

10:00 a.m. (EST)

1-866-362-9768

940-609-8246#



**OMA Energy Committee Agenda
November 21, 2019**

Welcome and Introductions

Brad Belden, President, Belden Brick
Committee Chair

State Public Policy Report

- State Government Overview
- Power Plant Subsidies / House Bill 6
- Other Legislation

Ryan Augsburger, OMA Staff

Energy Engineering Report

- HB 6 Implementation & EE programs
- Virtual PPAs
- Bill Analysis of HB 247
- PJM Updates on Capacity Auctions & Demand Response

John Seryak, PE, RunnerStone, LLC
OMA Energy Engineer

Counsel's Report

- House Bill 6 Implementation
- PUCO Case Highlights
- Ohio Supreme Court Decisions

Kim Bojko, Carpenter Lipps & Leland
OMA Energy Counsel

Natural Gas Market Trends

Richard Ricks, NiSource, Columbia Gas of Ohio

Electricity Market Trends

Susanne Buckley, Scioto Energy

Lunch

**2020 Energy Committee Calendar
Meetings will begin at 10:00 a.m.
Meeting Dates Coming Soon!**

Meeting sponsored by:



To: OMA Energy Committee
From: Ryan Augsburger
Re: Energy Policy Report
Date: November 21, 2019

Overview

Final legislative action on House Bill 6, far-reaching electricity regulation legislation, occurred in mid-July. A referendum effort failed to materialize and the bill became effective in late October. Everything surrounding HB 6 was supercharged. The bill in its final form will distort electricity markets denying customers of the long-term benefits of competition. New costs, some known and some unknown, will hit customers of all sizes. The legislative skirmish lasted just over three months.

The OMA has been an opponent to the policy changes that require customers to subsidize power plants that are not needed. The OMA is advocating to protect manufacturing interests in the implementation of the bill. Other market distortion bills are pending in the legislature and energy policy will continue to be a top issue area for the entire 2019-2020 legislative session.

Nuke Bailout – House Bill 6 Becomes Law

After being panned by dozens of important stakeholders, legislation to subsidize the uneconomical nuclear power plants stalled out last session. FirstEnergy Corp.'s (FE) unregulated subsidiary, FirstEnergy Solutions (FES), owns Ohio's two nuclear power plants among a portfolio of generation that has been considered uneconomic. Hence, they sought government bailout in various forms over the past five years. Those efforts were repelled.

Then following the 2018 General Election and ensuing legislative leadership election, House Bill 6 was introduced in late April. The bill was extensively revised in order to win support of electric utilities. Mostly this was accomplished with the addition of a bailout subsidy for two old, uneconomic coal power plants (including one power plant in Indiana). These plants are owned by the Ohio Valley Electrical Corporation (OVEC) whose shareholders are utilities and other energy companies. The bill also largely orders a stop to Ohio's utility-administered energy efficiency programs and renewable energy standards.

Throughout the many versions of the bill, OMA staff and retained experts have produced extensive analysis for the membership and engaged the membership. In the end, the bill was narrowly approved by both the House and the Senate. Votes for the divisive bill were not along partisan lines. In the aftermath, several media outlets reported or editorialized on the political activity surrounding the bill. It is believed that proponents spent more money to support HB 6 than any other piece of legislation in modern history.

Many OMA members actively engaged to advocate against the bill and the OMA voice was among the most impactful during the legislative debate. The OMA issued *key vote* alerts.

Proponents of the bill made claims that simply were not true, however lulled many policymakers and other stakeholders into thinking the bill was good policy. HB 6 is only a win if you are FirstEnergy, FirstEnergy Solutions, OVEC, or their shareholders. Everyone else loses.

HB 6 Referendum

An effort is underway to repeal HB 6 via state referendum failed due in large part to massive campaign block signature collection by scaring voters with bogus claims of interference by the Chinese government. The campaign was sleazy, but effective. The many tens of millions of dollars that were invested will be handsomely returned to the owners of the nuclear power plants who stand to pocket \$2 billion in profit from captive Ohio ratepayers under HB 6.

FES Bankruptcy

Simultaneous to the legislative theater, FES filed for bankruptcy protection in March 2018. Shortly thereafter the bankrupt company notified regulators of its intent to shutter the power plants in a few years.

A settlement between FE, FES, and the stakeholders is still pending approval. The plant owners together with concerned local government leaders have used the plant closure announcements to lever political support for state and federal bailouts. The beneficiaries of any possible bailout would seem to include speculative investors (hedge funds), former parent FE, and local governments hoping to prevent local job loss and tax revenue.

Government attorneys and judges have expressed concern to FE and FES of their continued liability for decommissioning costs at some point in the future.

HB 6 Implementation – What Next?

The provisions of HB 6 became effective in late-October. The bill delegated immense new authority and price-setting to the PUCO and other state agencies. The OMA Energy Group has been participating in those proceedings to protect manufacturing interests. Members are invited to support this effort.

At the August 29 OMA Energy Committee meeting the committee heard a presentation on how the soon-to-be-subsidized generation will be walled off from the PJM capacity market and a state construct will likely be required to facilitate the purchase of the subsidized electrons...this move is believed to hike customer costs.

Post HB 6 Legislative Activity

In the months since HB 6 was completed both the Ohio House and Ohio Senate appear poised to do more. Unfortunately, customer protection does not seem to be in store. Instead we are monitoring new proposals that will protect utilities and erode Ohio's deregulation law.

House Bill 247

Months after lawmakers gave utilities and other interests the opportunity to force captive ratepayers to pay for new generation, HB 247 would go further in allowing distribution utilities to offer services beyond distribution. It seems unnecessary and anti-market. One utility is aggressively lobbying for this bill and has asked their large manufacturing customers to pen a letter of support. Don't be fooled. The OMA has been communicating extensively about this threat. The OMA opposes HB 247. See attached resource material.

House Bill 246

Is a placeholder bill to modernize the laws governing the PUCO and OCC. There has been a lot of speculation on what the bill may contain. Too early to know for certain.

House Bill 104

Introduced by Representative Dick Stein (R-Norwalk), HB 104 is intended to spur research and development of molten salt nuclear reactors in Ohio via state tax dollars. The bill also advances Ohio as a hub for radioactive wastes. The OMA has written the primary sponsor to convey concerns (see attached). Many other Republican legislators have co-sponsored this unwise legislation.

House Joint Resolution 2

Representatives Don Manning of Youngstown and Jamie Callender of Lake County recently provided proponent testimony on HJR 2 to place on the ballot an amendment to the Ohio Constitution to ban foreign interests from owning critical energy infrastructure. The move dovetails with the pro-HB 6 China-bashing campaign. Some believe the resolution is political retribution to referendum proponents.

In today's global economy, a state provision against foreign ownership seems unwise. Precedents abound for other commercial activity. For example, foreign interests invest heavily in manufacturing businesses in Ohio.

Senate "Comprehensive" Energy Reform

In mid-October Senate Energy & Public Utilities Chairman Steve Wilson (R-Maineville) signaled the Senate would focus on grid reliability as a central component in the Senate's comprehensive energy

reform package. This is a curious, albeit familiar refrain from a policymaker since the grid is more reliable than ever today.

Trump Administration Favors Nuke and Coal Bailouts

For nearly two years, some nuclear and coal interests have had success in lobbying the federal government to order nuclear and coal (as specified) power plant bailouts on a national basis. The Trump Administration backed away from plans to require customers to subsidize unprofitable power plants under the guise of national security or resiliency. The government involvement bears continued scrutiny. DOE Secretary Perry is stepping down at the end of the year, but his successor is expected to continue the stance perhaps more forcefully. Also of note Ohio-based coal company Murray Energy filed for bankruptcy protection in November.

PJM on Resiliency and Power Auctions Delayed

Throughout the recent legislative subsidy debates at the General Assembly, grid operator PJM Interconnect had been clear to dispel the myths of poor fuel diversity and electric supply shortages affecting “reliability.” However, more recently, PJM issued a report justifying some possible basis for grid “resiliency.” The OMA has an analysis on current PJM activity but further proceedings at PJM will be needed for clarity. Remarkably, PJM has postponed indefinitely the planned energy auction to assess how the market can fairly operate in the face of widening market manipulation via state subsidies.

Utility Seeks to Shift Risk from Shareholders to Customers

The regulated monopoly electric distribution utility (EDU) AEP Ohio has a controversial application pending at the PUCO to allow the utility to develop in-state renewable energy generation. If the application is approved, customers will be required to pay an additional rider on their power bill to subsidize the renewable energy projects.

The case is not about renewable energy which is flourishing in Ohio as a result of increasingly favorable market attributes. To the contrary, the case is about whether a utility should be allowed to violate a prohibition of an EDU controlling generation rather than being the agnostic distributor for power. Ohio deregulated the generation of electricity decoupling it from distribution twenty years ago. As such, the proposal is anti-competitive.

There is nothing preventing AEP Ohio's parent company (AEP) or an unregulated affiliate from developing the same renewable project while taking on ordinary business risk instead of offloading the company's (shareholders') risk to the captive customers. In fact, AEP recently announced they would invest over a billion dollars to develop renewable generation following rejection of similar proposals in other states. The OMA Energy Group has been a leading opponent of the proposal at the PUCO.

House Bill 6 now contains language to change the law to authorize this sort of activity. The costs to customers can be significant. This is yet another erosion to the marketplace. See HB 6 analyses.

Protecting Competitive Electric Markets

In 1999, with the passage of Senate Bill 3, Ohio began a transition to deregulated generation. That transition has delivered customer choice, cost-savings and innovation. One of the main tenets of deregulation was forcing then-integrated utility companies to sell or spin-off their generation. “Stranded costs” and other above-market surcharge constructs enabled the utilities to have their generation paid for by Ohioans for a second time. HB 6 represents yet another above-market payment to utilities and power plant owners by customers who realize no benefit.

The OMA has been a proponent of markets, supporting the original deregulation legislation and opposing utility profit subsidy schemes that distort the market and result in new above-market charges on manufacturers' electric bills. Several noteworthy studies have demonstrated how the market delivers lower prices, choice and innovation without compromising reliability. NOPEC in August issued an updated study that pegs customer savings at \$24 billion over eight years. With the passage of HB 6, competitive markets are under attack in Ohio.

OVEC Bailout

Last session, the OMA opposed legislation to provide over one hundred million dollars per year to the owners of aging coal plants (one in Ohio and one in Indiana) operated by the Ohio Valley Electric Corporation (OVEC). The OMA had also opposed subsidies for OVEC in rate cases at the PUCO. In a decision by the Supreme Court in late 2018, the Court effectively allowed utilities to collect the rider to subsidize OVEC under terms of a specific Electric Security Plan (ESP). An OVEC bailout for the out years beyond the terms specified in the Court decision is now included in HB 6.

Excessive Earnings

With all eyes on HB 6, lobbyists for FirstEnergy also won House approval of a provision that allows the Akron-based electric distribution utility to earn more profit. The OMA opposed the provision and urged lawmakers to remove it in both the House and Senate. The consequence: all FirstEnergy service customers will not get relief from overpayment. No further action. This was completed mid-summer.

On-Site Generation Taxed in Ohio

The Ohio Department of Taxation is sending out tax bills to third parties operating on-site generation, be it wind, solar or onsite gas generation. The Department contends that a customer who generates power should pay generation tax the same as a utility. The Department's basis for collecting the tax is tenuous. The OMA supports a legislative correction for all forms of onsite generation.

Energy Standards Legislation

After six years of back and forth policy battles, HB 6 dismantled the standards for efficiency and renewable energy. Siting requirements for large scale wind generation projects were not part of the debate. HB 6 will now give monopoly distribution utilities an unfair advantage in building new renewable energy at captive customers expense. Energy efficiency programs are being wound down in short order, so manufacturers who are using rebates will want to claim them soon.

Energy

Report Compares Costs of Electrical Generation

November 15, 2019

Lazard, one of the world's top financial advisory and asset management firms, has released its **annual report** on the levelized cost of electricity — based on type of generation. The report shows some unsubsidized renewable costs are approaching the pricing of traditional generation. It also shows that nuclear power remains a competitive energy generation source (\$27-\$31 per MWh) compared to both renewables and natural gas combined cycle generation. *11/13/2019*

Senate is Working on 'Comprehensive' Energy Reform

November 15, 2019

Consistent with recent media statements, Ohio Senate Energy and Public Utilities Committee Chairman **Steve Wilson** (R-Maineville) announced this week that informational testimony on energy reliability will commence Dec. 10 as part of the Senate's work on "comprehensive" energy policy.

Studies and expert insight **dispel** the notion that Ohio has a reliability problem. To the contrary, because of market-based generation, Ohio enjoys record high reserves of electric generation, which lessens the threat of shortages and price spikes. *11/14/2019*

FirstEnergy Seeks to be Made 'Recession Proof'

November 8, 2019

During an investor call this week, FirstEnergy CEO Chuck Jones announced the distribution utility would file a decoupling application with the PUCO as permitted by the recently enacted House Bill 6. Ohio's other electric utilities could follow suit later this month.

Decoupling allows a utility to fully recover investments and operating costs at 2018 levels even if sales decline due to customer efficiency improvements. Gongwer News **reported** that the FirstEnergy CEO touted the decoupling rider for making the monopoly "recession proof." According to an **OMA analysis of HB 6**, the nuclear bailout bill includes provisions that will

impose new costs on customers, among them the new decoupling rider. Currently, FirstEnergy recovers part of its distribution costs through its energy efficiency rider, which is going away under HB 6. As a result, FirstEnergy claims it cannot recover its entire distribution costs, and that the decoupling mechanism is necessary to recover costs formerly captured by the terminated energy efficiency charge. Captive customers will be required to pay the utility to make it whole from the loss of energy efficiency profits. Many larger industrial customers have already opted-out of the energy efficiency rider, so the decoupling rider will constitute a new cost to those customers.

Make no mistake, this is another utility profit scheme that comes at customers' expense. This topic will be discussed at the Nov. 21 **OMA Energy Committee meeting**. Support ongoing energy advocacy by joining the **OMA Energy Group**. *11/7/2019*

Power Siting Board Throws Wrench in Plans for New Solar Project

November 8, 2019

In mid-October, the Ohio Power Siting Board deviated from its standard practice by denying final approval of a larger, 80-megawatt solar project planned for southern Ohio. The board, which must approve any new commercial power generation facility — traditionally OKs new generation facilities that have been advanced to this stage.

The move **has alarmed** renewable energy developers and clean energy advocates. Moreover, it raises questions about how Ohio's siting process will work going forward. Billions of dollars are being invested by businesses to develop new gas and renewable power generation in Ohio. *11/7/2019*

Ohio House Takes Aim at 'Foreign Ownership'

November 1, 2019

As fallout from the failed referendum effort to overturn Ohio's nuclear subsidy law (HB 6), customers and developers of new power plants seem to be the target of political retribution. This week, the sponsors of a proposed constitutional

amendment presented testimony in support of House Joint Resolution 2. The measure would place an amendment to Ohio's constitution on the statewide ballot, enabling Ohioans to cast a vote to bar foreign interests from controlling "critical energy infrastructure" in Ohio.

In their testimony, the resolution's sponsors — State Reps. **Don Manning** (R-New Middletown) and **Jamie Callender** (R-Concord Township) invoked language reminiscent of McCarthyism and the Red Scare. The proposal is extremely troubling on a policy level. If approved, it could have dire consequences for power customers and Ohio's economy. It also establishes a precedent of prohibiting foreign investment of business in Ohio.

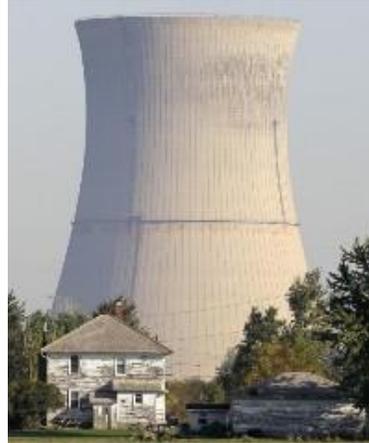
Read this **overview of the resolution** prepared by OMA general counsel at Bricker & Eckler. *10/31/2019*

Bill Promotes Unviable Nuclear Technology November 1, 2019

The Ohio House Energy and Natural Resources Committee this week held a third hearing on **House Bill 104**. The legislation is intended to spur the development of molten salt reactor (thorium) power generation by creating a public-private partnership and a for-profit lobbying company to advance policy aimed at attracting research and development of the presently unviable technology. Under HB 104, the state-supported entities would be given eminent domain authority to seize private property to site new nuclear waste disposal sites in Ohio.

Last week, a series of proponents appeared to testify in favor of the bill. The OMA has not yet provided testimony. However, the OMA's Ryan Augsburger wrote the bill's primary sponsor Rep. **Dick Stein** (R-Norwalk) this week to **express concerns**. The bill will be discussed at the Nov. 21 **OMA Energy Committee meeting**. *10/31/2019*

House Bill 6 Goes Into Effect October 25, 2019



Earlier this week, the controversial House Bill 6 became effective — 90 days after Gov. Mike DeWine signed the bill into law.

Some opponents of the bill proposed a referendum to overturn the law, but that effort appears to have bottomed out. The referendum committee Ohioans Against Corporate Bailouts **failed to obtain** the needed number of signatures to place the matter on the November 2020 ballot. In a Hail Mary effort, the committee asked a federal court for more time to gather signatures, but the request was denied. Now the work of implementing HB 6 is underway. The OMA is participating in the proceedings conducted by state agencies responsible for implementing the law. HB 6 will **drive new costs for manufacturers** to benefit select generators and utilities. The new clean air costs will not hit customer bills until 2021; however, all customers will begin seeing new charges the first of the year to bail out the two coal power plants owned by OVEC. *10/24/2019*

OMA Says No to Another Utility Giveaway October 25, 2019

This week, the OMA was part of a chorus of opponents to **House Bill 247** — legislation that would further erode Ohio's electric generation deregulation law. **View the OMA testimony**. The bill is supported by Ohio's four electric distribution monopoly utilities, which would gain entry into generation, services, and products that are presently off limits to distribution utilities. Moreover, the bill would allow utilities to charge captive customers more money to build out unnecessary infrastructure — all while generally

removing many customer protections, especially with regards to corporate separation.

HB 247 comes on the heels of the enactment of the anti-market HB 6, supported by a majority of Republican leaders. A vote on HB 247 is likely later this year. The bill will be discussed at the Nov. 13 OMA **Government Affairs Committee meeting**, as well as the Nov. 21 **Energy Committee meeting**. *10/24/2019*

Renewable Energy Deals Get Interesting for Customers October 25, 2019

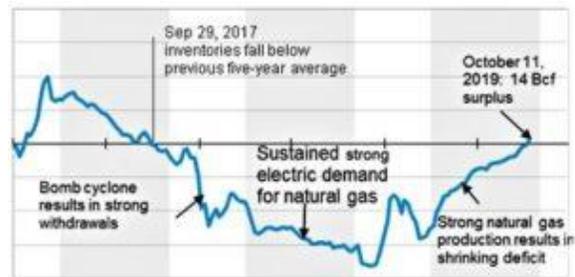
Many AEP Ohio customers have been approached by the utility to consider a long-term solar arrangement in support of two solar projects it would like to develop. While this specific transaction is more complicated than traditional structures due to its regulated nature, it has likely initiated sustainability and renewable energy conversations within many companies. **See the analysis** on Ohio's primary renewable energy deal models. *10/23/2019*

U.S. Natural Gas Inventories Exceed Five-Year Average October 25, 2019

America's energy boom continues. In mid-October, working natural gas inventories in the lower 48 states exceeded their five-year average for the **first time in more than two years**, according to the U.S Energy Information Administration (EIA).

On a related note, a study **unveiled this week** found that natural gas end-users — including manufacturers — “have realized \$1.1 trillion in savings since 2008 due to increased natural gas production in the Shale Crescent USA region (Ohio, Pennsylvania, and West Virginia).”

Meanwhile, the EIA **reports** that the U.S. now exports crude oil to more destinations than it imports from. *10/22/2019*



Graph: U.S. Energy Information Administration

HB 6 Referendum Faces Monday Deadline; Here are Reasons to Sign the (Correct) Petition October 18, 2019

Three months ago, Gov. Mike DeWine signed House Bill 6 — the nuclear bailout legislation — thereby forcing electric utility customers to pay more in the form of new riders on monthly power bills. When the law is implemented, the proceeds from the new charges will go mostly to the owners of two nuclear power plants.

Last spring and summer, the OMA worked to oppose the anti-free market HB 6. The campaign committee attempting to allow Ohio voters to make the final determination regarding HB 6's fate must submit nearly 266,000 valid signatures this Monday, Oct. 21. If the Ohioans Against Corporate Bailouts fails to collect the required number of signatures, there will be no referendum on next November's ballot. Signatures are still being collected.

Read this **powerful guest column** by Ohio State University professor Ned Hill, who **describes** how FirstEnergy and FirstEnergy Solutions have engaged in subterfuge to confuse voters and deter them from exercising their right to sign a petition. *10/17/2019*

HB 6 Implementation = Big Government, Big Regulation October 18, 2019

A whole lot of activity is underway in the opaque world of state agencies working to implement House Bill 6. In providing massive, unjustified handouts to select utilities, the legislation delegates sweeping new powers to government agencies, mostly at the PUCO and at the Ohio Air Quality Development Authority (OAQDA).

A series of **government decisions** will determine how much you pay for the bailout and other HB 6 charges. Parties must formally intervene with counsel to monitor the proceedings and be heard. Fortunately, the **OMA Energy Group** is intervening to protect the interests of Ohio's manufacturing economy. Be sure your company is supporting this effort. **Contact OMA staff** to learn how. *10/17/2019*

Nuclear Bailout Recipients Dealt Legal Setback **October 18, 2019**

In early September, lawyers for FirstEnergy Solutions challenged the referendum campaign being waged to repeal House Bill 6. They argued that the proposed referendum should not be allowed to proceed because new customer charges are a "tax" and according to the Ohio Constitution, any legislation that adjusts "tax" charges is not subject to repeal by referendum. The same lawyers who made that novel argument asked the Supreme Court of Ohio to expedite the case.

This week, the Supreme Court **denied the request** to expedite. So, some good news for a change on this terrible bill. *10/17/2019*

Thinking About a PPA? Watch This Webinar **October 18, 2019**

Many manufacturers are currently being invited to enter into contracts — known as power purchase agreements (PPAs) — to secure renewable energy. The OMA advises members to beware of energy proposals that don't make good business sense or may run afoul of Dodd-Frank and other financial regulations.

To provide guidance to members on PPAs, we recruited subject-matter expertise to help manufacturers understand the pros and cons of new energy products and services. At your convenience, listen to **this free, recorded OMA webinar** called "Renewable Energy Trends & Power Purchase Agreements." The expert insight will be helpful as you negotiate potential PPAs.

We will also discuss this matter at our upcoming **OMA Energy Committee meeting** on Nov. 21. *10/17/2019*



Utilities Lobby to Undo Deregulation Law, Add Costs for Customers **October 11, 2019**

This week at the Statehouse, representatives from Ohio's electric distribution utilities appeared before a House panel in support of **House Bill 247**. Sponsored by State Rep. **Dick Stein** (R-Norwalk), HB 247 seeks to further erode Ohio's deregulation law, exposing customers to new costs from riders that would pay for electric car charging stations and other enterprises that would compete with unsubsidized businesses.

During his questioning, State Rep. **Bill Seitz** (R-Cincinnati) noted that under House Bill 6 — the nuclear bailout law approved this summer — utilities were successful at including language allowing them to overcome provisions in existing law that prohibit utilities from selling generation.

Under Ohio's sweeping deregulation law of 1999, regulated monopoly distribution utilities are restricted to only delivering electricity — a move that allows numerous electricity generators to compete. Deregulation has delivered customers more than \$24 billion in generation savings, according to a **recent study**. But under HB 247, monopoly distribution utilities would get an unfair advantage. **Read this analysis** by OMA energy engineer RunnerStone LLC. Join the discussion by participating in the OMA Energy Committee's **Nov. 21 meeting**. *10/10/2019*

Hearings Expected on Utility Regulation 'Modernization' **October 11, 2019**

Earlier this year, **House Bill 246** was introduced as a placeholder; that is, without any substantive language — only an intent to modernize the Public Utilities Commission of Ohio and the Office of Consumers' Counsel.

This week, State Rep. **Jamie Callender** (R-Concord Township) said in an interview with **Gongwer News Service** that he anticipates hearings this fall, but that specifics are still up in the air. The OMA agrees there is a need to update utility laws to better protect customers from being overcharged. Recently approved state legislation has instead protected utilities at customer expense. *10/9/2019*

Won't Get Fooled Again: HB 6 Does Not Benefit Energy-Intensive Manufacturers October 4, 2019



The ultimate fate of House Bill 6 — Ohio's nuclear bailout law — will not be known until a referendum campaign is played out. That could happen as soon as late October if the campaign fails to gather enough valid signatures. Or the question may languish until November 2020 if the referendum is successfully placed on the general election ballot. (The referendum group has until Oct. 21 to collect more than 265,000 valid signatures.)

The OMA is working to ensure that the needs of manufacturers are considered throughout the HB 6 implementation process, which is already well underway. Even though the law's provisions have not yet gone into effect, some parties erroneously believe HB 6 will deliver benefits to energy-intensive customers. If you are in this camp, you owe it to yourself — and your company — to review why **HB 6 does not benefit manufacturers**. Read the **myths surrounding HB 6**. *10/2/2019*

Nuclear Bailout Opponents Hit the Airwaves October 4, 2019

This week, opponents of House Bill 6 began hitting the airwaves with **an advertisement** —

taking aim at the billion dollar bailout of the owners of nuclear power plants and utilities. Ohioans Against Corporate Bailouts continues to collect signatures in hopes of placing a proposed referendum before Ohio voters next November. Signatures are due to be submitted by late October. *10/2/2019*

How a Single Streetlight Spotlights Ohio's Pricey Problem with Utility Riders October 4, 2019

In case you missed it, Cleveland.com this week **published an article** about a single streetlight in Cleveland that has illuminated “an abusive system of surcharges” resulting in “billions of dollars in subsidies for the state's utilities.” The electricity bill for this streetlight — owned by a neighborhood association — has soared from around \$8 in July 2008 to nearly \$70 in July 2019, with only 38 cents of the total being for electricity.

Because the Ohio Legislature in 2008 authorized the use of “electric security plans” — which permit the addition of riders that go beyond the basic costs of distribution services and investment — Ohio ratepayers have paid \$15 billion in subsidies to electric utilities since 1999, according one expert. Of course, this problem only gets worse under House Bill 6, the nuclear bailout plan passed and signed in July. *10/1/2019*

This Week Showed Why Customer Load Management is Critical to Electric Grid Reliability October 4, 2019

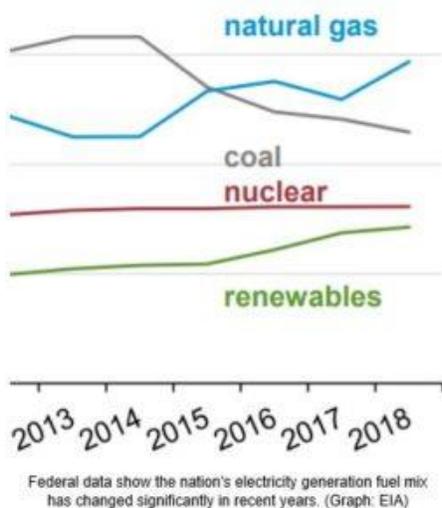
PJM this week issued an **emergency demand response call** to certain areas of the region's electric grid, including AEP territory, as unseasonably warm temperatures combined with offline power plants to create electric capacity concerns. While Wednesday's electrical load was not a peak event, many power plants were offline to conduct seasonal maintenance. The PJM service area experienced its highest October load since 2007 and issued emergency demand response alerts to AEP, Baltimore Gas and Electric, Dominion, and Pepco zones. DP&L, Duke, and FirstEnergy customers were not in the emergency area. Demand response calls went to curtailment service providers and customers on utility interruptible tariffs.

Customer demand response was credited with keeping the power system up and running.

Demand response programs create voluntary revenue streams for manufacturers and other customers, while preventing the need to build costly power plants, which may only be needed for a few hours every few years — thereby keeping electricity prices lower for all customers. This week's event highlights the importance of flexible power resources to maintain grid reliability. Contact OMA's energy engineer **John Seryak** if you have questions regarding demand response, or concerns you experienced with Wednesday's event. *10/3/2019*

Shale Natural Gas Production Expected to Keep Growing October 4, 2019

Steve Nalley, a top official with the U.S. Energy Information Administration (EIA), recently briefed the National Conference of State Legislatures on the country's natural gas outlook. The EIA projects the U.S. will export more energy than it imports in 2020 due in part to continued drilling for shale natural gas, particularly in the east. The growth in natural gas production — and the lower prices that result — will continue to provide competitive incentives for **increased electrical power generation**. Natural gas used for electric generation overtook coal in 2016. See Nalley's **PowerPoint presentation**. *10/1/2019*



Ohioans Paying Higher Electric Bills — Even As Generation Costs Fall September 27, 2019

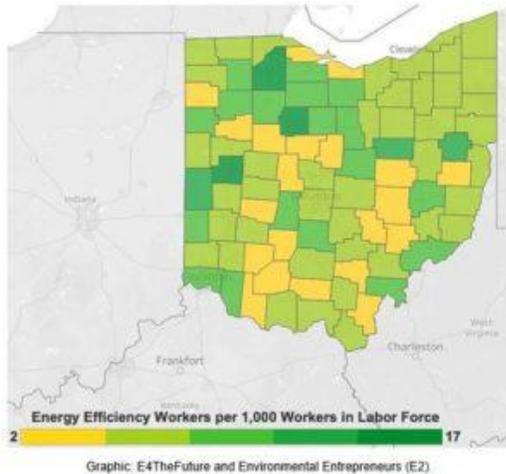
This week, the Energy News Network and the Ohio Center for Investigative Journalism launched a series of reports on how Ohio utilities continue to reap windfalls from the public. This despite the promise of free-market competition made by policymakers more than a decade ago. The reporters chronicle increased distribution and transmission costs paid by customers to monopoly distribution utility companies — concluding that “utility-friendly lawmakers and regulators have shielded Ohio utility power plant affiliates from competition at customers’ expense.” **Read the story.**

The OMA has supported legislation to curtail the abuses, while the OMA Energy Group routinely engages in cases at the Public Utilities Commission of Ohio (PUCO) to protect the manufacturing sector. If you're not already engaged, now is the time. **Contact OMA staff** to learn how. *9/25/2019*

Ohio is a Leader in Energy Efficiency Jobs September 27, 2019

Ohio is among the nation's top states for careers in energy efficiency, according to a new report called “Energy Efficiency Jobs in America.” Published by E4TheFuture and the non-partisan business group Environmental Entrepreneurs (E2), **the study** ranks Ohio as ninth best, with 81,676 full-time energy efficiency jobs — excluding jobs in retail, vehicle efficiency-related work, and jobs tied to efficient manufacturing processes.

It's estimated that more than 10,200 energy-efficiency businesses operate in Ohio, with a majority involved in manufacturing or construction. The **report summary** notes that nationwide, energy efficiency is the energy sector's fastest-growing jobs producer, accounting for roughly half of the industry's new jobs (151,700) last year. Meanwhile, the number of U.S. manufacturing jobs in energy efficiency stood at more than 321,000 — a 10% jump from 2017. *9/23/2019*



Fake Petitions, More Ads: The Latest Tactics in Attempt to Stop HB 6 Referendum September 27, 2019

Signatures continue to be collected to place a referendum on Ohio's ballot to overturn House Bill 6 — the recently enacted law that forces Ohio customers to subsidize nuclear and other power plants. As we **reported** earlier this month, pro-HB 6 defenders are utilizing “blockers” to deter voters from signing the referendum petition.

This week, the pro-HB 6 defenders began circulating their own non-binding petition forms to further confuse voters. Also, they have begun airing yet another TV and radio advertisement that inaccurately portrays the Chinese government as the opponent to HB 6 — similar to the **first ad**.

The Energy News Network this week **published a story** on who is behind the Chinese conspiracy ads and the attempt to stop Ohio's HB 6 referendum. 9/26/2019

Manufacturers Can Act to Overturn House Bill 6 September 20, 2019

At their quarterly board meeting this week, OMA leaders reacted to the misleading commercials being aired by a group seeking to block a referendum that could overturn House Bill 6 — the anti-market, nuclear power subsidy law. OMA members are reminded that if they support the referendum campaign to repeal HB 6, they can **contribute** to the Ohioans Against Corporate Bailouts campaign and host a signature gathering at their facilities.

Manufacturers can **ask OMA staff** how to arrange for signatures to be collected at your plant or office to foster the referendum and protect Ohio's competitive power markets. 9/18/2019

Stay Informed with the OMA's Energy Guide September 20, 2019

Nuclear power bailouts. Utility riders. Changes in the wholesale electricity and natural gas markets. There's a lot happening in Ohio's energy world — and all of it affects manufacturers. Stay informed by reading **the latest post** in the OMA's Energy Guide. 9/17/2019

HB 6 Referendum Gets Physical September 13, 2019

As if the citizen-initiated repeal of Ohio's nuclear power bailout (**House Bill 6**) wasn't supercharged enough — thanks to millions of dollars spent on **misleading advertising** — the group defending the law went a step further this week. The beneficiaries of the HB 6 subsidies have hired field agents to “educate” voters who are being asked to sign petitions. Referendum supporters must gather 265,774 signatures from registered Ohio voters by Oct. 21 to place the question of HB 6 repeal on the November 2020 ballot.

This week, an **altercation ensued** in which a petition circulator **appears to have been assaulted** by a pro-HB 6 agent. Soon after, anti-HB 6 *Ohio Citizen Action* issued a cease and desist letter to pro-HB 6 *Ohioans for Energy Security*, with the former saying they would not be intimidated by “threats.”

Numerous OMA members have contacted staff inquiring how to support the referendum effort. Manufacturers can take action by **contributing to the campaign**. Also, manufacturers who are willing to allow signatures to be collected at the workplace may **contact staff** to invite a circulator. 9/12/2019

Ohio's Oil & Gas Production Soars in Q2 September 6, 2019

The Ohio Department of Natural Resources (ODNR) is reporting that oil production from Ohio's horizontal shale wells jumped 29.54% during the second quarter of 2019, compared to a year ago. Natural gas production was up

10.81%. The wells produced 5,813,755 barrels of oil and 614,218,362 Mcf (614 billion cubic feet) of natural gas, according to the **ODNR report**.

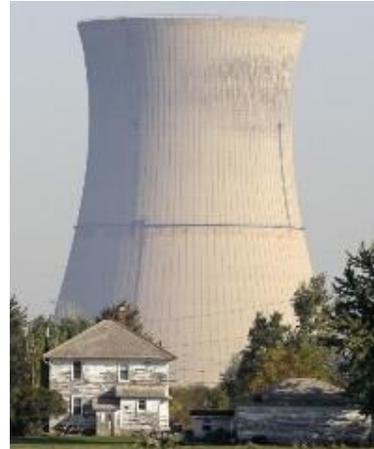
At last check, the **U.S. Energy Information Administration** has Ohio ranked as the nation's fifth-largest producer of natural gas and the 12th largest producer of crude oil. *9/3/2019*

Nuclear Bailout Supporters Seek to Block Referendum September 6, 2019

Owners of nuclear power plants who are eager to get customers to subsidize their business filed suit with the Supreme Court of Ohio on Wednesday in an attempt to block a proposed referendum to repeal **House Bill 6**. The owners assert that a referendum should not be allowed to proceed because HB 6 is a "tax" — and legislation creating taxes are not subject to referendum under the Ohio Constitution. Gene Pierce, spokesman for the pro-repeal Ohioans Against Corporate Bailouts, responded by saying that "this frivolous lawsuit is another desperate attempt by FES (FirstEnergy Solutions) to protect their ill-gotten, billion-dollar bailout. In addition to having no legal basis, their own proponents in the legislature repeatedly stated that HB 6 was not a tax increase in their efforts to secure enough votes for passage of the bill."

Meanwhile, bailout proponents continue to run misleading TV and radio **commercials** aimed at dissuading Ohioans from signing the referendum petition. The ads have attracted national attention, such as **this analysis** from a Bloomberg columnist. This week, referendum opponents also dropped **direct mail**. *9/5/2019*

'Sleazy' and 'Weak' Ad Aims to Block HB 6 Referendum August 30, 2019



A new TV and radio ad is running statewide in hopes of heading off a **referendum** that would ask Ohio voters if they want to overturn House Bill 6 — the nuclear power bailout. In the ad, an ominous voice states that the Chinese government is mounting a secret takeover of Ohio's energy grid and "coming for our energy jobs." This week, several Ohio newspapers analyzed the ad. Here is what they said:

* A **fact check** by the *Cincinnati Enquirer* says the ad's connection between China and the referendum to overturn HB 6 "is weak."

* *The Columbus Dispatch* said the group behind the commercial offered "**no evidence that such a plot exists.**"

* An editorial by *The Plain Dealer* says it's "the **sleaziest scare ad** in recent memory in Ohio."

These analyses are further proof that HB 6 has ushered into Ohio some strange times with new, **costly policy** that threatens Ohio's deregulated electricity markets. *8/28/2019*

Rockwell Automation Hosts OMA Energy Committee August 30, 2019



On Thursday, Aug. 29, the OMA Energy Committee held its third meeting of 2019 — this time at Rockwell Automation in Mayfield Heights. Chaired by Brad Belden, president of The Belden Brick Co., the meeting featured a full **agenda** with updates and insight from OMA staff, as well as OMA energy counsel Kim Bojko, partner at Carpenter Lipps & Leland, and OMA energy engineer John Seryak of RunnerStone. Much of the meeting centered on House Bill 6 — the nuclear bailout law that was passed and signed in July — and its **impact on manufacturers**. Other discussion included recent energy-related decisions by the Supreme Court of Ohio and the Public Utilities Commission of Ohio. Guest speakers from the U.S. Department of Energy explored best practices in energy management, while OSU economist Ned Hill and Cleveland State University's Andrew Thomas presented their research on the economic benefits of Ohio's deregulated electricity market.

The **next meeting** of OMA's Energy Committee is set for Nov. 21 at the OMA. *8/29/2019*



Nice turnout for the OMA Energy Committee meeting in Mayfield Hts. Thank you, Rockwell Automation, for the hospitality and the technology demonstrations!

**Supreme Court Denies FirstEnergy Rider Appeal
August 23, 2019**

The Supreme Court of Ohio this week rejected FirstEnergy's appeal to reconsider the legality of its Distribution Modernization Rider (DMR). The denial to reopen the case confirms the court's **earlier 4-3 ruling** that customers of

FirstEnergy's Ohio utilities have been overcharged by hundreds of millions of dollars since 2017. The court in June said the Public Utilities Commission of Ohio (PUCO) improperly authorized utility surcharges for grid modernization subsidies, and ordered the charges to be removed immediately.

The OMA Energy Group led the legal challenge to remove this rider. *8/22/2019*

**Thanks, HB 6. Another Ohio Power Plant Scrapped
August 23, 2019**



Another competitive power generation project has been cancelled due to the enactment of **House Bill 6**, the nuclear bailout plan. *The Youngstown Vindicator* this week **reported** on the decision by Clean Energy Future to shelve its plans to develop a third natural gas-fueled power plant in Lordstown. It is estimated the \$1.1 billion plant would have brought \$29 billion worth of economic benefit to the region over its 50-year life.

Approved by the General Assembly and signed into law in mid-July, HB 6 forces Ohio customers, including manufacturers, to subsidize the state's nuclear power plants, as well as certain coal-fired generation facilities, giving those generators an unfair advantage and undercutting market economics. Last month, it was **announced** that a planned gas-fired power plant slated for Wood County had been cancelled due to HB 6. *8/21/2019*

**Study: Electric Utility Riders, Subsidies Could Cost Ohio Billions
August 16, 2019**



New **research** shows Ohio's deregulated electricity markets have saved the state's ratepayers nearly \$24 billion over the past eight years, or roughly \$3 billion a year. Conducted by researchers at The Ohio State University and Cleveland State University — and commissioned by the Northeast Ohio Public Energy Council (NOPEC) — the study shows that competition has driven down average electricity prices in deregulated Midwestern states, while their regulated peers have seen steady price increases.

Unfortunately, the research also finds that Ohio's investor-owned utility companies are chipping away at those customer savings through the use of subsidies, surcharges, and riders. This is occurring as efforts have intensified to re-regulate electricity markets. See the **whitepaper** and **executive summary**. 8/12/2019

Industry Accounts for One-Third of Ohio's Energy Use August 9, 2019

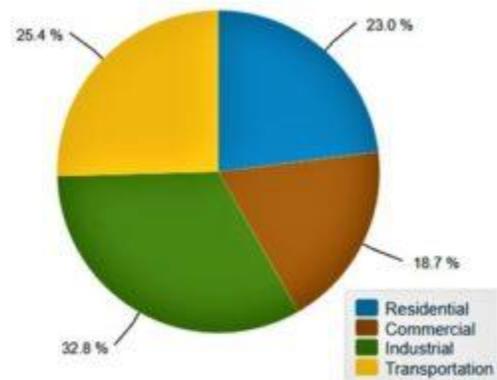
Why is the OMA passionate about energy policy? Because manufacturers and other industrial users account for nearly one-third of Ohio's total energy consumption — including motor fuel and electricity. The U.S. Energy Information Administration (**EIA**) has posted its most recent breakdown of **Ohio's energy consumption**. Key facts include:

- Ohio's industrial sector is a major user of **natural gas**.
- As of April, Ohio's average **industrial electric rate** was 6.26 cents/kWh compared to 6.53 cents/kWh nationally.
- Ohio is the **third-largest coal-consuming state** after Texas and Indiana, and nearly 90% of the coal consumed in Ohio is used

for electric power generation. Nationwide, coal-fired generation **continues** to be retired.

As stated in the OMA's **Public Policy Competitiveness Agenda**, energy policy can enhance — or hinder — Ohio's ability to attract business investment, stimulate economic growth, and spur job creation. This is especially true in manufacturing. 8/5/2019

Ohio Energy Consumption by End-Use Sector, 2017 August 9, 2019



eia Source: Energy Information Administration, State Energy Data System

Remember to Thank Lawmakers Who Voted 'No' on HB 6 August 9, 2019

Last month, during the final days of legislative action on **House Bill 6** — the nuclear bailout bill — 70 Ohio lawmakers from the House and Senate voted to approve the power plant subsidy package. However, another **50 lawmakers** stood firm and voted against the bill. The votes were not along partisan lines and lawmakers from both parties were pressured heavily by their leadership, as well as multiple stakeholders.

This was a difficult vote, so hearing directly from constituents will mean a great deal to every lawmaker. If your state representative or senator voted "no" on HB 6, take a moment to send him/her a note of thanks. You can find your state lawmakers **here**. 8/5/2019

HB 6 Referendum Process Now Underway August 2, 2019

Just over a week since the nuclear bailout bill (**House Bill 6**) was approved by the General Assembly and signed into law, efforts are underway to ask Ohio voters to invalidate the legislation.

A group called Ohioans Against Corporate Bailouts is conducting a referendum campaign. This week, it filed **initial paperwork** with the Ohio Attorney General. If the petition language is approved, more than 265,000 signatures must be collected to put the issue on the November 2020 ballot. The group is not yet disclosing specific supporters of the referendum effort, but they expect many HB 6 opponents to continue voicing their concerns about the law.

Here's **more information** on Ohio's referendum process. *8/1/2019*

Feds Halt Electrical Power Sale Due to State Subsidies August 2, 2019



The decision of Ohio lawmakers to subsidize nuclear and select other power plants is already negatively affecting the wholesale operation of the regionally administered power markets. Two days after Ohio enacted its nuclear bailout under HB 6, federal policymakers ordered PJM Interconnect — the nation's largest power grid operator, whose territory includes all of Ohio — to indefinitely delay an auction to set power prices.

According to **Bloomberg**, "The halt lays bare the gridlock within the federal energy commission as it grapples with hundreds of millions of dollars in out-of-market subsidies that some states are creating to rescue foundering nuclear power plants." Bloomberg notes that while some power generators have warned that

state bailouts are skewing the results of auctions, the Trump administration has pressed for aid to "money-losing reactors and coal units in the name of grid resilience."

The OMA's energy engineer has **analyzed** this situation, which will be discussed at the **Aug. 29 meeting** of the OMA Energy Committee in suburban Cleveland. *8/1/2019*

Energy Legislation
Prepared by: The Ohio Manufacturers' Association
Report created on November 19, 2019

- HB6** **CLEAN AIR PROGRAM** (CALLENDER J, WILKIN S) To create the Ohio Clean Air Program, to facilitate and encourage electricity production and use from clean air resources, and to proactively engage the buying power of consumers in this state for the purpose of improving air quality in this state.
Current Status: 7/23/2019 - **SIGNED BY GOVERNOR**; Eff. 10/22/19
State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-HB-6>
- HB20** **SOLAR PANEL LIMITATIONS** (BLESSING III L) To prohibit condominium, homeowners, and neighborhood associations from imposing unreasonable limitations on the installation of solar collector systems on the roof or exterior walls of improvements.
Current Status: 6/26/2019 - House State and Local Government, (First Hearing)
State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-HB-20>
- HB55** **OIL AND GAS WELL ROYALTY STATEMENTS** (CERA J) To require the owner of an oil or gas well to provide a royalty statement to the royalty interest holder when the owner makes payment to the holder.
Current Status: 2/26/2019 - House Energy and Natural Resources, (First Hearing)
State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-HB-55>
- HB94** **LAKE ERIE DRILLING** (SKINDELL M) To ban the taking or removal of oil or natural gas from and under the bed of Lake Erie.
Current Status: 9/17/2019 - House Energy and Natural Resources, (First Hearing)
State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-HB-94>
- HB95** **BRINE-CONVERSION OF WELLS** (SKINDELL M) To alter the Oil and Gas Law with respect to brine and the conversion of wells.
Current Status: 9/17/2019 - House Energy and Natural Resources, (First Hearing)
State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-HB-95>
- HB104** **NUCLEAR DEVELOPMENT** (STEIN D) To enact the Advanced Nuclear Technology Helping Energize Mankind (ANTHEM) Act by establishing the Ohio Nuclear Development Authority and the Ohio Nuclear Development Consortium and authorizing tax credits for investments therein.
Current Status: 10/30/2019 - House Energy and Natural Resources, (Third Hearing)
State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-HB-104>
- HB223** **WIND SETBACKS** (STRAHORN F, SKINDELL M) To alter the minimum setback requirement for wind farms of five or more megawatts.

Current Status: 5/8/2019 - Referred to Committee House Public Utilities
State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-HB-223>

HB245 **PROPERTY TAX EXEMPTION TIMELINES** (SMITH J) To remove the current deadlines by which an owner or lessee of a qualified energy project must apply for a property tax exemption.

Current Status: 5/21/2019 - Referred to Committee House Energy and Natural Resources
State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-HB-245>

HB246 **PUCO/OCC REFORM** (VITALE N) To reform and modernize the Public Utilities Commission and the Consumers' Counsel.

Current Status: 5/21/2019 - Referred to Committee House Public Utilities
State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-HB-246>

HB247 **RETAIL ELECTRIC SERVICE LAW** (STEIN D) Regarding the competitive retail electric service law.

Current Status: 10/23/2019 - House Public Utilities, (Third Hearing)
State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-HB-247>

HB260 **CLEAN ENERGY JOBS** (DENSON S, WEINSTEIN C) To maintain operations of certified clean air resources, establish the Ohio generation and jobs incentive program and the energy performance and waste reduction program, and make changes regarding wind turbine siting.

Current Status: 5/28/2019 - Referred to Committee House Energy and Natural Resources
State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-HB-260>

HB401 **TOWNSHIP REFERENDUM - WIND FARMS** (REINEKE W) To require inclusion of safety specifications in wind farm certificate applications, to modify wind turbine setbacks, and to permit a township referendum vote on certain wind farm certificates.

Current Status: 11/19/2019 - House Energy and Natural Resources, (Second Hearing)
State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-HB-401>

HJR2 **CRITICAL INFRASTRUCTURE PROTECTION AMENDMENT** (MANNING D, CALLENDER J) Proposing to enact Section 12 of Article XV of the Constitution of the State of Ohio to provide Ohio critical infrastructure protection.

Current Status: 10/30/2019 - House Energy and Natural Resources, (First Hearing)
State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-HJR-2>

SB86 **UTILITY SERVICE RESELLERS** (MAHARATH T) To regulate certain resellers of utility service.

Current Status: 11/12/2019 - Senate Energy and Public Utilities, (Second Hearing)

State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-SB-86>

SB234

WIND FARMS (MCCOLLEY R) To require inclusion of safety specifications in wind farm certificate applications, to modify wind turbine setbacks, and to permit a township referendum vote on certain wind farm certificates.

Current Status: 11/13/2019 - Referred to Committee Senate Energy and Public Utilities

State Bill Page: <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA133-SB-234>

MEMORANDUM

Date: August 20, 2019
To: The Ohio Manufacturers' Association
From: John Seryak, PE and Jordan Nader (RunnerStone, LLC)
RE: Amended Substitute House Bill 6 and the Nuclear and Renewable Generation Funds –
Impact to Manufacturers

Amended Substitute House Bill No. 6 (H.B. 6) was recently signed into Ohio law. H.B. 6 significantly reworks Ohio's electricity policy in a way that substantially affects manufacturers. OMA energy counsel Kim Bojko has separately provided a legal analysis on what H.B. 6 does, and how it works.

In summary, H.B. 6 creates a \$150 million annual fund for nuclear power plants, a \$20 million annual fund for select solar power plants, extends a "power purchase agreement" for legacy, uneconomical coal plants in Indiana and Ohio that currently cost Ohioans tens of millions of dollars, defunds Ohio's competitive renewable portfolio standard, effectively eliminates Ohio's energy efficiency standards on investor-owned utilities, creates a mechanism for utility-backed renewable energy projects, and jeopardizes Ohio's participation in competitive wholesale electricity markets.

These changes in Ohio's electricity policy negatively impact three issues of interest to Ohio's manufacturers: cost, competition, and carbon-dioxide emissions.

Cost

H.B. 6 creates a net increase in customer costs, including the potential to increase manufacturers' electricity bills. First, and most obviously, H.B. 6 creates new customer charges

Impact of H.B. 6

- \$150 million/year in new subsidies for nuclear power, from 2021 through 2026
- Extends subsidies for legacy, uneconomic coal plants in Indiana and Ohio, which cost Ohio tens of millions of dollars each year through 2030
- \$20 million/year for select solar power projects, from 2021 through 2026
- Likely removes significant portions of Ohio generation and consumer load from competitive wholesale capacity auctions
- Likely to increase capacity prices
- Effectively eliminates renewable energy standards
- Utility efficiency programs
 - Continue through 2020
 - Mandate effectively eliminated starting in 2021
 - Subject to mercantile customer opt-out in 2020
- Creates reasonable arrangement mechanisms for trade-exposed industrial manufacturers



for the Nuclear Generation Fund and Renewable Generation Fund - \$10.20 per year for residential customers, \$28,800 /year for large consumers who use over 45 million kWh per year, and a charge to be determined later by the Public Utilities Commission of Ohio for other commercial and industrial businesses¹. Ohio’s four investor-owned utilities will be required to collect the combined \$170 million per year for the Nuclear Generation Fund and Renewable Generation Fund. Because residential customers and large consumers have prescribed, capped charges, all remaining revenue must be collected from small and mid-sized commercial and industrial businesses.

Second, H.B. 6 extends a subsidy for the Ohio Valley Electric Corporation (OVEC) through 2030. OVEC owns two legacy, uneconomical power plants, Clifty Creek in Indiana and Kyger Creek in Ohio. The OVEC subsidy currently collects tens of millions of dollars each year from customers of AEP Ohio, Duke, and DP&L. FirstEnergy customers would receive new charges to subsidize OVEC.

Third, H.B. 6 reduces Ohio’s Renewable Portfolio Standard from 12.5% by 2026, to 8.5%. It also eliminates a 0.5% by 2026 carve-out for solar energy projects, and creates a large-user opt-out of the compliance. The Renewable Portfolio Standard requires retail electric suppliers and electric distribution utilities to procure this percentage of their supply from renewable energy, and is currently at a 5.5% requirement in 2019. For context, we estimate that the renewable standards cost about \$40 million in 2017², and around \$60 million in 2019³.

Fourth, H.B. 6 directs the PUCO to authorize new power purchase agreements (PPA) for utility renewable energy and customer-sited renewable energy for 3-year terms or longer. The private market currently provides 3-year or greater terms for PPAs to customers who are seeking such projects.

Longer term, H.B. 6 will have an impact on wholesale electricity markets, and the impact could be severe and costly to manufacturers. The exact cost is still elusive. This is because of a domino-effect of state-level nuclear power plant subsidies has left the regional grid operator, PJM, without a FERC-approved capacity auction construct. Based on recommendations from FERC, electricity generators receiving funds from the Nuclear Generation Fund, or via a PPA, would be subject to a “bifurcated” capacity auction, in which the state of Ohio would likely set capacity prices for these power plants instead of PJM, and this potentially higher price would be flowed through to Ohioans.

On energy efficiency, the requirement for a utility to run an efficiency program is effectively eliminated, allowing utility run efficiency programs through 2020. Additionally, a “mercantile opt-out” of the efficiency programs would be enacted in 2020, wherein any customer that consumes over 700,000 kWh/year will be allowed to opt-out of paying into the efficiency programs, but will then not be allowed to receive financial assistance from the programs. While there is no allowance in

¹ Previous versions of H.B. 6 prescribed charges of \$180 per year per meter for commercial customers, and \$3,000 per year per meter for industrial customers. The per-account rate structure created issues for manufacturers that have multiple electric meters. It is not clear if the PUCO will adopt a rate structure similar to previous versions of H.B. 6, or something completely different.

² Renewable Portfolio Standard Report to the General Assembly by the Public Utilities Commission of Ohio for the 2017 Compliance Year.

³ Pro-rated from 2017’s RPS benchmark to the 2019 RPS benchmark. Costs would increase to \$142 million by 2026 at 2017 prices, though could be held in check if renewable energy credit prices fall.



H.B. 6 for utilities to continue offering energy-efficiency program, it does not expressly prohibit offering efficiency programs either. For context, during a previous legislative “freeze” of efficiency program requirements in 2015-16, AEP Ohio, Duke, and DP&L continued their programs, while FirstEnergy suspended theirs. In testimony on the original H.B. 6, AEP Ohio, Duke, and DP&L have all expressed interest in operating energy-efficiency programs. Manufacturers should note that there is sharp disagreement over whether efficiency programs represent a cost, or a net benefit, to customers.

Competition

H.B. 6 significantly erodes competition in electricity markets by subsidizing old nuclear and fossil fuel power plants, and favoring specific renewable energy projects over others. H.B. 6 creates subsidies for older generating technologies that have already received cost-recovery from Ohio’s ratepayers several times, are unable to compete in the wholesale electricity markets, and are announced for retirement.

Put another way, H.B. 6 creates subsidies to reverse the competitive electricity market formation that Ohio has supported for 20 years. This is serious - competitive electricity markets save Ohio’s manufacturers, businesses, and residents around \$3 billion per year⁴.

Carbon

H.B. 6 no longer explicitly discusses reduction in carbon or other emissions as objectives. However, purported environmental benefits have been used to justify H.B. 6. When considering carbon emissions, it is important to note several trends:

- Many global manufacturers and their supply chains are adopting greenhouse gas reduction goals, energy reduction goals, or renewable energy supply goals. Thus, the carbon intensity of the regional electric grid is important to a growing number of manufacturers. The carbon intensity of the electric grid counts towards a manufacturer’s internal accounting of Scope 2 emissions and thus impacts a manufacturer’s ability to meet their own corporate emissions reductions goals.
- The US has canceled implementation of the Clean Power Plan, and announced withdrawal from the global Paris Treaty. As a result, there is thus no current federal carbon emissions policy for electricity generation.
- States that have created their own carbon reduction policy for the electricity sector often join regional carbon markets to reduce costs, such as the Regional Greenhouse Gas Initiative comprised of mid-Atlantic and New England states.
- Competitive wholesale electricity markets produce efficiencies of several types, lowering not just cost but carbon emission as well, as producers reduce waste in order to stay competitive.

⁴ “Electricity Customer Choice in Ohio: How Competition Has Outperformed Traditional Monopoly Regulation”, Thomas, A., Bowen, W., Hill, E., Kanter, A., Lim, T. https://engagedscholarship.csuohio.edu/cgi/viewcontent.cgi?article=2420&context=urban_facpub

Thus, maintaining competitive markets is an important aspect of reducing wastes and improving efficiencies, as supported by multiple academic studies⁵.

- Ohio's existing diverse electricity generation mix is keeping costs low, as well as reducing emissions by 38% from 2005 levels⁶. This lower carbon transformation has occurred in a competitive wholesale electricity market.

In light of these trends, a state policy intended to cost-effectively reduce carbon dioxide emissions from the electric sector would likely have the following components:

- Preserve competitive electricity markets.
- Develop a carbon market, typically with regional partners and a fluctuating price.
- Allow broad competition for carbon credits that is technology neutral, and would include nuclear, large scale renewable energy, smaller scale renewable energy, behind-the-meter generation, and energy efficiency.

H.B. 6 does none of this, and in fact, subsidizes uneconomical coal plants. It could impair Ohio's already successful trend of reducing carbon-dioxide emissions in several ways. First, it erodes competitive electricity markets by introducing subsidies for specific technologies and plants. Even zero-carbon nuclear plants are shown to reduce more emissions when they are in competitive markets⁷. Second, H.B. 6 creates subsidies for the OVEC coal plants. Third, H.B. 6 eliminates support for renewable energy technologies and their significant associated emissions reductions.

In conclusion, H.B. 6 is a major reworking of Ohio's energy policy, and could result in significantly higher electricity prices for Ohio's manufacturers, would erode functioning electricity markets, and could even increase Ohio's carbon-dioxide and other emissions from the electricity sector.

⁵ Cicala, Steve. 2015. "When Does Regulation Distort Costs? Lessons from Fuel Procurement in US Electricity Generation." *American Economic Review*, 105 (1): 411-44

Fabrizio, Kira, R., Nancy L. Rose, and Catherine D. Wolfram. 2007. "Do Markets Reduce Costs? Assessing the Impact of Regulatory Restructuring on US Electric Generation Efficiency." *American Economic Review*, 97 (4): 1250-1277.

Craig, J. Dean, and Savage, S., 2013, "Market Restructuring, Competition and the Efficiency of Electricity Generation: Plant-level Evidence from the United States 1996 to 2006", *The Energy Journal*, 34 (1): 1-31

⁶ Ohio EPA letter to the US Environmental Protection Agency, Oct. 30th, 2018, Docket ID No. EPA-HQ-OAR-2017-0355

⁷ Davis, L., Wolfram, C., 2012. "Deregulation, Consolidation, and Efficiency: Evidence from US Nuclear Power," *American Economic Journal: Applied Economics*, American Economic Association, vol. 4(4), pages 194-225, October.

ELEVEN MYTHS SURROUNDING SUB HOUSE BILL 6 (AS PASSED BY THE SENATE)

(This document was updated July 22, 2019.)

There are numerous myths surrounding Ohio’s legislation to bail out uneconomical nuclear power plants. Here are the top 11 myths – and the facts to set the record straight.

MYTH 1: SUB HB 6 IS ALL ABOUT CLEAN AIR – AND NOT A NUCLEAR BAILOUT FOR FIRSTENERGY SOLUTIONS.

FACT: THE BILL CANNOT BE MISTAKEN FOR ANYTHING OTHER THAN A BAILOUT.

- Sub HB 6 provides a Clean Air Credit to nuclear facilities (\$9.00 per MWh of generation) (Sec. 3706.45 and 3706.46) in the amount of \$150 million annually. FirstEnergy already received subsidies for its generation plants during the transition to a competitive market in the amount of \$6.9 billion. Sub HB 6 creates additional subsidies for two Ohio nuclear facilities that are currently in bankruptcy. After bankruptcy, it is estimated that the two Ohio nuclear facilities will become just as profitable as the other nuclear facilities that operate at a profit. (See table below.) Poor debt management should not be rewarded in the form of a corporate bailout.

Nuclear unit forward annual surplus (shortfall) (\$ in millions)

Surplus (Shortfall) (\$ in millions)			
	2019	2020	2021
Beaver Valley	\$134.3	\$93.5	\$84.7
Braidwood	\$106.4	\$80.3	\$51.7
Byron	\$104.3	\$78.6	\$50.6
Calvert Cliffs	\$131.0	\$99.0	\$89.3
Cook	\$95.8	\$48.4	\$41.9
Davis Besse	(\$26.9)	(\$47.8)	(\$45.6)
Dresden	\$97.3	\$76.4	\$53.8
Hope Creek	\$57.9	\$52.0	\$43.3
LaSalle	\$103.5	\$78.0	\$50.2
Limerick	\$112.2	\$100.5	\$83.8
North Anna	\$138.6	\$99.3	\$90.0
Peach Bottom	\$113.4	\$101.5	\$84.1
Perry	(\$22.6)	(\$49.6)	(\$47.8)
Quad Cities	\$61.3	\$42.2	\$20.9
Salem	\$114.6	\$102.8	\$85.5
Surry	\$120.5	\$85.6	\$77.6
Susquehanna	\$77.7	\$37.4	\$28.2
Three Mile Island	(\$56.9)	(\$69.6)	(\$72.3)

Source: PJM 2018 State of the Market, Table 7-42, at page 352 of Volume II

- The latest version of Sub HB 6 also provides subsidies to five large solar facilities in the amount of \$20 million annually and to the Ohio utilities for their direct or indirect ownership in old coal-generating plants, Ohio Valley Electric Corporation (OVEC), which includes one plant in Indiana and will cost customers over \$488 million more than current charges.

MYTH 2: SUB HB 6 WILL REDUCE COSTS.

FACT: SUB HB 6 WILL NOT REDUCE COSTS – IT ACTUALLY CREATES NEW COSTS.

- Sub HB 6 creates the Clean Air Charge that will collect \$170 million annually from customers in new charges.
- Sub HB 6 expands the existing OVEC rider through December 31, 2030 and to include costs associated with FirstEnergy's share for the OVEC plants, adding over \$488 million in costs to customers' bills. The charge will now be assessed to FirstEnergy customers, adding new costs to those customers.
- Sub HB 6 does not eliminate energy efficiency (EE) costs. The bill continues the existing EE programs through December 31, 2020 with increased budgets, and could possibly continue EE programs beyond 2020. **Allows costs associated with those programs to be collected from customers beyond December 31, 2020** if the EE programs continue and/or to reconcile cost recovery of the programs (Sec. 4928.66(F)).
- Sub HB 6 creates a new rider (decoupling mechanism) that will **continue to collect certain EE costs and may add new costs** (Sec. 4928.471). The new rider will continue until the utility's next base distribution rate case. The utility can collect the revenues it received for the 12 months ending December 31, 2018, associated with implementing EE programs, which includes lost distribution revenues. The rider appears to apply to commercial customers that opted out of paying the EE costs pursuant to R.C. 4928.6611, thereby **increasing some opt-out customers' bills**.
- Sub HB 6 will **increase wholesale capacity prices** by eliminating EE mandates that help suppress capacity prices. Also, Sub HB 6 erodes competition in electricity markets by subsidizing certain generating facilities at the expense of others, thereby increasing costs to customers.

MYTH 3: MANUFACTURERS CAN GET THE CLEAN AIR CREDITS OR OTHER FUNDS.

FACT: THAT'S JUST NOT GOING TO HAPPEN.

- The latest version of the bill clearly defines a Clean Air Resource as nuclear or solar facilities that are interconnected to PJM, and that are major utility facilities certified by the Ohio Power Siting Board prior to June 1, 2019, and the bill only provides for funding to Clean Air Resources (Sec. 3706.40). Therefore, manufacturers will not receive any monies from the Clean Air Fund.

MYTH 4: MANUFACTURERS WILL BE EXEMPTED FROM PAYING THE CLEAN AIR FEES.

FACT: MANUFACTURERS WILL NOT BE EXEMPTED.

- There are no longer any provisions in the bill that would exempt a manufacturer from paying the Clean Air Fees.

MYTH 5: COST TO MANUFACTURERS IS MINIMAL.**FACT: MANUFACTURERS' COSTS COULD INCREASE SUBSTANTIALLY.**

- The monthly charge to the majority of commercial customers to fund the Clean Air Fund is unknown and undefined as to whether it will be collected on a per-account or per-customer basis or whether it will be a flat monthly charge or a kwh charge (Sec. 3706.46). Typically, utilities assign an account to each meter belonging to a customer; manufacturers frequently have more than one meter. Thus, a large manufacturer with three accounts could be assessed multiple charges based on consumption.

MYTH 6: SUB HB 6 CREATES DIVERSITY OF GENERATING RESOURCES.**FACT: THE BILL REMOVES INCENTIVES TO INVEST IN A BROADER ENERGY PORTFOLIO.**

- If two Ohio nuclear plants, five solar facilities, and two old coal plants (one in Ohio and one in Indiana) receive subsidies and other resources do not receive subsidies, the four subsidized plants will likely be able to be dispatched by PJM, replacing other resources, which could include coal plants that recently invested to add scrubbers and emission control equipment. Unfairly subsidizing certain plants at the expense of all others may enable those subsidized plants to remain in the diversity mix, but could cause other resources to be eliminated from the mix.

MYTH 7: SUB HB 6 PROHIBITS GENERATING FACILITIES FROM RECEIVING MULTIPLE GOVERNMENT SUBSIDIES.**FACT: UNDER THE BILL, GENERATORS COULD GET MANY GOVERNMENT SUBSIDIES.**

- Sub HB 6 does not prohibit a facility from receiving multiple government subsidies. It does not specifically prohibit resources from receiving one or more state, federal, or municipal subsidies, or local tax abatements, and only permits, not requires, the Ohio Air Quality Development Authority to cease or reduce payments to nuclear facilities if FERC or NRC establish a monetary benefit or incentive payment to continue commercial operation of the plants. Moreover, Sub HB 6 allows a Clean Air Resource to receive a Clean Air Credit, while also allowing for increased capacity payments from PJM that could be triggered by Sub HB 6 (Sec. 3706.61).

MYTH 8: SUB HB 6 SWAPS MANDATES – OHIO'S ENERGY EFFICIENCY AND RENEWABLE PORTFOLIO STANDARDS ARE REPLACED BY A CLEAN AIR FUND.**FACT: MANUFACTURERS COULD GET STUCK PAYING FOR MULTIPLE MANDATES.**

- Sub HB 6 does not simply eliminate EE costs and replace with a lower Clean Air Fee. Rather, Sub HB 6 continues to collect costs associated with existing EE programs through December 31, 2020 and possibly beyond 2020, allows the utilities to collect costs and incentives associated with expanding collection of OVEC, and will assess other new charges to customers, including customers that opted out of EE programs (see Myth #2). Additionally, Sub HB 6 does not just affect the EE and Renewable Portfolio Standards (RPS) mandates. Sub HB 6 modifies the ratemaking statutes enacted to effectuate deregulation and allows utilities to add new above-market charges to customers' bills through their Electric Security Plans (ESPs). Sub HB 6 creates a mechanism for distribution utilities to re-enter the generation market, creating bad energy policies. Sub HB 6 is a step backwards for Ohio.

MYTH 9: SUB HB 6 REDUCES EMISSIONS IN OHIO.

FACT: THE CURRENT SYSTEM IS WORKING; SUB HB 6 COULD THWART OHIO'S PROGRESS.

- Ohio's existing diverse electricity generation mix has already reduced emissions by 38 percent from 2005 levels. This lower carbon transformation has occurred in a competitive wholesale electricity market. Subsidizing older plants, including two coal plants, with older technologies that may otherwise retire and make way for newer technologies could result in increased carbon-dioxide emissions in Ohio.

MYTH 10: SUB HB 6 SUBSIDIES FOR OHIO VALLEY ELECTRIC CORPORATION (OVEC) ARE INSIGNIFICANT.

FACT: THE NEW OVEC SUBSIDY WILL COST OHIO FAMILIES AND BUSINESSES AT LEAST AN ADDITIONAL \$488 MILLION THROUGH 2030.

- Total costs to Ohio ratepayers for OVEC under approved ESPs are approximately \$79 million per year.
- The modified OVEC subsidy will expand the duration of the current non-bypassable, above-market charges on customers' electric bills, will include costs associated with FirstEnergy's share of OVEC, and will be expanded to assess the charge on FirstEnergy's customers.(Sec. 4928.148).
- AEP Ohio will recover roughly \$38 million per year from customers under the approved ESP through May 31, 2024. Sub HB 6 would allow the company to recover an additional \$247 million between June 2024 and December 2030.
- Duke Energy Ohio will recover roughly \$32 million per year from customers under the approved ESP through May 31, 2025. Sub HB 6 would allow the company to recover an additional \$176 million between June 2025 and December 2030.
- The Dayton Power and Light Company will recover roughly \$9 million per year from customers under the approved ESP through November 1, 2023. Sub HB 6 would allow the company to recover an additional \$65 million between November 2023 and December 2030.
- Although the OVEC charge will be capped monthly through December 21, 2030, the charge is subject to final reconciliation on December 31, 2030, at which time customers will be responsible to pay all costs that have been deferred and that are due. Customers could be on the hook for a large lump sum payment on December 31, 2030 (Sec. 4928.148(A)(3)).

MYTH #11: SUB HB 6 SUPPORTS ONLY OHIO FACILITIES.

FACT: SUB HB6 WILL GIVE MILLIONS OF DOLLARS TO AN INDIANA COAL PLANT.

- The bill does NOT require that the Legacy Generation Resources (OVEC) be in the state of Ohio to receive subsidies under Sub HB 6 (Sec. 4928.01(A)(41); 4928.148). One OVEC unit partially owned by the Ohio distribution utilities that will receive customer-funded subsidies from Ohioans under Sub HB 6 is in Indiana.

The Columbus Dispatch

Opinion

Column: Sign the correct petition if you oppose utility's bailout

Posted at 4:15 AM

At a recent National Conference of State Legislatures meeting, I was talking to a Kentucky lawmaker who told me that he followed Ohio economic development closely. I asked his opinion on Ohio's House Bill 6, the bailout bill for FirstEnergy Solutions' two nuclear plants and two coal-fired plants. He asked me to thank Ohio legislators for improving Kentucky's business climate.

He was well aware that today Kentucky has a penny-per-kilowatt-hour cost advantage on the electricity businesses use and expected that difference to grow thanks to HB 6.

Ohio helped its border-state rival by wrecking our nation-leading competitive electricity generating market, setting the stage for increased electricity costs when it passed House Bill 6, also known as the billion-dollar utility bailout bill.

Although marketed as a means of helping Ohio businesses and workers, HB 6 hurts both by giving businesses an incentive to locate to a nearby state with more-affordable power.

It's already cost Ohio jobs and \$1.5 billion in investments in the state's blossoming natural gas industry. Even before legislators finalized HB 6, businesses scrapped plans for natural gas-fired power plants in northeast and northwest Ohio, knowing they would be unable to compete with electricity that ratepayers had been forced to help bankroll.

Unless vetoed by the voters, HB 6 will force consumers to subsidize the Davis-Besse and Perry nuclear plants owned by FirstEnergy Solutions, an arm of Akron-based FirstEnergy that is working to emerge from bankruptcy protection. It also bails out two coal-fired power plants — one in Ohio, the other in Indiana, owned by a group that includes American Electric Power.

And the bill guts Ohio's renewable energy and energy efficiency programs.

To summarize: Unless voters say "no," the bill would force utility customers to subsidize uncompetitive power plants, remove all incentives to build more energy efficient power plants and cancel programs that help customers use less electricity. It does provide safe shelter for five solar projects. Unfortunately, they will be able to sell their power safe from the cost discipline of competition. It's a bill that only a utility — and the political establishment it showers with donations — could love.

Whether voters have a chance to weigh in on the bailout will not be known until the referendum campaign plays out.

The anti-bailout team has until Monday, Oct. 21, to gather 265,000 valid signatures to put the measure before voters. With the help of millions in dark money and old-fashioned thuggery, pro-bailout forces are trying to intimidate people from signing the petitions by employing "blockers" who harass people being asked to sign them. They also are offering thousands of dollars to try to lure away petition circulators hired by those who oppose the bailout.

Bailout supporters are circulating their own lookalike, nonbinding petitions to further confuse voters.

If you want to stand up for consumers and sign a petition, make sure you sign the correct one. Real petitions bear the name of Ohioans Against Corporate Bailouts, and they have defined blocks in which signers list their names and addresses. Fake petitions simply have lines, similar to the ones found on legal pads.

Regardless of what the pro-bailout forces say, electricity costs will go up unless the electorate votes this down. FirstEnergy and its lobbyists say that I am wrong. Where's my proof? It's in the millions of dollars they have invested in lobbying, lawyers, deceptive campaign ads and phony, sometimes violent petition gatherers and blockers.

FirstEnergy Solutions' bankruptcy records document that front groups have spent lavishly on ads that have run on TV and social media platforms. A dark money group, Generation Now, sank nearly \$5 million into pro-HB 6 TV and

radio ads and a million more on Statehouse legislative races. And records link an employee at a lobbying firm that was paid more than \$800,000 by FirstEnergy Solutions to the written testimony of at least seven people who testified in favor of the bailout bill.

No entity that invests so heavily in paid media, lobbyists and political contributions is looking to reduce its revenues. FirstEnergy expects a sizeable return on its sizeable investment.

It has worked for them in the past. FirstEnergy has been seeking and receiving bailouts for years.

FirstEnergy has not earned our trust, and it must not benefit from the confusion it has created. The issue deserves to go before voters, and the winner should be determined by a free and open debate — not by which side pays the most to win and which knows how to buy the spin cycle. This is a battle between truth and truthiness. Let's hope that truth wins out.

Edward (Ned) Hill is professor of economic development at Ohio State University and former dean of the College of Urban Affairs at Cleveland State University. This column represents his views and not those of either university.



Campaign Will Not File House Bill 6 Referendum Petitions

Awaits U.S. District Court Decision On Challenge to Petition "Blackout Period"

(Columbus, October 21, 2019) -- Ohioans Against Corporate Bailouts will not file its petitions to repeal House Bill 6 with the Ohio Secretary of State today, campaign leaders announced.

"Nuclear bailout supporters of House Bill 6 have stooped to unprecedented and deceitful depths to stop Ohioans from exercising their Constitutional rights to put a bailout question on the ballot for voters to decide," said campaign spokesman Gene Pierce. "We may never know how much money the corporate backers spent in their campaign of deceit, but we estimate their television, digital and radio advertising, direct mail and their blocking and fake petition to cost over \$50 million."

Tactics employed by supporters of House Bill 6 to protect FirstEnergy Solutions' billion dollar bailout include:

- spending millions of dollars on deceitful, racist and hypocritical ads,
- hiring thousands of "blockers" to interfere with our petitioners and discourage Ohioans from signing our petition,
- encouraging Ohioans to spy on their neighbors,
- bribing our petition circulators with \$2,500 and plane tickets,
- buying signatures from our circulators, a fifth degree felony under Ohio law,
- circulating a bogus petition to confuse Ohio voters,
- paying circulators millions of dollars for signatures on that bogus petition and
- suggesting Ohio's Supreme Court ignore four decades of established legal precedent to try to keep this bailout issue off the ballot.

"The fight to put House Bill 6 on the ballot in 2020 isn't over yet though," said Pierce. "Our lawsuit challenging the 'blackout period' on petitioning, which consumed 38 of the 90 days we had to collect signatures, remains under review in U.S. District Court." An evidentiary hearing is scheduled for Tuesday, October 22 at 1:45 p.m.

The suit reads:

Through imposition of extra-constitutional mandates in Ohio Rev. Code §3519.01(B) (the "Summary Statute") which require, prior to obtaining a single signature on any referendum petition, those seeking to subject legislation to referendum to obtain pre-approval from the government of the proposed petition and that, while awaiting such pre-approval, the 90-day period to obtain signatures on the petition is not tolled or stayed, the State of Ohio has unconstitutionally burdened and infringed upon the full and robust exercise of the First Amendment rights of the Committee and those supportive of subjecting H.B. 6 to a vote of the people.

"We are fully prepared to continue circulating petitions if the court rules in our favor and grants us a full 90 days to collect signatures," said Pierce.

Ohioans Against Corporate Bailouts is a coalition of consumer, business and environmental advocates opposed to House Bill 6's controversial billion dollar bailout and gutting of Ohio's renewable energy standards.

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CARPENTER LIPPS & LELAND LLP

ATTORNEYS AT LAW
280 PLAZA, SUITE 1300
280 NORTH HIGH STREET
COLUMBUS, OHIO 43215

HB 6 Implementation Issues and Timelines

Before the PUCO:

1. Statewide OVEC Costs—effective 1/1/20.
 - a. Staff filed a Staff proposal that has been issued for comment.
 - i. Comments due 10/17/19; Reply Comments due 10/28/19.
 - b. OVEC costs recovered 1/1/20 through 12/31/30.
 - c. PUCO prudency reviews in 2021, 2024, 2027, and 2030.
2. Reduction in RPS Baseline for RPS Compliance—effective compliance year 2020.
 - a. Reduce baseline for utilities and suppliers by kwh produced by qualifying renewable resources.
 - b. Reduce baseline for economic growth.
 - c. Reduce baseline to exclude load and usage of self-assessor customers.
3. Energy Efficiency Programs—effective 10/22/19.
 - a. PUCO shall extend EE Plans that expire before 12/31/20 through 12/31/20.
 - b. Except for the increase in the budget amount, all other terms and conditions of the EE plan shall remain the same unless changes are authorized by the PUCO.
 - c. By 2/1/21, the PUCO shall determine the cumulative energy savings collectively achieved since 2009 by all utilities as of 12/31/20.
 - d. Establish EE baseline that is the average of the total kwhs sold by all utilities in the state in 2018, 2019, and 2020.
 - i. Exclude from EE baseline a reasonable arrangement customer and opt-out customers.
 - e. If cumulative energy savings collectively achieved is less than 17.5% of baseline, further EE programs will occur as determined by PUCO to reasonably achieve 17.5%.
 - f. EE cost recovery mechanism terminated after full compliance achieved and reconciliation complete.
4. Expanded EE Opt-out—effective 1/1/20
 - a. EE Opt-out expanded to all mercantile customers.

5. Renewable PPAs—effective upon PUCO approval after 10/22/19.
 - a. Utility may enter into an agreement for a 3 year PPA with one or more mercantile customers to construct a customer-sited renewable resource in this state that will provide the mercantile customer(s) with a material portion of the customer’s electricity requirements.
 - b. Any direct or indirect costs associated with project must be paid for solely by the utility and mercantile customer(s).
 - c. Must get PUCO approval; Utility must act on a non-discriminatory basis.
6. Decoupling Mechanism—effective upon PUCO approval within 60 days of application.
 - a. Utility may file an application to implement on 11/22/19 and after.
 - b. Effective date could be within 60 days of 11/22/19 (prior to 1/21/20).
7. Ohio Clean Air Fund Collection—effective 1/1/21.
 - a. Collect amount sufficient to produce \$170M annually in revenue.
 - b. Collect charge on all bills rendered on or after 1/1/21.
 - c. PUCO needs to determine allocation methodology.
 - d. Level and structure of the charge needs to be approved by PUCO.
8. PUCO retrospective management and financial review.
 - a. By May 1st of each year for period of 2021 through 2027, the PUCO shall conduct a review of the owner or operator of a qualifying resource.
 - b. PUCO shall submit a report summarizing the findings of each annual audit.

Before OAQDA:

1. Nuclear and Renewable Generation Program and funding mechanism—adopt by 1/1/20.
 - a. OAQDA (in conjunction with PUCO) drafted and issued proposed rules for comment.
 - i. Comments due 10/7/19.
 - b. Application to become a qualifying nuclear resource or renewable resource—due to OAQDA by 2/1/20.
 - c. OAQDA must approve applications by 3/31/20.
2. Qualifying Facilities’ Reports.
 - a. First report by 4/7/20; last report by 1/7/27.
3. Fund Disbursement.
 - a. Beginning with April 2021 and ending with January 2028 remit money to qualifying resources every three months by the 21st day of each month.

One bailout can raise the cost of electricity at a single manufacturing facility by over \$1 million per year.

Competitive power generation yields innovation, reduces costs, and puts investment risk on suppliers. Markets excel by letting competitive forces drive low-cost investment and the exit of outmoded production. This has resulted in hundreds of billions of dollars in economic benefits.

Some states have arrested this progress by bailing out unprofitable plants in response to intense lobbying efforts by owners. None of their arguments justify subsidies. Bailouts undermine valid policy objectives like advancing economic development and innovation.

Rewarding subsidy-seekers has resulted in subsidy contagion, especially for unprofitable coal and nuclear plants. Even profitable nuclear plants now claim they need subsidies to continue. State nuclear bailouts alone cost consumers billions in added costs per year.

Manufacturers compete in tight markets to remain profitable. They expect their electricity suppliers to do the same.

The Effects of Power Plant Bailouts

- **Stunts economic development.** Forcing productive businesses to subsidize unproductive ones prevents capital reallocation to valuable activities.
- **No reliability or resilience benefits.** Beneficiaries of grid reliability, especially manufacturers, as well as grid operators all agree that bailouts provide no value.
- **Suppresses innovation.** Retaining outmoded technologies blocks new technologies, which stifles innovation and harms consumers and the environment.
- **Undermines risk management.** A premise of adopting markets was to have suppliers internalize risk, which proved effective. Bailouts shift risk to consumers.
- **Encouraging bad behavior.** States that reward subsidy-seekers motivate more of the same behavior.

The only path to an innovative, reliable, and affordable electricity system is to let markets work.

Experts Agree that Markets Work

“As a root cause of retirements, wholesale competition worked as intended, driving inefficient, high-cost generation out of the market.”

- Alison Silverstein, co-lead of the Energy Department’s report on electric reliability, 2017

“[Bailouts are] a tragedy for a capitalist society... and it’s a real tragedy for ratepayers, who... have paid for these plants over the course of their lifetime, and again for stranded costs.”

- Nora Brownell, former commissioner at the Federal Energy Regulatory Commission, 2018

“Rather than considering these retirements ‘premature,’ we view them to be consistent with the underlying economics of baseload plants in today’s regulatory and market environment.”

- Economists of the Brattle Group, 2016

“Subsidies are contagious. Competition in the markets could be replaced by competition to receive subsidies. PJM markets have no protection against this emergent threat. Accurate signals for entry and exit are necessary for well functioning and competitive markets.”

- Independent Market Monitor for PJM, 2017

How one Cleveland lamppost shines a light on dark side of your electric bill

Posted Sep 29, 2019



The Plain Dealer

The bill for this lamppost at the intersection of Cypress Ave., Landchester Rd, and South Hills Dr. in Cleveland is nearly eight times what it was 11 years ago, an example of how most consumers' electric bills have risen while wholesale electricity prices have fallen. (Marvin Fong / The Plain Dealer)

By John Funk | Eye on Ohio and Kathiann M. Kowalski | Eye on Ohio

CLEVELAND, Ohio — In a residential neighborhood south of downtown Cleveland, a decorative lamppost provides a stark illustration of what critics say is an abusive system of surcharges that have created billions of dollars in subsidies for the state's utilities.

The 150-watt light in a tiny park is the only thing for which the South Hills Neighborhood Association used electricity in July. Yet its electric bill was nearly \$70 — only 38 cents of which was for actual electricity used.

The bill for that single lamppost is now nearly 750% higher than it was just 11 years ago. In July 2008, the charge for the same light totaled \$8.28, with \$2.69 going toward electricity.

The following summer, the monthly bill already had jumped to \$34.85, with the inclusion of a new "Distribution Related Component" charge of almost \$20. This year, that charge is a little more than \$38.

"We transformed this neglected traffic island into our little park. Part of this was the lamppost that reflects the architecture of the neighborhood," said Mary Ann Jannazo, an organizing founder of the association and past president. "It was manageable a decade ago, but now it is the highest cost we have monthly. Annually we are paying over \$700 a year for one streetlight."

This one lamppost is an example of how most consumers' total electric bills have risen, even as wholesale electricity prices have fallen over the past decade.

Mike Hulett, owner of Broadway Cyclery in Bedford, said the delivery charges on his most recent electric bill from FirstEnergy's Cleveland Electric Illuminating Co. came to \$74.33, while the actual price of the electricity was \$21.42. Like the neighborhood association, the bike shop is billed by the Illuminating Co. at a small-business rate.

How did it get to this point? Like most things involving utilities, it's complicated.

In 2008, the Ohio Legislature enacted Senate Bill 221, allowing state regulators to develop "electric security plans." Those plans let utilities add riders to bills beyond the basic costs of distribution services and investments.

"Customers' base-distribution rates have not changed since 2009 and will continue to be frozen through May 2024," said spokesman Mark Durbin of FirstEnergy, which provides electric distribution and transmission service to more than 2 million Ohioans through three regulated utilities companies.

However, the company's utilities and others in the state have added a variety of extra charges to their bills, called riders.

"The use of riders is common among all Ohio utilities, and has been for years," Durbin said, noting that riders are subject to Public Utilities Commission of Ohio review and approval.

Good news and bad for consumers

Continuation of riders, subsidies and other policies has shifted away from the state's original 1999 goal of deregulating the state's retail electricity markets.

Competition in electric markets has kept bills from climbing even higher, according to researchers at Ohio State University and Cleveland State University. Competitive generation markets have saved Ohioans [\\$23.9 billion](#) since 2011, the researchers reported in an August 2019 analysis prepared by the Northeast Ohio Public Energy Council.

At the same time, regulators could have done a better job protecting consumers, the researchers said.

"Ohioans would have seen even greater savings had state regulators been more frugal in their approval of these non-bypassable charges [added to the delivery side of the bill]" said Chuck Keiper, executive director of NOPEC.

Meanwhile, the energy market continues to evolve.

"The falling price of natural gas, as well as to a lesser extent the falling price of wind and solar, have caused old technologies — things from the 1950s — to no longer be able to participate in the market," said Dick Munson, who works to advance clean energy in the Midwest for the Environmental Defense Fund.

An American Electric Power spokesman said the PUCO bears some of the burden.

"AEP Ohio is focused on delivering electricity to our customers and making improvements that make our distribution system smarter, more reliable and more resilient," AEP spokesperson Scott Blake said. "Many of the charges referred to in the report are directly related to these improvements and are regulated by the PUCO as well as other government agencies."

Ohioans pay more

A 2018 analysis by [24/7 Wall Street](#) calculated Ohioans' average monthly electric bill at \$111. Average electricity use was 23rd lowest among the states, yet Ohio ranked two places higher for costs — meaning its people paid disproportionately more for electricity. Those higher costs also reflect a disparity between wholesale and retail electricity prices. Ohio is part of the PJM regional grid, a mid-Atlantic regional transmission organization, where wholesale prices have had some significant drops and an overall downward trend since 2008. For the most part, however, the trend in Ohio's retail electricity prices has been upward, even at times when wholesale electricity prices have fallen.

The average residential customer's cost went from 8.24 cents to 12.89 cents per kilowatt-hour delivered between 2000 and 2018, [data](#) from the Energy Information Administration shows. During that time, the average wholesale price fell from roughly 5.5 cents to 2.5 cents per kilowatt-hour.

"Since deregulation in 1999, Ohioans have been made to pay an astounding \$15 billion in subsidies to electric utilities," energy industry consultant Michael Haugh [told lawmakers](#) in June, speaking on behalf of the Office of the Ohio Consumers' Counsel.

Bankruptcy and bailouts

More recently, FirstEnergy filed for [bankruptcy](#) for its generation subsidiary, FirstEnergy Solutions. It announced that the Davis-Besse and Perry nuclear power plants would close if the company didn't get subsidies in 2018. An April 2019 ruling later held that FirstEnergy could not use the bankruptcy case to fully insulate itself from the closure costs associated with its former plants.

In late 2018, the Ohio Supreme Court affirmed the PUCO's order calling for AEP ratepayers to subsidize two Ohio Valley, 1950s-era coal plants, thus affirming the regulators' choice to insulate the plants from competition.

FirstEnergy and other utilities persuaded lawmakers to require that customers pay yet more subsidies this year. The companies say FirstEnergy's affiliated [nuclear plants](#) and OVEC's two coal plants are no longer competitive. House Bill 6, passed July 23, creates new charges on customers' bills to help prop up the plants. The law also guts large parts of the state's clean energy standards.

In June 2019, the Ohio Supreme Court ruled FirstEnergy's 2016 credit support rider was unlawful. By then, ratepayers had already shelled out roughly \$440 million in extra charges. However, the court would not let consumers recover the money for charges before its decision.

"A frustration for consumers is that Ohio government, including the PUCO, seems determined to find ways to make Ohioans subsidize or bail out FirstEnergy companies when they want money that they can't make in the competitive market," said J.P. Blackwood, spokesperson for Ohio Consumers' Counsel Bruce Weston, when the court's June 2019 decision came out.

This story is part of a joint investigative project by Eye on Ohio and the Energy News Network



October 22, 2019

The Honorable Jamie Callender, Chair
The Honorable Shane Wilkin, Vice Chair
The Honorable Kent Smith, Ranking Member
Members, Ohio House Public Utilities Committee

RE: OMA Letter of Opposition to House Bill 247

Dear Chairman Callender, Vice Chair Wilkin, Ranking Member Smith and Members:

I write on behalf of the Ohio Manufacturers' Association (OMA). As an industry, Ohio's manufacturers consume nearly a third of all energy resources in our state. Public policies that impact the cost of electricity are of great interest to our membership. The OMA has reviewed the legislation and we write today to convey our opposition to House Bill 247 (HB 247) as you consider the bill.

HB 247 allows for expansion of regulated utilities into existing and emerging competitive markets. It does so by allowing the regulated, monopoly electric distribution companies to offer products and services currently offered by competitive, private enterprise. HB 247 may be best summarized by one of its most striking set of provisions – it repeatedly eliminates language that safeguards markets, customers, and ratepayers from anti-competitive utility behavior.

HB 247 would make unprecedented changes to how Ohio's electric distribution utilities could operate, largely at the expense of competitive markets. Quite literally, HB 247 allows anti-competitive behavior by the electric distribution utilities in existing and emerging markets. While some guardrails are proposed, the protection to markets, customers, and ratepayers is illusory.

HB 247 as proposed, however, should not be confounded with the promise of the technologies and services it addresses. The emerging technologies and services influencing customer energy use are a bright spot in the energy industry and Ohio's economy – please do not stymie that further by passing this legislation.

We would caution you regarding some of the claims made last week by proponent witnesses from Ohio's four monopoly electric distribution utility companies. HB 247 is not about coordinating state economic development work. This bill is not about grid modernization. This bill is not about building out charging stations for electric vehicles. There are mechanisms in place today at the PUCO for utilities to gain customer cost-recovery if they can prove system need and benefit. In fact, Ohio customers are already paying for many of those costs through existing riders on the distribution portion of their power bill.

Make no mistake, this bill is about one thing -- eroding competitive market economics and forcing captive customers to pay more on power bills, all while reducing the amount of scrutiny and due process to protect customers.

For these reasons we urge you to oppose HB 247.

Please feel free to contact me if you would like to discuss the matter further. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Ryan Augsburger".

Ryan Augsburger
Vice President & Managing Director of Public Policy
614-629-6817
raugsburger@ohiomfg.com



October 31, 2019

The Honorable Dick Stein
Ohio House of Representatives
77 South High Street
Columbus, OH 43215

VIA EMAIL

RE: House Bill 104

Dear Representative Stein:

I write to convey concerns with House Bill 104.

We understand from your sponsor testimony that the legislation is intending to create public private partnerships to build thorium reactors, and seize private property through eminent domain to off-take FES nuclear waste and out-of-state waste, utilize tax-credit funding and stand up a state created for-profit company that can profit from all of this activity.

The expansion of government eminent domain powers to seize property for nuclear waste storage is unwise. Nuclear waste is by definition a toxic material and deserves the expertise of federal regulators who are best equipped to safely solve this complex issue on a national basis. However, this bill would remove federal oversight and replace it with a new state board that may receive funding from various unrestricted, possibly foreign interests. Furthermore, the eminent domain authority under HB 104 is delegated to this unelected and unaccountable public-private partnership.

Thorium energy production is not commercially viable today. It may be a better approach to work with Ohio's institutions of higher education to determine if state research assets can be utilized toward this purpose.

Finally, the mission to make Ohio a leader in nuclear waste reduction and storage is downright bad public policy that will not promote Ohio's competitiveness to anyone other than radioactive polluters. I'm sure you are aware that the decommissioning costs of Ohio's two existing nuclear power plants are not fully funded. This has been well-documented in coverage of the FirstEnergy Solutions bankruptcy case. Doesn't Ohio bare adequate risk of radioactive pollution already? Why add more?

Great advances in technology happen every day in America. Be it in manufacturing, or agriculture, health care, retail industry, or in energy...the power of markets drives business to innovate in order to compete. Manufacturers in Ohio don't believe that government creates jobs. HB 104 constitutes a big-government solution to a problem that doesn't exist. The bill is inherently anti-market and dangerous. As such the Ohio Manufacturers' Association respectfully urges you to reconsider this legislation.

Thank you for your interest in these perspectives.

Sincerely,

A handwritten signature in black ink, appearing to read "Ryan Augsburger". The signature is fluid and cursive.

Ryan Augsburger
Vice President & Managing Director of Public Policy

URGENT MEMORANDUM

TO: Ohio Manufacturers' Association

FROM: Bricker & Eckler LLP

DATE: October 28, 2019

RE: Summary of House Joint Resolution 2 (prohibiting certain foreign investment in critical infrastructure located in Ohio)

I. Overview.

Introduced on October 26, 2019, House Joint Resolution 2 (HJR 2) is sponsored by Representatives Jamie Callender (R-Concord) and Don Manning (R-New Middletown).¹ HJR 2, titled the "Ohio Critical Infrastructure Protection Amendment," seeks to place a constitutional amendment before voters in the November 2020 General Election. Such a joint resolution requires a 3/5th majority vote in both the Ohio House and Ohio Senate to be placed on the ballot for Ohio voters.

Generally, HJR 2 seeks to prohibit foreign businesses and individuals from having a majority ownership interest in critical infrastructure located in Ohio. Impacted types of infrastructure include power plants, intrastate electric transmission lines, intrastate natural gas pipelines, and water treatment plants. Below is a more comprehensive overview of HJR 2 and a description of the legislative process for joint resolutions.

II. Overview of House Joint Resolution 2.

A. The Prohibition on Foreign Ownership in Critical Infrastructure

Subsection (B) of HJR2 prohibits an "alien entity" from having an ownership interest in critical infrastructure. Critical to understanding this prohibition are the following definitions in the joint resolution:

- "Alien entity" is defined as a corporation or business entity created or organized under the laws of any state (including Ohio), or any foreign nation or that has its principal place of business in a foreign nation that either of the following apply:
 - 1) nonresident aliens and alien investors (in aggregate) hold or acquire at least

¹ Additional co-sponsors include Reps. Stein, Ghanbari, Lang, and Cross.

51% of the shares of stock or other interests in the corporation or entity; or 2) a nonresident alien or investor holds or acquires any shares of stock or other interests that grants access to any of the following: nonpublic technical information; membership or observer rights on the corporation's or entity's board of directors; or any other involvement in substantive decision-making.

- “Alien investor” means a corporation, business trust, estate, trust, partnership, or any other entity or association, created or organized under the laws of a foreign or with its principal place of business in a foreign nation that holds or acquires shares of stock or other interest in a another corporation or entity.
- “Critical infrastructure” means any facility located in Ohio that affects the life, safety, health, welfare, and economic well-being of the citizens of Ohio and that is any of the following:
 1. An electric generating facility (hydroelectric, coal, natural gas or nuclear) with a generating capacity of 50MW or more;
 2. An intrastate electric transmission line and any associated facility with a design capacity of 100KV or more;
 3. A water treatment facility;
 4. An intrastate natural gas pipeline that is a “major utility facility” as defined by Ohio Revised Code Section 4906.01;² or
 5. An intrastate oil transmission pipeline.

B. Reporting of Ownership Interests to the Ohio Secretary of State

Under the joint resolution, every corporation or entity with an ownership interest in critical infrastructure must submit, along with a five dollar (\$5.00) filing fee, the following information to the Ohio Secretary of State:

- Name of the corporation or entity along with address of its principal place of business and the address of its principal Ohio office.
- The name, address, telephone number, and country of citizenship of each nonresident alien, if any, and also the name and address, including country, of the principal place of

² ORC 4906.01 (B)(1)(c) includes in the definition of “major utility facility” a “gas pipeline that is greater than five hundred feet in length, and its associated facilities, is more than nine inches in outside diameter and is designed for transporting gas at a maximum allowable operating pressure in excess of one hundred twenty-five pounds per square inch.” In addition, subsection (B)(2)(a) excludes from that definition “Gas transmission lines over which an agency of the United States [e.g., FERC] has exclusive jurisdiction.”

business of each alien investor that owns, in aggregate at least 51% of the shares of stock or other interests in the corporation or entity.

- The name, address, telephone number, and country of citizenship of each nonresident alien, if any, and also the name and address, including country, of the principal place of business of each alien investor that through owning shares of stock or other interests in the corporation or entity that grants the nonresident alien or alien investor access to any of the following: nonpublic technical information; membership or observer rights on the corporation's or entity's board of directors; or any other involvement in substantive decision-making.
- The chairman of the governing board, chief executive, and partners of the corporation or entity.
- The corporation's or entity's agent in Ohio.
- The place of incorporation (if a corporation).
- The critical infrastructure in which the corporation or entity has an ownership interest.

C. Ohio Secretary of State Notifications.

Using the submitted information, the Ohio Secretary of State must determine if the corporation or entity is an alien entity. If determined to be an alien entity, the Ohio Secretary of State sends written notification of the determination and direction to divest all ownership interest in the critical infrastructure not later than one year from the date of the notice. The notice also specifies that the corporation or entity can challenge the determination as a mistake of fact.

D. Divesting of Foreign Investment.

Upon receiving notice from the Ohio Secretary of State a corporation or entity determined to be an alien entity shall divest ownership interest not later than one year after the notice is sent. The corporation or entity must notify the Ohio Secretary of State in writing once it achieves divestment and the date divestment took effect.

E. Appellate Rights.

A corporation or entity does not have to divest ownership in critical infrastructure if during a "mistake of fact" hearing it is determined that the corporation or entity is not an alien entity. HJR 2 requires the Ohio Secretary of State to establish hearing rules and procedures for a mistake of fact hearing.

III. Joint Resolution Procedures.

Article XVI, Section 1 of the Ohio Constitution grants the General Assembly authority to propose constitutional amendments through a joint resolution. Below is a description of the process for such a constitutional amendment to be approved.

A. The Legislative Process.

A member who chooses to introduce a joint resolution first files the joint resolution with the House or Senate Clerk. The clerk assigns a number to the joint resolution, in this instance HJR 2.

HJR 2 will receive its first reading when read by its title in the House Rules and Reference Committee and will then be assigned to a standing committee. Likely committees are either the House Energy and Natural Resources Committee or House Public Utilities Committee, but the joint resolution can be assigned to any committee.

Following committee assignment, the sponsoring Representative will provide testimony explaining the joint resolution. After the first hearing, the committee's chair decides whether HJR 2 will receive additional hearings. Traditionally, hearings are also held for proponent and opponent testimony prior to a committee vote. The committee chair can schedule HJR 2 for a vote any time after the first hearing. If a majority of committee members vote to pass HJR 2, then it is reported out of committee.

Following committee action, the House Rules and Reference Committee may choose to schedule HJR 2 for a vote on the House floor. Ohio Constitution, Article XVI, Section 1 requires that House joint resolutions pass by a 3/5th majority vote, meaning it requires 60 of 99 votes to pass.

If passed, HJR 2 moves to the Senate for an identical process as stated above. The Ohio Constitution requires a 3/5th majority in the Senate also, meaning 20 of 33 votes.

If both houses approve the HJR 2 with a 3/5th majority, the joint resolution is submitted to the electors as a proposed constitutional amendment.

B. Electoral/Ballot Process.

After a joint resolution passes both houses, the joint resolution is filed with the Ohio Secretary of State at least 90 days before the relevant election. The proposed amendment can be placed on the ballot at either a special or a general election. Additionally, a constitutional amendment can be placed on a ballot for a special election on the day of a primary election. Traditionally, the election date for the proposed amendment is prescribed in the joint resolution

language. The election date does not have to be the next election date after the passage of the joint resolution.

Per the language of HJR 2, the proposed constitutional amendment would be placed on the ballot in the General Election in November 2020.

After the joint resolution is sent to the Ohio Secretary of State, the Ohio ballot board receives the joint resolution to draft the actual question that will be posed to voters on the ballot.

The Ohio ballot board also must compose an explanation for each proposed constitutional amendment. The Ohio ballot board's language and explanation of the proposed constitutional amendments must be certified no later than 75 days before the election date.

Finally, if a majority of voters approves the constitutional amendment, then it shall become a part of the constitution. The amendment takes effect immediately following adoption by the voters.

Below are some key dates related to joint resolutions and the 2020 election calendar:

- December 18, 2019: Constitutional Amendments Proposed by Joint Resolution Must be Filed with the Ohio Secretary of State (90 Days before the Primary Election).
- January 7, 2020: Form of Official Ballot for the Primary Election Must be Certified.
- February 18: Last Day to Register for the Primary Election
- February 19: Early Voting Period Begins for the Primary Election
- March 17: Primary Election Day
- August 5: Constitutional Amendments Proposed by Joint Resolution Must be Filed with the Ohio Secretary of State (90 Days before the General Election)
- September 15: Form of Official Ballot for the General Election must be Certified
- October 5: Last Day to Register for the General Election
- October 6: Early Voting Period Begins for the General Election
- November 3: General Election Day

IV. Conclusion/Follow Up Information.

HJR 2 is a state legislative proposal that could profoundly affect your business in Ohio. This memorandum only explains the resolution and process, and does not analyze underlying federal and state constitutional and other legal issues which this resolution may implicate. The members of Bricker & Eckler energy and government relations team are available to answer your questions, as we will be actively monitoring this proposal.

Energy Engineering Report

OMA ENERGY COMMITTEE – NOVEMBER 2019



Energy Efficiency Programs



Programs extended through 2020. But:

- Subject to mercantile opt-out. Customers using more than 700,000 kWh/year or part of a national account can forgo paying into and participating in the programs
- Some uncertainty on budget, utility interest, and PUCO interest in programs running the full year
- Ongoing interest in some sort of utility-driven customer engagement past 2020

Energy engineering & management assistance

- 75% cost share up to \$22,500 for an energy study
- Limited availability
- Ohio Department of Services Agency (DSA), Energy Efficiency Program for Manufacturers (EPPM)
- Contact jseryak@gosustainableenergy.com asap

Takeaways

- Politically and regulatorily complex:
 - Ohio policy intent was to have competitive generation
 - Electric distribution companies not allowed to own generation
 - Eroding competitive renewable generation: PUCO case, HB6, HB 247
- Renewable energy deals are proliferating, but can also be complex
 - Deals can take months to more than a year to develop
 - Shopping is typical and beneficial: ex. corporate RFP received > 50 responses
 - Customized to the customer: balance cost, attribution, additionality, risk exposure
- Ask critical questions, especially on REC ownership, if a deal is a vPPA
- Watch our webcast:

<https://register.gotowebinar.com/recording/9020816008957443080>

Takeaways

- Modifies law currently prohibiting anti-competitive subsidies
- Illusory safeguards to markets, customers, and ratepayers
- Allows regulated distribution utility to participate in emerging and existing competitive markets
 - Load curtailment and demand response
 - Lighting and other controls
 - Energy monitoring and controls
 - Warranty and repair services
 - Energy management
 - EV charging stations
 - Microgrids
 - Community solar
 - Financing, leasing, and management of products and technology
 - Etc.
- Allows socialized cost recovery for select privately-owned projects
- Makes modifications to “used and useful” doctrine

Takeaways

- ❑ May 2019 Base Residual Auction (BRA) for capacity was delayed, and has yet to be rescheduled
- ❑ 2019 BRA would have procured capacity for 2022/2023, providing a 3-year lead time for new power-plant entrants and exits in the market
 - ❑ Now at 2.5 years, but likely will have auction with a compressed timeline
- ❑ Auction delay related in part to HB6
- ❑ When FERC rules, it may take some time for PJM to devise new rules and submit them for approval
 - ❑ FERC will have a quorum after Nov. 29th, 2019
- ❑ Impact: significantly harder for competitive enterprises to make decisions to replace uneconomic power plants with economic power plants. Meaning, delayed auctions create the risk for higher costs for customers and less reliability.

PJM – Demand Response Event



- ❑ PJM called Demand Response on October 2nd for AEP, Baltimore G&E, Dominion, Pepco
- ❑ Peak load of 126,000 MW
 - ❑ 728 MW of load reduction, 450 MW reduction in AEP
- ❑ First Demand Response call in Ohio since 2014, in PJM since 2015
- ❑ Due to generators being offline, unseasonably warm weather
- ❑ Demand response call was for long-lead, capacity performance resources
 - ❑ “Base DR” resources voluntary
- ❑ AEP Ohio did call Interruptible Load
- ❑ Takeaway – Meeting reliability is about more than baseload

ELECTRIC POWER — 18 Nov 2019 | 18:13 UTC — New York

Tension increases over PJM capacity auction scheduling ahead of FERC ruling

Author [Jared Anderson](#) 

Editor [Richard Rubin](#) 

Commodity [Electric Power](#)

HIGHLIGHTS

EPSA says members need forward price signals

States need time to enact legislation, regulatory changes

PJM will work with all stakeholders on scheduling

New York — Tension between states and other PJM Interconnection stakeholders has increased as a capacity market rule change decision from federal regulators approaches, with merchant power generators urging the grid operator to quickly schedule capacity auctions once the ruling is received, despite timing concerns from states.

Trade group Electric Power Supply Association urged PJM and its board of managers "to work with all stakeholders on a reasonable transition plan that acknowledges the critical role that PJM's capacity market plays in ensuring reliability in PJM, and reschedules the 2022/2023 [Base Residual Auction] BRA as soon as practically possible so as to limit the already compromised lead time for that delivery year," in a letter emailed Friday.

A wide-ranging stakeholder group requested in September that PJM establish a capacity auction schedule that gives "states sufficient time to adopt and implement capacity procurement mechanisms as necessary in response to" the Federal Energy Regulatory Commission's pending order (EL18-178).

In some states with resources subject to an expanded minimum offer price rule, legislation or regulatory changes will be required before the state can comply with FERC's ruling, the stakeholders argued in a letter to PJM.

It could take over a year for legislation to be drafted, considered, enacted and signed, the group said.

The letter was signed by American Electric Power Service Corporation, Avangrid Renewables, Illinois Citizens Utility Board, Division of the Public Advocate of the State of Delaware, Dominion Energy, EDP Renewables, Exelon Corporation, FirstEnergy Utilities, Natural Resources Defense Council, Nuclear Energy Institute, Office of the People's Counsel of the District of Columbia, Public Service Enterprise Group and the Sierra Club.

The 2019 BRA for delivery year 2022/23 was cancelled due to the length of time taken by FERC to issue its decision.

FORWARD PRICE SIGNALS

EPSA member companies, however, that own and operate over 50,000 MW of generation in PJM said that forward price signals are needed from the capacity auctions in order to decide whether or not to invest in incremental generation resources or retire existing plants.

"It is a disservice to the vast majority of market participants who are committed to the PJM markets to unduly delay capacity auctions at the request of a few who may or may not decide to withdraw from those capacity markets," EPSA said.

S&P Global Platts Analytics said delaying the auctions could set an awkward precedent for the future of power markets.

"While existing reserve margins maybe adequate - the role of the capacity auction is to provide a forward-looking market signal for not just new generation but also for existing generation (in case it needs to retire based on a weak price / not clearing auction due to sufficient reserve margins)," Manan Ahuja, manager of North American power analytics at Platts Analytics, said Monday.

"Independent power generators rely on the three-year forward price signal and capacity commitment provided by regularly held auctions to run their business and serve their customers with reliable, competitively-priced energy," Todd Snitchler, EPSA president and CEO, said in an email Monday.

"The delay in holding the 2022/2023 BRA is already handicapping the ability of many power generators to run their businesses, which will only be compounded as time goes on," Snitchler said.

PJM said they are aware of multiple stakeholder concerns and will work with them before scheduling the auctions.

"PJM recognizes that there are many considerations and variables at play in the scheduling of the next capacity auction, and we appreciate the thoughtful input we have received from diverse stakeholders on this issue," PJM spokesman Jeff Shields said Monday.

"When FERC ultimately issues an order, we expect to engage with stakeholders on all of these issues before establishing the auction schedule," Shields said.

-- Jared Anderson, jared.anderson@spglobal.com

-- Edited by Richard Rubin, newsdesk@spglobal.com



MEMORANDUM

Date: October 8, 2019
To: The Ohio Manufacturers’ Association
From: John Seryak, PE (RunnerStone, LLC)
RE: House Bill 247 – Expansion of Regulated Utilities into Competitive Markets of Products and Services

House Bill (HB) 247 was recently introduced to the Public Utilities Committee of the Ohio House of Representatives. HB 247 is notable, in that it allows for expansion of regulated utilities into existing and emerging competitive markets. It does so by allowing the regulated, monopoly electric distribution companies to offer products and services currently offered by competitive, private enterprise. HB 247 may be best summarized by one of its most striking set of provisions – it repeatedly eliminates language that safeguards markets, customers, and ratepayers from anti-competitive utility behavior.

Allowances for Anticompetitive Behavior

HB 247 repeatedly changes language in the Ohio Revised Code that limits anti-competitive behavior by electric distribution utilities. For markets to function effectively, it is important to clearly delineate the responsibilities of Ohio’s “wires only” electric monopolies, and alternately what products and services are to be offered by the competitive markets. For example, Ohio law has previously prohibited “anticompetitive subsidies flowing...to a product or service other than retail electric service” HB 247 eliminates the phrase “to a product or service other than retail electric service”, thereby allowing anticompetitive subsidies. In three other locations, HB 247 strikes-through language protecting markets for products and services from anti-competitive behavior and undue influence.

HB 247

- Allowance of anti-competitive utility behavior
- Illusory safeguards to markets, customers, and ratepayers
- Allows regulated distribution utility involvement in emerging markets, such as electric vehicle charging and batteries
- Allows regulated distribution utility involvement in existing markets, such as lighting installations, equipment financing, warranties, and energy management services
- Makes changes to utility cost recovery regarding the “used and useful” doctrine
- Allows socialized cost recovery for select privately-owned projects

Expansion of Regulated Utility Services into Existing Competitive Markets

HB 247 expands the ability of the regulated electric distribution utility to offer customer-facing products and services. Markets for these behind-the-meter products and services already exist and are served by competitive enterprise. These products and services would include:



- Load curtailment and demand response
- Energy efficiency
- Energy storage and batteries
- Energy management
- Energy monitoring and controls
- Lighting and other controls
- Warranty and repair services
- Electric vehicle charging stations
- Microgrids
- Community solar facilities
- Energy-related physical security and cybersecurity, reliability services, or resiliency services
- Installation of products and technology
- Financing, leasing, and management of products and technology

Under HB 247, the list of products and services a distribution utility would be able to offer is so expansive it covers nearly the entirety of private enterprise offerings to customers regarding their energy consumption. Alarmingly, many of these areas have fully developed markets, while the distribution utilities have no experience in the offering, such as installing lighting controls, offering warranty and repair services, and offering energy management services. These competitive markets also rapidly change, and the participants are regularly innovating. This entrepreneurialism produces successful outcomes for customers, but can also produce business failures, as ideas are tested by the market. Competitive markets are well suited for incorporating these rapid changes, allowing good businesses to grow and uneconomic concepts to fail. This high risk environment, however, does not match well with the distribution utility business model, which requires low risk, stability, and tried-and-true technologies in order to protect ratepayers, who bear the financial risk of the distribution utilities' decisions.

HB 247 does have some guardrails for how the distribution utility offers services and products to customers, including that the products and services are optional for customers, that separate accounting is maintained, and that incremental costs are not recovered through base rates. These protections are illusory however. Even if distribution utilities offerings are optional, it could produce a significant chilling effect on private investment in a competitive market, as the distribution utility has a distinct competitive advantage through its status as a regulated monopoly. Additionally, while the optional, incremental costs can be accounted for separately, there is no way of separating financial risks of these projects from the distribution corporation, short of actual corporate separation.

Expansion of Regulated Utility Services into Emerging Technologies and Markets



HB 247 also expands the ability of a distribution utility to offer smart grid technologies, but, specifically for “storage, control, or delivery of electrical energy.” Electric distribution utilities already can deploy and receive cost recovery for many of the items listed as smart grid technologies in HB 247. However, some technologies are listed as emerging, and arguably could be deployed by private enterprise and competitive markets, with the distribution utility playing the role of the “platform” for these products and services. HB 247 defines the following smart grid technologies:

- Technologies that distribution utilities already commonly deploy and receive cost recovery for
 - Advanced metering
 - Automation of system functions
 - Distribution automation
 - Physical and cybersecurity technologies
 - Volt-VAR optimization and similar technologies
- Emerging technologies that can be served by competitive enterprise
 - Battery technology
 - Electric vehicle charging stations
 - Microgrids
 - Intelligent traffic sensors
- Existing technologies and services already served by competitive enterprise
 - Demand response and other energy management technologies
 - Lighting controls and other smart controls

Changes to the Used and Useful Doctrine, Socialized Cost Recovery for Select Customer Projects

HB 247 makes significant changes to how Ohio’s electricity infrastructure can be used for economic development. Specifically, under HB 247 the distribution utility is given authority to undertake “infrastructure development” for economic development interests. Presently, utilities may already conduct infrastructure development projects for economic development interests through the reasonable arrangement process. Important changes to existing practice that HB 247 proposes include allowing non-bypassable recovery of these costs from all ratepayers of the utility, regardless of whether the infrastructure is “used or useful.” Currently, a utility may not recover costs for equipment that is not used or useful. Thus, this is a concerning change in law.

Moreover, HB 247 goes on to allow non-bypassable cost recovery from all ratepayers of these infrastructure projects, which benefit single customers for economic development, and then the



RunnerStone, LLC

5701 N. High Street, Worthington, OH 43085
614.268.4263

ownership of these new facilities is passed to the benefitting customer. This could allow an expansive amount of private facility investment to be shifted to the public sector and ratepayers.

Conclusion

HB 247 would make unprecedented changes to how Ohio's electric distribution utilities could operate, largely at the expense of competitive markets. Quite literally, HB 247 allows anti-competitive behavior by the electric distribution utilities in existing and emerging markets. While some guardrails are proposed, the protection to markets, customers, and ratepayers is illusory.

HB 247 as proposed, however, should not be confounded with the promise of the technologies and services it addresses. The emerging technologies and services influencing customer energy use are a bright spot in the energy industry and Ohio's economy.

Renewable Energy Trends & Power Purchase Agreements

Special Presentation, October 2019

RENEWABLE ENERGY TRENDS AND POWER PURCHASE AGREEMENTS

Presentation to the Ohio Manufacturers' Association
October 2019



AGENDA

1

Introductions

2

Technology Trends

3

Industry Purchasing Trends

4

On-site Renewable Energy Procurement

5

Off-site Renewable Energy Procurement

6

AEP Ohio Renewable Energy Project

7

Next Steps





INTRODUCTIONS



GO SUSTAINABLE ENERGY

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INTRODUCTIONS

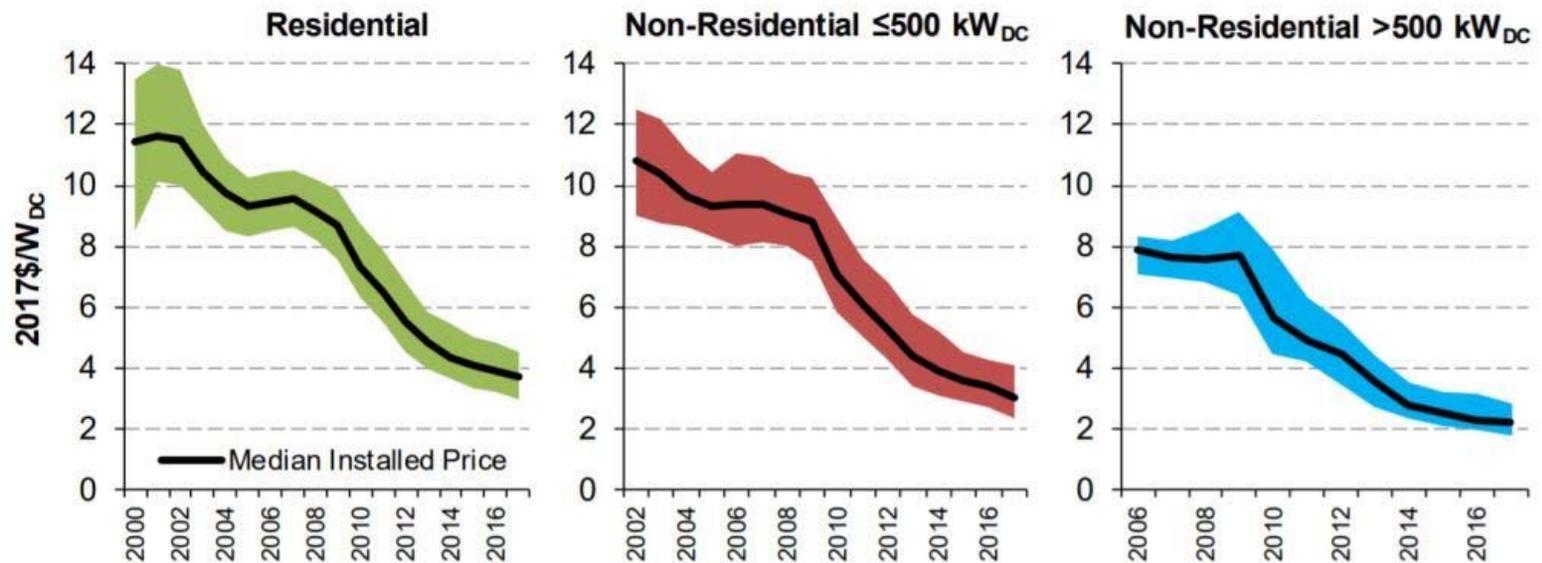




TECHNOLOGY COST TRENDS



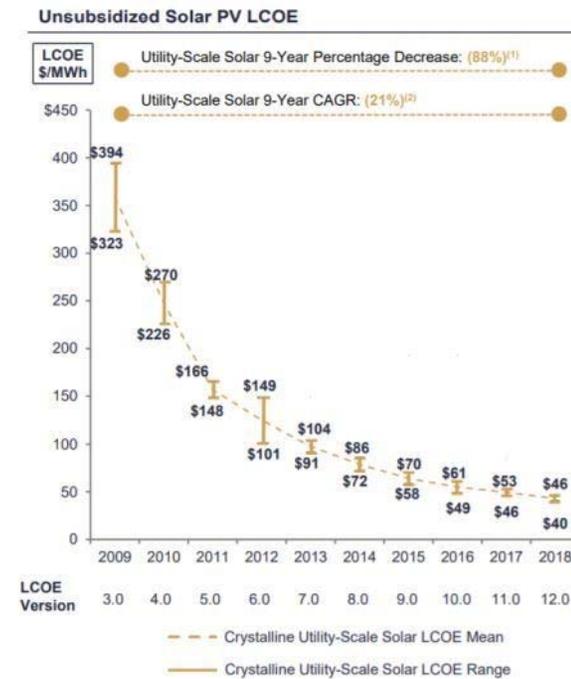
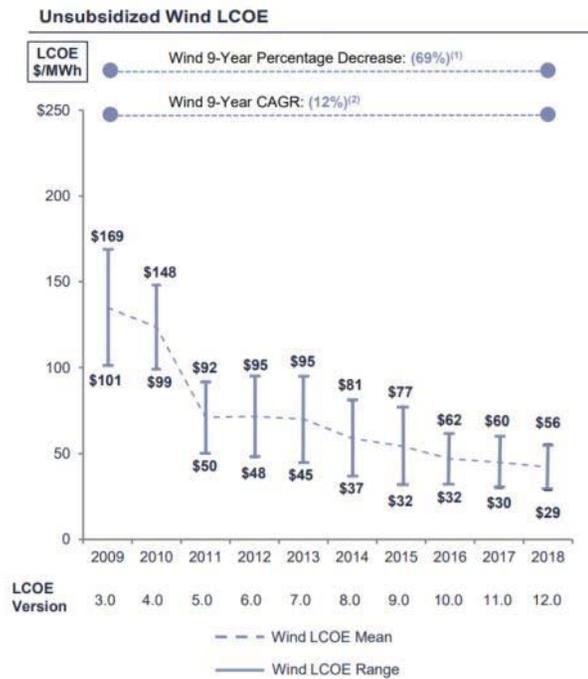
TECHNOLOGY COSTS CONTINUE TO DECLINE



Notes: Solid lines are median prices, and shaded areas are 20th-to-80th percentile ranges. Statistics shown only if at least 20 observations are available for a given year and customer segment. See Table 1 for annual sample sizes.



TECHNOLOGY COSTS CONTINUE TO DECLINE

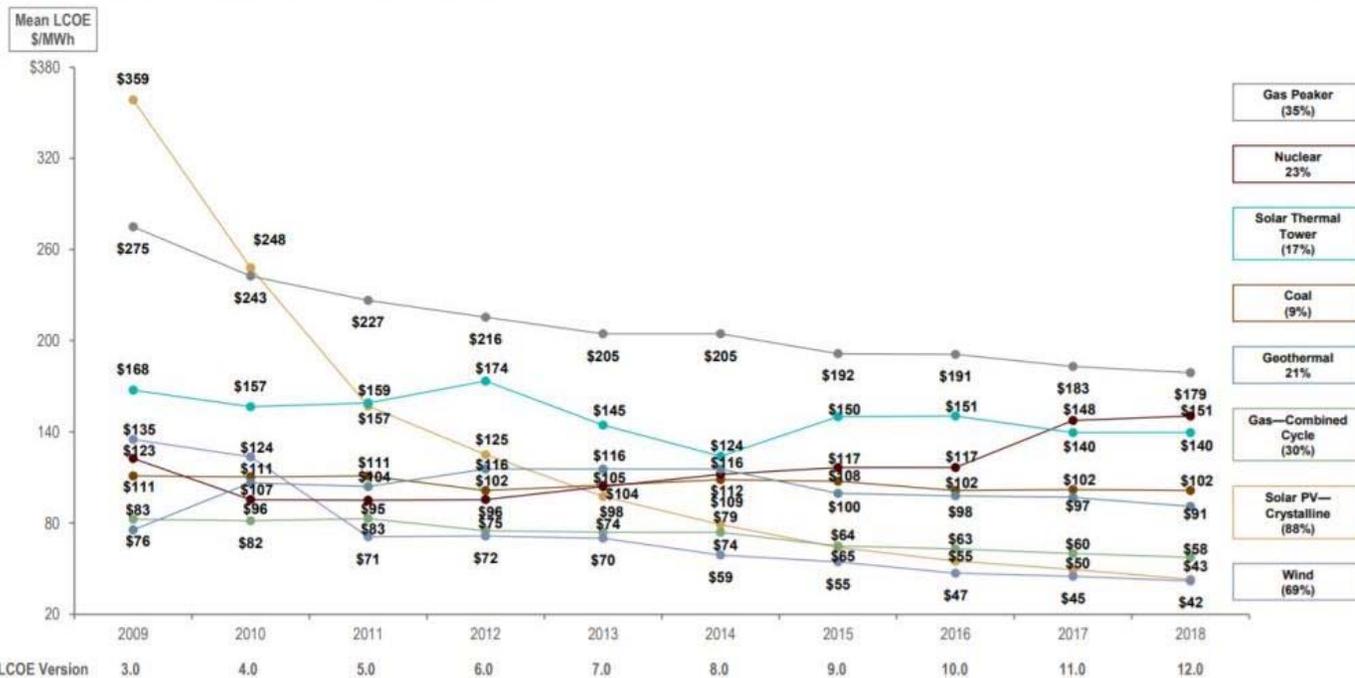


Source: Lazard Levelized Cost of Energy, v 12, November 2018



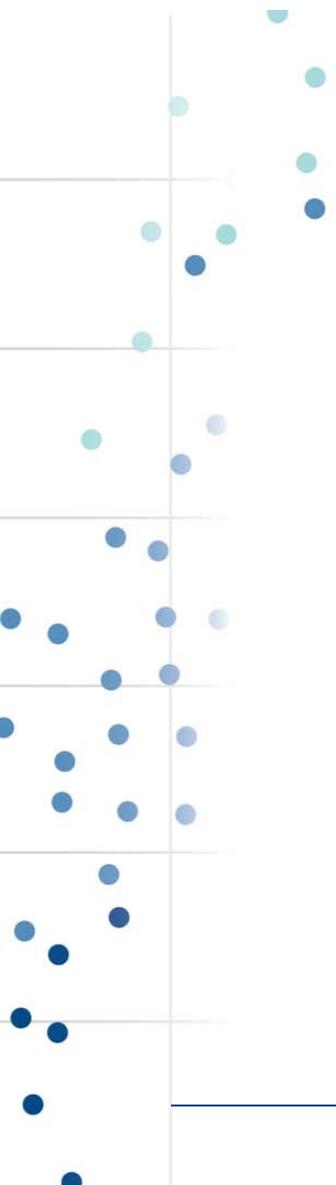
TECHNOLOGY COSTS CONTINUE TO DECLINE

Selected Historical Mean Unsubsidized LCOE Values⁽¹⁾



Source: Lazard Levelized Cost of Energy, v 12, November 2018



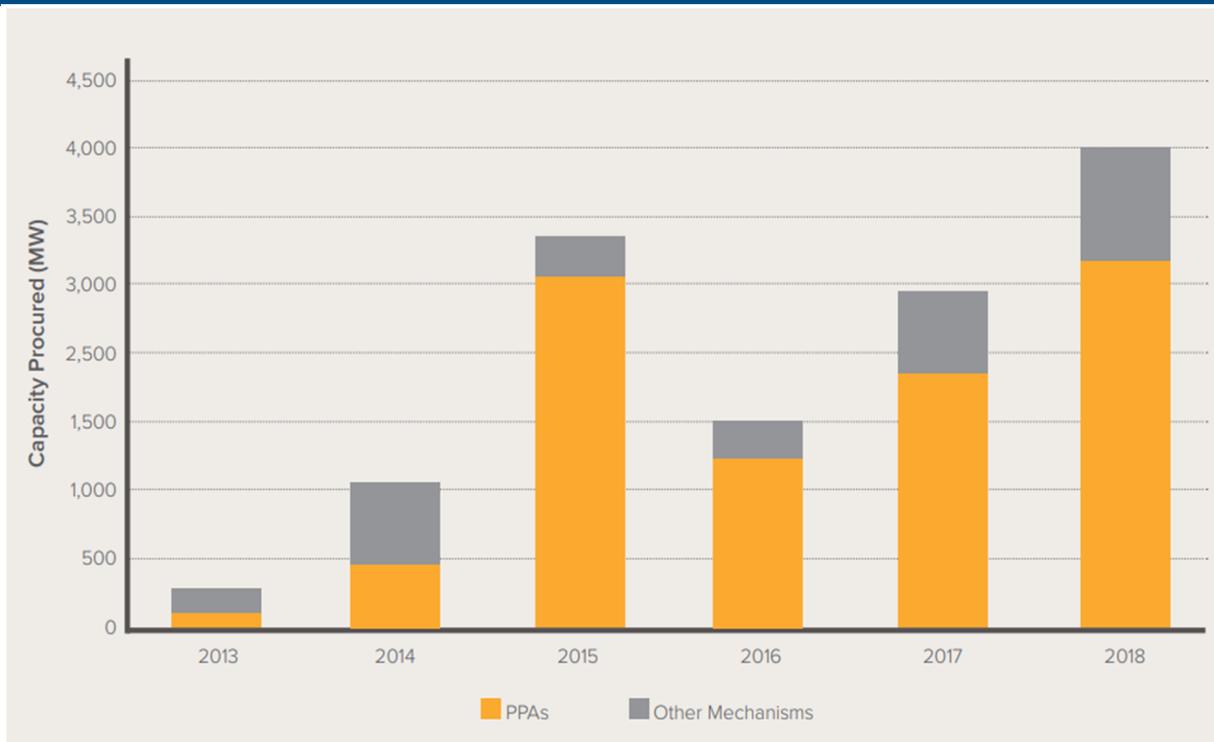


INDUSTRY PURCHASING TRENDS

Corporate renewable energy deals



PPPA AND VPPA AS PRIMARY MECHANISMS



Source: Rocky Mountain Institute <https://rmi.org/wp-content/uploads/2018/12/rmi-brc-intro-vppa.pdf>

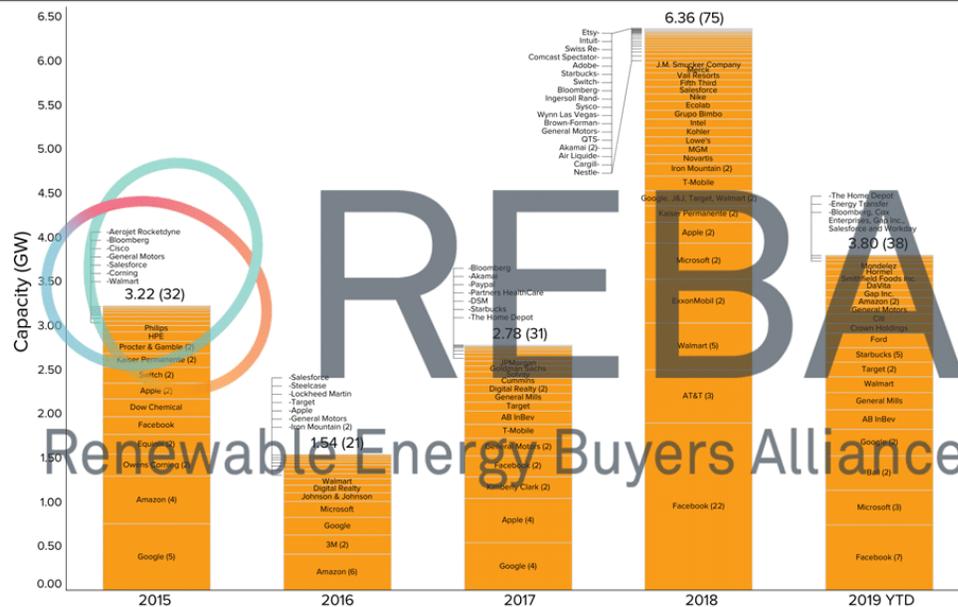
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RECENT CORPORATE RENEWABLE DEALS



Corporate Renewable Deals 2015 – 2019YTD

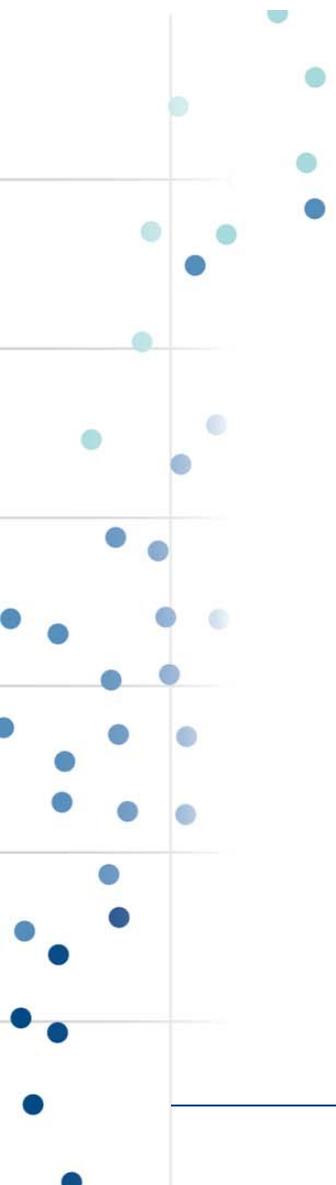


As of August 28, 2019. Publicly announced contracted capacity of corporate Power Purchase Agreements, Green Power Purchases, Green Tariffs, and Outright Project Ownership in the US, 2015 – 2019YTD. Excludes on-site generation (e.g., rooftop solar PV) and deals with operating plants. (F) indicates number of deals each year by individual companies. Copyright 2019 by Renewable Energy Buyers Alliance.

Source: Renewable Energy Buyers Alliance (REBA), Deal Tracker <https://rebuyers.org/deal-tracker/>

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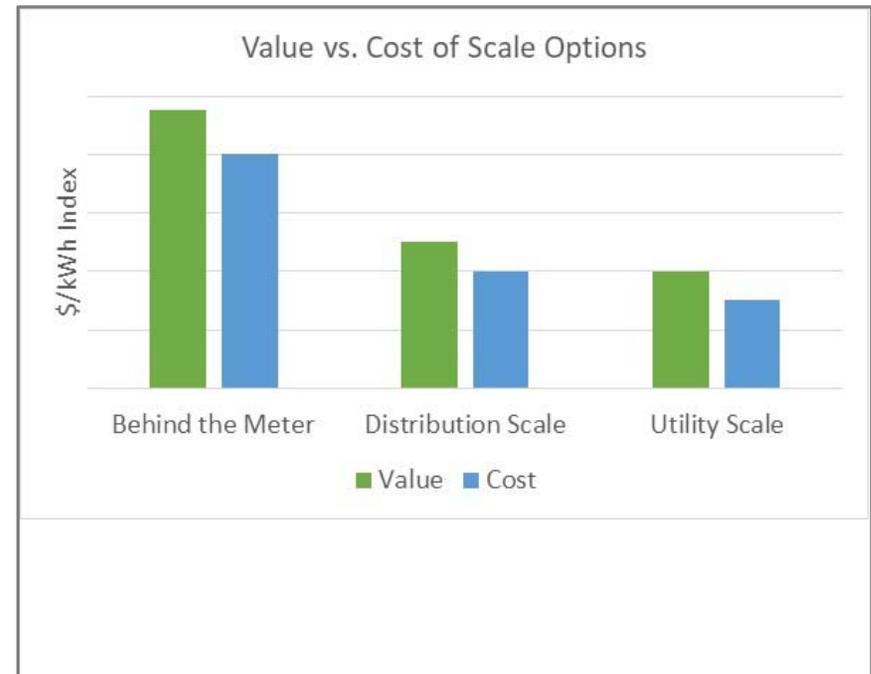


RENEWABLE ENERGY PURCHASING



WHAT ARE THE OPTIONS FOR RENEWABLE ENERGY – PROCUREMENT SCALE?

- **Behind-the-meter**
 - 2 MW or less
 - Potential offset supply + delivery + transmission
 - Potential net metering benefit
- **Distribution-scale**
 - In front of meter
 - 2-10 MW
 - Offset supply + transmission
- **Utility-scale**
 - 10 MW +
 - Replaces supply
 - Reduce market supply needs



WHAT ARE THE OPTIONS FOR RENEWABLE ENERGY – PROCUREMENT PATHWAYS FOR ON-SITE GENERATION?

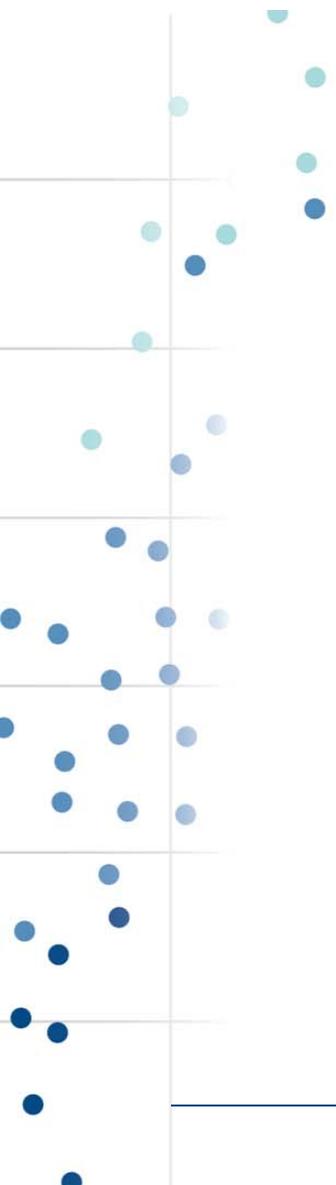
Structure	Features	Pros	Cons
Ownership	Own outright Purchase day one	Full ownership	Capital Cost or Long payment horizon
Leasing	3 rd party owned Pay to own via fixed monthly payments	Budget certainty	Long payment horizon
Power purchase agreement	3 rd party owned \$/kWh monthly payments	Familiar structure	Always paying for power



WHAT ARE THE OPTIONS FOR RENEWABLE ENERGY – PROCUREMENT PATHWAYS FOR OFF-SITE GENERATION?

Structure	Features	Pros	Cons
Physical power purchase agreement	-Wholesale supply deal -Long-term	Physical additionality	Integrating with supply
Financial / Virtual power purchase agreement (VPPA)	-Wholesale paper transaction -Fixed for floating swap -Long-term	No impact to supply	Risk vs. cost tradeoffs
Renewable energy credits	-Paper transaction -Buy credits from renewable project	Simple and flexible	Lesser additionality claim
Blended Retail Supply Deal	-Physical PPA “back-filled” by grid power -Through your CRES	Approach like any traditional CRES interaction	Long-term





RENEWABLE ENERGY PROCUREMENT BEST PRACTICES

Corporate renewable energy deals



PLANNING AHEAD FOR BEST RESULTS

- Seek information
- Understand your organization's goals and needs
- Analyze costs and benefit of options
- Organize general procurement procedures early
- Competitively procure

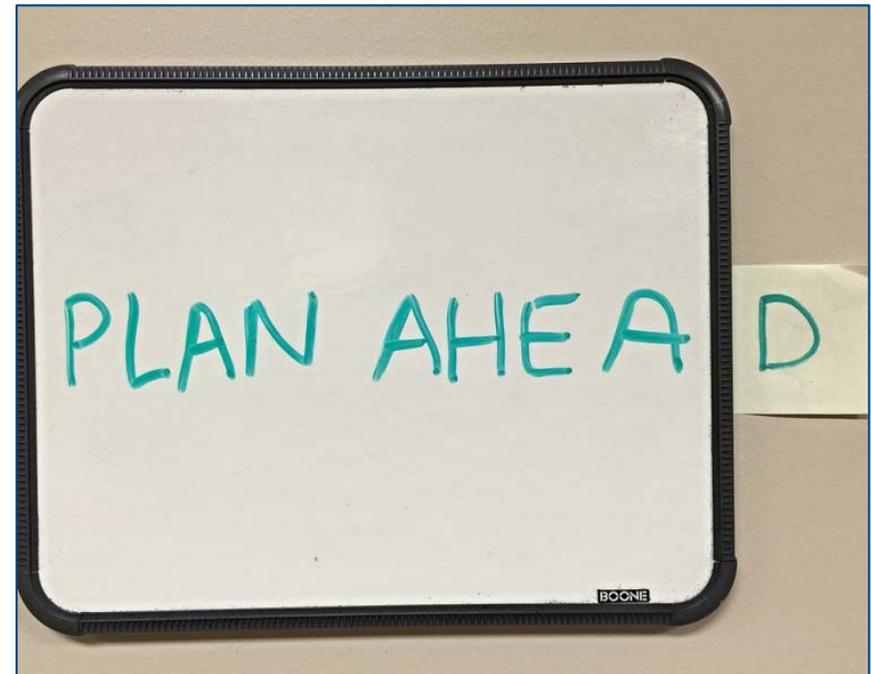
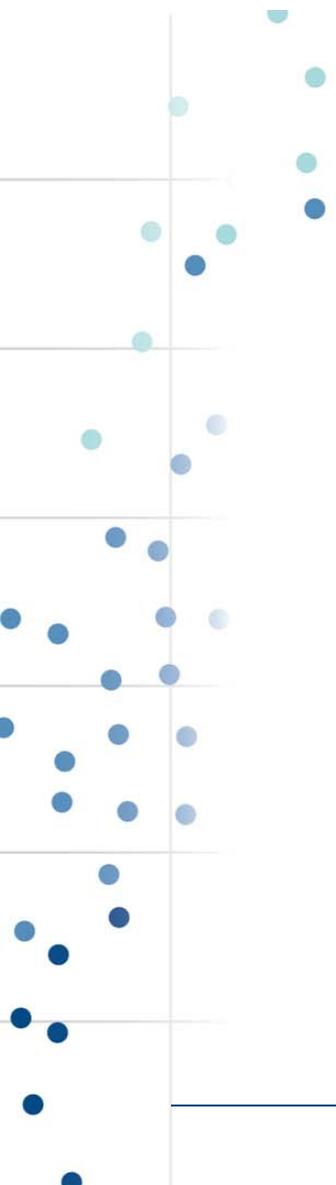


Image source: <https://www.flickr.com/photos/rhruzek/20834331212>

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AEP OHIO SOLAR PROJECT

As of October 2019



AEP SOLAR PROJECT

Potential Policy Change

- Intertwined with PUCO case, HB 6, HB 247

Public Relations Considerations

- Coupled to bailouts of coal plants and nuclear plants, and increasing customers costs
- Allows distribution utilities into competitive markets

Is It A Financial Derivative?

- Is a virtual PPA – a financial deal? Are you buying the project risk?
- Does it require complicated accounting subject to Dodd-Frank?

Who Owns the RE Rights?

- Is it a Power Deal or a REC deal?
- Who owns and retires the RECs and can make public claims accordingly?

Uncertain

- Subject to PUCO approval
- Litigation is possible



DISCUSSION & QUESTIONS

Contact:

John Seryak – jseryak@gosustainableenergy.com, 614-268-4263 x302

Susanne Buckley – sbuckley@sciotoenergy.com, 614-888-8805



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CARPENTER LIPPS & LELAND LLP

ATTORNEYS AT LAW
280 PLAZA, SUITE 1300
280 NORTH HIGH STREET
COLUMBUS, OHIO 43215

MEMORANDUM

To: OMA Energy Committee
From: Kim Bojko, OMA Energy Counsel
Re: Energy Committee Report
Date: November 21, 2019

Active Administrative Actions in which OMAEG is Involved:

American Electric Power (AEP):

- **Application to Expand ESP III Case/New ESP (Case Nos. 16-1852-EL-SSO, et al.)**
 - On November 23, 2016, AEP filed its application to amend its ESP extending the term through May 2024 and to add several new riders and charges. AEP also requested an expedited procedural schedule.
 - OMAEG filed the testimony opposing AEP Ohio's plans for microgrids, renewable energy, submetering, and electric vehicle charging stations.
 - On August 25, 2017, most parties reached a Settlement resolving this matter. The Settlement extends the term of the ESP through May 31, 2024 and provides for Distribution Investment Rider caps that are significantly lower than AEP requested, an OVEC PPA Rider that does not affect pending appeals to the Supreme Court regarding the lawfulness of the PPA Rider, and a Renewable Generation Rider (RGR) which will be populated in a separate proceeding that all parties reserve the right to challenge.
 - The PUCO approved the settlement reached between many of the parties with slight modifications affecting residential customers and suppliers. Through the settlement, OMAEG was able to secure benefits for some members who will participate in the BTCR and IRP programs and maintain its opposition to OVEC cost recovery from ratepayers.
 - OCC appealed the PUCO's approval of the stipulation in this case to the Supreme Court of Ohio.

The Supreme Court of Ohio heard arguments last month regarding whether the PUCO is authorized to approve recovery from customers for the OVEC coal plants. There, OCC argued that FERC has exclusive jurisdiction over the wholesale sale of electricity, and that only FERC could approve and that the PUCO was preempted from regulating the wholesale market.

- **AEP Request to Develop Renewable Resources (Case No. 18-501-EL-FOR)**
 - AEP requested that the PUCO permit it to amend its longer-term forecast report to allow AEP and its affiliates to develop at least 900 MW of renewable projects. AEP concedes that PJM wholesale markets already provide sufficient capacity, yet strangely argues that these proposed renewable projects are necessary for AEP to meet its obligation to provide customers with a standard service offer (SSO). The proposal appears to be an attempt by AEP to charge customers for generation supplied by itself and its affiliates, which is contrary to Ohio's state law and policy, which support competitive electric generation markets.
 - AEP has additionally opened separate proceedings seeking approval of specific projects.
 - The PUCO held a multi-week hearing on this matter in January and February of 2019. OMAEG participated extensively in the hearing through examination of AEP witnesses and by offering the testimony of John Seryak, which offered additional arguments against AEP Ohio's attempt to develop non-competitive generation at customer expense.
 - On September 20, 2019, AEP filed a "Motion to Temporarily Hold the Merit Decision in Abeyance" for the case, indicating that it was working to develop a separate filing to supplement its renewable proposal in a way that presents the Commission with additional options and flexibility and ameliorates the concerns raised by the parties.
 - The case is on the PUCO's agenda for November 21, 2019. After the case appeared on this week's agenda, AEP filed another letter, stating that it had filed a reasonable arrangement application in a separate docket that was consistent with the prior settlement, but noted that the new filing does not modify AEP's position or requests for relief in this case.

- **Global Settlement of Several Cases/Retail Stability Rider Charges (Case Nos. 10-2929-EL-UNC, 11-346-EL-SSO, et al.)**
 - AEP set the RSR rider to zero pursuant to the global settlement, effective Cycle 1 August 2019. AEP stated that it has collected approximately \$335.3 million of the total allowable amount of \$336.
 - AEP noted that there was an under collection for the demand customer classes, and proposes to maintain this regulatory asset on its books pending further direction from the PUCO. But, AEP did suggest that it could be collected through the PPA rider (OVEC).

- 2. **Application for Establishment of Renewable Reasonable Arrangements With Multiple Non-Residential Customers (Case No. 19-2037-EL-AEC)**
 - On November 15, 2019, AEP filed a placeholder application to implement the 900 MW renewable commitment previously agreed to and approved as part of its ESP IV plan. AEP noted that the PUCO previously approved a nonbypassable Renewable Generation Rider (RGR) to recover costs associated with the new renewable projects.

AEP further explained that the ESP IV plan also includes a reasonable arrangement option that permits AEP to pursue bilateral contracts with a retail customer conditioned upon PUCO approval. AEP did not include any reasonable arrangements with customers in its filing. Instead, it stated that it continues to explore options that avoid utility ownership of the underlying renewable generation resource, avoid an affiliate renewable energy purchase agreement, and provide an alternative to a nonbypassable charge, and that it plans to amend its filing in the future with individual reasonable arrangements for approval by the PUCO.

Duke Energy Ohio (Duke):

- **Duke Global Settlement (Case Nos. 17-32-EL-AIR, et al., 17-872-EL-RDR, et al., 17-1263-EL-SSO, et al.)**
 - The Distribution Rate case, PSR case, and ESP IV case were consolidated in an attempt to reach a global settlement. Duke, Staff, and several other parties reached a settlement intended to resolve these cases. The settlement addresses Duke's distribution service revenue requirements, reliability standards, rate of return, return on equity, the new federal tax law, audit refunds, ESP riders, and other matters. OMAEG agreed not to oppose after ensuring that the settlement, if adopted, would reduce the distribution base rates charged to customers by \$19 million, not impose excessive distribution-related charges on customers, allowed the parties to argue for additional customer benefits through the PUCO's investigation of the new tax law, and allowed OMAEG to maintain its position that recovery of OVEC costs from customers is unlawful. Other parties, including OCC, environmental groups, and retail suppliers oppose the settlement.
 - On December 19, 2018, the PUCO approved the global settlement. Duke filed tariffs effective January 2, 2019, so customers should now be seeing a reduction of their monthly bills to reflect some changes in federal tax law and a distribution rate decrease.
 - OCC and electric suppliers sought rehearing of the PUCO's order, which was denied by the PUCO on July 17, 2019. OCC filed a second application for rehearing on August 16, 2019.
 - On July 31, 2019, the PUCO approved Duke's request to modify its Standard Service Offer auction schedule in light of uncertainty created for the 2022-23 delivery year by a July 25, 2019 FERC order delaying the capacity auction as FERC concluded that PJM's rate was unjust and unreasonable. As a result of the modification, Duke will offer a 24-month (as opposed to 36-month) product when it conducts its auction in September 2019. The 2022-23 delivery year will be adjusted at a future date.
 - OCC filed a third application for rehearing on October 11, 2019, which was denied by operation of law on November 10, 2019.

- **Duke-Specific Tax Case (18-1185-EL-UNC, et al.)**

- As the PUCO's investigation into the impact of the Tax Cuts and Jobs Act of 2017 (TCJA) on the rates charged to customers by public utilities continues, Duke initiated its own proceeding to address the impact of the TCJA on rates that it charges customers. Duke filed an Application to establish a rider that it can use to credit its customers with the benefits of the TCJA.
 - OMAEG intervened in this case on July 31, 2018 in order to ensure that members in AEP's service territory receive the full benefits of the TCJA.
 - Staff of the PUCO reviewed the application and after noting that the rate design for the return of benefits will be consistent with the current base distribution rates and that benefits already accrued by Duke will be returned to customers with carrying costs, it recommended approval of the application.
 - Over the objections of OEG regarding rate design, the PUCO approved the application on February 20, 2019 without a hearing and Duke filed updated tariff sheets implementing the new credit rider effective with the first billing cycle in March 2019. Thus, all customers, except those taking service under Rate TS, will receive a credit equal to 5.6% of the customer's applicable base distribution charges (i.e., customer charge plus base distribution charge).
- **MGP Remediation Rider (Case Nos. 17-596-GA-RDR, et al.)**
 - On March 31, 2017, Duke filed an application to recover 2016 costs for investigation and remediation of its Manufactured Gas Plant (MGP) site. In Duke's natural gas distribution case (Case No. 12-1685-GA-AIR), the PUCO approved up to \$55.5 million for investigation and remediation costs incurred from January 2008 through December 2012.
 - OMAEG filed reply comments regarding Duke's proposed Manufactured Gas Plant (MGP) Rider to collect costs from customers for the remediation of gas plants which are no longer in service. In those comments, OMAEG argued that the parties to these cases are entitled to a hearing on these issues, that Duke should continue exploring cost recovery from other parties to mitigate the burden on customers, and that any cost recovery should be carefully audited and only persist for a limited duration.
 - Duke has now sought to recover its MGP remediation costs incurred since 2013 through 2018 from customers, requesting an additional \$45.8 million.
 - Staff has issued Staff reports recommending that \$23.3 million be disallowed and not recovered from customers.
 - On May 10, 2019, Duke filed a motion to continue the recovery of Rider MGP costs at the then current rate.
 - OMAEG and others opposed Duke's attempt to seek recovery of these costs without a full hearing process on the appropriateness of the proposed recovery.
 - On July 23, 2019, Duke informed the PUCO that its recovery of remediation costs is complete and filed revised tariffs setting the MGP rider to zero.

- On August 13, 2019, the PUCO consolidated all of the cost recovery cases, 2013 through 2018, and set a procedural schedule. The PUCO also denied Duke's request to continue the MGP rider during the pendency of the cases and set the rider to zero, which will result in cost savings to customers.

On November 17, 2019, a hearing commenced on Duke's right to recover certain MGP-related costs. **FirstEnergy:**

- **ESP IV Case on Remand (Case No. 14-1297-EL-SSO)**
 - OMAEG, and others, successfully appealed the PUCO decision to the Supreme Court of Ohio, challenging the PUCO's Order approving FirstEnergy's Distribution Modernization Rider (Rider DMR).
 - On June 19, 2019, the Supreme Court of Ohio agreed with OMAEG and others and struck down FirstEnergy's Distribution Modernization Rider or credit support rider as an unlawful charge under Ohio law.
 - FirstEnergy filed a motion asking the Court to reconsider its decision, which was denied on August 20, 2019 (with Justice Kennedy dissenting).
 - While the motion for reconsideration was pending, the PUCO approved updated tariffs to make all funds collected under Rider DMR since July 2, 2019 subject to refund.
 - Two days after the Court's denial to reconsider its original order striking down the rider, the PUCO issued an Order directing FirstEnergy to immediately file tariffs that set Rider DMR to zero and to issue a refund to customers for any monies collected through Rider DMR for services rendered after July 2, 2019.
 - FirstEnergy filed revised tariff on August 23, 2019, setting Rider DMR to zero, effective September 1, 2019.
 - FirstEnergy was required to submit a proposed customer notice to the PUCO explaining the refund by August 29, 2019, as well as the final calculation of the exact amount to be refunded.
 - FirstEnergy filed revised tariffs on August 23, 2019 to credit back the full amount of the refund to customers, effective October 1, 2019.
 - After the refund was remitted to customers, FirstEnergy eliminated Rider DMR, effective November 1, 2019.
- **FirstEnergy Tax Proceeding and Grid Modernization Cases (Case Nos. 18-1604-EL-UNC, 17-2436-EL-UNC, 16-481-EL-UNC)**
 - Pursuant to the PUCO's Order in its tax investigation that required all utilities to file an application to implement the effects of the Tax Cuts and Jobs Act of 2017 (TCJA) into rates, the FirstEnergy Companies filed an application to initiate a process to resolve TCJA matters in customer rates (Case No. 18-1604-EL-UNC). Simultaneous with this filing, OMAEG and others were presented with a proposal negotiated

between FirstEnergy and Staff that would provide the tax refund while also allowing FirstEnergy to collect new charges from customers for its grid modernization efforts, in addition to the above-market charges it already collects from customers under the Distribution Modernization Rider and the Distribution Capital Investment Rider. It appears that the PUCO has made these issues a high priority and fast-tracked the proposed agreement between Staff and FirstEnergy.

- A settlement was reached between the FirstEnergy Companies, Staff, and some intervening parties. OMAEG did not join the settlement.
 - A hearing on the settlement was held on February 5-6, 2019. At hearing, OMAEG opposed the settlement, specifically noting that it fails to adequately protect customers from unlawful charges, allows for unjust and unreasonable charges for grid modernization, and does not fairly disperse tax savings.
- **Rider DMR Extension Application (Case No. 19-361-EL-RDR)**
- FirstEnergy applied to extend its Distribution Modernization Rider (Rider DMR) for an additional two years after its expiration at the end of this year. FirstEnergy currently collects \$168 million per year from customers under Rider DMR and, as evidenced by the renewal application, is using these funds to subsidize its generation-owning parent company. For this reason, OMAEG appealed the initial establishment of Rider DMR to the Supreme Court of Ohio, where oral argument has occurred and the parties await a decision. The proposed extension, if approved, would authorize FirstEnergy to collect additional amounts, totaling more than \$300 million in 2020 and 2021.
 - OMAEG has intervened in this matter.
 - Despite the Supreme Court of Ohio's decision that Rider DMR is unlawful (discussed above), the PUCO has not yet acted upon this application to extend Rider DMR.

Dayton Power & Light (DP&L):

- **Distribution Rate Increase (Case Nos. 15-1830-EL-AIR, et al.)**
- Staff of the PUCO recommended a distribution rate increase of roughly \$23-28 million, which is less than the \$65 million DP&L had requested. Staff also noted that its recommendations did not account for recent changes in federal tax law and that its recommendations could change based on the outcome of the PUCO's investigation into the impact of those tax changes.
 - OMAEG objected to several of the proposals contained in the Staff Report in this case, which will result in a distribution base rate increase to customers.
 - On June 18, 2018, DP&L, Staff, and a number of parties reached a settlement agreement, which OMAEG agreed not to oppose. After Staff agreed with DP&L that a rate increase was appropriate, OMAEG worked diligently to minimize the impact of

- that rate increase on customers. Through the filing of objections and negotiations, OMAEG was able to minimize the amount of that increase, secure a rate design that will diminish the burden of the rate increase on several OMAEG members, and ensure that the tax relief resulting from the decrease in the federal corporate income tax is fully passed on to customers, including the amount that has already been collected from customers since January 1, 2018 when the new tax law took effect.
- The PUCO held its hearing on the settlement on July 23 and 24, 2018, where only the electric suppliers IGS and RESA opposed the agreement.
 - The PUCO approved the settlement reached between the parties in this case.
 - Rehearing is pending.
- **Electric Security Plan (Case Nos. 16-395-EL-SSO, et al.)**
- DP&L filed an amended application on October 11, 2016, proposing to withdraw its Reliable Electricity Rider (RER) request. Instead, it sought a Distribution Modernization Rider (DMR) for a term of seven years to recover \$145 million per year from customers.
 - DP&L and certain intervening parties reached a settlement, which was opposed by numerous other intervening parties, including OMAEG.
 - On March 13, 2017, a new settlement was reached between a majority of the parties, including PUCO Staff and OMAEG (as a non-opposing party). Under the new settlement, DP&L will receive \$105M/year for 3 years from customers, with an option to request a two-year extension. The Distribution Investment Rider (DIR-B) rider was eliminated (which had been estimated to cost consumers \$207.5M), and DP&L agreed to convert the forgone tax sharing liabilities to AES Corporation into equity payments (estimated by DP&L to be a \$300M gain for customers). DP&L will also provide several OMAEG members the economic development rider (EDR) credit of \$.004/kWh. For OMAEG members that do not qualify for the EDR credit, DP&L agreed to slightly discount those members' previous rates. Thus, those members will receive a collective total of \$18,000 per year in shareholder dollars to compensate them for the increase in rates.
 - After a hearing, the PUCO approved the settlement, but also modified it to include non-bypassable OVEC recovery. OMAEG filed an application for rehearing, arguing that this modification was unjust, unreasonable, and unlawful.
 - The PUCO denied rehearing on its decision to modify the settlement.
 - Interstate Gas Supply, Inc. (IGS) withdrew from the settlement and reopened the proceedings based upon the Commission's modification to make OVEC recovery non-bypassable.
 - After IGS' withdrawal, the PUCO held a hearing on the reopened proceeding. OMAEG participated in that hearing as a non-opposing party along with Staff, DP&L, and several other parties. Briefing is now complete and a PUCO decision will

be forthcoming. OCC, who had opposed the settlement, has appealed the PUCO's modified approval of the settlement to the Supreme Court of Ohio.

- In light of the Supreme Court of Ohio's decision regarding FirstEnergy's credit support rider, the PUCO requested that parties submit briefs on how that decision impacts DP&L's Distribution Modernization Rider, which was approved as a part of this proceeding. Several parties filed supplemental briefs.

- **Application to Establish a Distribution Modernization Plan (Case Nos. 18-1875-EL-GRD, et al.)**
 - DP&L filed an application to establish a distribution modernization plan. DP&L asks the Commission to approve over \$600 million in cost recovery for the implementation of this plan. DP&L offers speculative benefits that customers will purportedly receive from this plan and states that it is advancing the PUCO's goals established in the PowerForward initiative.
 - OMAEG has intervened in this proceeding. DP&L has initiated settlement discussions for this case, as well as its DMR Extension case.
 - The Environmental groups moved to dismiss the application on September 19, 2019.

- **DMR Extension Application (Case No. 19-162-EL-RDR)**
 - DP&L's Distribution Modernization Rider (Rider DMR) was established in DP&L's most recent ESP proceeding. DP&L filed an application to extend Rider DMR for an additional two years, with Rider DMR set at \$199 million per year.
 - OMAEG has intervened in this proceeding and settlement discussions have begun.

- **Tax Proceeding (Case Nos. 19-568-EL-ATA, et al.)**
 - DP&L filed an application to establish a new rider to pass remaining savings resulting from the Tax Cuts and Jobs Act of 2017 (TCJA) back to customers. DP&L's rate case settlement partially addressed the TCJA. This application purports to address those TCJA issues that remain and ensure that customers receive the full benefit of the new law.
 - Staff issued its report on July 1, 2019, and settlement discussions began.
 - DP&L entered into a stipulated settlement with the parties to pass tax savings back to consumers. The PUCO approved the settlement on September 26, 2019. The credits will be assessed as a percentage of base distribution charges on each monthly bill for all customers in the amount of 2.6679%.

Statewide:

- **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.

- On November 8, 2017, the PUCO adopted new rules for net metering. These rules allow customer-generators to generate up to 120% of their own energy needs and allow customers who obtain their energy through a CRES provider to enter into net metering contracts with those providers. Customer-generators that generate more than they consume may receive a credit to their bill for the excess generation. That credit will be based on the energy-only component of the electric utility's standard service offer. The PUCO held oral arguments on the net metering rules on January 10, 2018. Among other issues, the parties discussed compensation for excess generation, availability of net metering to customers who take service from CRES providers, and location requirements for net metering facilities.
- The PUCO denied rehearing and the environmental groups appealed the decision to the Supreme Court of Ohio.
- **PUCO PowerForward**
 - The PUCO initiated PowerForward to comprehensively explore technology and consider how it could serve to enhance the customer electricity experience.
 - Phase 1 featured presentations examining technologies affecting a modern distribution grid; what our future grid could offer customers; and what technologies are in development to realize such enhancements.
 - Phase 2 focused on the grid, platforms, the grid's core components, requirements for building the grid of the future, distribution system safety and reliability, planning and operations of the distribution system, and energy storage.
 - Phase 3 focused on grid modernization, the distribution system, data access, ratemaking, and rate design.
 - The PUCO established working groups and proceedings for each of the three PowerForward working groups: the PowerForward Collaborative, the Distribution System Planning Working Group, and the Data and the Modern Grid Working Group. The PUCO stated that it was establishing these proceedings in order to ensure that its PowerForward roadmap is being fulfilled. The PUCO invited interested parties to participate in these proceedings so that their views can be considered throughout this process.
 - OMAEG has been represented at various working groups held by the PUCO to address issues relating to PowerForward.
 - The PUCO ordered electric distribution utilities to file reports regarding the current status of their grid architecture and distribution system capability. The PUCO determined the required contents of these reports after reviewing comments submitted by various parties. The PUCO stated that these reports will be an important component in advancing various components of the PowerForward initiative.
 - The PUCO continues to hold workshops regarding the various issues included in the PowerForward roadmap. OMAEG is participating in these workshops to ensure that members' interests are being protected.

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

FirstEnergy:

- **Appeal of FirstEnergy’s ESP IV (Case No. 2017-1444) (Appeal of Case No. 14-1297-EL-SSO)**
 - In FirstEnergy’s ESP IV case, the PUCO authorized FirstEnergy to recover \$131 million per year (pre-tax) from customers under the Distribution Modernization Rider (Rider DMR), even though Rider DMR contains no promises or commitments on the part of FirstEnergy to actually engage in distribution modernization and represents an unlawful subsidy that could support FirstEnergy’s generation component in violation of Ohio law.
 - In ESP IV, the PUCO also approved an unlawful expansion of the Delivery Capital Recovery Rider (Rider DCR) and unreasonably approved a Government Directives Rider in violation of its own precedent.
 - OMAEG, along with other parties appealed the PUCO’s decisions in this matter to the Supreme Court of Ohio.
 - OMAEG and others requested that the Court stay the collection of customer money under these unlawful riders by FirstEnergy while this case is pending.
 - Oral argument was held January 9, 2018.
 - In a monumental win for customers, on June 19, 2019, the Supreme Court of Ohio agreed with OMAEG and others and struck down FirstEnergy’s Distribution Modernization Rider or credit support rider as an unlawful charge under Ohio law.
 - As you may recall, the PUCO approved the credit support rider, allowing FirstEnergy to collect from customers \$204 million in 2017 and \$168 million per year in 2018 and 2019 after the federal tax reduction. The PUCO approved the charge as an incentive for FirstEnergy to engage in distribution modernization investments for the grid. The credit support rider did not, however, actually require FirstEnergy to make any investments in distribution modernization. In reality, the credit support rider allowed the FirstEnergy distribution companies to subsidize their parent company using customer money in subversion of Ohio law. At oral argument, counsel for OMAEG illustrated these unlawful aspects of the credit support rider.
 - Recognizing that the credit support rider was not an incentive and did not protect customers, a majority of the Court determined that it was unreasonable and unlawful, and directed the PUCO to immediately remove the charge from FirstEnergy’s ESP.
 - This decision will not only end collection, but also should result in the rejection of FirstEnergy’s application to extend the credit support rider for two additional years

and an application by the Dayton Power and Light Company to increase and extend a similar rider currently being charged to its customers. For a full review of the Court's decision, please see the memorandum entitled *Supreme Court Strikes Down FirstEnergy's Credit Support Rider*, prepared by Carpenter Lipps & Leland LLP.

Federal Actions

FERC:

▪ **MOPR Expansion (Docket EL16-49)**

- On March 21, 2016, Dynegy and others filed a complaint against PJM requesting that the Minimum Offer Price Rule be expanded to apply to existing resources.
- The complaint aims to protect against AEP and FirstEnergy offering the subsidized affiliate generating units into the capacity market below costs, which will suppress capacity prices.
- Dominion, American Municipal Power, and others filed a motion to dismiss on mootness grounds given FERC's order rescinding the waiver on affiliate sales restrictions granted to AEP, FirstEnergy, and their unregulated generating affiliates.
- The Independent Market Monitor claims that the issues are not moot given the Staff's proposal adopted in the FirstEnergy ESP IV case for a DMR, and the pending DP&L DMR proposal.
- In a 3-2 decision, FERC found that PJM's current tariff is unjust, unreasonable, and unduly discriminatory because it fails to account for state policies that subsidize favored sources of generation, thus disrupting the competitive wholesale market. FERC is now considering how to best address state subsidies provided to certain generation resources in order to avoid market disruption.
- OMAEG joined several other industrial consumer groups in filing comments and reply comments urging FERC to adopt measures to account for out-of-market subsidies. Those comments were filed on October 2, 2018 and November 6, 2018, respectively.

▪ **FERC Rulemaking (Docket RM18-1)**

- FERC considered a rule proposed by the Secretary of Energy that would subsidize inefficient and failing coal plants in the name of promoting grid reliability and resiliency. In reality, however, the Proposed Rule would only act as a subsidy to prop up failing generators at the expense of electric customers.

- OMAEG filed initial comments opposing the Proposed Rule on October 23, 2017. It then filed Reply Comments to support the arguments of other manufacturing coalitions and oppose comments of parties who supported the Proposed Rule.
 - FERC agreed with OMAEG and others and rejected the proposed rule. FERC concluded that the record did not support the claim that the grid faces reliability or resiliency threats from the retirement of inefficient generation, and, even if a problem existed, FERC explained that the proposed solution was contrary to FERC's longstanding commitment to markets and market-based solutions and did not satisfy the legal requirements for the creation of a new rule. Instead, FERC defined resiliency and sought comments and data from the regional transmission organizations and independent system operators regarding their resiliency challenges on a regional basis.
 - Rehearing is pending.

- **Electric Storage Participation in Markets Rule (Dockets RM16-23-000; AD16-20-000)**
 - FERC issued a final rule in a rulemaking proceeding it initiated in order to remove barriers to participation of electric storage resources in the capacity, energy, and ancillary service markets operated by Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs). This rule addresses FERC's concern that existing participation models in these markets unfairly favor traditional resources, thus constricting competition. It went into effect on May 16, 2018.

- **Proposed PJM Tariff Revisions to Address Impacts of State Public Policies (Docket ER18-1314)**
 - On April 9, 2018, PJM filed an application to address state public policies. PJM advocated for two different approaches to addressing these issues.
 - The PUCO filed comments advocating the rejection of PJM's approach and retention of the status quo. The PUCO noted that capacity market has recently been overhauled and that PJM has not substantiated its comments. The PUCO further pointed out that PJM failed to provide cost impacts on customers. The PUCO advocates that PJM should maintain the status quo until a better approach is found.

- **Grid Resilience in RTOs and ISOs (Docket AD18-7)**
 - FERC opened this proceeding to evaluate bulk power system resilience. PJM filed comments that advocated a broader approach to system resilience and asserting that PJM should be involved in improving resilience.
 - The PUCO filed reply comments that supported PJM's position in favor of a broader approach to system resilience, but also urged FERC to avoid adopting PJM proposals without acknowledging the state and local role in the process. The PUCO believes that resilience is already considered in existing reliability standards and does not want

ratepayers to be burdened by a new approach to resilience through increased charges without receiving any benefits.

▪ **FES Bankruptcy Proceeding (Case No. 18-569-EL-UNC)**

- On March 31, 2018, FirstEnergy Solutions Corporation (FES) filed for bankruptcy in the United States Bankruptcy Court. The PUCO opened an investigation into the various issues raised by FES' filing to reorganize under Chapter 11 of the United States Bankruptcy Code. In its Entry, the PUCO states that it is opening the proceeding "to protect Ohio consumers from any adverse impacts due to the recent filing by FES." The PUCO notes that such a bankruptcy filing is rare but not unprecedented. The PUCO also assures consumers that in no event will customers have electric generation service interrupted as a result of the FES bankruptcy filing because the PUCO, electric distribution utilities, and PJM have measures in place to ensure continued delivery of power. The PUCO cannot, however, guarantee that FES' contracts will not be impacted.
- On November 19, 2019, FES filed report describing the anticipated impact of the Bankruptcy Proceeding on its existing and future business operations as a CRES provider in Ohio.

▪ **FES Bankruptcy Proceeding (Federal Court)**

- FES asked for approval of its sale to Exelon Generation Company, the parent company of Constellation Energy, but the proposed sale fell through.
- The bankruptcy court agreed to allow FES to abandon its contracts with two money-losing OVEC plants. This could cause OVEC charges for AEP, Duke, and DP&L customers to increase.
- The bankruptcy court approved FES' proposal to allow FES to walk away from its obligations under its power purchase agreement with OVEC. This means FES is no longer responsible for the costs and liabilities associated with the OVEC generating plants. As a result, other OVEC owners, including AEP, Duke, and DP&L, costs and liabilities associated with the OVEC generating plants will increase. The increased costs will likely be passed onto customers if the PUCO allows the three Ohio utilities to recover their net OVEC operating costs from customers.
- FES filed a term sheet that contained provisions of an agreement with the Official Committee of Unsecured Creditors, the Ad Hoc group of Pollution Control Notes, the Ad Hoc group of Mansfield bond holders, and certain holders of rejection damage claims. In the next few months, FES will file a Restructuring Support Agreement (RSA), which will contain FES' complete restructuring plan.
- The judge rejected FES' proposed settlement release of FirstEnergy Corp. from its decommissioning and environmental obligations to the government. The judge determined that this proposed release made the plan unconfirmable, which means that FES had to develop a new plan for its exit from bankruptcy. This triggered the renegotiation of the FirstEnergy bankruptcy settlement.

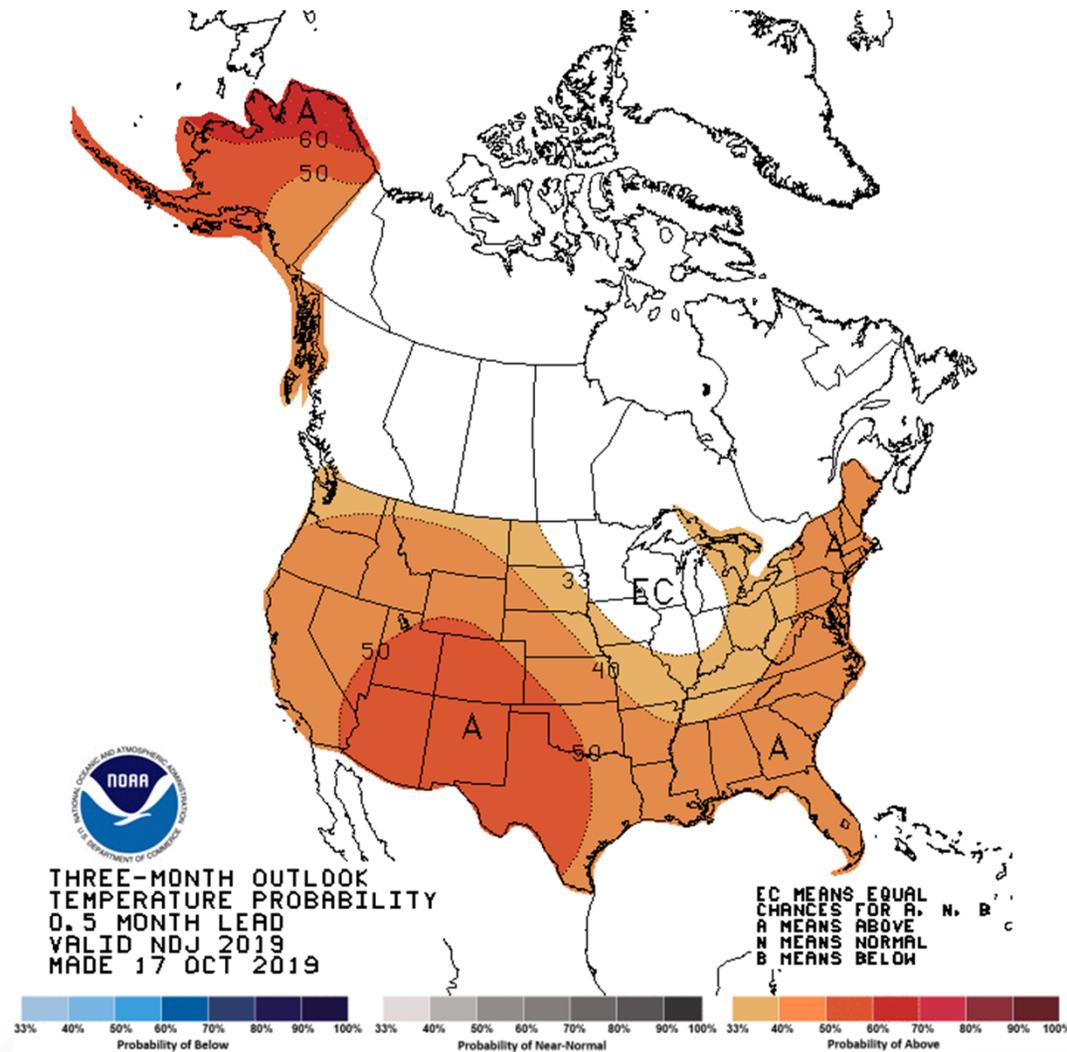
- FES submitted a new bankruptcy settlement plan. The judge refused to confirm the plan unless the unions voluntarily agreed to a new collective bargaining agreement or FES goes through the difficult process to reject a collective bargaining agreement.
- FES creditors entered into a settlement agreement with union workers to retain their pension, salary, and benefits.



Natural Gas Update OMA Energy Committee

**Richard Ricks
NiSource/Columbia Gas of Ohio
November 21, 2019**

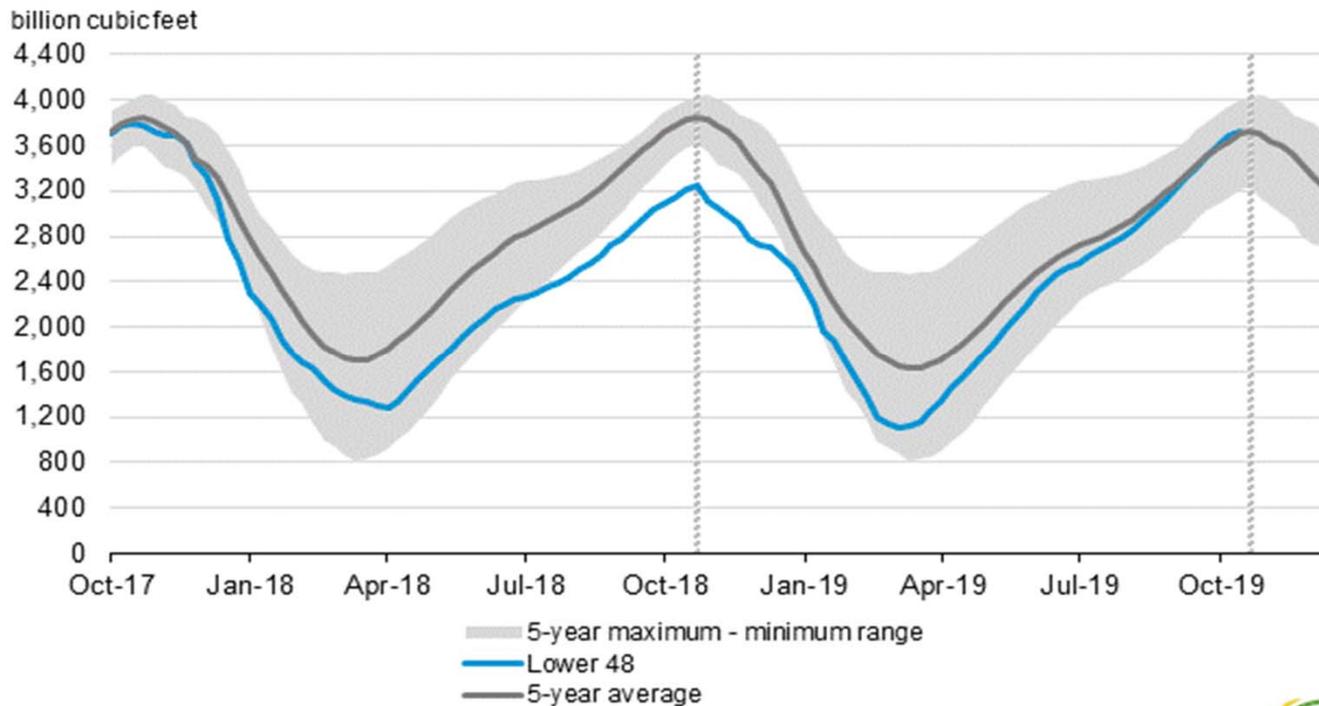
NOAA Temperature Outlook: Months of Nov, Dec, & Jan



Storage – About at the 5 Yr Average

Working gas in storage was 3,729 BCF as of Friday, November 1, 2019, according to EIA estimates. This represents a net increase of 34 BCF from the previous week. Stocks were 530 BCF higher than last year at this time and 29 BCF above the five-year average of 3,700 BCF. At 3,729 BCF, total working gas is within the five-year historical range.

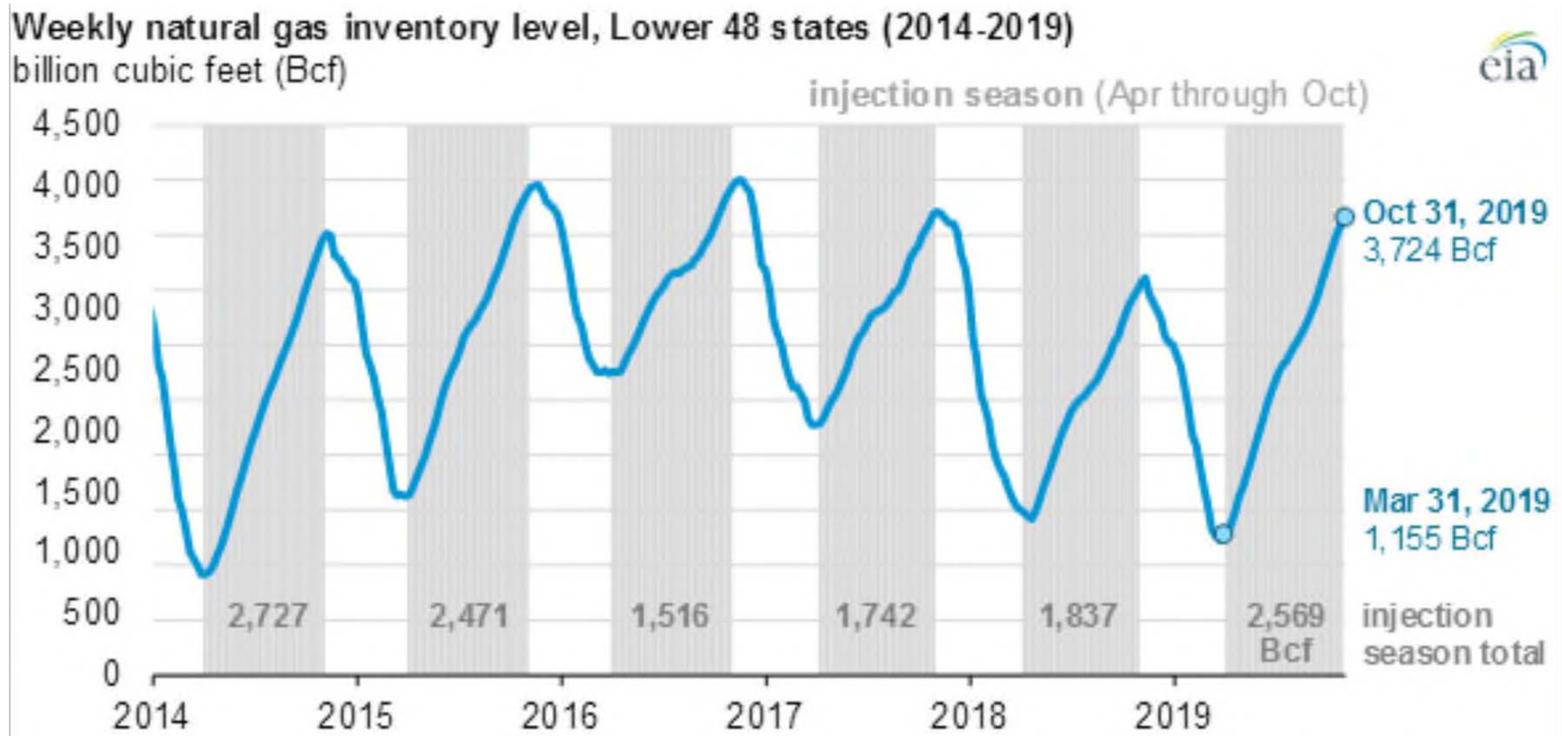
Working gas in underground storage compared with the 5-year maximum and minimum



Source: U.S. Energy Information Administration



Storage Fill this year was Large – Lots of Gas

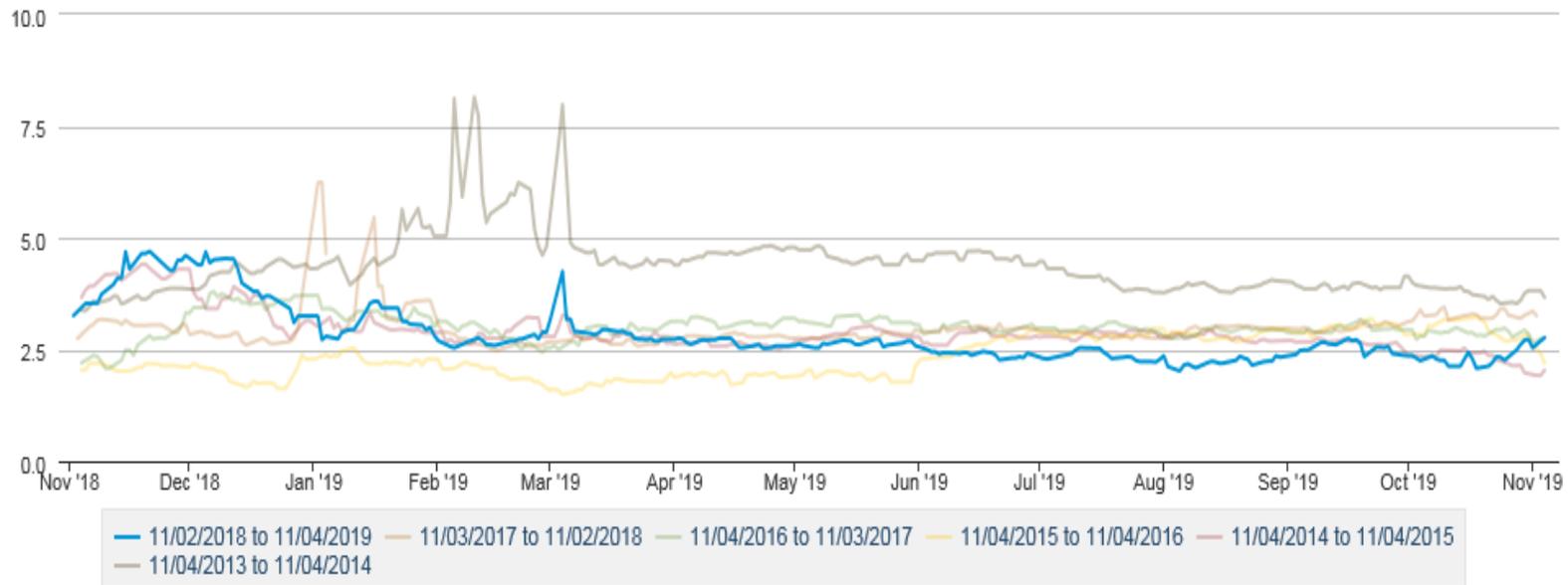


NYMEX Prompt Month Settlement – 5 Years

Henry Hub Natural Gas Spot Price

[↓ DOWNLOAD](#)

Dollars per Million Btu

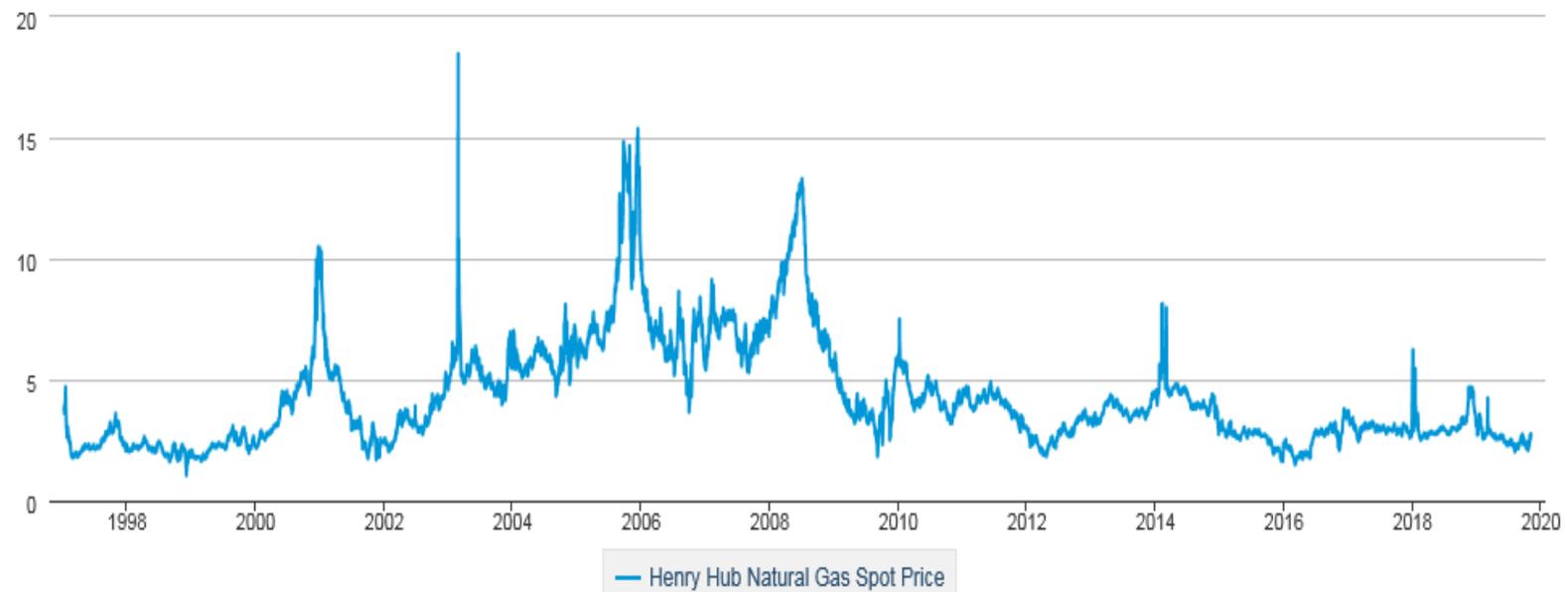


NYMEX Prompt Month Settlement History

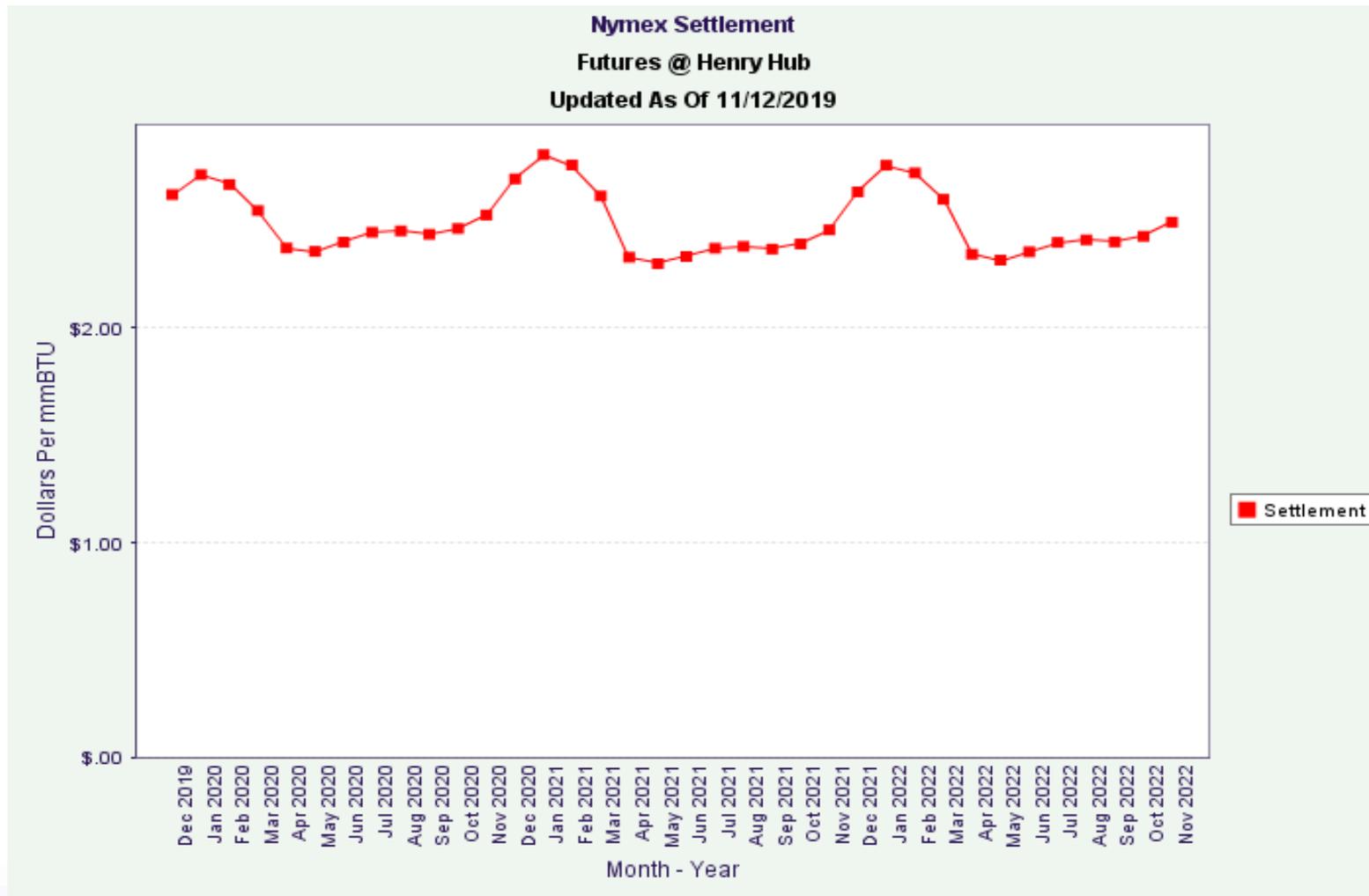
Henry Hub Natural Gas Spot Price

 DOWNLOAD

Dollars per Million Btu



NYMEX Futures Settlement: 11/12/2019 – \$3 still MIA



NYMEX Term Pricing: 11-15-2019 – Little Higher

<u>TERM</u>	<u>PRICE 8-22-19</u>	<u>PRICE 11-15-19</u>
3 month	\$2.20	\$2.68 (+\$0.48)
6 month	\$2.34	\$2.55 (+\$0.21)
12 month	\$2.33	\$2.50 (+\$0.17)
18 month	\$2.38	\$2.53 (+\$0.15)

Select Hub Pricing – November 15, 2019 – Little Higher

<u>HUB LOCATION</u>	<u>8-22-19</u>	<u>11-15-19</u>	
Henry Hub	\$2.25	\$2.67	(+\$0.42)
Houston Ship Channel	\$2.13	\$2.61	(+\$0.48)
TCO Pool	\$1.97	\$2.31	(+\$0.34)
Dominion South Point	\$1.79	\$2.26	(+\$0.47)
TETCO M-2	\$1.76	\$2.28	(+\$0.52)
TGP Zone 4	\$1.71	\$2.20	(+\$0.49)

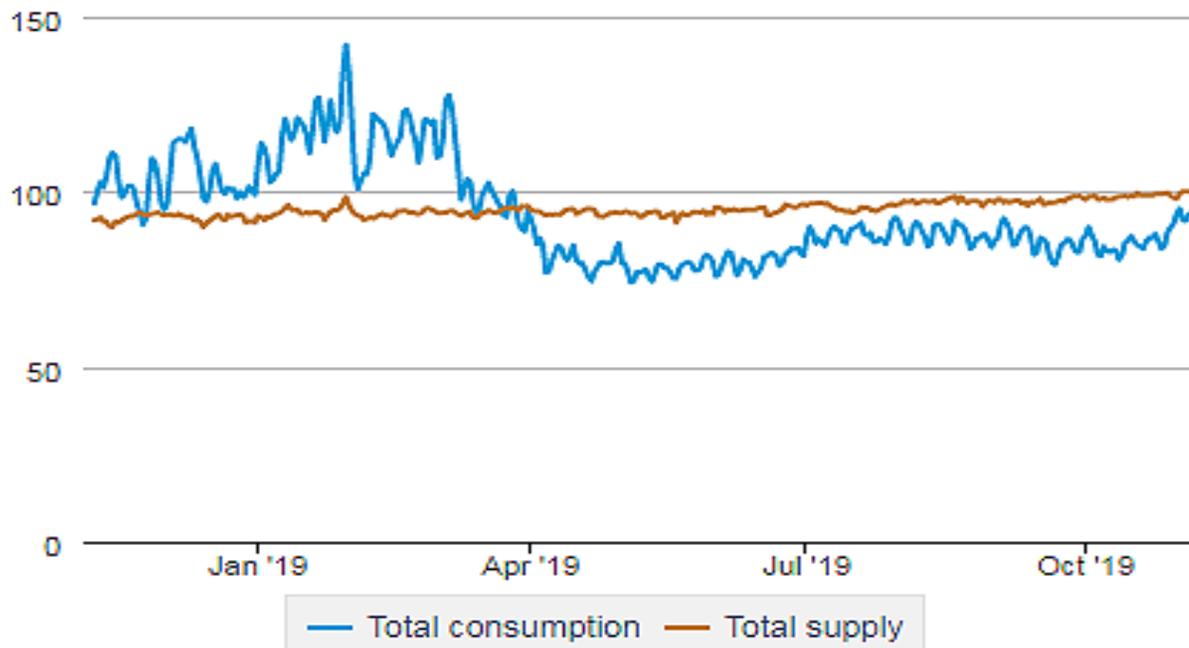
Dominion, TCO, TETCO, & TGP pricing is Marcellus/Utica Area.

NOTE: The convergence of the Appalachian basin prices; Due to all of the recent pipeline projects in Appalachia taking the gas to market.

Total US Natural Gas Supply & Demand

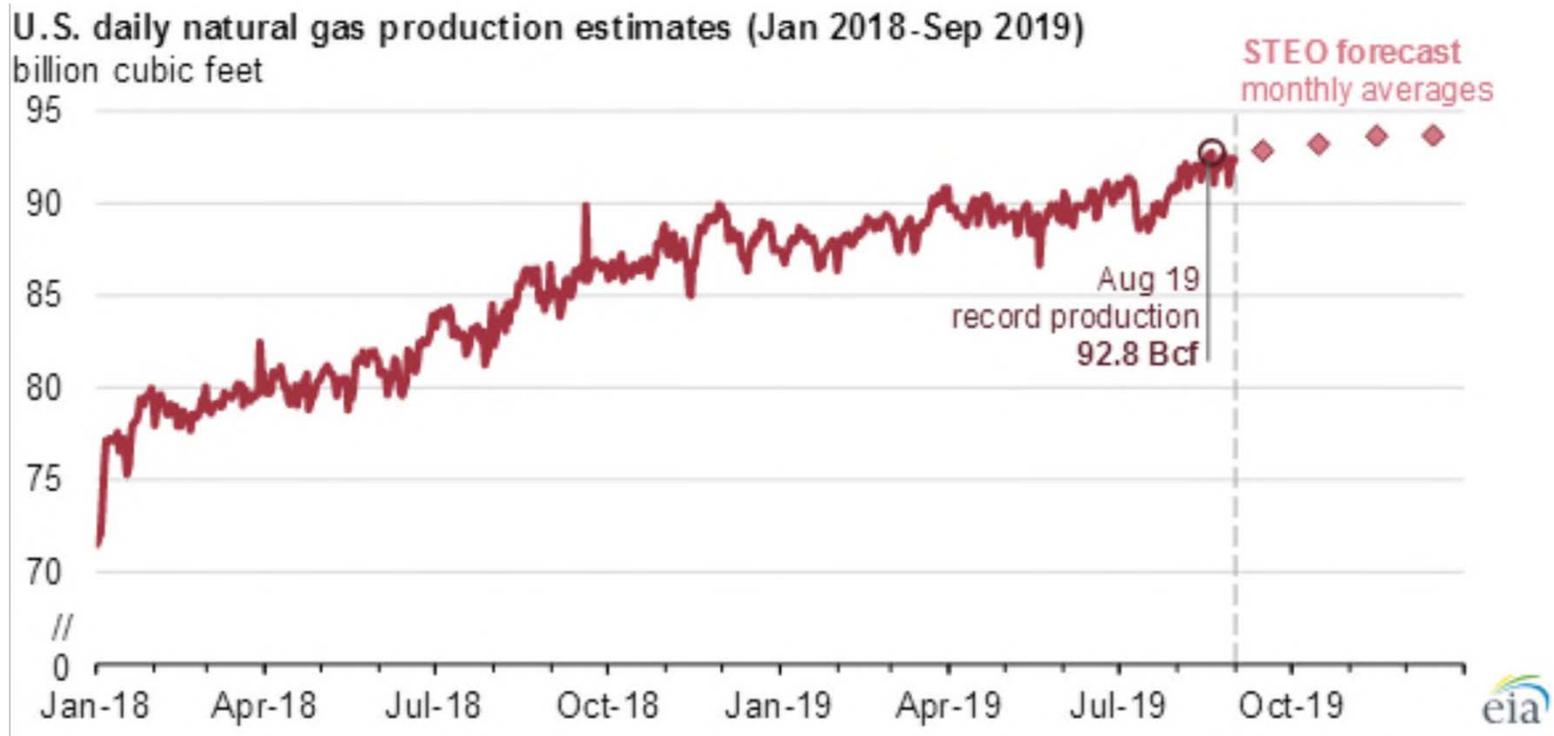
Total supply/demand balance (last 365 days)

billion cubic feet per day



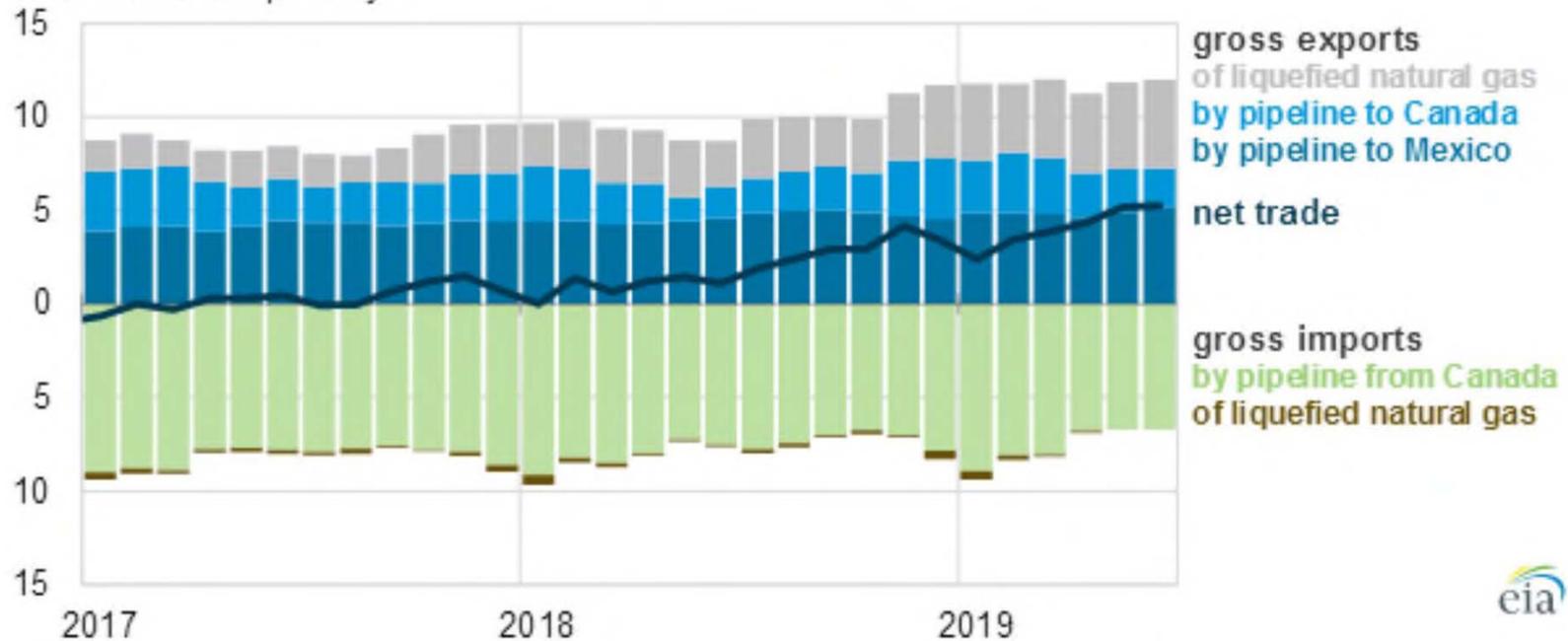
Source: IHS Markit

Record US Daily Natural Gas Production – Aug 19, 2019



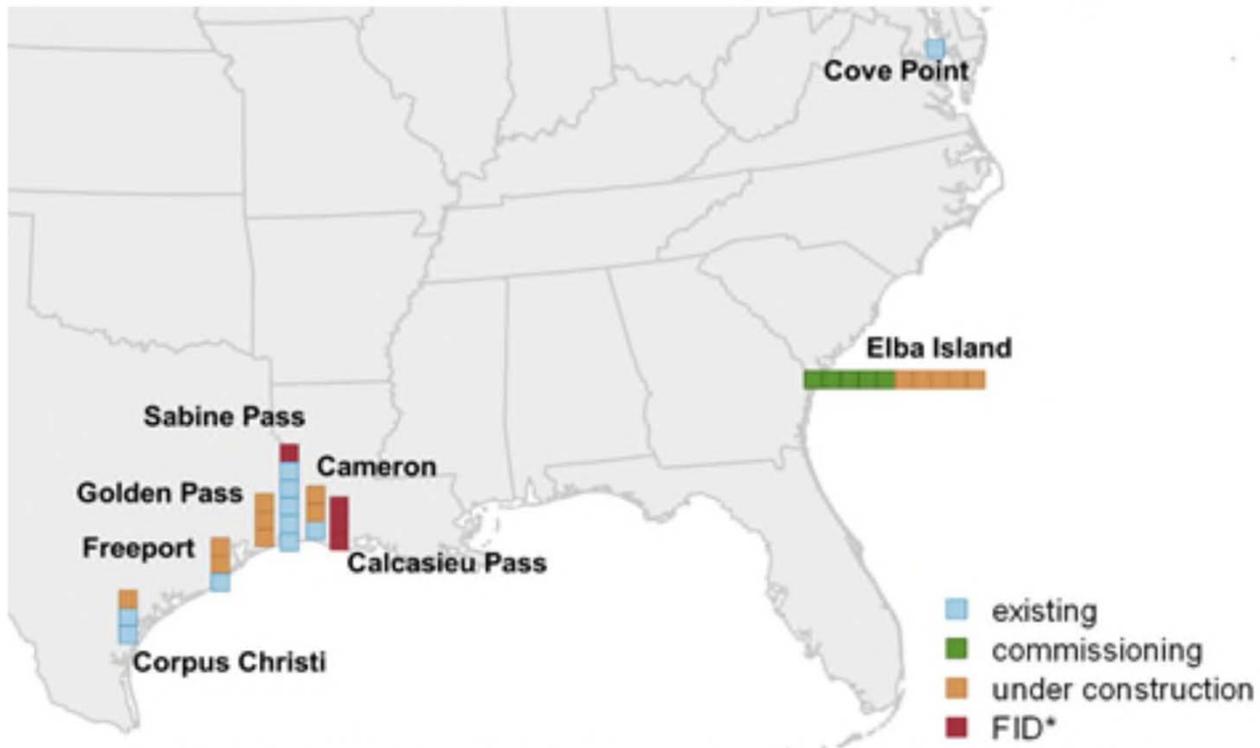
US Natural Net Gas Trade - Exporter

Monthly U.S. natural gas trade (Jan 2017-June 2019)
billion cubic feet per day



US LNG Terminal Status

Status of U.S. LNG export facilities (September 2019)

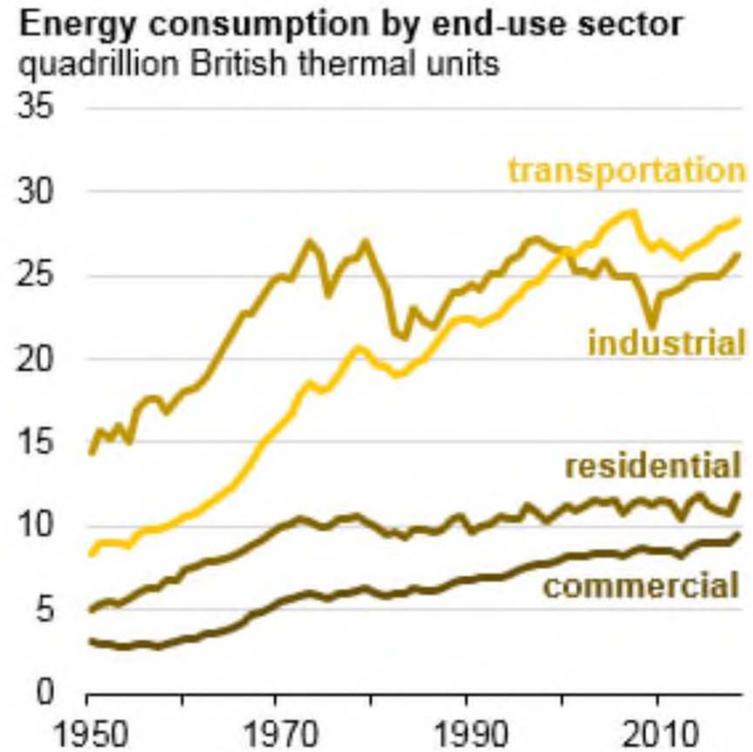
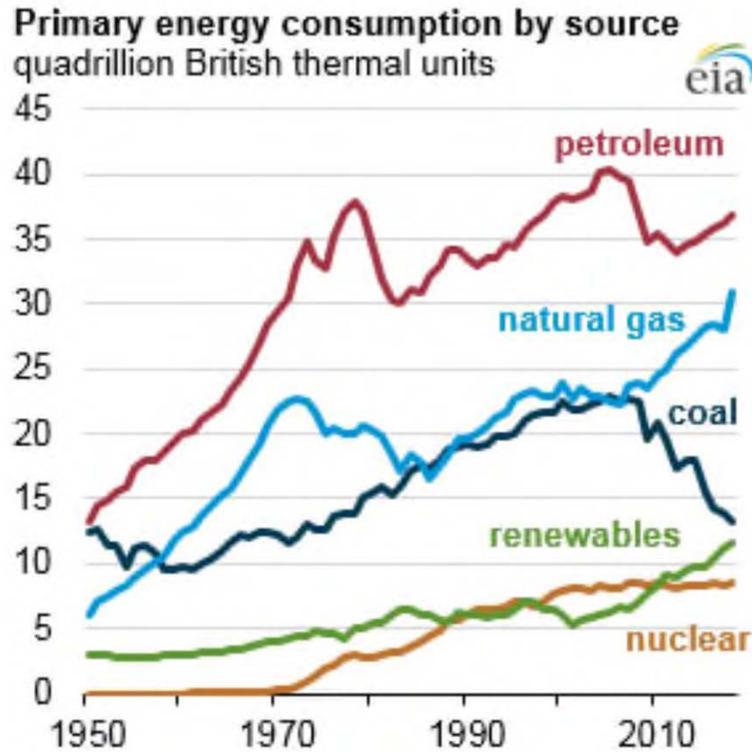


Source: U.S. Energy Information Administration, company investor presentations
 Note: Each square represents one LNG train. Elba Island plans to deploy 10 small-scale modular liquefaction units sequentially in two phases.

*FID: Final Investment Decision

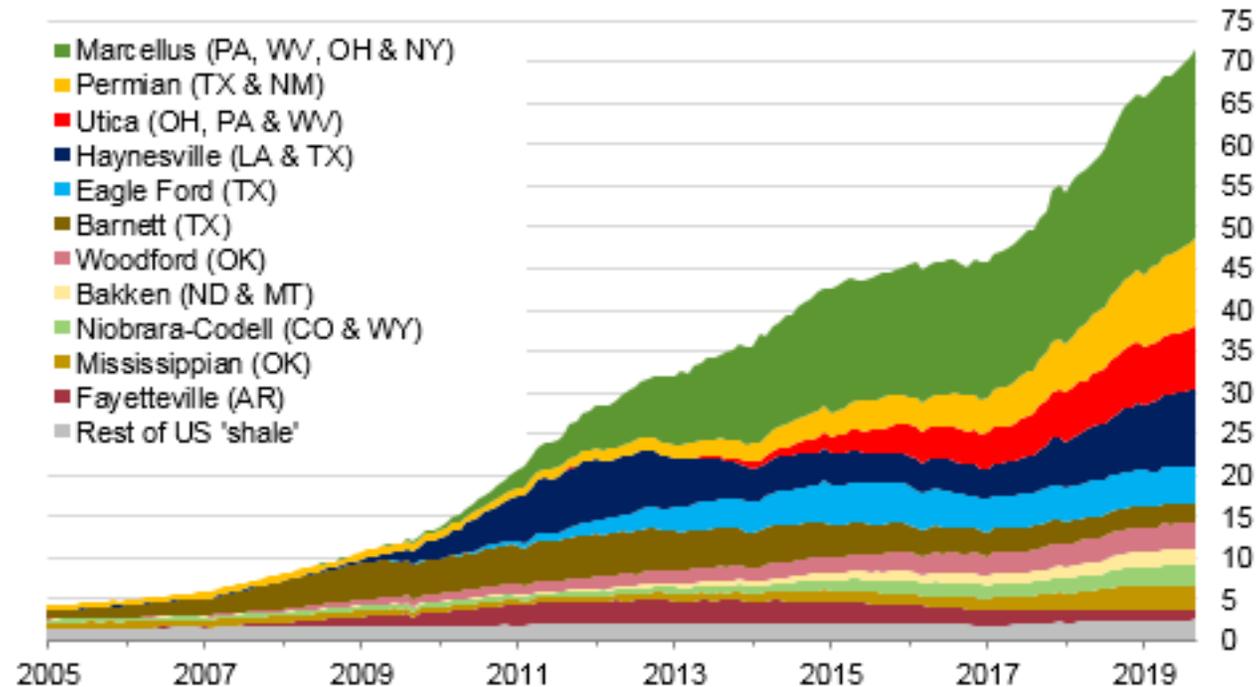


US Energy Source & Sector – Historic View



Shale Gas Production – Appalachia Largest

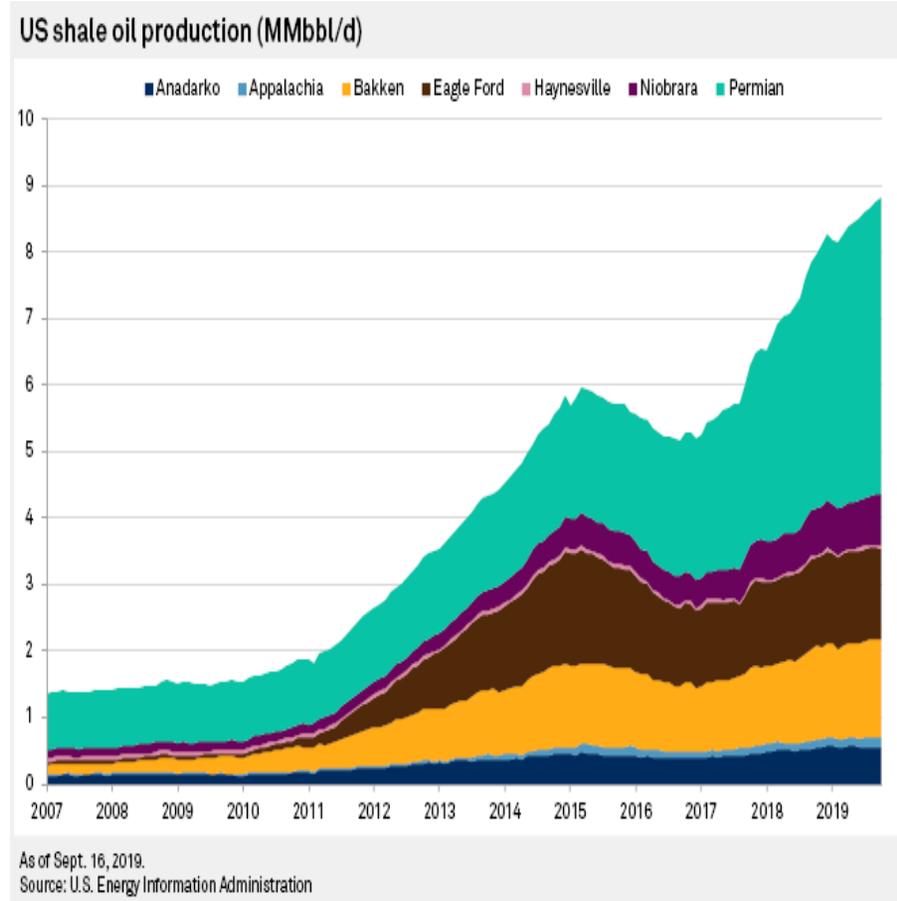
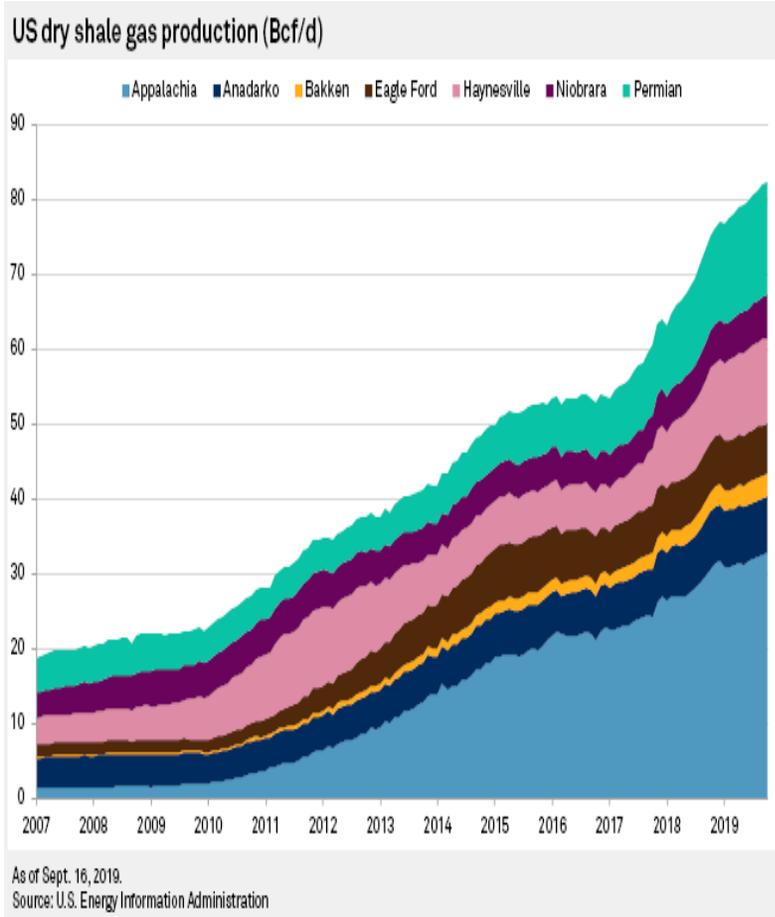
Monthly dry shale gas production
billion cubic feet per day



Sources: EIA derived from state administrative data collected by DrillingInfo Inc. Data are through September 2019 and represent EIA's official tight gas estimates, but are not survey data. State abbreviations indicate primary state(s).

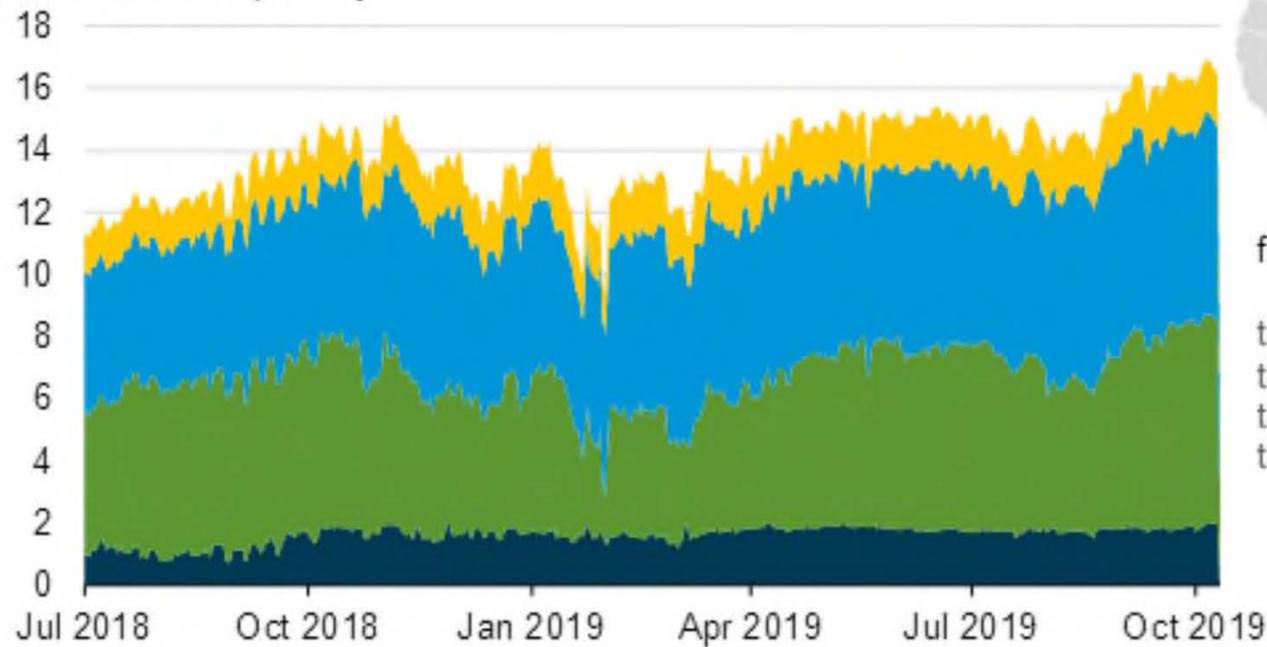


Shale Oil & Gas Production – Appalachia Largest



Where the Utica & Marcellus Gas is Going

Daily natural gas flows out of the Northeast region (Jul 2018 - Oct 2019)
billion cubic feet per day



from **Northeast**
to **Southeast**
to **South Central**
to **Midwest**
to **Canada**



Oil & Gas Rig Count Details – Down a Good Bit

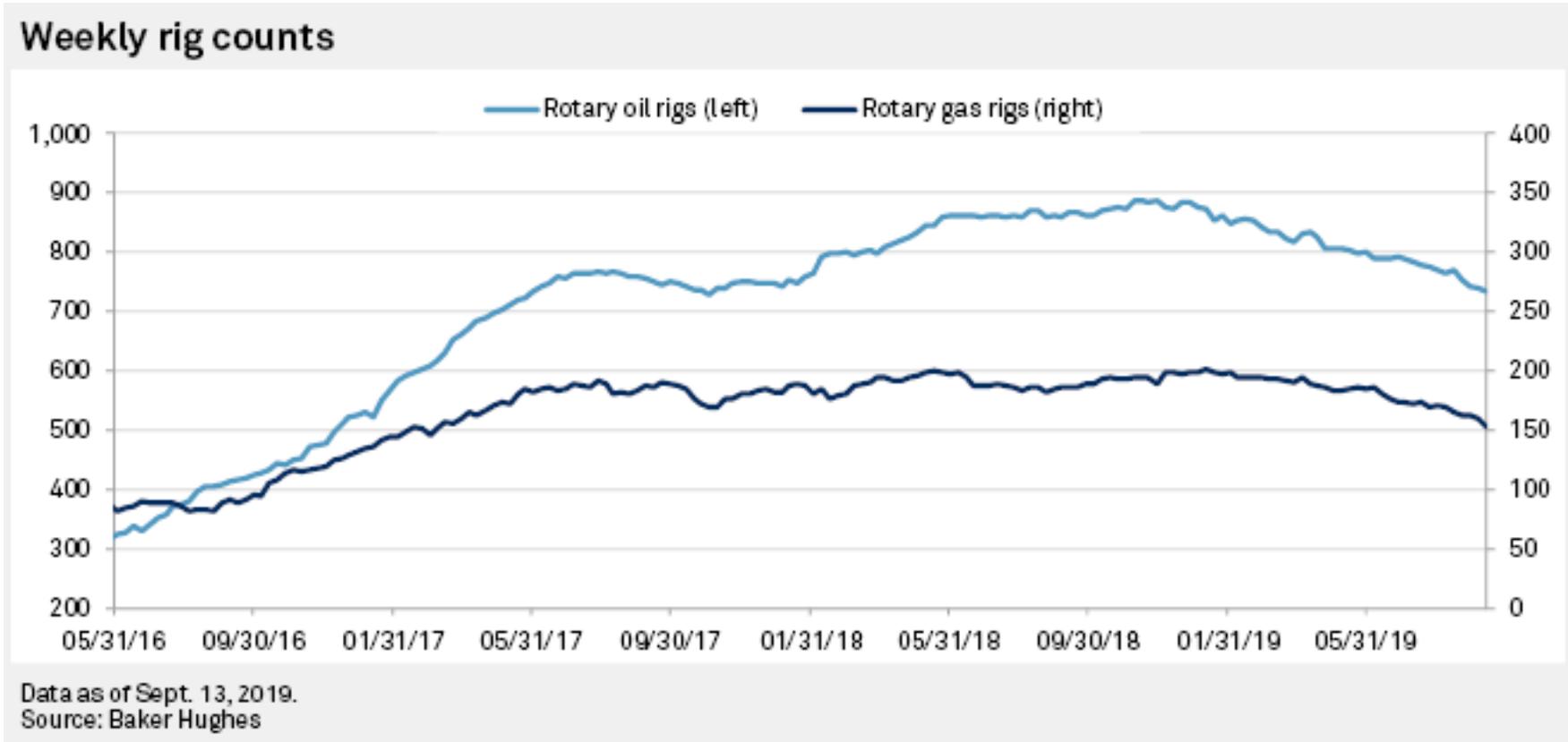
Rotary Rig Count

Baker Hughes 

11/8/2019

Location	Week	+/-	Week Ago	+/-	Year Ago
Land	793	-6	799	-264	1057
Inland Waters	1	0	1	-2	3
Offshore	23	1	22	2	21
United States Total	817	-5	822	-264	1081
Gulf Of Mexico	22	1	21	1	21
Canada	140	-2	142	-56	196
North America	957	-7	964	-320	1277
U.S. Breakout Information	This Week	+/-	Last Week	+/-	Year Ago
Oil	684	-7	691	-202	886
Gas	130	0	130	-65	195
Miscellaneous	3	2	1	3	0
Directional	56	3	53	-18	74
Horizontal	710	-7	717	-225	935
Vertical	51	-1	52	-21	72

US Oil & Gas Rig Count – Drifting Downward



Recent Developments - Energy

- **Carbon/Fossil free & Natural Gas use initiatives:**
 - State of Washington passes law mandating that electric utilities generate 100% of their electric from renewable or zero-carbon resources by the year 2045. Currently, Washington generates about 71% of their power from hydro sources.
 - Connecticut Governor Lamont issues executive order for state to be 100% zero carbon electric supplies by 2040
 - State of VA calls for generating all of its electricity from carbon free sources including nuclear generation by 2050.
 - Seattle, WA City Council considers banning the use of natural gas in new buildings effective 7-1-2020. Santa Monica, San Jose, & Menlo Park, CA as well as the Boston, Mass metro area also considers similar measures.
 - Duke Energy aims to achieve net zero carbon emissions by 2050 & 50 reduction by 2030 (from a baseline in 2005) across their six state territory
 - Massachusetts Senators Markley & Warren introduce bill to ban construction of any natural gas compressor station if it is part of a project that will facilitate gas exports.
 - National Grid and Consolidated Edison (NY LDC's) are having new customer moratoriums as NY politicians "investigate" situation. New York also moves to revoke National Grid's Service Certificate for imposing the moratorium.
 - The European Investment Bank says it will stop financing fossil fuel projects from the end of 2021.
- **Presidential candidates Sanders & Warren support the recasting of FERC to be an agency dedicated to advancing renewable energy and reducing carbon dioxide emissions**
- **USGS increases estimate of technically recoverable oil & gas in Utica (Oh & PA) to 117.2 TCF & 1.8 billion barrels of oil. US technically recoverable natural gas at YE 2018 @ 3,374 TCF; Up 557 TCF from previous estimate 2 years ago.**

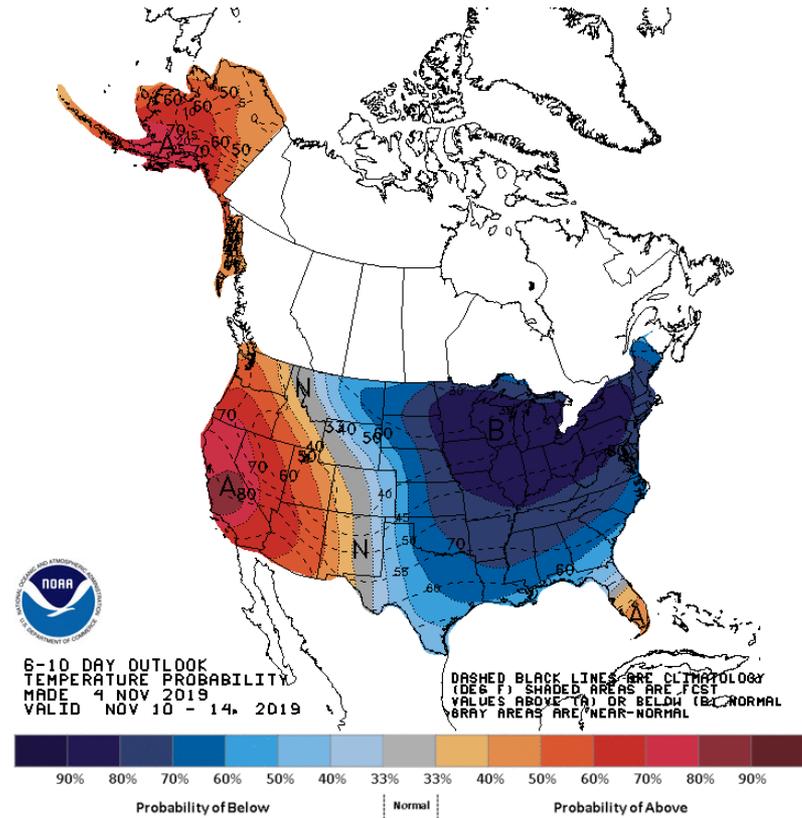
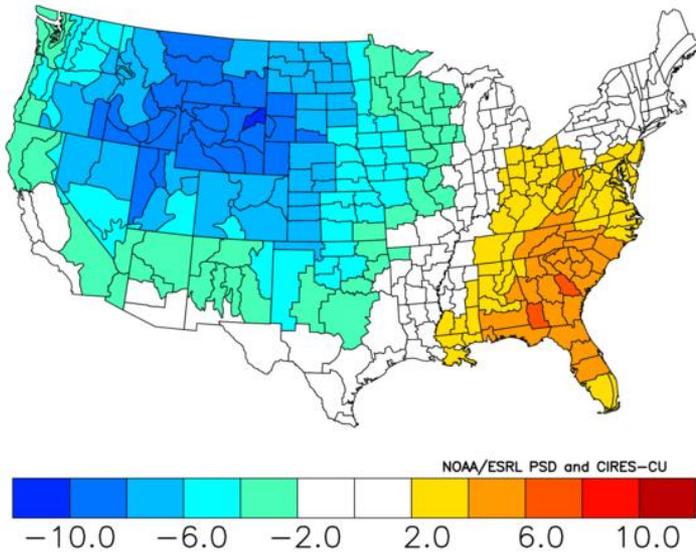
Electricity Market Update

November 2019



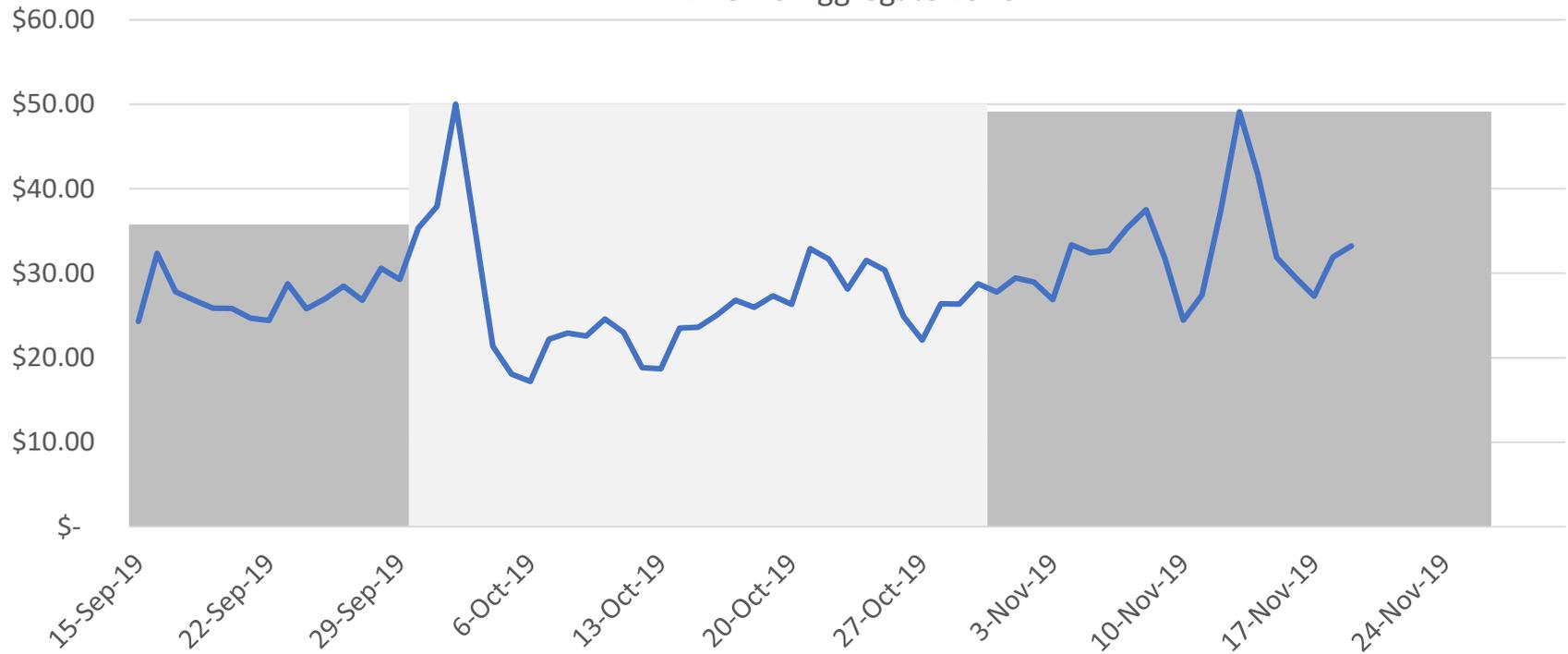
Weather - October and November

NOAA/NCEI Climate Division Temperature Anomalies (F)
Oct 2019
Versus 2007-2016 Longterm Average



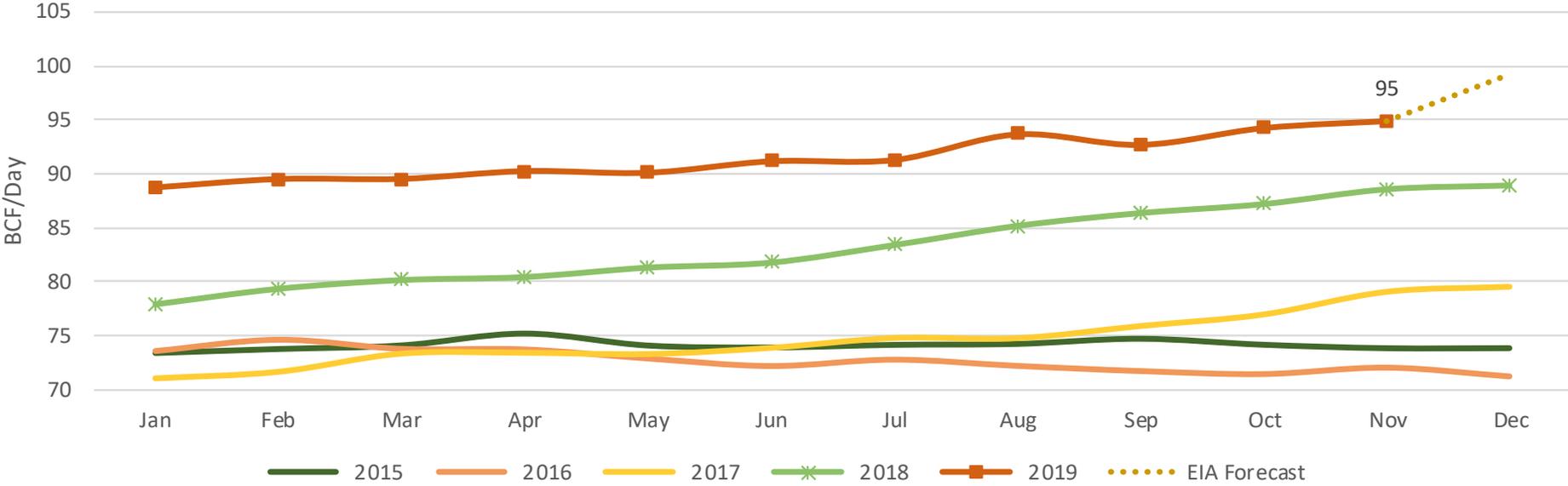
Hourly Day Ahead LMP

Daily Day-Ahead Average LMP
AEP Ohio Aggregate Zone



Natural Gas Production

US Production of Dry Natural Gas: EIA 2019 Forecast Ave: 92.13 BCF/Day



*Updates Monthly

Dry Natural Gas Production

09.01.19 Production Analysis

Total Production: 92.7

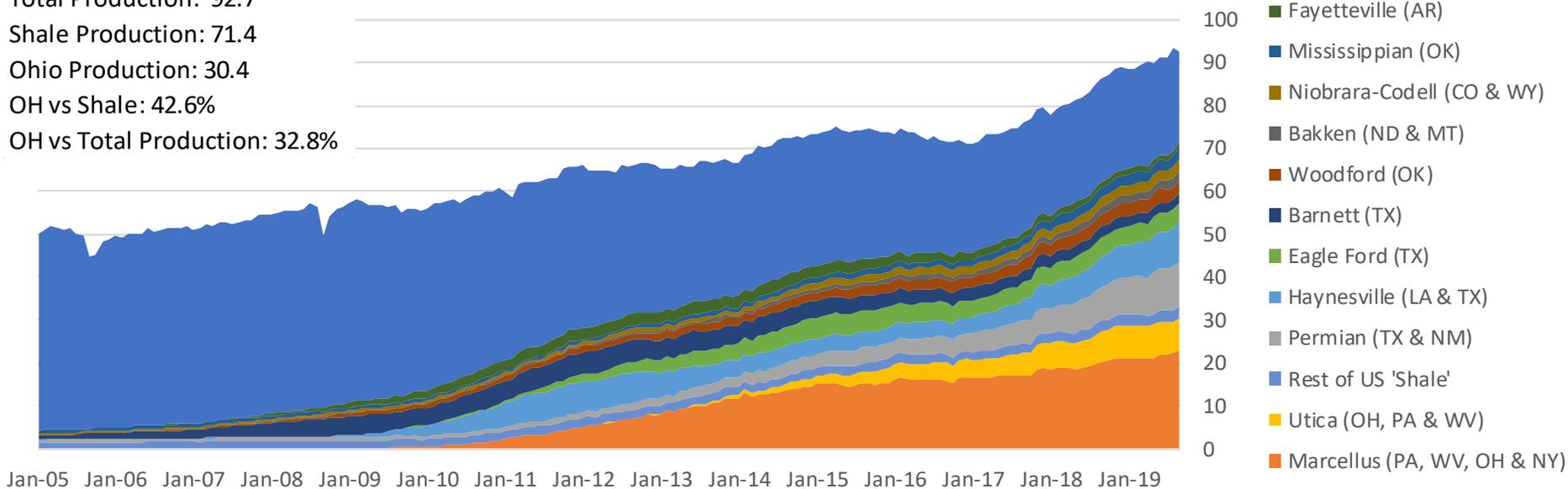
Shale Production: 71.4

Ohio Production: 30.4

OH vs Shale: 42.6%

OH vs Total Production: 32.8%

Monthly Dry Gas Production - Shale (BCF/Day)

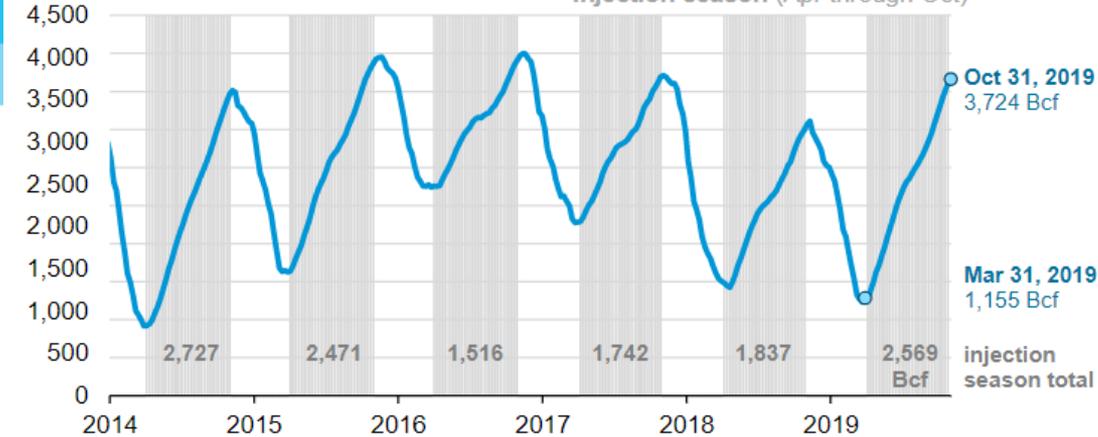


*Updates Monthly

Weekly natural gas inventory level, Lower 48 states (2014-2019)

billion cubic feet (Bcf)

injection season (Apr through Oct)

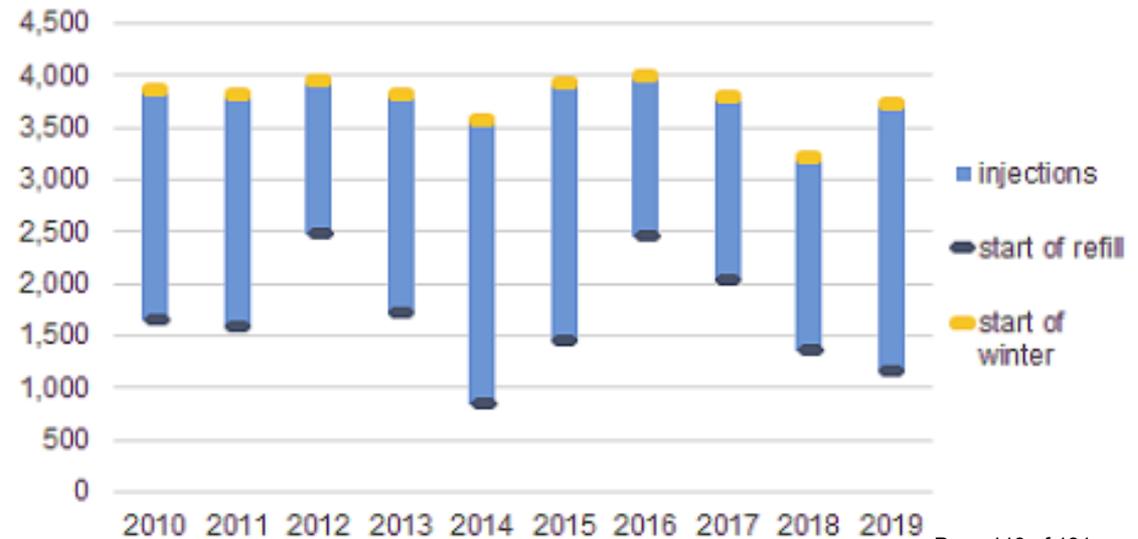


Source: U.S. Energy Information Administration, *Natural Gas Monthly* and *Weekly Natural Gas Storage Report*

Note: The data point for October 31, 2018, is an interpolated value based on the *Weekly Natural Gas Storage Report*.

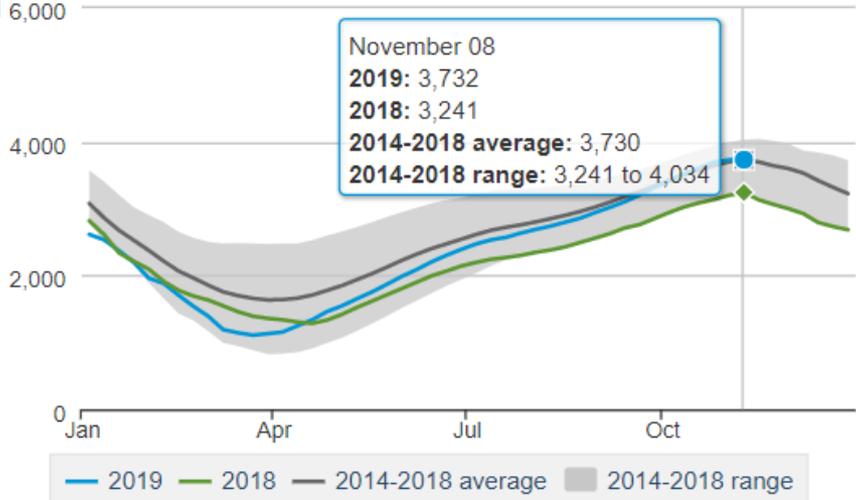
Lower 48 end of refill season inventories

billion cubic feet



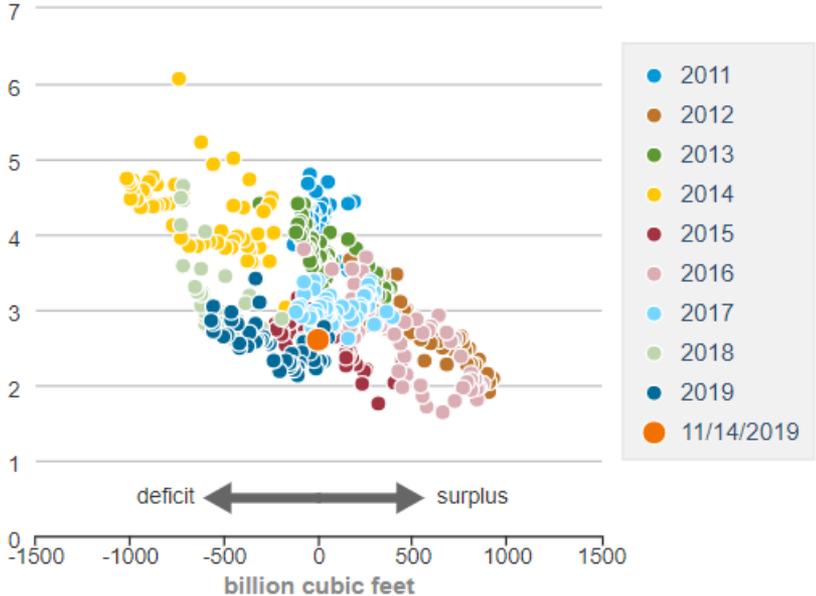
Lower 48 weekly working gas in underground storage

billion cubic feet



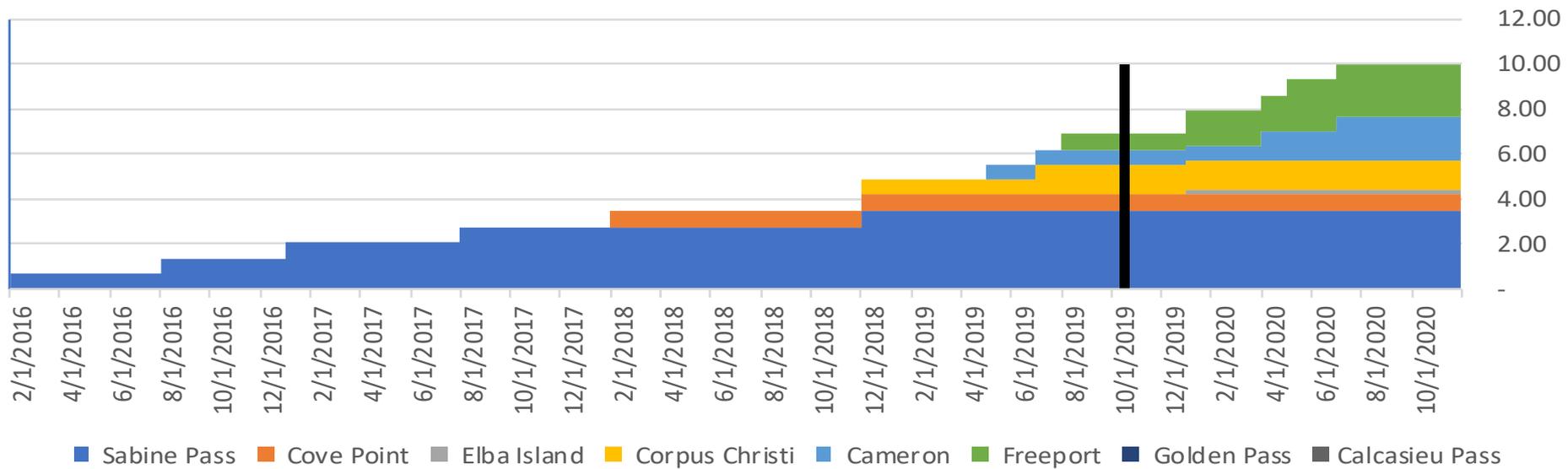
Lower 48 weekly working gas stocks, minus five-year average, and near-month futures prices

price of gas at the Henry Hub in dollars per million British thermal units



LNG Projected Exports

US Liquefaction FERC-Authorized Export Quantity by Facilities (Bcf/Day)



*Updates Monthly

U.S. natural gas production, consumption, and net imports

billion cubic feet per day

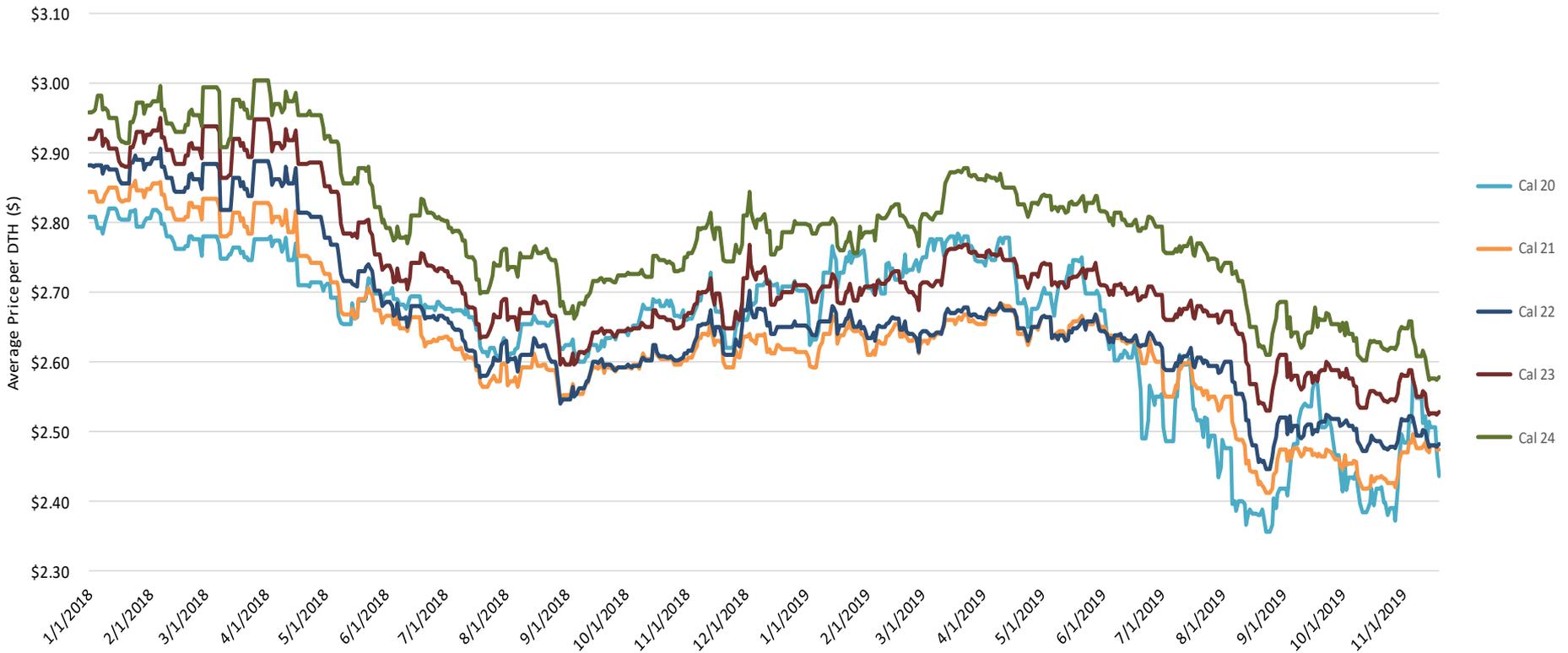


Source: Short-Term Energy Outlook, November 2019



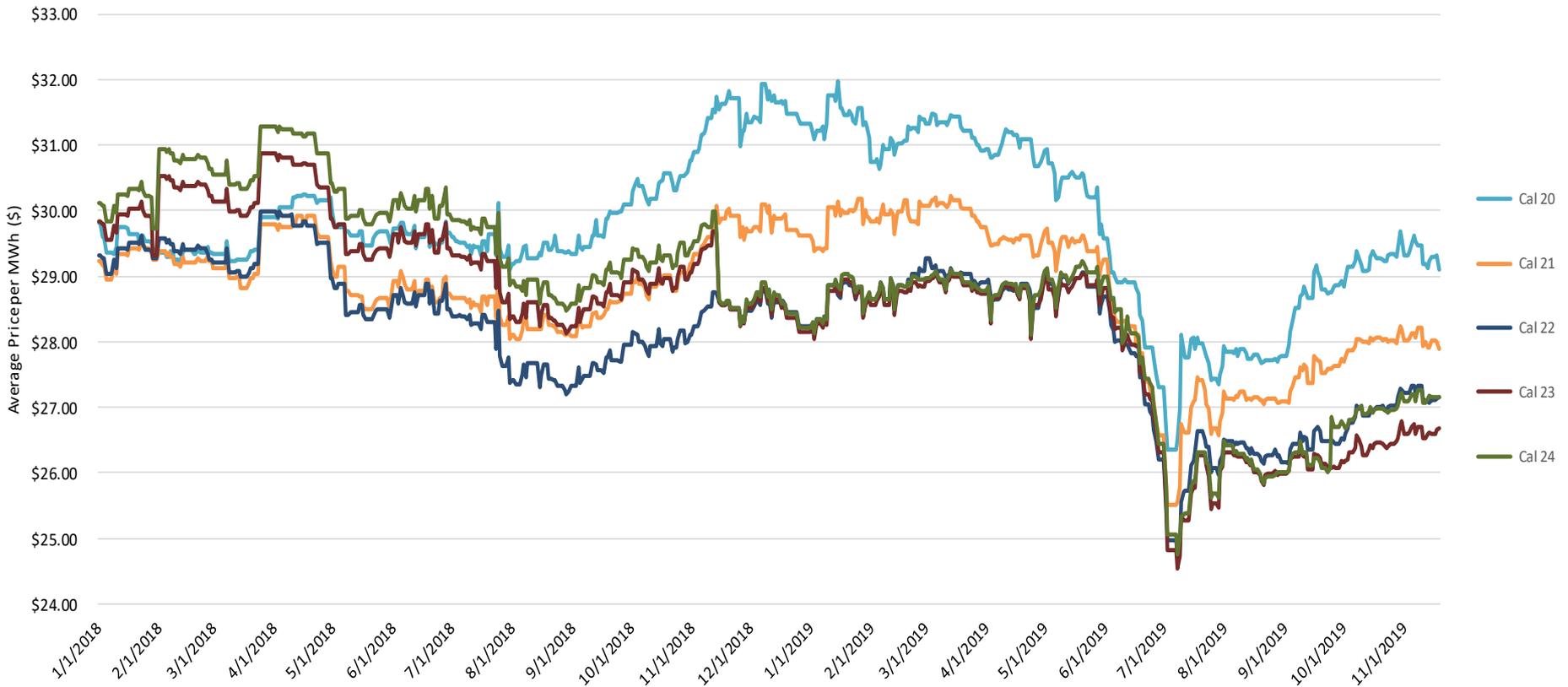
NYMEX Natural Gas Forwards

NYMEX Average Wholesale Prices



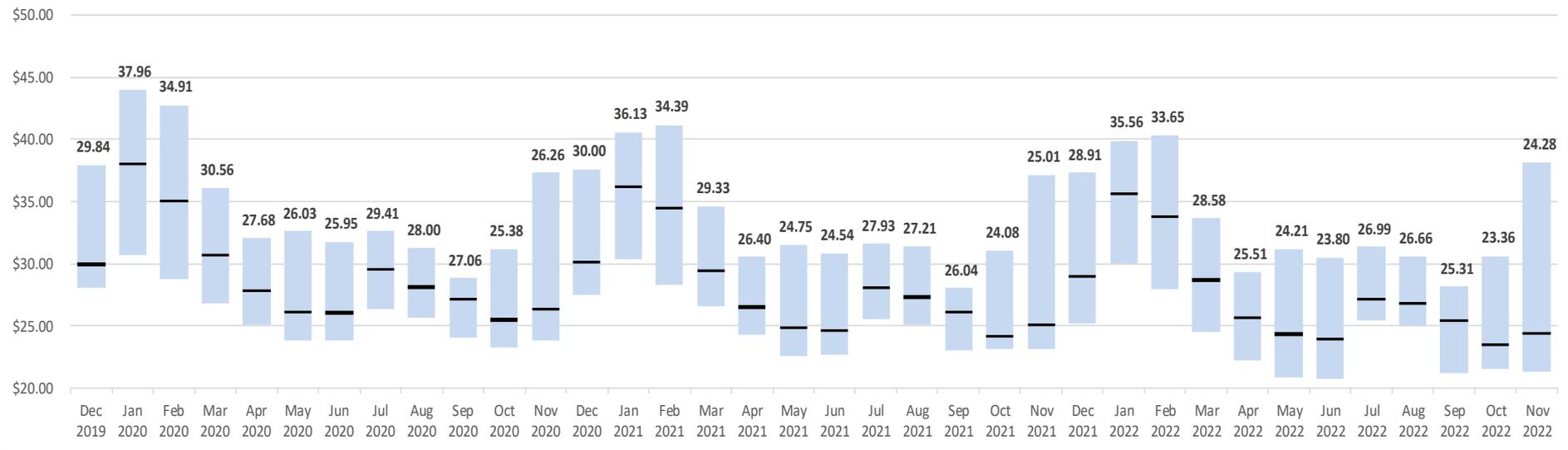
PJM AD Hub Electricity Forwards

AEP Dayton Hub Annual Average Wholesale Prices



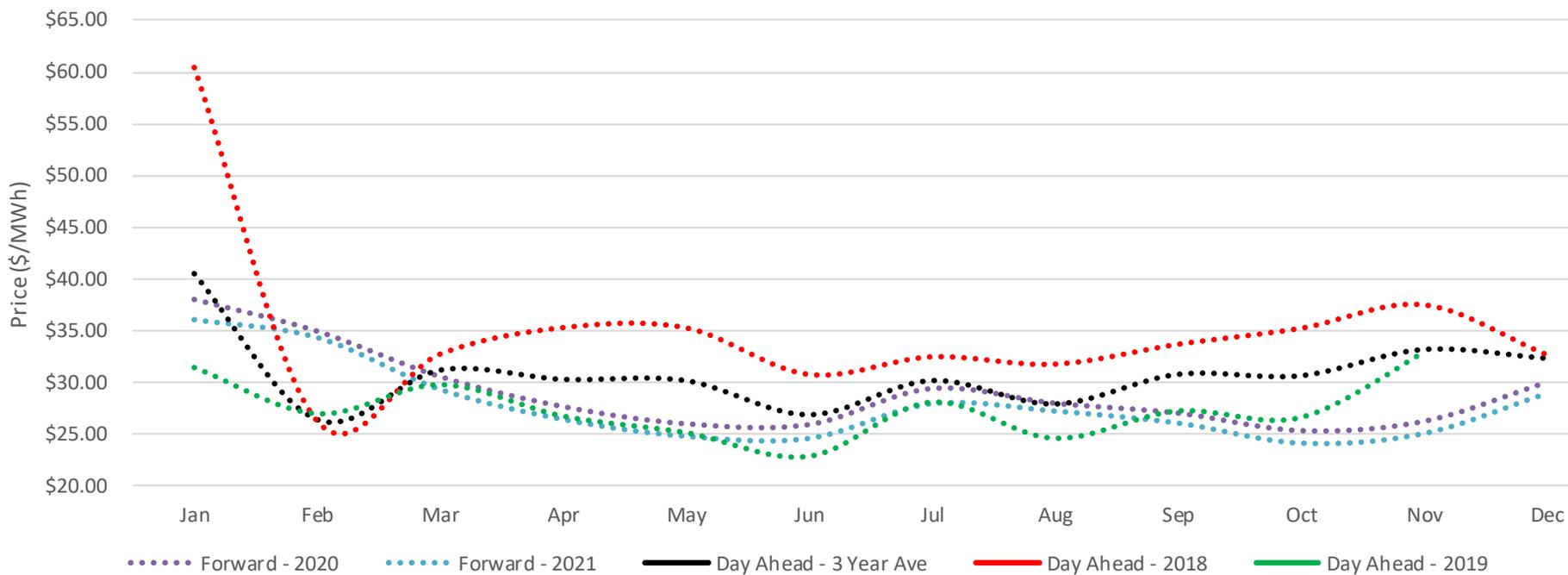
PJM AD Hub Electricity Forwards

Electric Monthly Price Trend Analysis: Current Prices
Data Range: 11.30.17 - 11.19.19

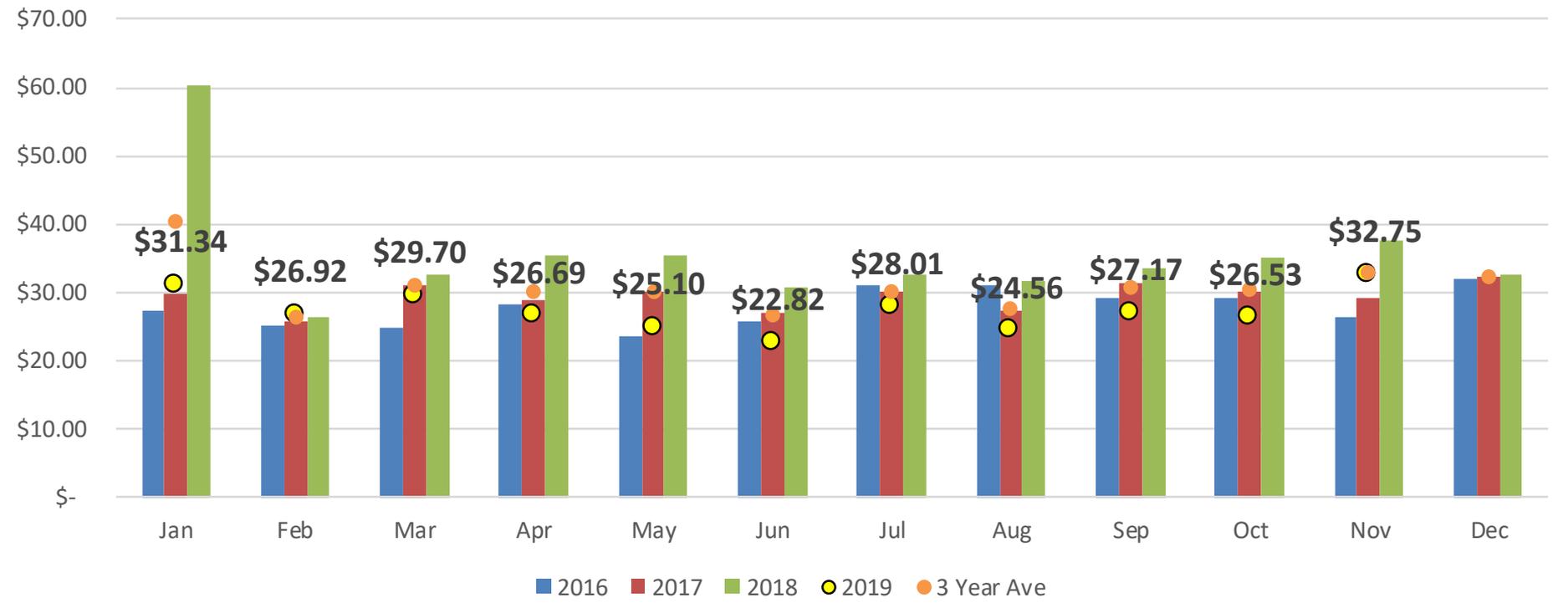


PJM AD Hub Electricity Forwards

AEP Historical vs Forward Price as on 11.19.19

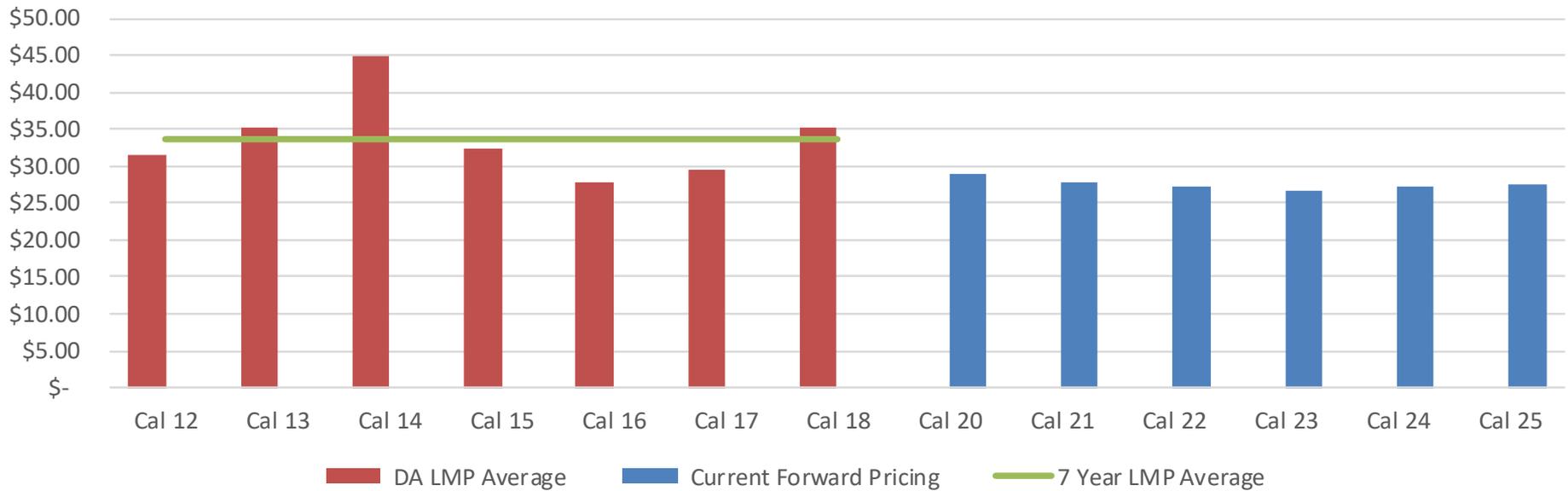


LMP DA Averages



*Pricing listed is for 2019 averages

Historical Day-Ahead Average Pricing Compared to 11.19.2019 Forward Pricing



2019 OFFICIAL PJM Coincident Peak Hours

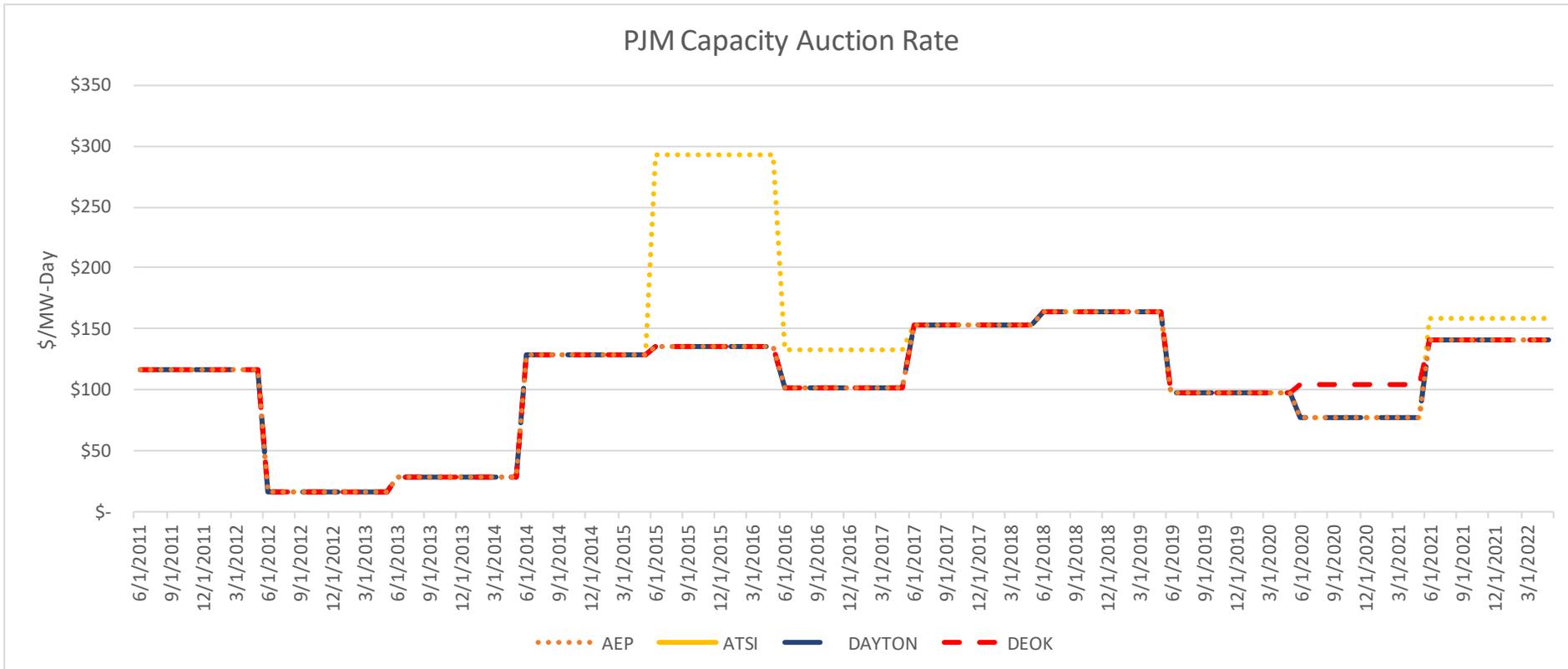
5CP Capacity Program

Rank	Date & Start Hour	Load MW
1	07.19.19 17:00	151,302
2	07.17.19 16:00	143,008
3	07.10.19 17:00	141,567
4	08.19.19 16:00	141,158
5	07.29.19 16:00	139,688

1CP AEP Transmission Program

Rank	Date & Start Hour	Load MW
1	01.31.19 07:00	22,514

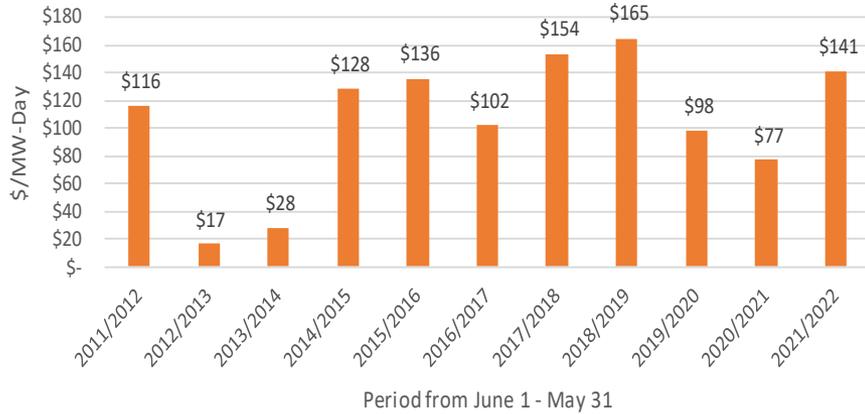
Capacity Auction Rates



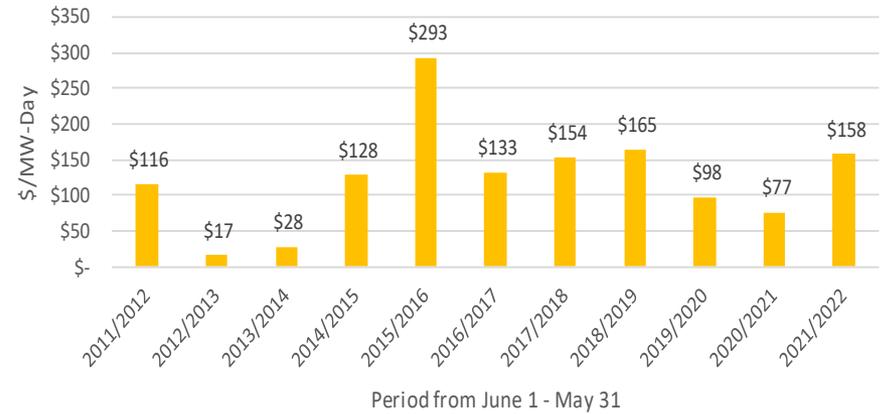
*Updates Quarterly

Capacity Auction Rates

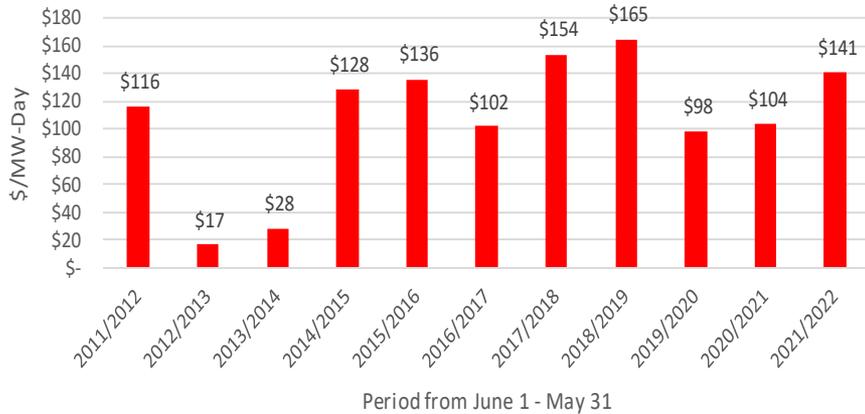
PJM AEP Zone Capacity Auction



PJM ATSI (First Energy) Zone Capacity Auction



PJM DEKO (Duke) Zone Capacity Auction



PJM Dayton Zone Capacity Auction



*Updates Quarterly