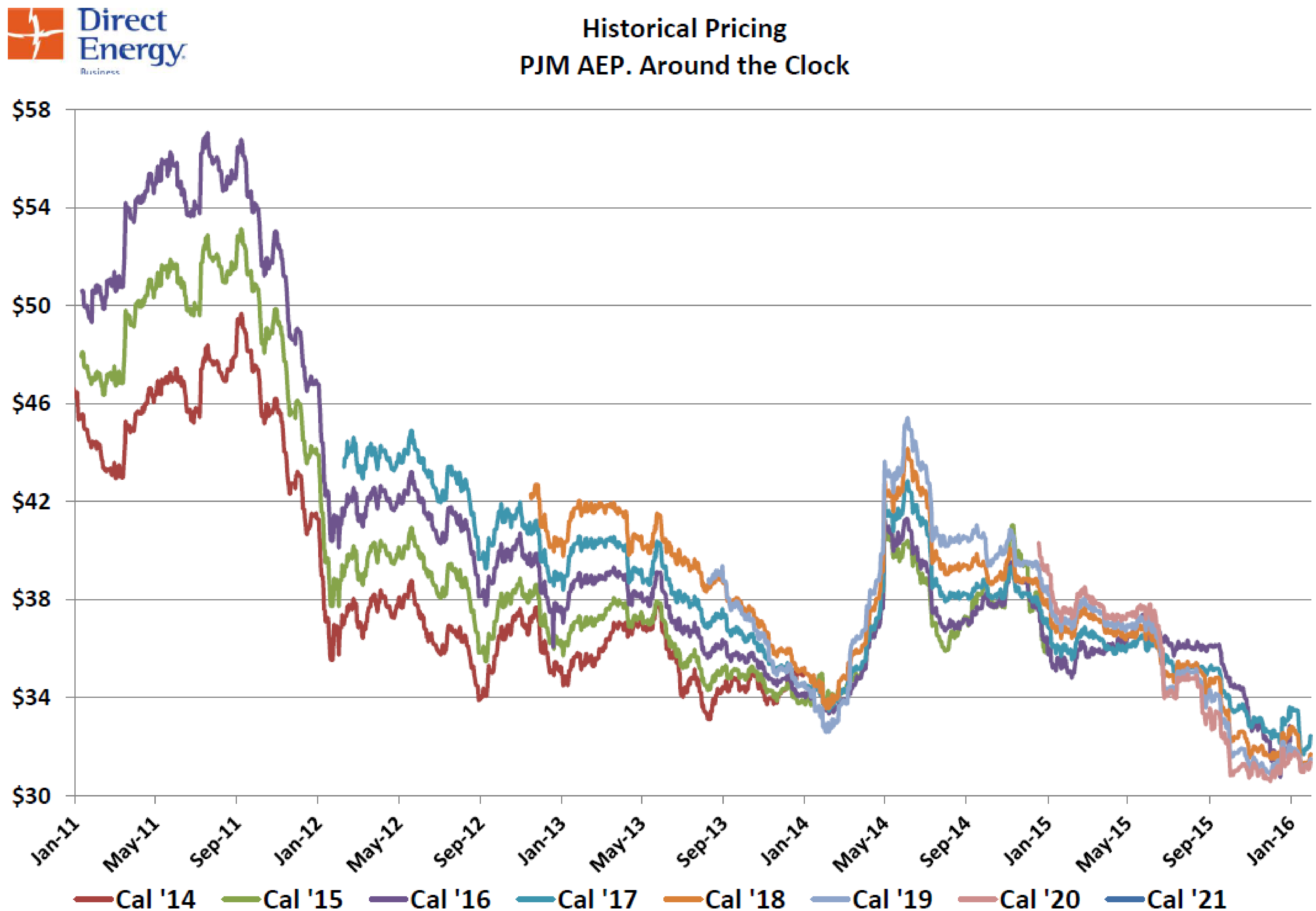
Coal to Gas Switching Increases Burn





Coal Slightly Higher Than Gas Output for 2015





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PRICE TREND ANALYSIS

Transaction Point: **PJM AEP ATC**

Data Range								
From:	1/10/2011	1/10/2011	1/10/2011	1/11/2011	2/9/2012	11/15/2012	8/9/2013	12/18/2014
To:	1/31/2016	1/31/2016	1/31/2016	1/31/2016	1/31/2016	1/31/2016	1/31/2016	1/31/2016

	Q2 - 16	Q3 - 16	Q4 - 16	Q1 - 17	2017	2018	2019	2020
Current Price	$29.85	$32.84	$29.89	$36.78	$32.44	$31.69	$31.49	$31.35
Current Percentile	**1.7%**	**3.2%**	**0.8%**	**8.9%**	**1.5%**	**3.1%**	**7.1%**	**24.6%**
Minimum Price	$29.25	$31.78	$29.15	$35.18	$31.67	$31.28	$30.86	$30.58
Date of Minimum	1/20/16	12/16/15	1/20/16	12/15/15	1/20/16	1/21/16	12/1/15	12/1/15
Maximum Price	$54.57	$59.95	$54.65	$53.73	$44.89	$44.17	$45.42	$40.32
Date of Maximum	9/8/11	7/19/11	9/7/11	6/4/14	5/19/12	6/4/14	6/4/14	12/18/14
25th Percentile	$33.58	$36.38	$32.85	$39.12	$35.54	$35.32	$34.30	$31.37
50th Percentile	$35.97	$39.87	$34.97	$41.86	$38.04	$37.65	$36.99	$34.76
75th Percentile	$40.11	$44.12	$39.82	$44.83	$40.39	$39.84	$39.41	$37.50

All prices are $ per MWh and represent wholesale price component only.
The Current Percentile represents the percentage of days during the
reference period in which the market price has been below the current price.

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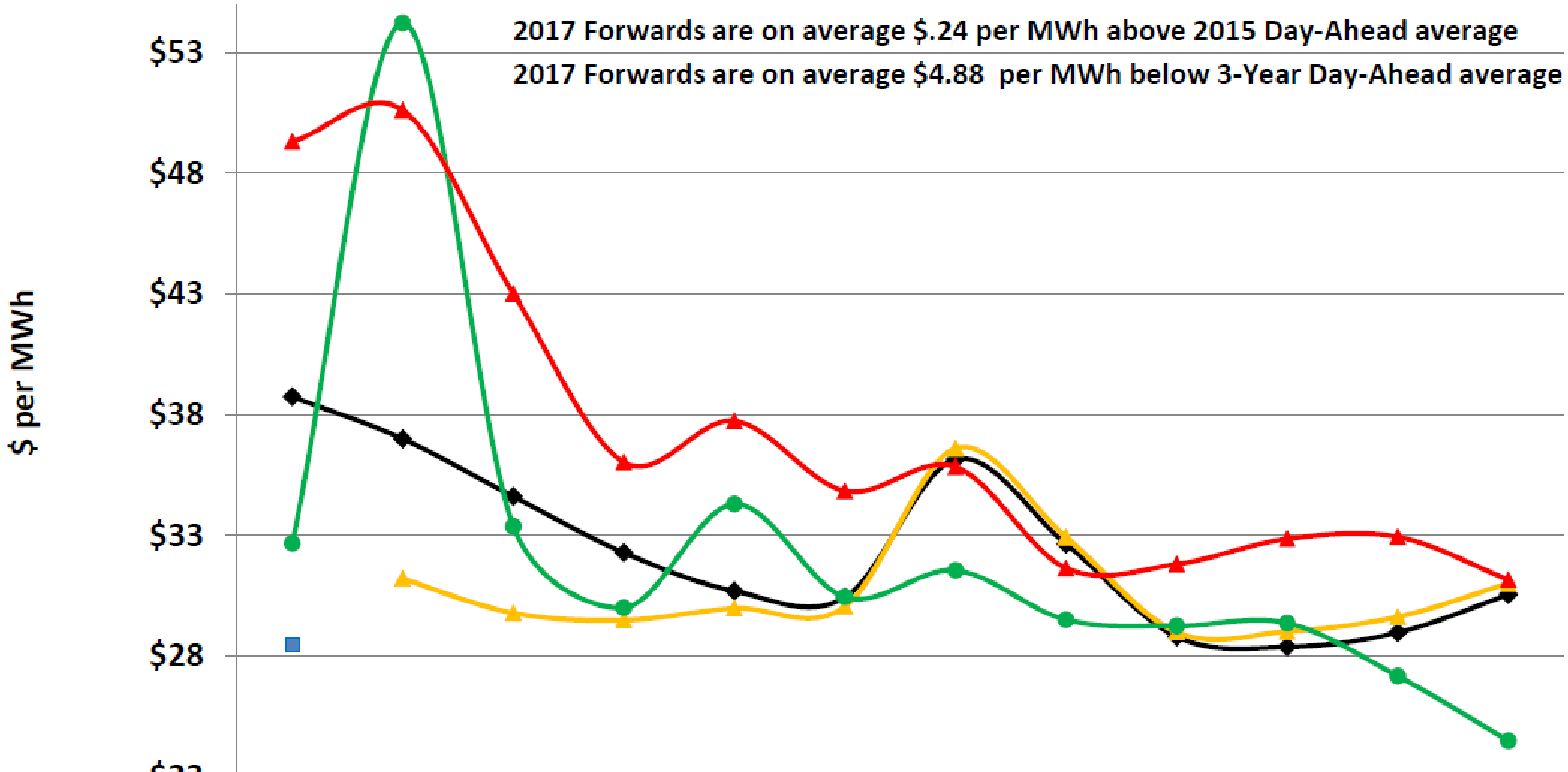
Historical Day-Ahead vs Forward Prices
PJM AEP



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017 FWD	$38.74	$36.99	$34.61	$32.28	$30.70	$30.44	$36.15	$32.65	$28.80	$28.38	$28.97	$30.55
2016 FWD		$31.21	$29.79	$29.50	$29.98	$30.06	$36.60	$32.93	$29.00	$29.02	$29.63	$31.02
2016 DA Average	$28.47											
2015 DA Avg	$32.68	$54.23	$33.38	$30.01	$34.30	$30.45	$31.55	$29.50	$29.25	$29.36	$27.17	$24.49
3 YR AVG	$49.31	$50.61	$43.01	$36.03	$37.74	$34.84	$35.83	$31.64	$31.81	$32.86	$32.94	$31.16

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Natural Gas Update
OMA Energy Committee

Richard Ricks
NiSource
February 25, 2016

Columbia Gas of Ohio
A NiSource Company

Agenda

- **Weather**
  - National
  - Ohio Degree Days
- **National Storage**
- **Gas Pricing**
  - NYMEX Prompt Month History
  - NYMEX Gas Futures
  - NYMEX Strip and Select Hub Pricing
- **Domestic Shale Gas Production**
- **Drilling Rig Counts**

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Weather & Degree Days

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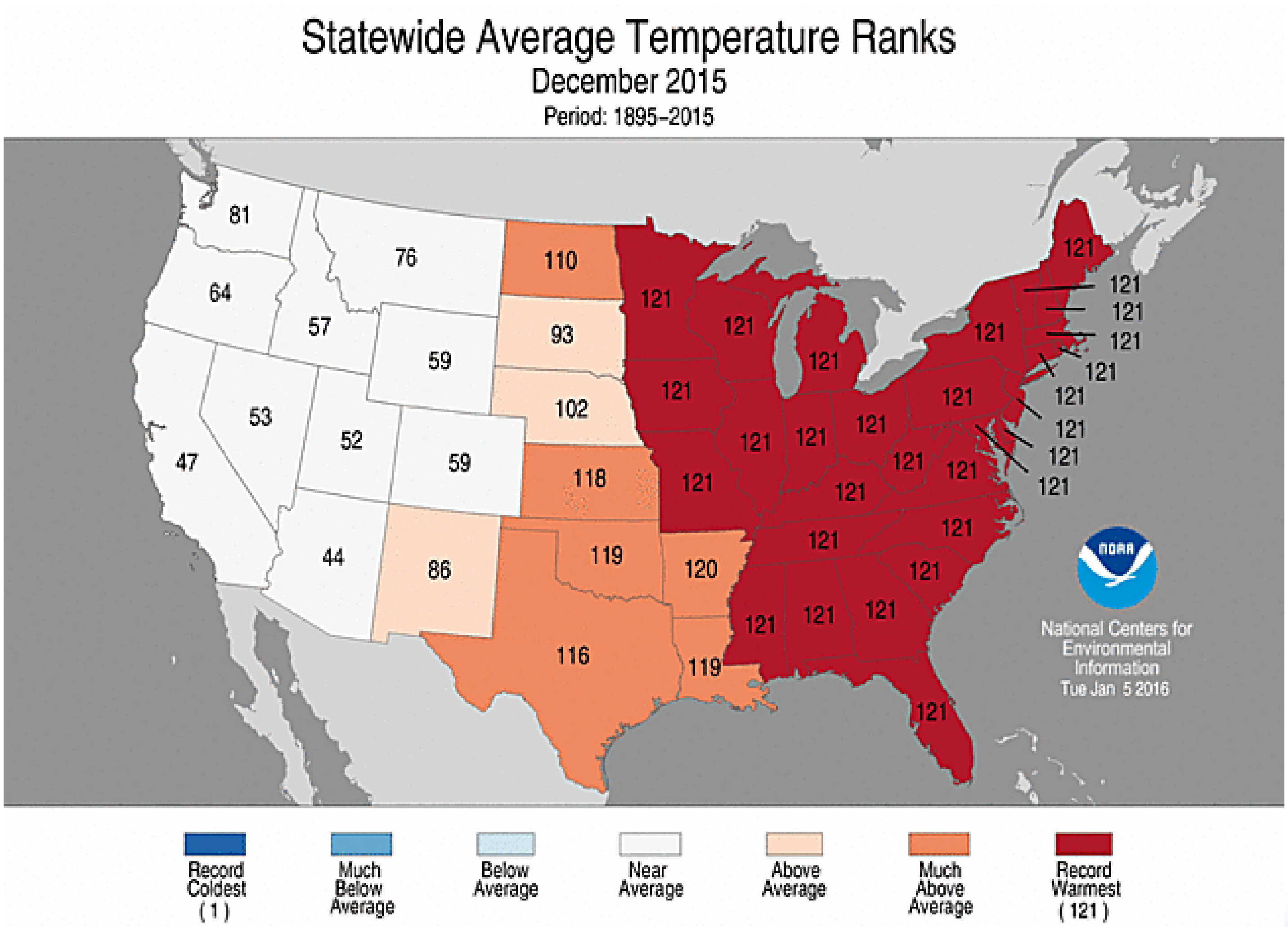
Near Average to Record Warmest Temperatures



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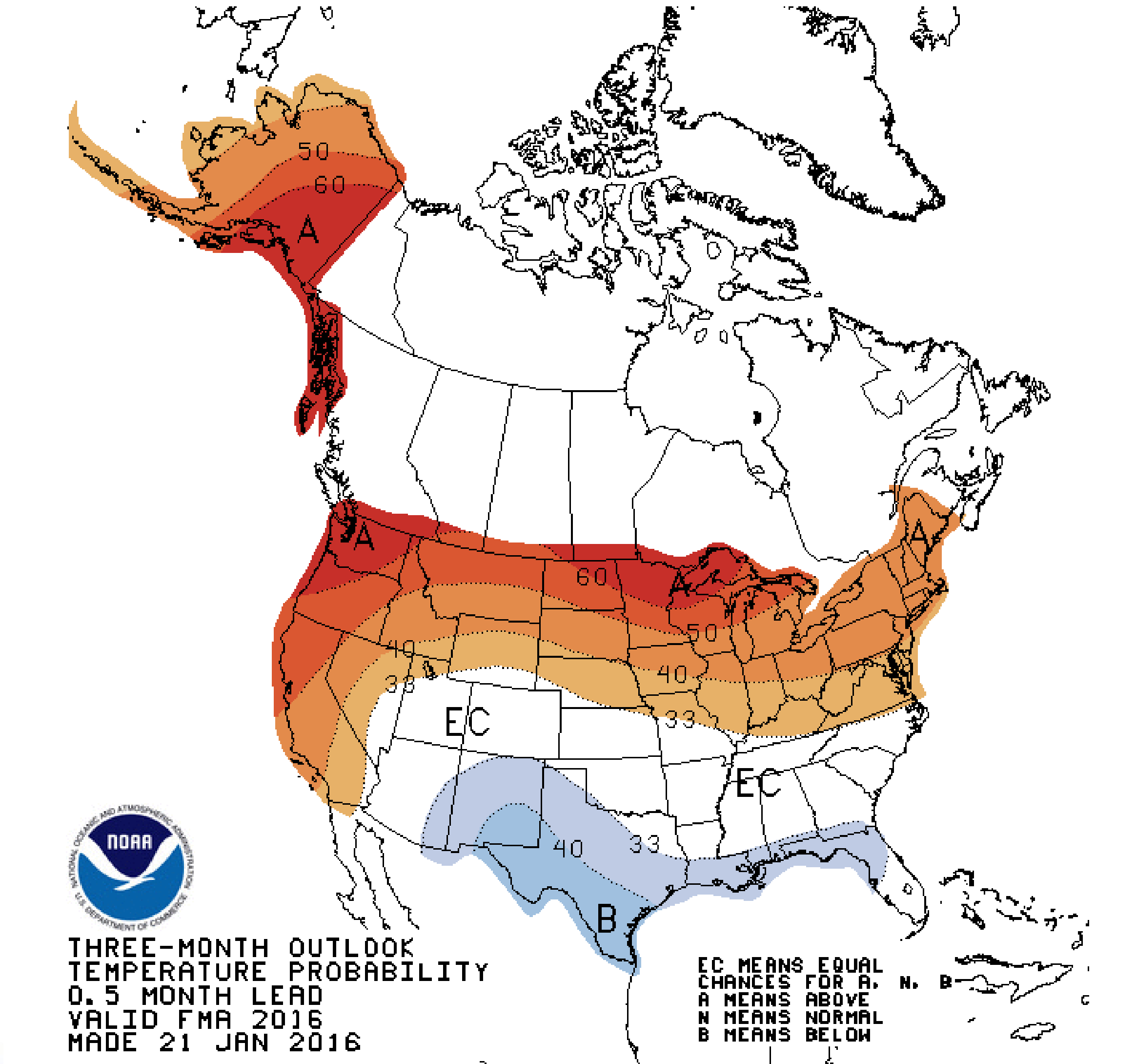
February, March, April 2016 Temperature Outlook



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Ohio Winter Season Degree Days
As of February 17, 2016

Degree Days Vs. Normal

Month	Actual	Normal	% Variance
Thru Feb 17	625	622	0%
Jan 2016	1139	1198	-5%
Dec 2015	679	1037	-35%
Nov 2015	521	668	-22%

Negative variance is warmer than normal

December 2015: Warmest December on record

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Storage & Gas Pricing

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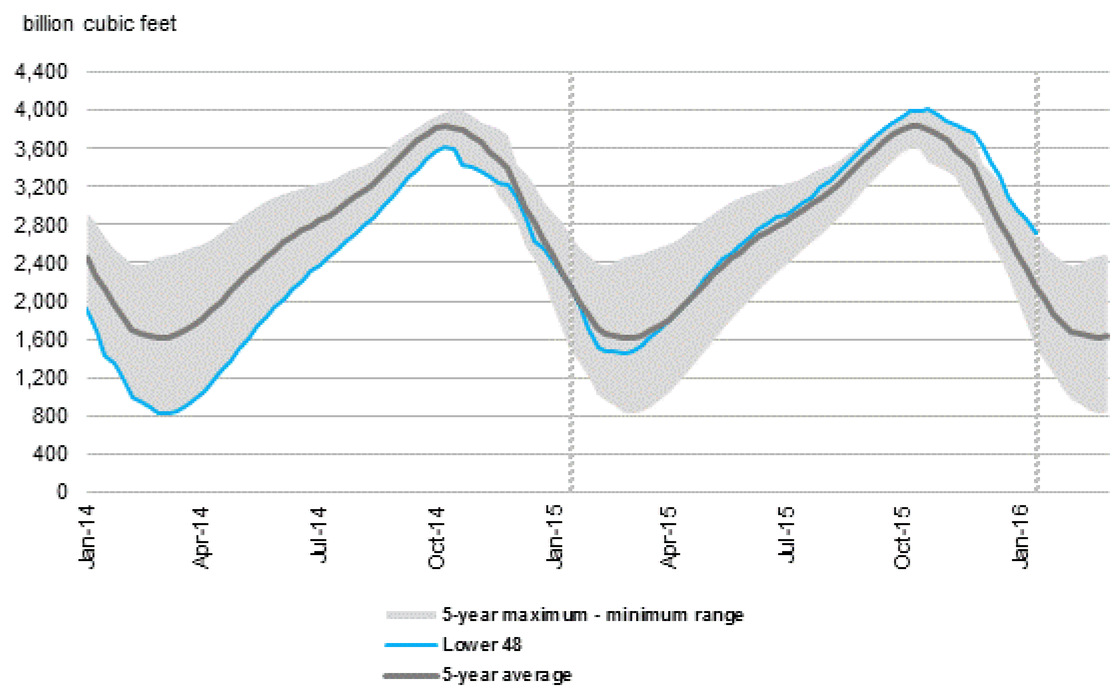
National Storage – Pretty Full Currently

Working gas in storage was 2,706 Bcf as of Friday, February 12, 2016, according to EIA estimates. This represents a net decline of 158 Bcf from the previous week. Stocks were 532 Bcf higher than last year at this time and 555 Bcf above the five-year average of 2,151 Bcf. At 2,706 Bcf, total working gas is within the five-year historical range.

Working gas in underground storage compared with the 5-year maximum and minimum



Source: U.S. Energy Information Administration

Note: The shaded area indicates the range between the historical minimum and maximum values for the weekly series from 2011 through 2015. The dashed vertical lines indicate current and year-ago weekly periods.

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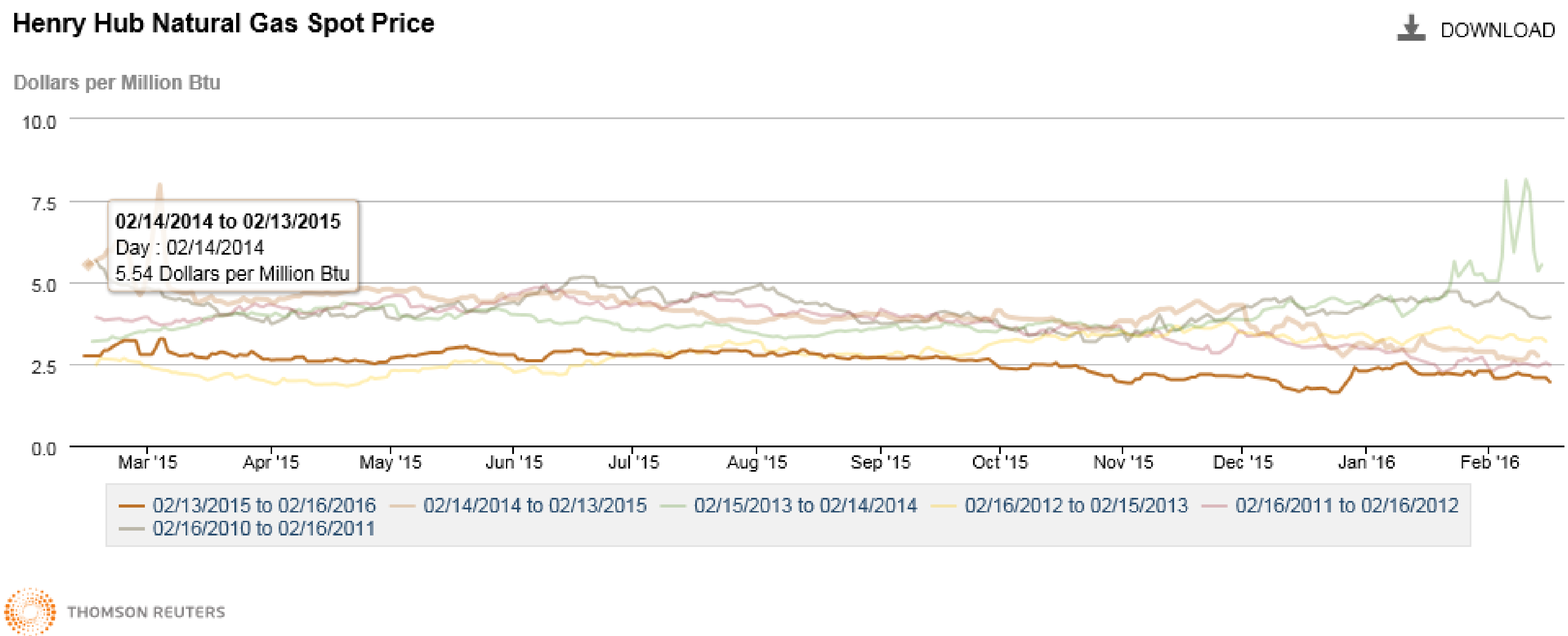
NYMEX Prompt Month Settlement – 5 Years



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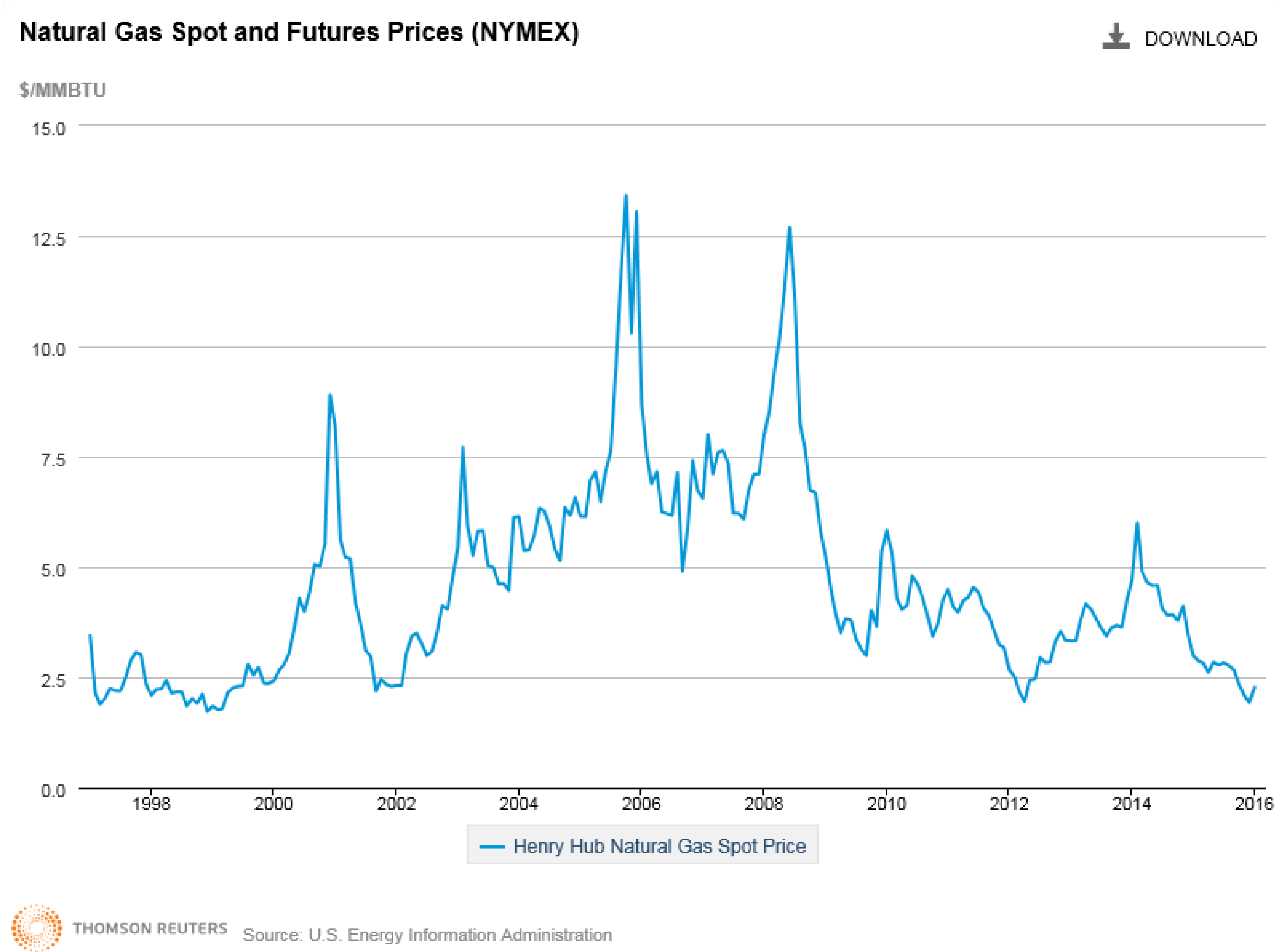
NYMEX Prompt Month Settlement History



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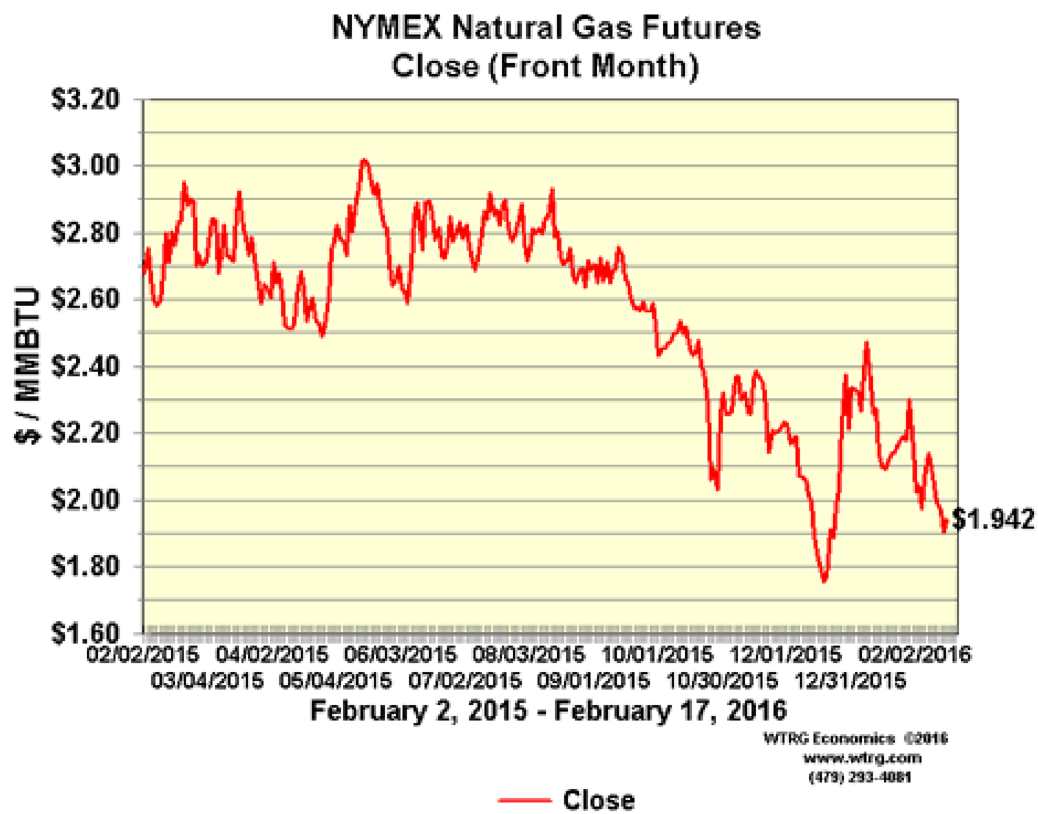
Natural Gas Futures Pricing



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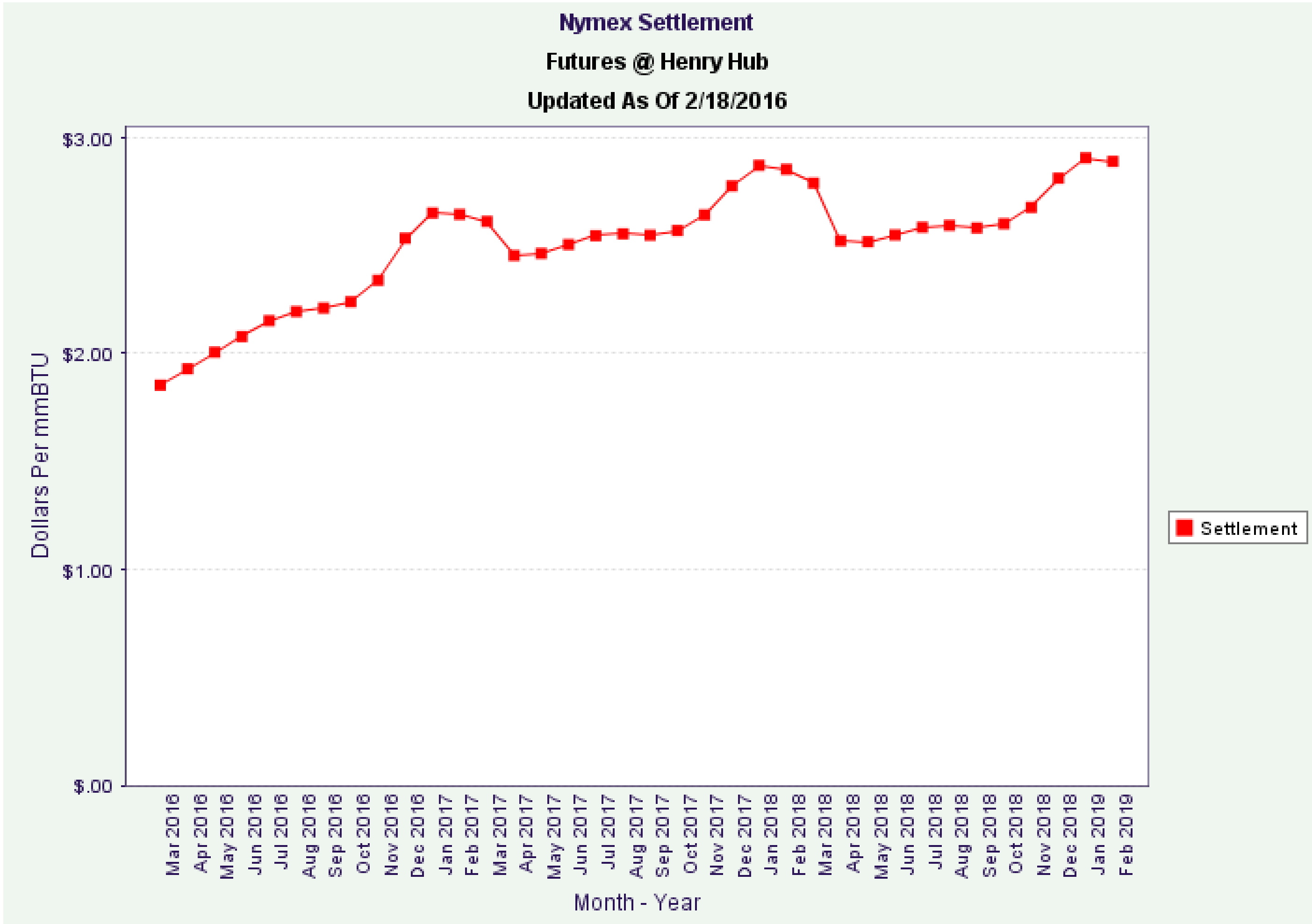
NYMEX Futures Settlement



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NYMEX Term Pricing – February 19, 2016

TERM	PRICE	PRICE 11-16-15
3 month	$1.93	$2.49 (-$0.56)
6 month	$2.03	$2.52 (-$0.49)
12 month	$2.23	$2.59 (-$0.36)
18 month	$2.33	$2.70 (-$0.37)

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Select Hub Pricing
February 19, 2016

HUB LOCATION	PRICE	PRICE 11-16-15	
Henry Hub	$1.88	$2.01	(-$0.13)
TCO Pool	$1.76	$1.91	(-$0.15)
Houston Ship Channel	$1.78	$1.98	(-$0.20)
Dominion South Point	$1.35	$1.08	(+$0.27)
TETCO M-3	$1.41	$1.15	(+$0.26)
TGP Zone 4	$1.19	$1.01	(+$0.18)

Dominion, TCO, TETCO, & TGP pricing is Marcellus Area

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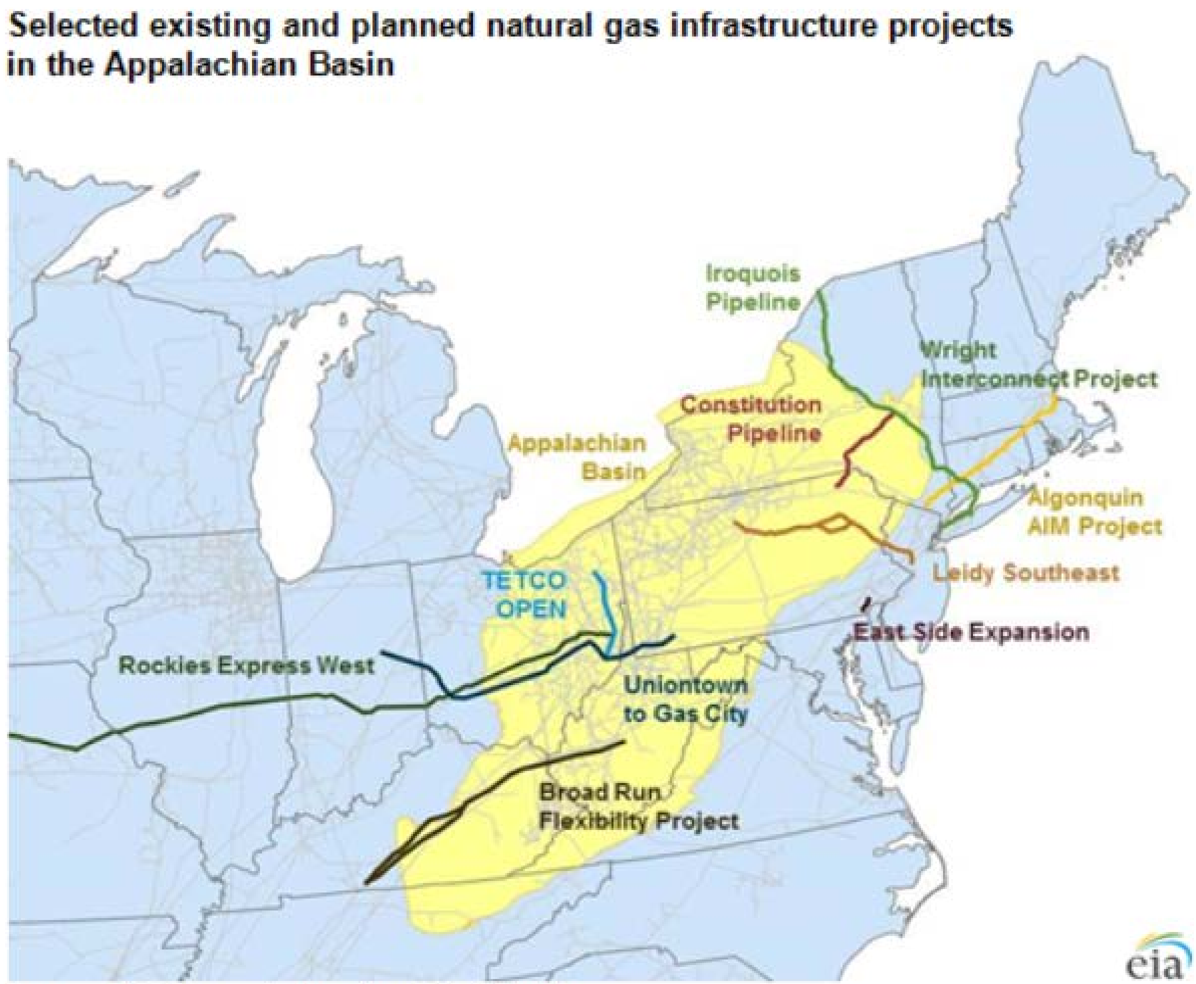
Key Pipeline Project – Late 2015 or Early 2016



Source: U.S. Energy Information Administration

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Shale Gas Production

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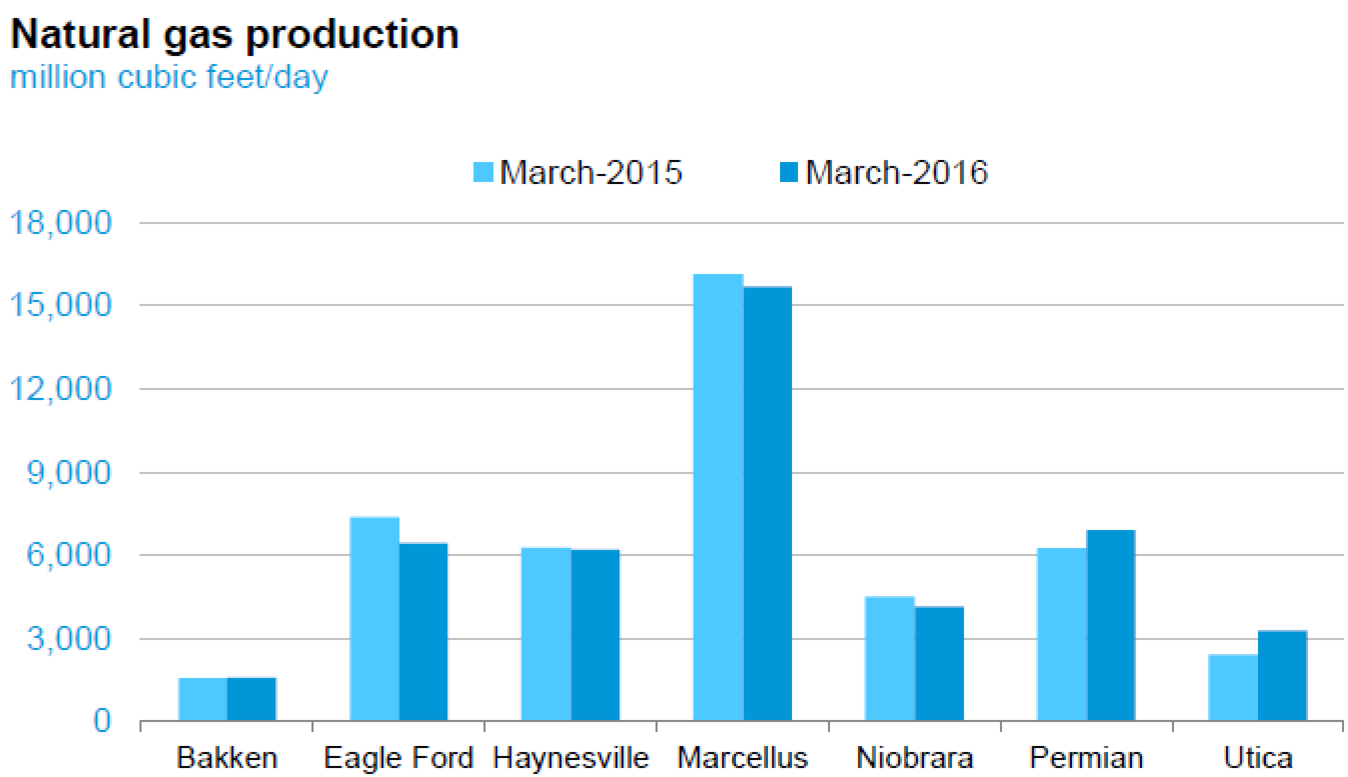
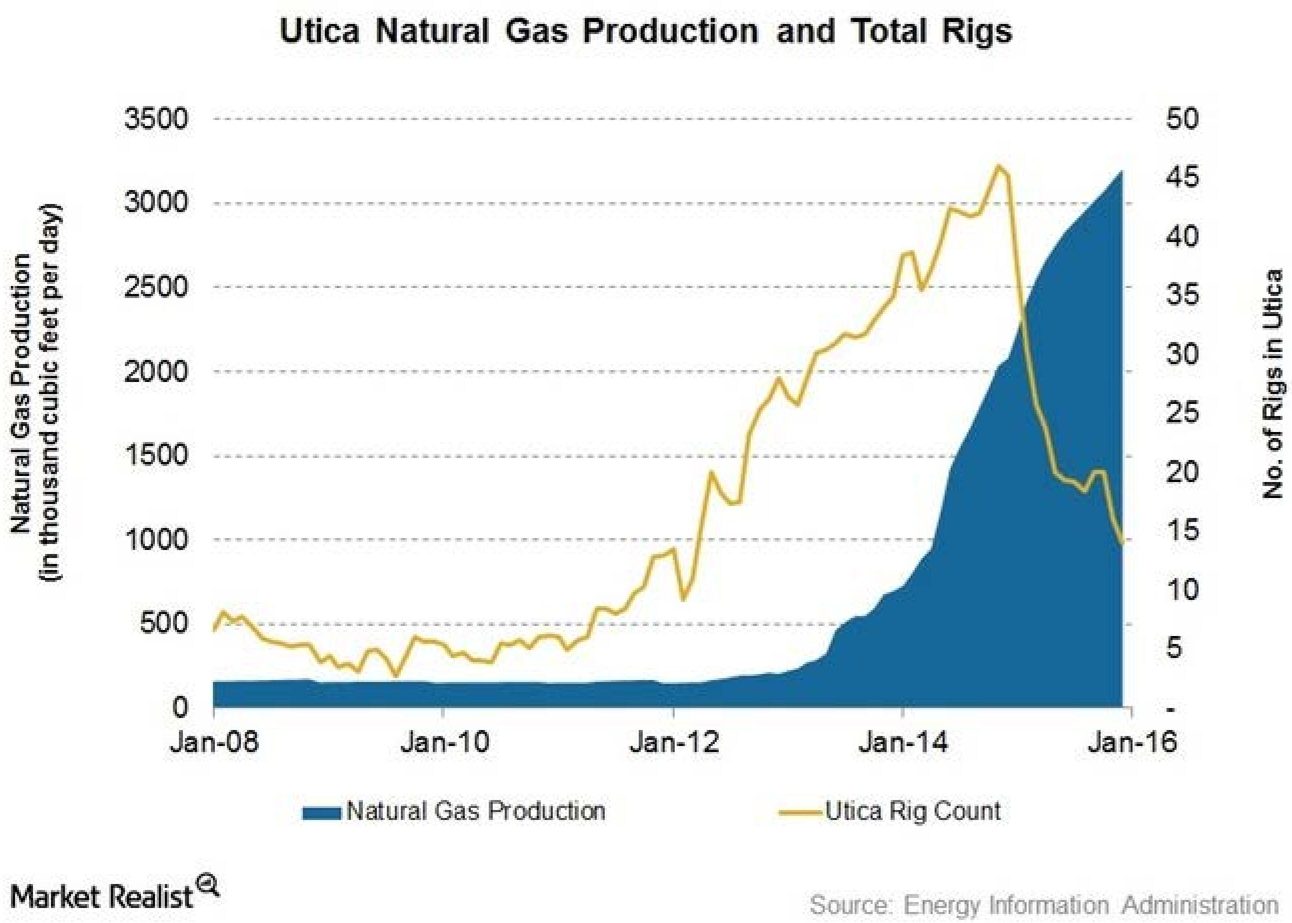
Gross Gas Production – All Formations in the Region



U. S. Energy Information Administration | Drilling Productivity Report

Utica Shale – Accounts for Fair Percentage of U.S. Natural Gas Production



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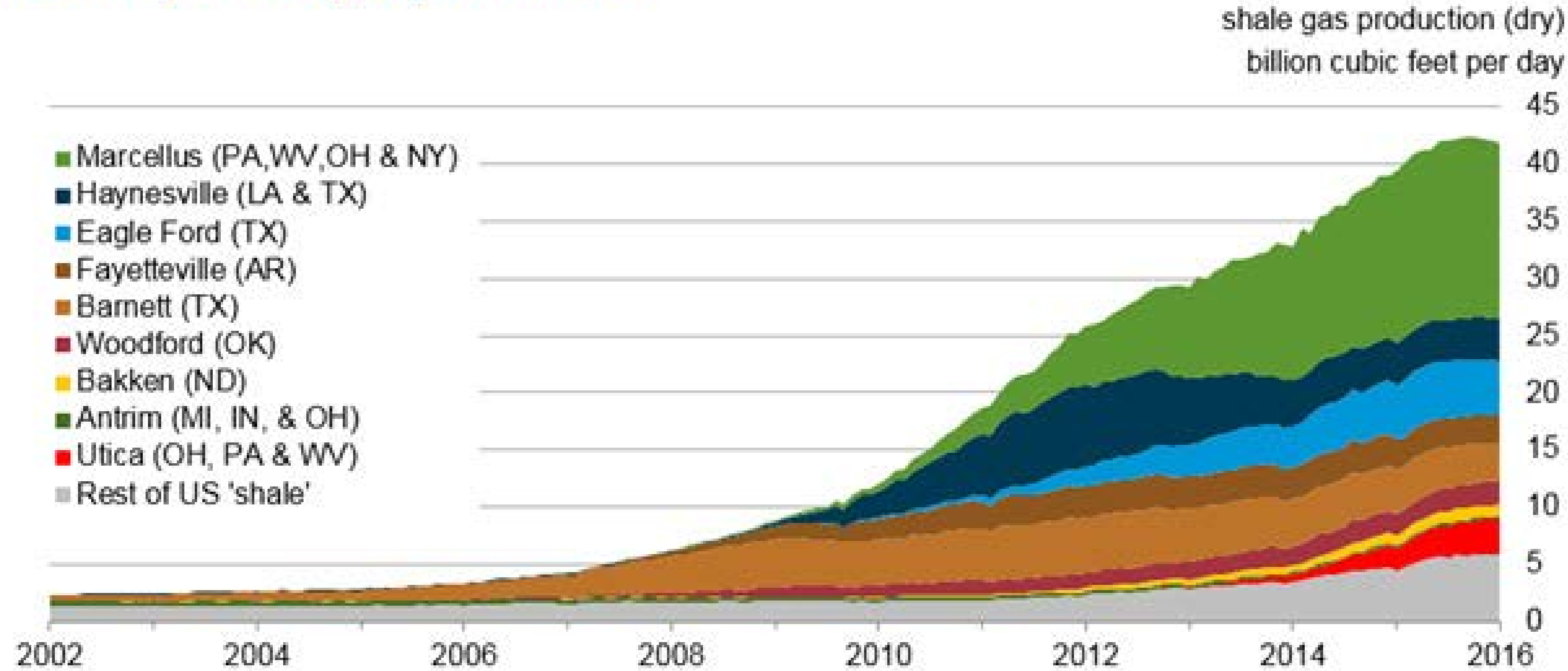
Marcellus – Important Shale Gas Play

U.S. dry shale gas production



Sources: EIA derived from state administrative data collected by DrillingInfo Inc. Data are through January 2016 and represent EIA's official shale gas estimates, but are not survey data. State abbreviations indicate primary state(s).

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Rig Counts

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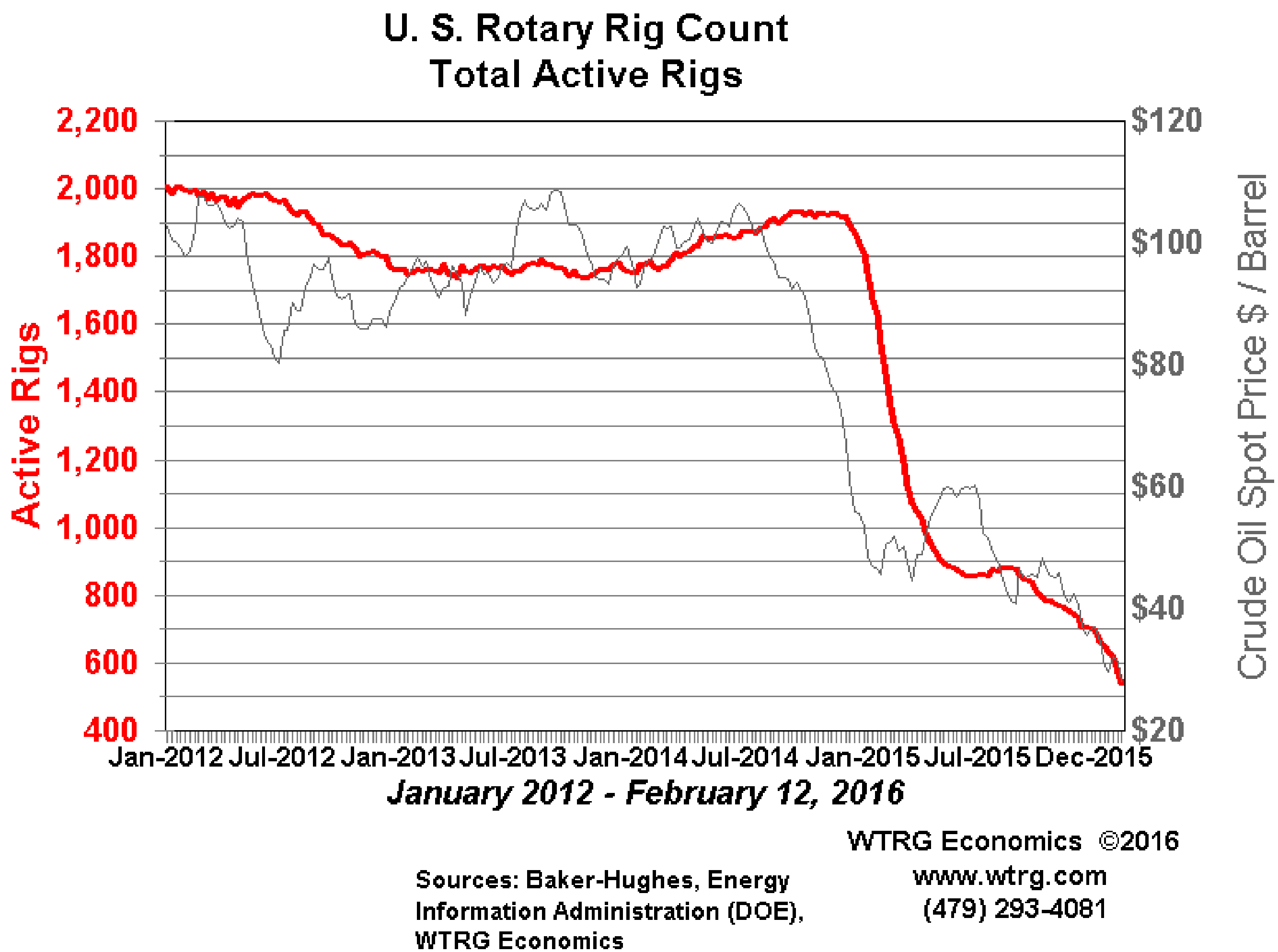
Short Term Active Rig Count



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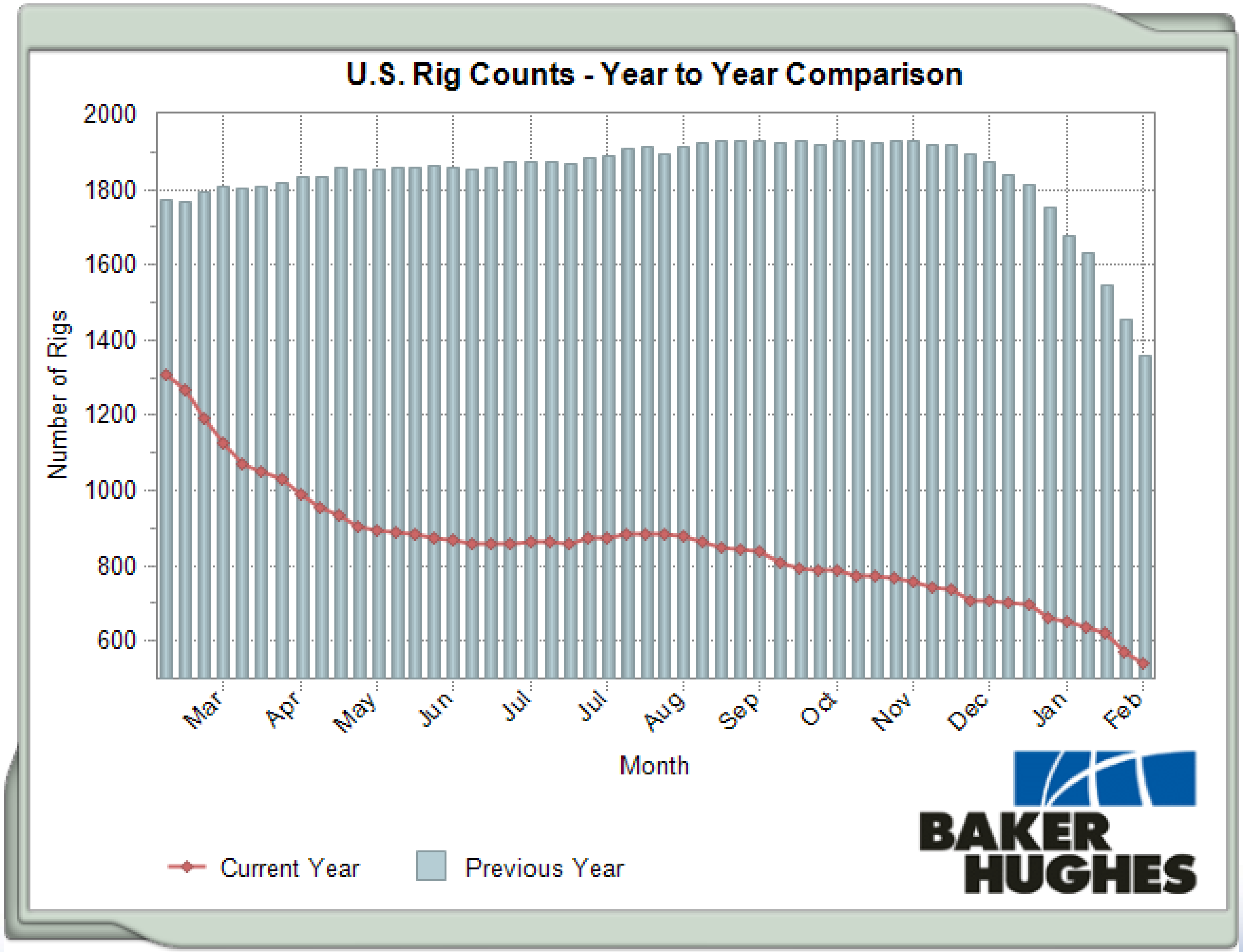
Land and Offshore Total Rigs 541 on Feb. 12, 2016 – Down -30 or -5.3% compared to last week Down -817 or -60.2% year-over-year



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PORTSFUTURE

OHIO UNIVERSITY

VOINOVICH SCHOOL OF LEADERSHIP AND PUBLIC AFFAIRS

OHIO MANUFACTURERS' ASSOCIATION PRESENTATION

FEBRUARY 25, 2016

The facility at Piketon, Ohio

PORTS FUTURE

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THE VOINOVICH SCHOOL

Since 1981, the Voinovich School of Leadership and Public Affairs has applied the knowledge and assets of Ohio University to solving problems and promoting growth in the Ohio Appalachian region, throughout the State of Ohio, and beyond

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PORTSfuture Project

Funded by DOE EM Portsmouth/Paducah Project Office

Since 2010, tasks performed for the benefit of the public interest and to inform cleanup efforts at the site

Activities focus on three thematic areas:

- **Education, Public Engagement, and Entrepreneurship**
- **Economic Modeling/Economic Impact**
- **Ecology, Hydrology, and Site Environment**

Project information and products: www.portsfuture.com

The facility at Piketon, Ohio

PORTS FUTURE

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Current Focus: IES

Site Repurposing-as cleanup advances, focus is on leveraging the assets of the US DOE PORTS facility near Piketon, Ohio for business growth and job creation

At the core of this effort is developing an Integrated Energy System (IES) complex

PORTS site is uniquely suited for siting an IES

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The facility at Piketon, Ohio

PORTS FUTURE

Ross
Pike
Jackson
Scioto

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Current Focus: IES

IES complex creates an exceptional opportunity to develop **regional clusters** in three industry sectors in Ohio and adjacent markets:

- Advanced manufacturing
- Energy
- Transportation/logistics

IES Vision

- The IES will be an engine that powers an "Energy Mall" incorporating fossil, renewable, nuclear, energy storage, T&D, and advanced energy technologies
- Collocating energy producers and process users
- We are inviting interested industries to join this effort as partners, anchor tenants, co-producers, and end users

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Benefits of Site Reuse

- Preserves and leverages public assets
- Creates opportunities for advanced manufacturing
- Includes private sector involvement to expand private enterprise and bring jobs to the region
- Creates regional economic stability & grows Ohio's economy

Who is Involved

- DOE EM PORTS officials
- Community Reuse Organization (known as SODI)
- Site contractors
- Ohio University
- National laboratories
- National experts
- Consultation with regional economic development entities, JobsOhio, OVRDC, citizens' advisory board, private industry and others

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Public Engagement: Future Use Scenario Preferences

Scenario	Preferences
Industrial Park	**421**
Green Energy Production	**475**
Multi-use Southern OH EC	143
National R & D	**418**
Training & Education	160
Greenbelt	131
Warehousing	179
Nuclear Power Plant	**495**
Metal Recovery	152

PORTS FUTURE

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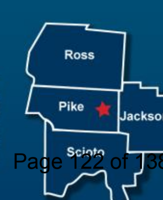
IES Premise

- Multiple energy resources combined together to produce one or more energy related products
- The “whole” is worth more than the sum of the “parts”
- “Value” is driver—not absolute “cost”

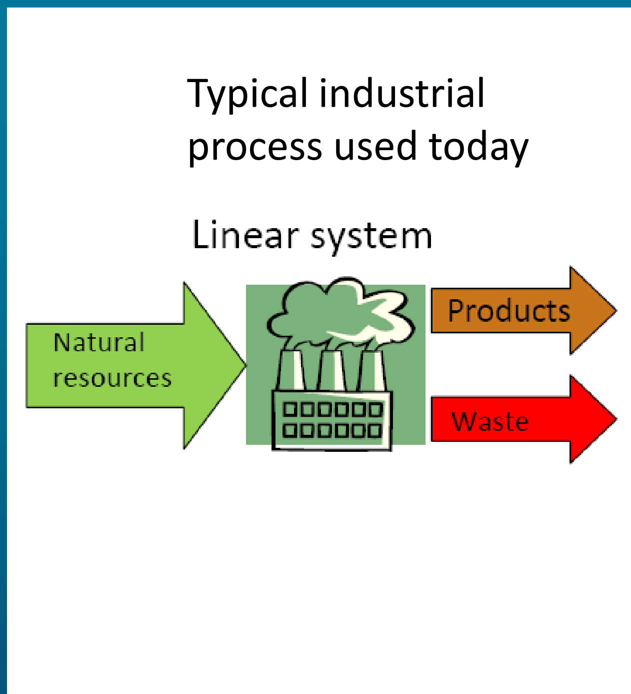
  Value Propositions:

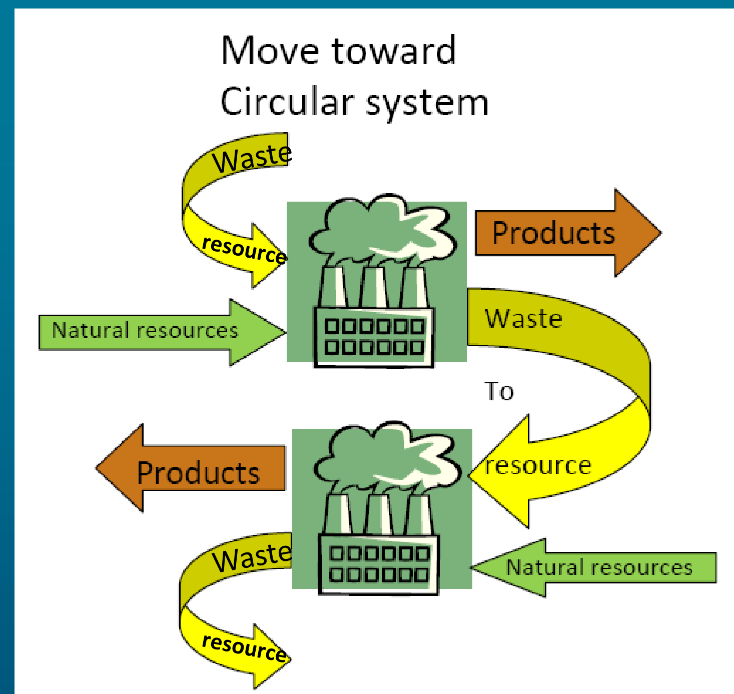
  - High Efficiency
  - High Reliability
  - Low Emissions
  - Acceptable/Low Cost

Synergistic integration of an “all-of-the-above” energy strategy



Industrial Symbiosis
(Closed Loop Manufacturing)





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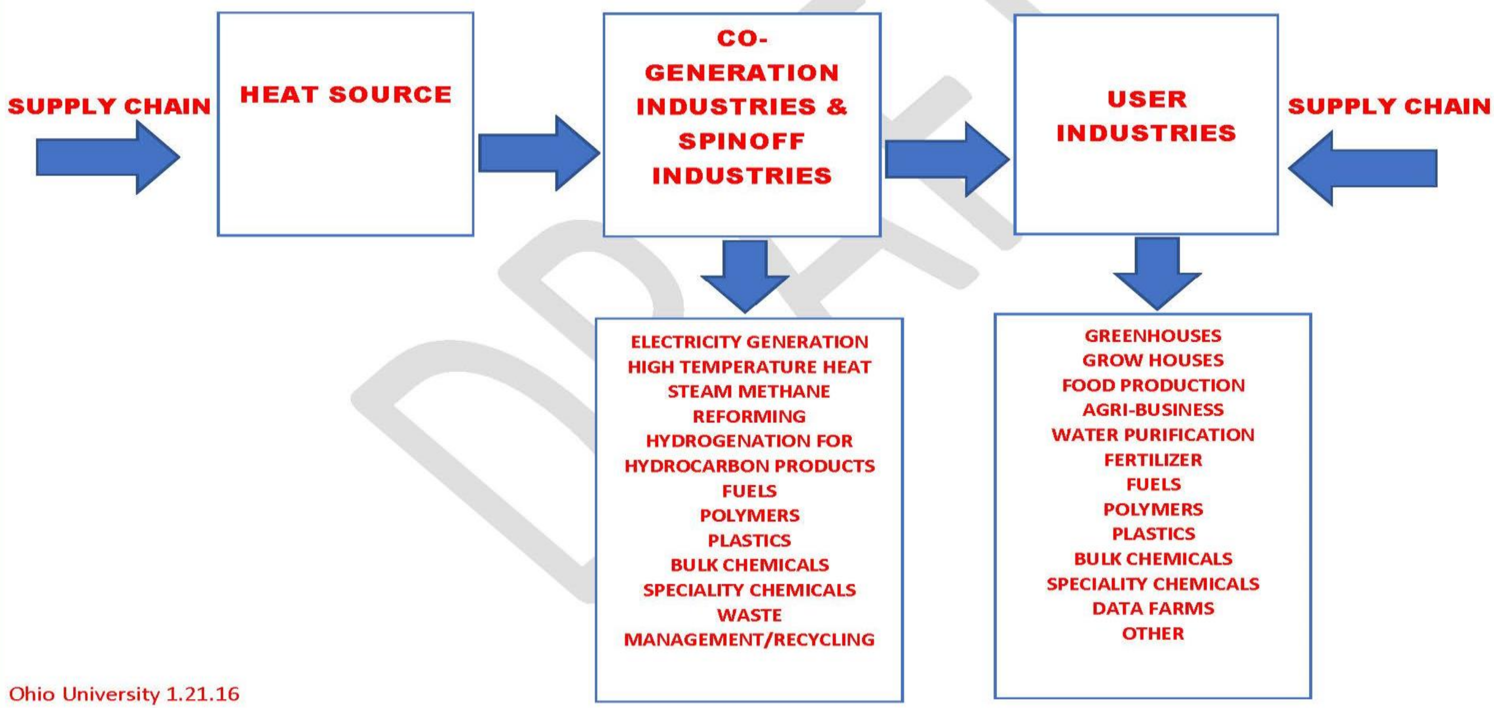
PORTS INTEGRATED ENERGY SYSTEM (IES) COMPLEX GENERATES HIGH TEMPERATURE HEAT FOR:

- ELECTRICITY GENERATION
- INDUSTRIAL APPLICATIONS
- HYDROGEN PRODUCTION VIA STEAM METHANE REFORMING FOR INDUSTRIAL APPLICATIONS



Ohio University 1.21.16

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IES Potential Benefits

- Effective resource management (cost savings)
- Higher overall energy usage efficiency
- Better utilization of capital equipment and lower operating expenses
  - Shared resources (e.g. infrastructure, facilities, personnel)
  - Shared processes (e.g. common/support systems)
- Good jobs will attract and retain talent and expertise for Ohio

IES Potential Benefits

- Reduced emissions [especially of carbon dioxide (CO_2)]
- Use of domestic resources rather than imported resources (e.g., petroleum)
- Industry collaboration and collocation
  - Jobs and more jobs (non-exportable)

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IES -Challenges

- Multiple organizations working together
  - Must integrate people before you can integrate systems
- Large capital investment
- Security (investment protection)
  - Potential targets by terrorists

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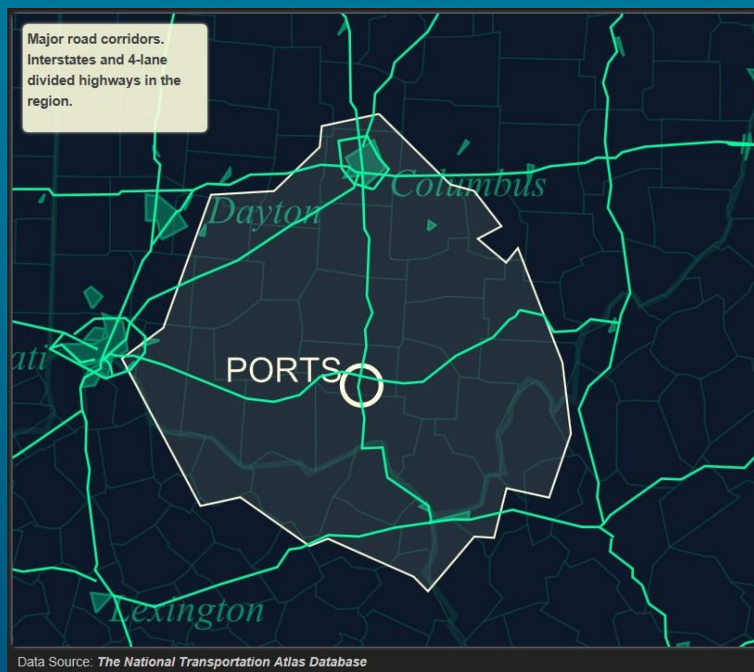
IES -Challenges

- Requires unique sites
- Near energy and other natural resources
- Excellent infrastructure
  - Heavy industrial
  - Electric transmission lines
  - Resource and product pipelines
  - Transportation

PORTS Site Assets

Central Location



Infrastructure Advantages

- Electrical Grid and Pipeline Distribution System
- Key IES industries create "cluster" opportunities
- One day drive to 70% of manufacturing markets in North America
- Available in a 2-hour drive:
  - 4 major airports
  - 1200 miles of rail
  - 600 miles of four-lane highway
  - 94 docks with Ohio River access

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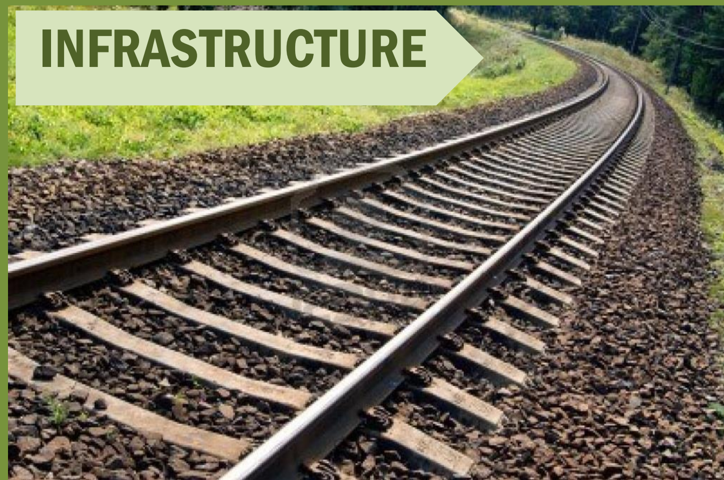
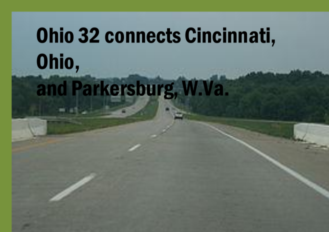
INFRASTRUCTURE



The Portsmouth Gaseous Diffusion Plant has ready access to a variety of transportation options that support shipping and receiving needs.



Ohio 32 connects Cincinnati, Ohio,
and Parkersburg, W.Va.

- Roads
  - Regional
    - Plant rests at intersection of two major four-lane divided highways
      - U.S. 23 is national north-south highway
      - Ohio 32 is substantial corridor from Cincinnati to Parkersburg, W.Va.
  - On site
    - Substantial network of roads connecting all portions of plant site

- Barge
  - Close proximity to Ohio River
  - Barge-to-rail transfer facility available
- Rail
  - Twelve miles of rail line on site
    - Connects to Norfolk Southern Heartland Corridor main line

The facility at Piketon, Ohio

PORTS FUTURE

Source: DOE EM PORTS Site Assets Power Point

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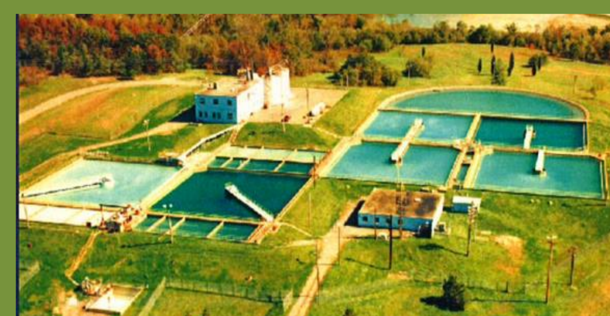
INFRASTRUCTURE

The Portsmouth site has substantial on-site excess infrastructure capacity available for immediate development opportunities.

- Power
  - 1,000 MW on-site installed interchange capacity
  - Connection to national grid
- Natural Gas
  - Connected to main transmission line to Pike Natural Gas
    - 8-inch line
    - Estimated 15,000 scfm available at site boundary
- Waste Water Treatment
  - On-site facility built in 1982
  - NPDES-permitted discharge to Scioto River
  - Design capacity 1.2 million gallons per day
    - Current usage 250,000 gallons per day

- Water
  - Raw water
    - Two well fields
      - Designed for ~40 million gallons per day
      - Site usage less than 2 million gallons per day
  - Potable water
    - On-site system designed for 5 million gallons per day



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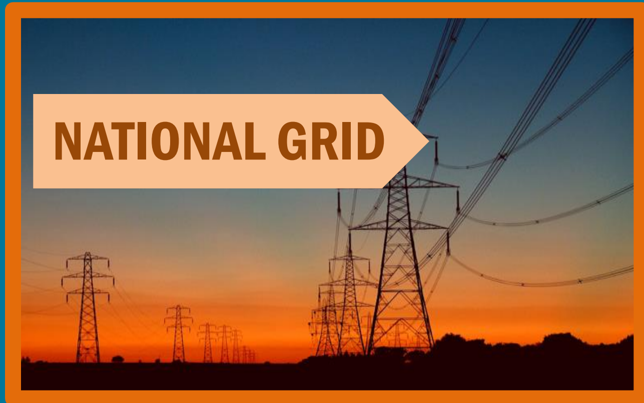
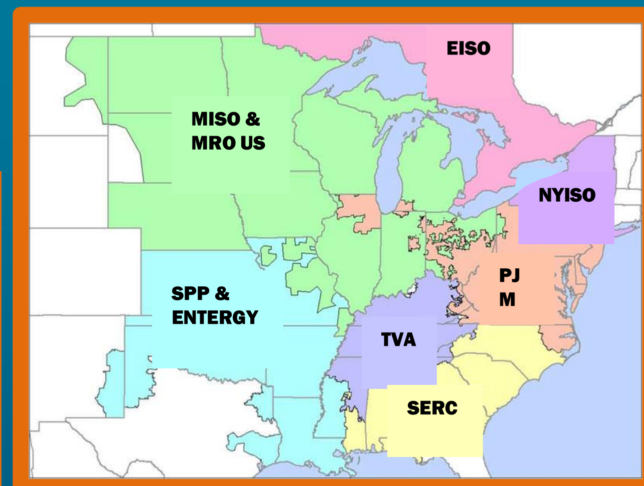


Portsmouth's extraordinary access to the U.S. electrical grid makes it a strategic location for either electricity generation or power usage.

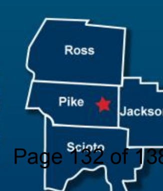
Eastern Interconnection

- ✓ Access to Eastern Interconnection exists on site
  - 5 independent access points
  - Potential for 10 access points
  - No right-of-way acquisition for transmission lines
    - Reduces or eliminates associated cost
    - Eliminates potential for public criticism from new construction
    - On-site connection to AEP 765kv high voltage backbone is available

The electric supply from Florida through Canada and from Oklahoma to Maine is carried by the Eastern Interconnection.



✓ **The Portsmouth site is electrically connected to two balancing authority areas and to two Reliability Coordination areas (PJM and MISO).**



PORTS FUTURE

The facility at Piketon, Ohio

Source: DOE EM PORTS Site Assets Power Point

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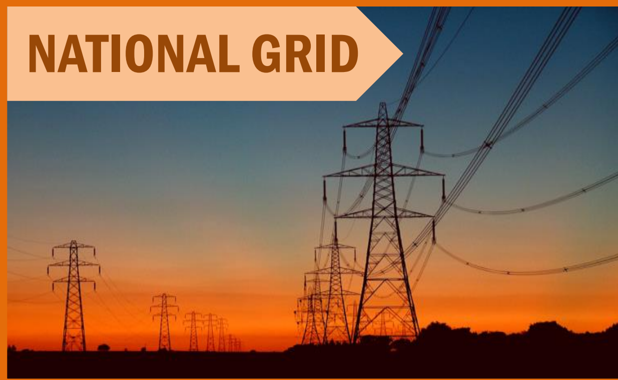
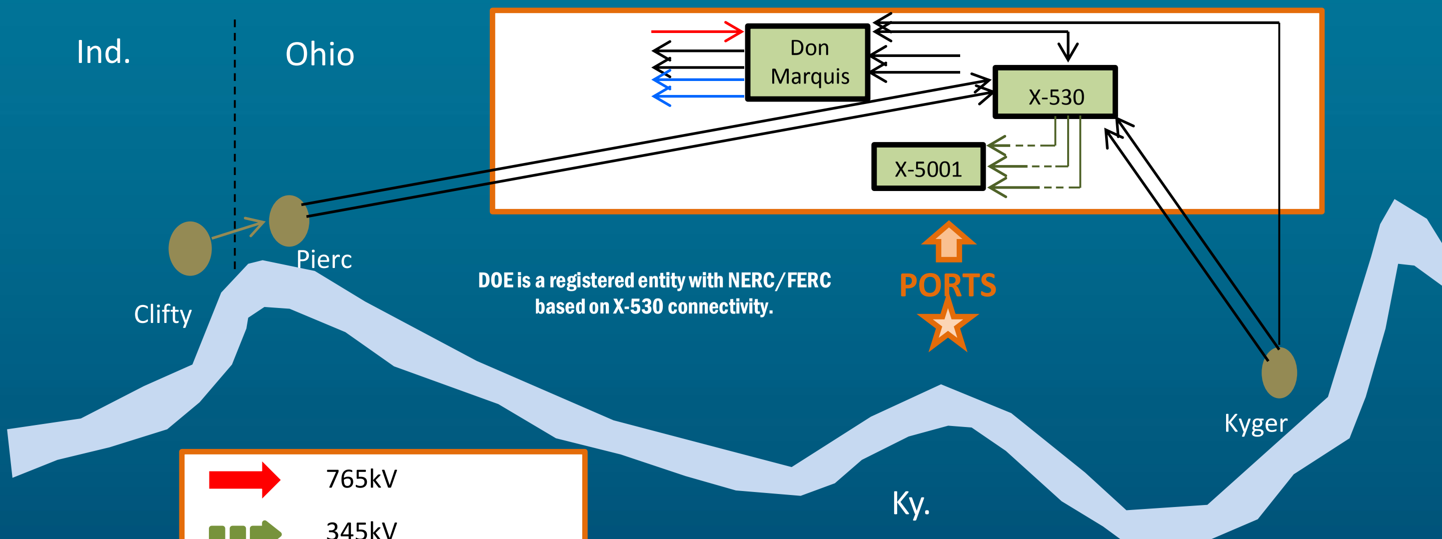
NATIONAL GRID



The Portsmouth site has extraordinary access to the U.S. electrical grid and eliminates the need for right-of-way acquisition to connect.



DOE is a registered entity with NERC/FERC based on X-530 connectivity.

The facility at Piketon, Ohio

PORTS FUTURE

Ross Pike Jackson Scioto

Source: DOE EM PORTS Site Assets Power Point

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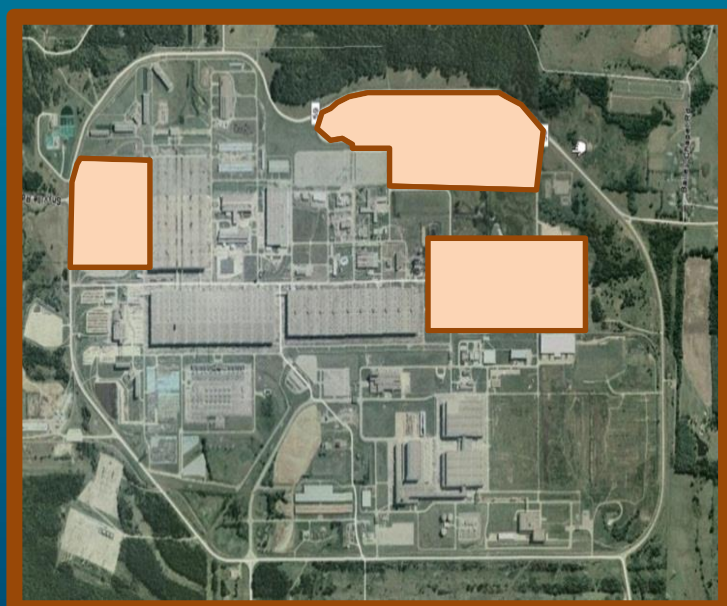
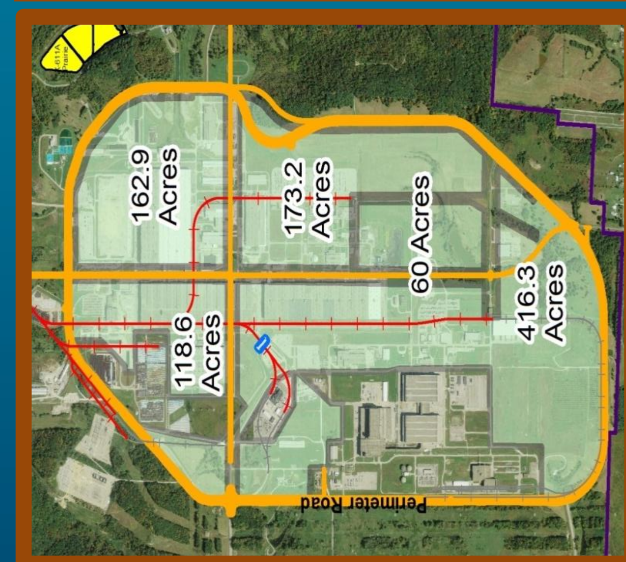
The DOE is undertaking significant analysis and working through the regulatory process with a goal of maximizing the amount of land that could be made available for reindustrialization.





The facility at Piketon, Ohio

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PORTS INTEGRATED ENERGY SYSTEM (IES) COMPLEX

BUSINESS AND INDUSTRY

CREATE THE DEMAND FOR AN IES

- OHIO BUSINESS ROUNDTABLE
- OHIO MANUFACTURERS ASSOC.
- MAJOR ENERGY COMPANIES (AEP, Marathon, BW Nuclear, GE Biofuel, Consol, Dynegy, First Energy, etc...)
- GROWTH INDUSTRIES THAT CONSUME VAST ELECTRICITY
- INDUSTRIES IN NEED OF HIGH TEMPERATURE HEAT
- TRADE ASSOCIATIONS
- OTHER

STATE OF OHIO

- GOVERNOR
- JOBS OHIO/APEG
- OHIO GENERAL ASSEMBLY
- OHIO WORKFORCE INVESTMENT BOARD
- HIGHER EDUCATION INSTITUTIONS
- OTHER

FEDERAL

- APPALACHIAN REGIONAL COMMISSION (INCLUDING OVRDC)
- INTEGRATION WITH RELEVANT DOE OFFICES
- NATIONAL LABORATORIES
- US DEPT. COMMERCE/EDA
- US DEPT. LABOR
- US DEPT. AGRICULTURE
- US CONGRESS (HOUSE & SENATE)

FINANCING STRATEGIES

- PRIVATE SECTOR INVESTMENTS
- CAPITAL MARKETS
- PUBLIC PRIVATE PARTNERSHIPS
- OTHER

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Wrap Up

- Questions and comments
- Upcoming opportunities:
  - Advanced manufacturing roundtable
  - Site visits
  - Other engagements to learn more about this effort

The facility at Piketon, Ohio

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For more information on the project, visit www.portsfuture.com

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