Rep30

From: Rep30
Sent: Wednesday, February 22, 2017 8:15 AM
To: Lehman, Ryan; Kasych, Shawn
Subject: ZEN

PJM suggested to me at a lunch on February 21 that they may be considering a regional ZEN plan, and other measures by way of fuel security and resiliency that would enhance the value of nuclear power. They suggested that if this comes to pass, it will not be on the June 30 timeline on which we are working, but if it does come to pass, we should definitely put in any ZEN legislation the concept that the Ohio ZEN credit would have to be reviewed, scaled back, or eliminated in light of whatever the regional transmission operator chooses to do by way of enhancing the value of nuclear power. I think this is a very good suggestion and we should tell FE to incorporate it in its proposals.

Rep30

From: Kasych, Shawn
Sent: Wednesday, February 22, 2017 8:40 AM
To: Rep30
Cc: Lehman, Ryan
Subject: Re: ZEN

Thank you.

Shawn Kasych
Majority Policy Director

614.466.0863

On Feb 22, 2017, at 8:14 AM, Rep30 <Rep30@ohiohouse.gov> wrote:

> PJM suggested to me at a lunch on February 21 that they may be considering a regional ZEN plan, and other measures by way of fuel security and resiliency that would enhance the value of nuclear power. They suggested that if this comes to pass, it will not be on the June 30 timeline on which we are working, but if it does come to pass, we should definitely put in any ZEN legislation the concept that the Ohio ZEN credit would have to be reviewed, scaled back, or eliminated in light of whatever the regional transmission operator chooses to do by way of enhancing the value of nuclear power. I think this is a very good suggestion and we should tell FE to incorporate it in its proposals.

Rep30

From: Rep30
Sent: Wednesday, February 22, 2017 4:39 PM
To: Lehman, Ryan; Kasych, Shawn; Ty Pine (tpine@firstenergycorp.com); Rep89; Rep72; 'tlfroehle@aep.com'
Cc: Bizjak, Joe; Gray, Bryan
Subject: ZEN
Attachments: jimmy.wolf2-22-201716-29-58.pdf

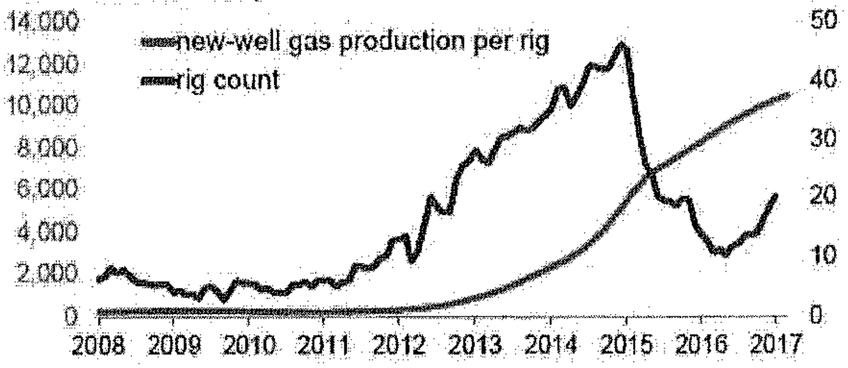
Please see the attached report from API that I received today.

Len & cc Lehman / Kasych / Price / Arndt / Hanschrader / Froehle

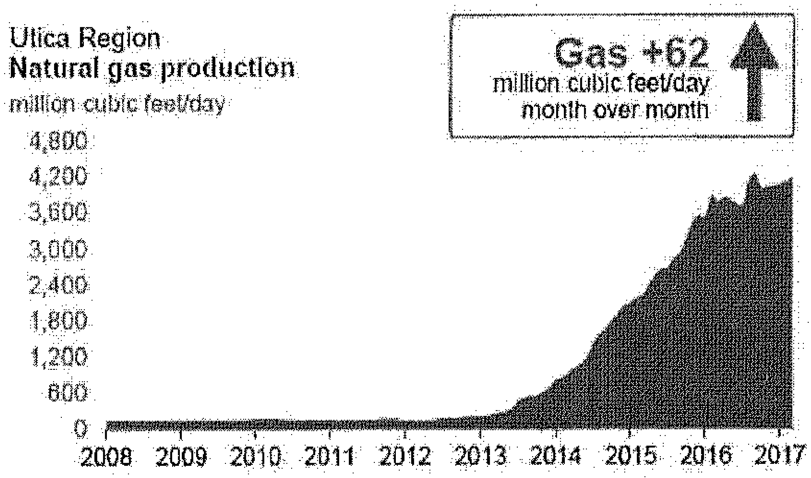
Natural Gas and Power Generation in OH

Amy Farrell
Group Director, Market Development
American Petroleum Institute

Utica drilling productivity per rig continues to increase as month over month production also increases.



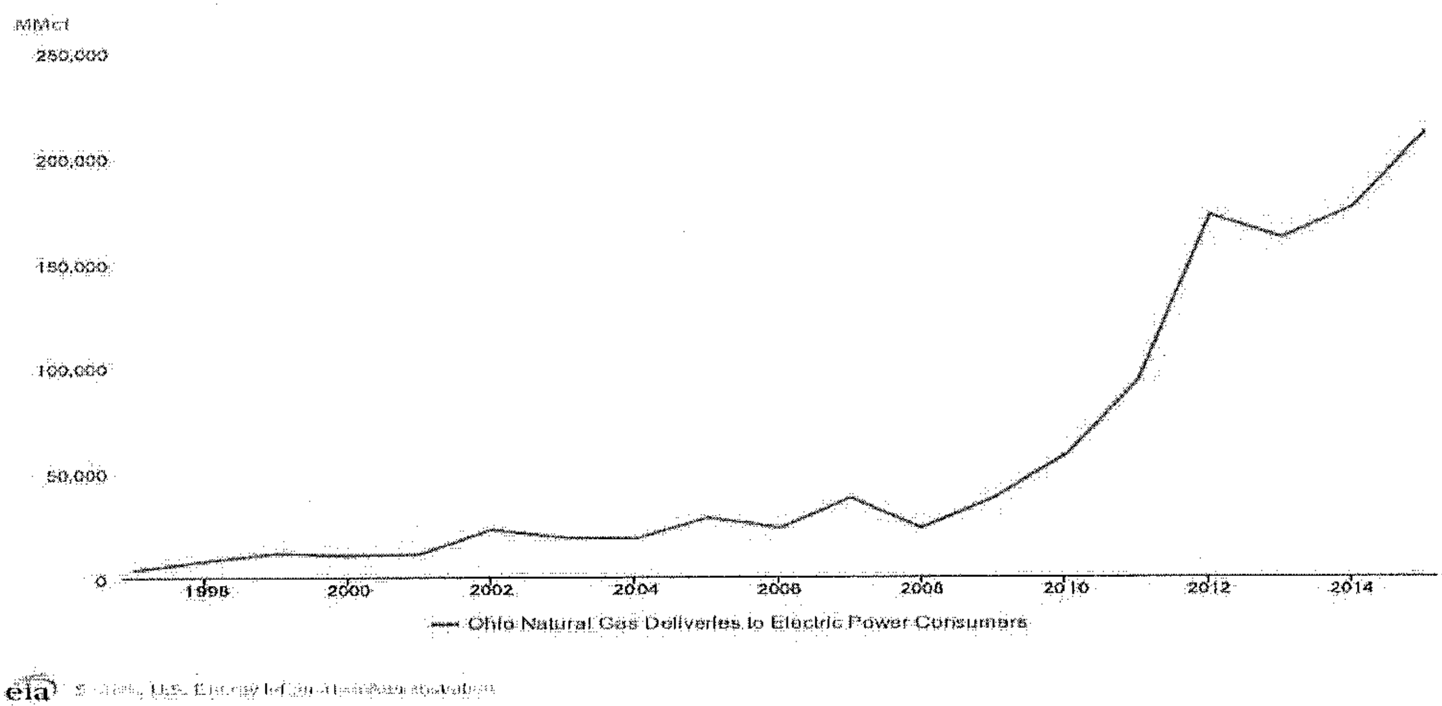
Source: EIA, Drilling Productivity Report, February 2017



Source: EIA, Drilling Productivity Report, February 2017

Capacity Growth Unlocks Additional In-State Benefits.

OH Natural Gas Consumption for Power Generation

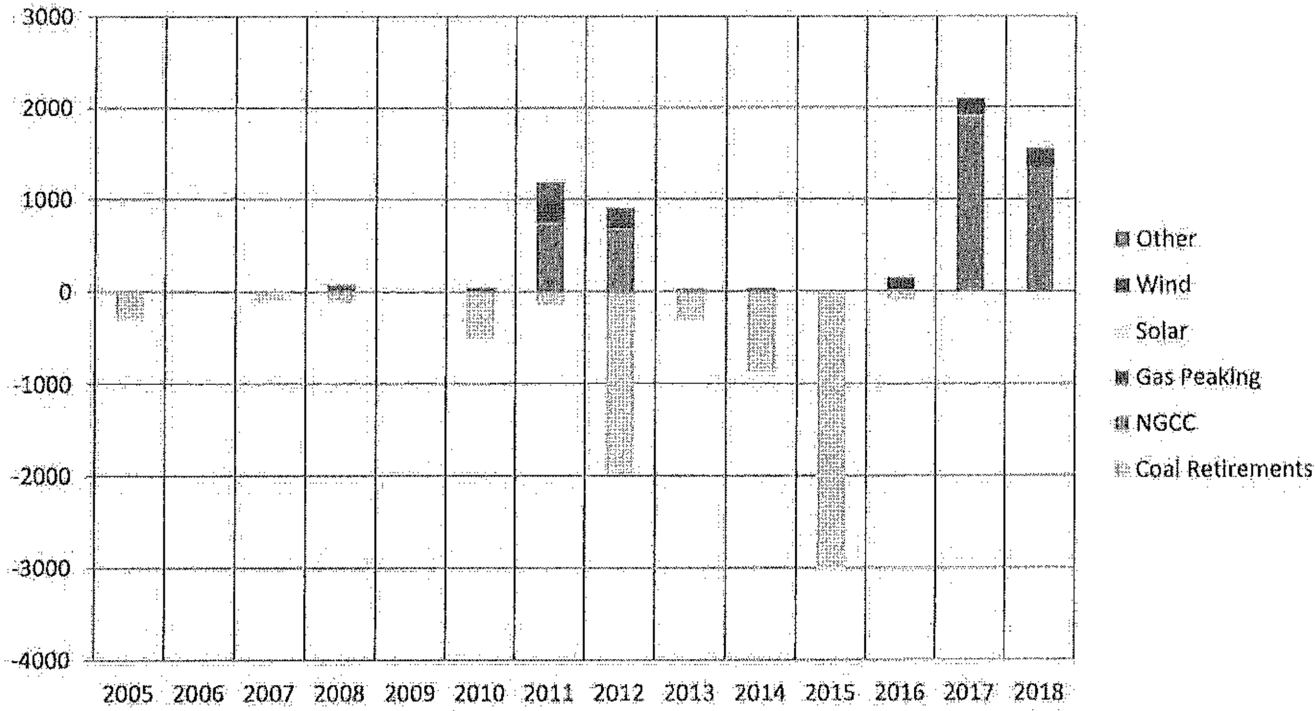


- Ohio has started to take advantage of its affordable natural gas in power generation, but to continue to grow this opportunity, more NGCCs need to come online.

Competitive markets are driving new, efficient power generation capacity and retiring more-costly, inefficient capacity in OH.

Ohio: Capacity Additions and Retirements (MW)

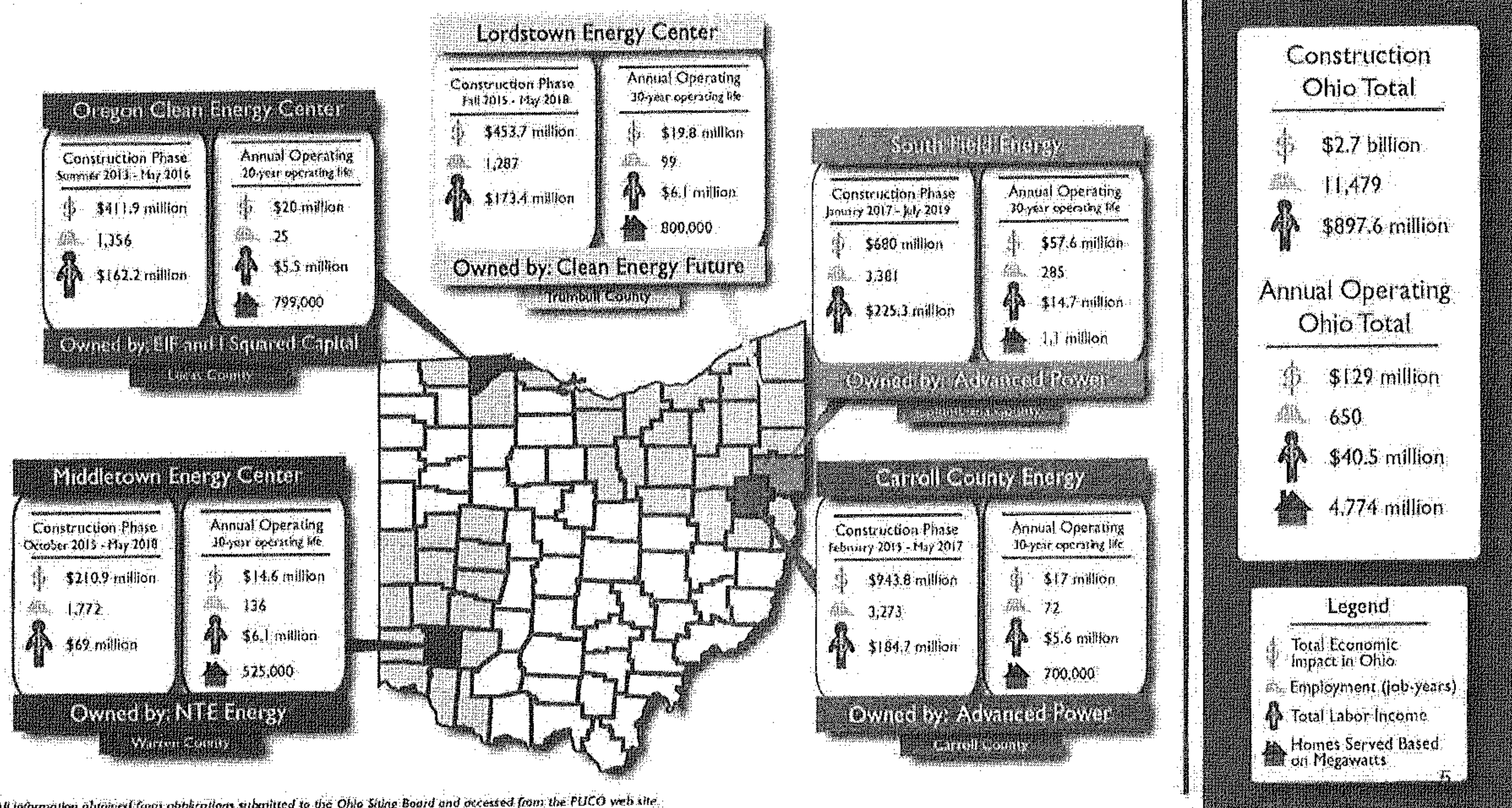
(2017 and 2018 under construction unless otherwise noted)



Source: EIA, Energy Velocity, SNL

- **Between 2005 and 2018, OH will have added 6,100 MW of new capacity, including almost 4,700 MW of new natural gas combined cycles.**

Economic benefit projected from new natural gas capacity under construction in Ohio.



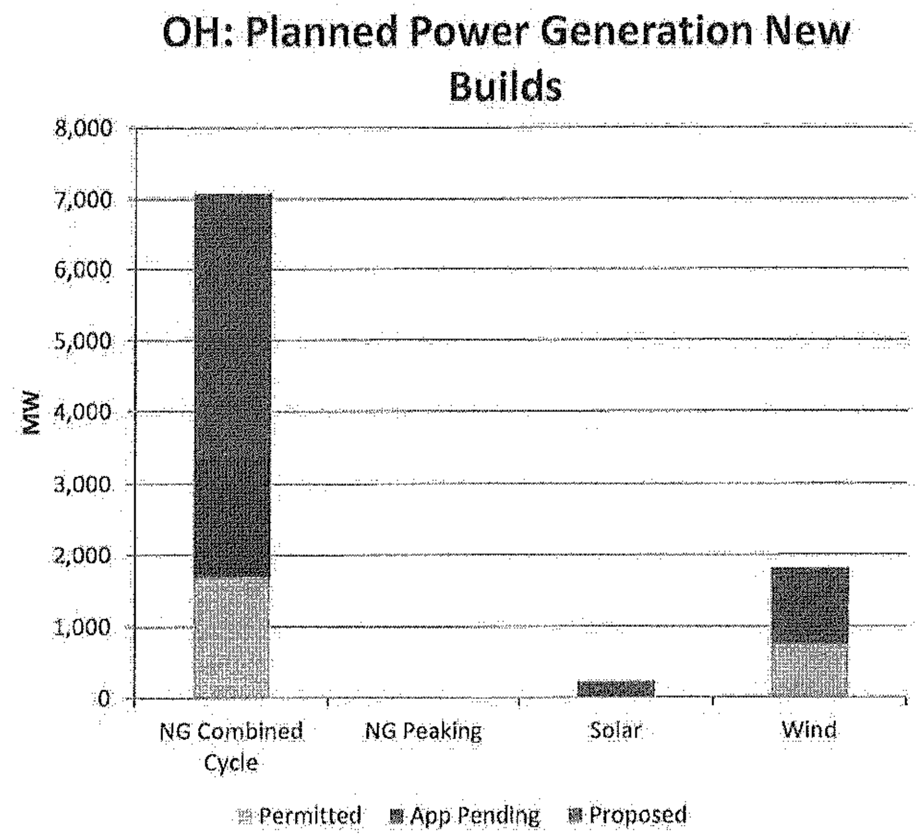
All information obtained from applications submitted to the Ohio Siting Board and accessed from the PUCO web site.

Created by Alliance for Energy Choice

With Utica advantage and market forces, additional NGCC capacity growth planned

Investment: Announced NGCC Plants in Ohio

Project	Estimated Construction Cost	MW
Guernsey Power Station	$1,000,000,000	1650
Harrison Industrial Park	$900,000,000	1000
Oregon #2	$1,100,000,000	955
Lordstown #2	$1,100,000,000	940
Pickaway Energy Center	$900,000,000	1,000
Rolling Hills Power Station	$700,000,000	600
TOTAL	**$5,700,000,000**	**6145**



Source: Energy Velocity, SNL

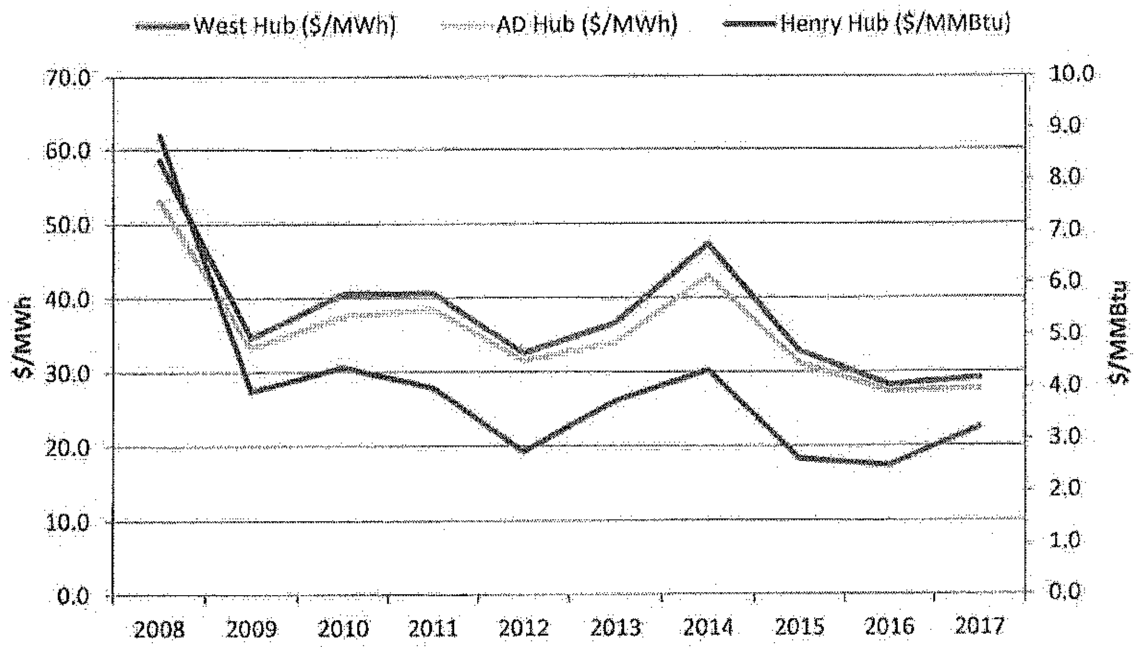
❖ **An additional 7,000 MW of new natural gas combined cycle planned by 2023.**

Power generation provides demand outlet and drives production-related benefits.

- A 1,000 MW NGCC plant uses about 0.2 bcf/day of natural gas.
- Therefore, for every 5,000 MW of NGCC capacity added, natural gas demand increases by about 1 bcf/day.
- 1 bcf/day new demand drives 1 bcf/day new production.
- According to a 2012 ICF Study, for every additional bcf/day of natural gas produced, approximately 13,000 upstream and midstream direct and indirect jobs are created.

Competitive markets have driven down energy prices for OH consumers.

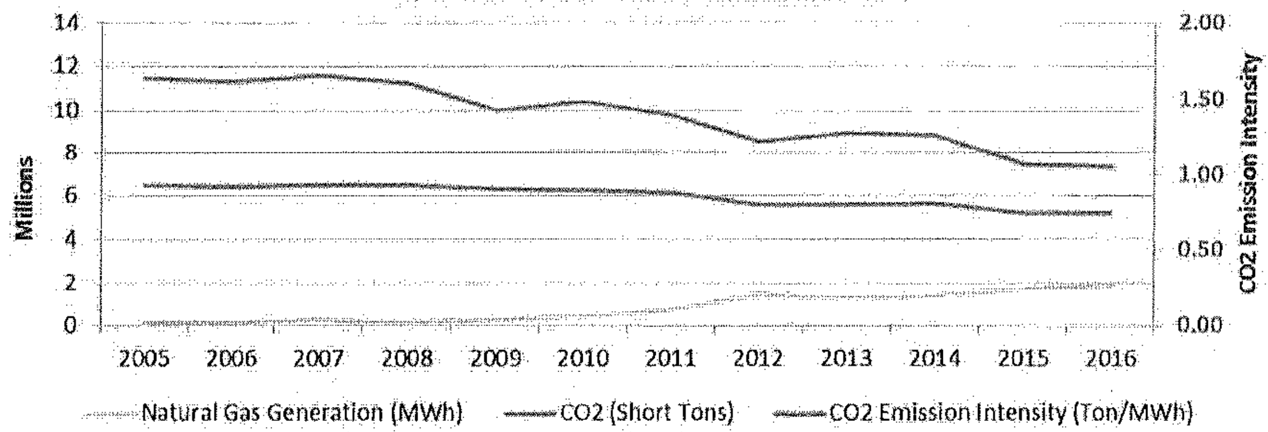
PJM Wholesale Electric Price and Henry Hub Natural Gas Price

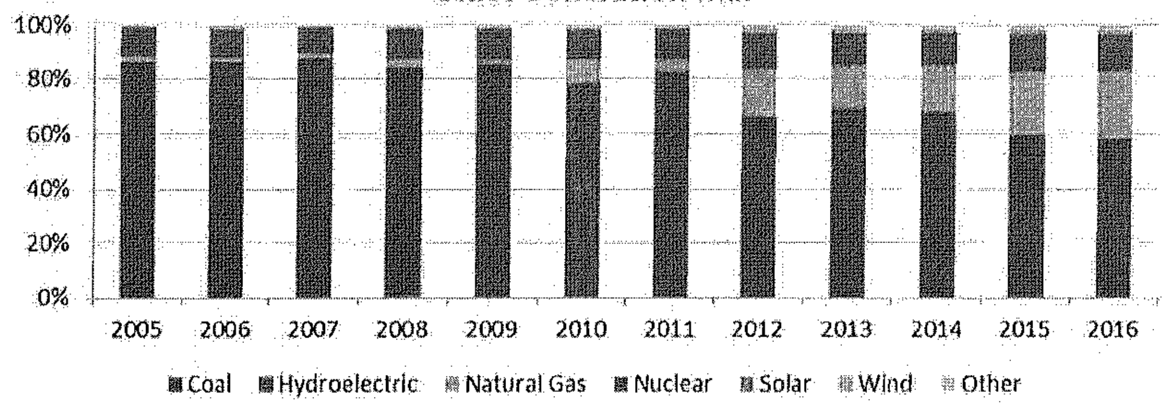


Source: NYMEX and ICE

- Since 2008, average annual wholesale power prices in Ohio have decreased almost 50%.

Market driven increased Natural Gas generation has driven CO2 emission reductions in Ohio.





Source: *EIA, Electric Power Monthly, Monthly Energy Review*

Diversity of Attributes = Reliability

See how more natural gas contributes to the diversity that matters

Physical electricity supply and demand must always be in balance on the grid – there must be as much generation being supplied to the grid as is being used at any given moment. Depending on the type of natural gas generation technology used, whether turbines or reciprocating engines, natural gas generation outperforms all other fuels to meet the variable needs of dynamic markets. This diversity of attributes should be what policy makers, and market participants, value most highly.

Can your power generation supply resource...	Natural Gas Plant (CC, CT, or RICE)	Coal Plant	Nuclear Plant	Wind Facility	Solar Photovoltaic Cells	Hydro Plant	Demand Response
Provide dispatchable power that can be generated when called upon?	●	●	●			●	●
Provide load following, cycling and ramping needed to support integration of variable energy resources by changing output levels within minutes?	●					●	●
Run on domestically sourced abundant fuel?	●	●		●	●	●	●
Continually provide reactive power and voltage support necessary to stabilize the grid?	●	●	●			●	
Locate close to load centers to reduce energy loss via transmission?	●	●	●		◐[1]	◐	●
Start up and energize the grid after it goes down? (blackstart service)	●	●	◐	◐	◐	●	
Store fuel on-site or virtually through storage or transport contracts?	●	●	●			●	●
Have the ability to provide thermal energy for customers' heat and process applications?	●	●	●		◐[2]		

1. Rooftop vs. Utility Scale 2. PV Cannot, Solar-Thermal Can

● Yes ◐ Conditional

energy API

Markets are working for OH consumers and businesses

- The playing field is level – all players in the state have the same ability to bid to supply generation to serve utility load
- Competition is driving efficiency…older less efficient resources are being replaced with more efficient, less costly plants
- The relatively low cost of natural gas and OH's resource advantage has been driving in-state investment
- Independent power producers building new generation, not ratepayers, are bearing the risk
- Consumers have gotten lower cost energy solutions
- Ohio is reducing its power plant emissions

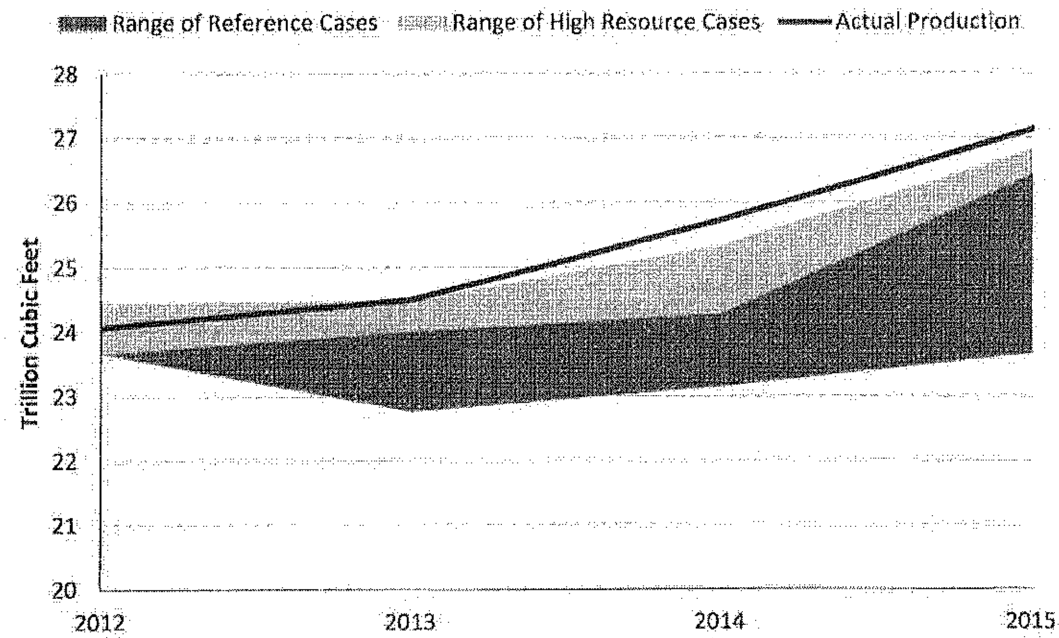
Lowest cost resource

Background

Actual production has outpaced the high-side of projections for several years.

U.S. Dry Natural Gas Production

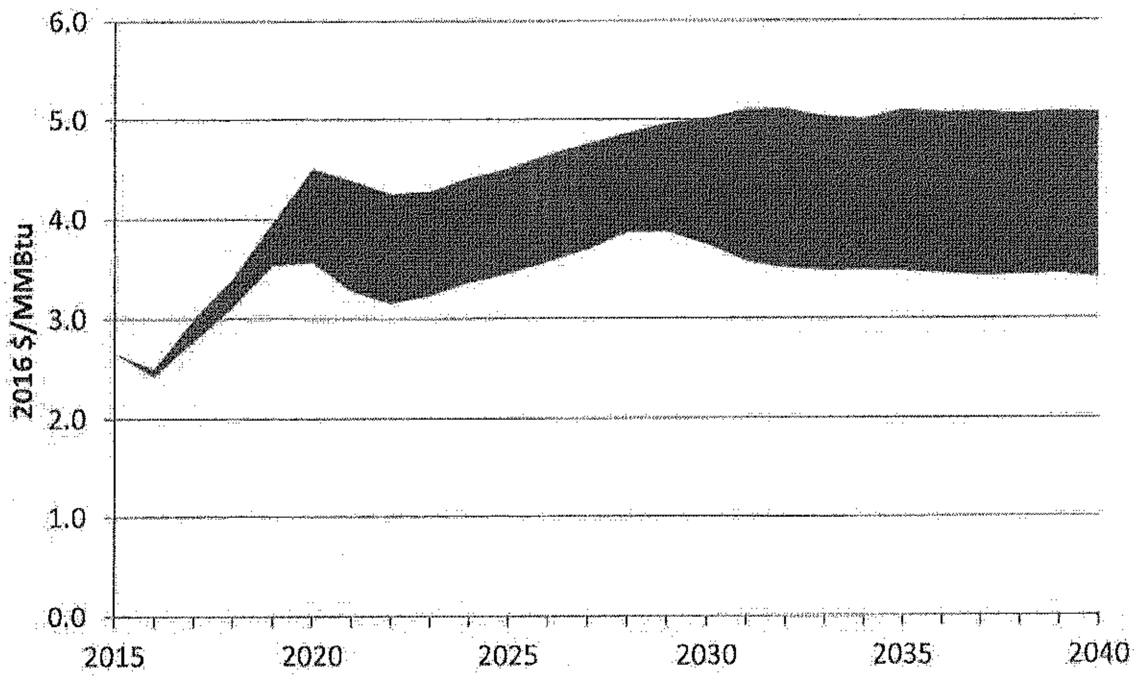
AEO 2012-2015 Projections & Actuals



Source: EIA, Annual Energy Outlooks 2012 – 2015; Actual Production

The Energy Information Administration (EIA) projects natural gas prices be low for decades.

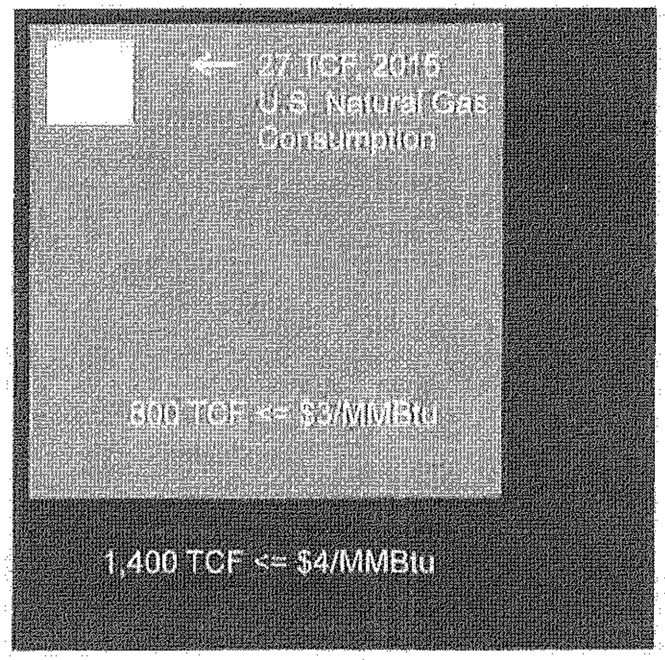
EIA AEO 2017 Projection: Henry Hub Spot Price
(Reference Case and High Supply Case Range)



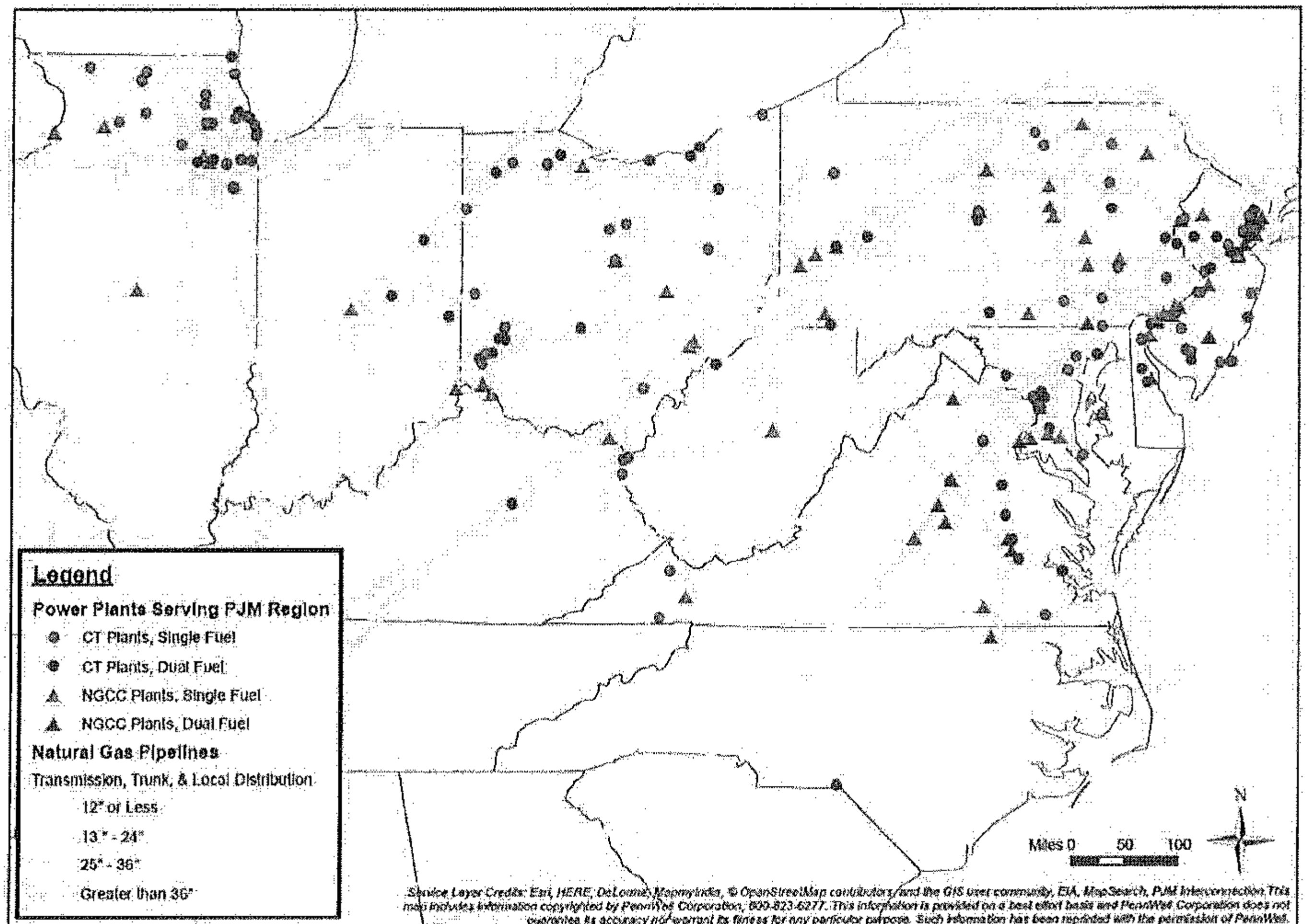
Source: EIA, Annual Energy Outlook, 2017

IHS Study bolsters resource outlook.

- The IHS supply study, ***Shale Gas Reloaded: The Evolving View of North American Natural Gas Resources and Costs***, concludes that in the U.S. Lower 48 and Canada:
  - Approximately 1,400 TCF of natural gas is recoverable at a current Henry Hub break-even price of $4/MMBtu or less (in real terms), a 66 percent increase over 2010 estimates.
  - More than 800 TCF can be produced at a current break-even price of $3/MMBtu or less.



Natural gas power generation facilities are connected to a geographically diversified pipeline system and many facilities have dual-fuel capability.



PJM market provides operational advantages (and cost savings).

- PJM estimates its regional grid and market operations produce **total annual savings of $2.8 billion to $3.1 billion** for consumers in the region.
- Larger footprint allows PJM to efficiently manage the integrated regional transmission system, meeting demand in a cost-effective way and reducing congestion costs through regional planning for transmission upgrades, providing **cost-effective reliability ($475 M/year)**.
- Larger region means a lower reserve margin than otherwise would be necessary because not all areas peak at the same time, resulting in **generation investment savings ($1.1 to $1.4 B/year)**.
- **Replacing less efficient resources through the administration of a competitive capacity market ($600 M/year)**
- **Production cost savings** from coordinating dispatch over a large integrated operating area and optimization of operations **($525 M/year)**
- Geographic scope of market means PJM can provide **grid stability** while carrying less of the services needed while and market-based procurement drives costs of those services down **($100 M/year)**

Source: PJM Value Proposition Study

Planned New NGCC Capacity

Combined Cycle Power Plants	Ultimate Operating Parent	Development Status	New Capacity (MW)
Carroll County Energy Center	EthosEnergy	Construction Begun	700
Lordstown Generating Station	Siemens AG	Construction Begun	940
Middletown Energy Center	NTE Energy	Construction Begun	475
Oregon Clean Energy Project	Siemens AG	Construction Begun	869
Guernsey Power Station	Apex Power Group	Early Development	1,650
Pickaway Energy Center	NTE Energy	Early Development	1,200
Rolling Hills Generating - CC	ArcLight Capital Holdings LLC	Early Development	1,414
Trumbull Energy Center	Clean Energy Future	Early Development	940
Cadiz Combined Cycle Plant (Harrison County Industrial Park)	EmberClear Corp.	Announced	1,000
Lucas Energy Station	Clean Energy Future	Announced	960
South Field Energy	Advanced Power AG	Advanced Development	1,132

Source: SNL

Rep30

From:	Lehman, Ryan
Sent:	Thursday, February 23, 2017 1:11 PM
To:	Rep30
Subject:	RE: ZEN

Interesting data on job creation from adding NGCC plants in Ohio. 4,700 MW of gas generation between 2005 and 2018, plus, 7,000 MW additional gas generation added by 2023. This is a total of 11,700 MW being recently added to Ohio's generation mix. The study shows how for every 5,000 MW of NGCC capacity added, natural gas demand increases by about 1 bcf/day. 1 bcf/day new demand equals 1 bcf/day new production. This all adds up to over 28,000 upstream and midstream direct and indirect jobs created, since 13,000 jobs are created for every additional bcf/day of production. This is showing how gas generation creates a lot of jobs on the production end of business.

Ryan J. Lehman
Majority Policy Advisor
Office of Speaker Clifford A. Rosenberger
Ohio House of Representatives
ryan.lehman@ohiohouse.gov
(614) 466-6505

From: Rep30
Sent: Wednesday, February 22, 2017 4:39 PM
To: Lehman, Ryan <Ryan.Lehman@ohiohouse.gov>; Kasych, Shawn <Shawn.Kasych@ohiohouse.gov>; Ty Pine (tpine@firstenergycorp.com) <tpine@firstenergycorp.com>; Rep89 <Rep89@ohiohouse.gov>; Rep72 <Rep72@ohiohouse.gov>; 'tlfroehle@aep.com' <tlfroehle@aep.com>
Cc: Bizjak, Joe <Joe.Bizjak@ohiohouse.gov>; Gray, Bryan <Bryan.Gray@ohiohouse.gov>
Subject: ZEN

Please see the attached report from API that I received today.

Rep30

From: Pine, Ty <tpine@firstenergycorp.com>
Sent: Thursday, February 23, 2017 3:19 PM
To: Wolf, Jimmy
Subject: Fwd:
Attachments: Revisions to I_132_0723 (ZEN) (04195210x7A241).docx; ATT00001.htm

Please call me.

Ty
614-257-8926

Sent from my iPhone

Begin forwarded message:

> **From:** "Bingaman, Bradley A" <bbingaman@firstenergycorp.com>
> **Date:** February 23, 2017 at 3:18:16 PM EST
> **To:** "Pine, Ty" <tpine@firstenergycorp.com>
>
> **Bradley A. Bingaman** | Associate General Counsel | FirstEnergy
> (330) 384-5947 | bbingaman@firstenergycorp.com

Reviewed As To Form By
Legislative Service Commission

I_ 132_0723

132nd General Assembly
Regular Session

. B. No. 2017-2018

A BILL

To amend section 4928.02 and to enact sections 4928.75, 4928.751, 4928.752, 4928.753, 4928.754, 4928.755, 4928.756, 4928.757, 4928.7510, 4928.7511, 4928.7513, 4928.7514, 4928.7515, 4928.7520, 4928.7521, 4928.7522, 4928.7523, 4928.7524, 4928.7525, 4928.7526, 4928.7527, 4928.7530, and 4928.7532 of the Revised Code regarding the zero-emissions nuclear resource program.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF OHIO:

Section 1. That section 4928.02 be amended and sections 4928.75, 4928.751, 4928.752, 4928.753, 4928.754, 4928.755, 4928.756, 4928.757, 4928.7510, 4928.7511, 4928.7513, 4928.7514, 4928.7515, 4928.7520, 4928.7521, 4928.7522, 4928.7523, 4928.7524, 4928.7525, 4928.7526, 4928.7527, 4928.7530, and 4928.7532 of the Revised Code be enacted to read as follows:

Sec. 4928.02. It is the policy of this state to do the following throughout this state:

(A) Ensure the availability to consumers of adequate, reliable, safe, efficient, nondiscriminatory, and reasonably priced retail electric service;

(B) Ensure the availability of unbundled and comparable retail electric service that provides consumers with the supplier, price, terms, conditions, and quality options they elect to meet their respective needs;

(C) Ensure diversity of ~~electricity~~ the following:

(1) Electricity supplies and suppliers, by giving consumers effective choices over the selection of those supplies and suppliers and by encouraging the development of distributed and small generation facilities;

(2) Resources, including zero-emissions nuclear resources as defined in section 4928.75 of the Revised Code, that provide fuel diversity and environmental and other benefits.

(D) Encourage innovation and market access for cost-effective supply- and demand-side retail electric service including, but not limited to, demand-side management, time-differentiated pricing, waste energy recovery systems, smart grid programs, and implementation of advanced metering infrastructure;

(E) Encourage cost-effective and efficient access to information regarding the operation of the transmission and distribution systems of electric utilities in order to promote both effective customer choice of retail electric service and the development of performance standards and targets for service quality for all consumers, including annual achievement reports written in plain language;

(F) Ensure that an electric utility's transmission and distribution systems are available to a customer-generator or owner of distributed generation, so that the customer-generator or owner can market and deliver the electricity it produces;

(G) Recognize the continuing emergence of competitive electricity markets through the development and implementation of flexible regulatory treatment, while simultaneously recognizing the need for nuclear energy resources, as defined in section 4928.75 of the Revised Code, and resources that provide fuel diversity and environmental and other benefits;

(H) Ensure effective competition in the provision of retail electric service by avoiding anticompetitive subsidies flowing from a noncompetitive retail electric service to a competitive retail electric service or to a product or service other than retail electric service, and vice versa, including by prohibiting the recovery of any generation-related costs through distribution or transmission rates;

(I) Ensure retail electric service consumers protection against unreasonable sales practices, market deficiencies, and market power;

(J) Provide coherent, transparent means of giving appropriate incentives to technologies that can adapt successfully to potential environmental mandates;

(K) Encourage implementation of distributed generation across customer classes through regular review and updating of administrative rules governing critical issues such as, but not limited to, interconnection standards, standby charges, and net metering;

(L) Protect at-risk populations, including, but not limited to, when considering the implementation of any new advanced energy or renewable energy resource;

(M) Encourage the education of small business owners in this state regarding the use of, and encourage the use of, energy efficiency programs and alternative energy resources in their businesses;

(N) Facilitate the state's effectiveness in the global economy.

In carrying out this policy, the commission shall consider rules as they apply to the costs of electric distribution infrastructure, including, but not limited to, line extensions, for the purpose of development in this state.

Sec. 4928.75. As used in sections 4928.75 to 4928.7532 of the Revised Code:

(A) "Nuclear energy resource" means an electric generation unit fueled, in whole or in part, by nuclear power and licensed by the nuclear regulatory commission.

(B) "PJM" means the PJM Interconnection, L.L.C., or its successor.

(C) "Zero-emissions nuclear credit" means the attributes associated with one megawatt hour of electricity generated by a zero-emissions nuclear resource.

(D) "Zero-emissions nuclear resource" means a nuclear energy resource that meets the criteria of section 4928.754 of the Revised Code.

Sec. 4928.751. There is hereby created a zero-emissions nuclear resource program to enable the state to meet its policy goals and requirements under which zero-emissions nuclear credits are purchased by electric distribution utilities to provide long-term energy security and environmental and other benefits to the region and to retail electric service customers in the state. An electric distribution utility in this state that has a zero-emissions nuclear resource located within its certified territory shall participate in the program. All electric distribution utilities in the same holding company system shall participate jointly and shall allocate costs across all classes of each participating utility's customers.

Sec. 4928.752. The zero-emissions nuclear resource program shall operate for successive two-year program periods beginning with the initial program period commencing on the effective date of this section.

Sec. 4928.753. To provide zero-emissions nuclear credits under the zero-emissions nuclear program, an entity that owns or operates a nuclear energy resource shall file with the public utilities commission a written notice verifying that the resource meets the criteria under section 4928.754 of the Revised Code. The entity shall file the written notice not later than ninety days after the commencement of the initial program period or, if the resource has not yet qualified, not later than prior to the commencement of a subsequent program period.

Sec. 4928.754. A nuclear energy resource that satisfies all of the following criteria is a zero-emissions nuclear resource for purposes of zero-emissions nuclear credits:

(A) The resource is interconnected within the transmission system of PJM.

(B) PJM has determined~~s~~ the resource is transmission deliverable under the metrics by which PJM calculates deliverability for purposes of capacity planning on a round-the-clock baseload basis into the transmission zone or zones of electric distribution utilities participating in the zero-emissions nuclear resource program under sections 4928.75 to 4928.7532 of the Revised Code.

(C)(1) For in-state nuclear energy resources:

(a~~1~~) The resource has benefited the air quality profile of the state more than the predominant electric generation source with similar capacity and baseload characteristics as the resource as of the time the resource commenced operation.

(b~~2~~) All of the following could occur if the resource ceased operation and its capacity were replaced at the same location by the then predominant electric generation source with similar capacity and baseload characteristics as the resource:

(i~~a~~) The ability of the state, or region of the state, to maintain or decrease existing intensity of fine particulate matter or to comply with one or more state or federal air pollution control programs, standards, or goals is reduced.

(ii~~b~~) The carbon dioxide emissions intensity of the state is negatively impacted.

(iii~~c~~) The ability of the state to maintain or decrease existing intensity of carbon monoxide, lead, ground-level ozone, particulate matter, nitrogen oxide, or sulfur dioxide is negatively impacted.

(2~~D~~) For all other nuclear energy resources, each such resource is shown to provide no less than the same level of environmental benefits to the state as nuclear energy resources located within the state, pursuant to the requirements in division (C)(1) of this section.

(DE) The resource, on or after January 1, 2017:

(1) Did not receive from another state tax exemptions, deferrals, exclusions, allowances, payments, credits, deductions, or reimbursements calculated in whole or in part using a metric that provides value for emissions not produced by the resource;

(2) Is not wholly owned by a municipal or cooperative corporation or a group, association, or consortium of those corporations; or

(3) Did not, during a program period described in section 4928.752 of the Revised Code, recover some or all of the capital or operating costs of the resource through rates regulated by a state.

Sec. 4928.755. With respect to a written notice filed under section 4928.753 of the Revised Code relating to a nuclear energy resource located in this state, any interested person may file comments with the public utilities commission within twenty days after the written notice was filed.

Sec. 4928.756. An entity that owns or operates a nuclear energy resource may file with the public utilities commission a response to any comment made under section 4928.755 of the Revised Code, not later than ten days after the comment was filed.

Sec. 4928.757. Not later than fifty days after the filing of a written notice under section 4928.753 of the Revised Code relating to a nuclear energy resource located in this state, the public utilities commission shall designate a resource that satisfies the criteria in section 4928.754 of the Revised Code as a zero-emissions nuclear resource and issue an order consistent with that designation . If the commission does not issue an order in the time required by this section, the resource shall be deemed to be a zero-emissions nuclear resource.

Sec. 4928.7510. With respect to a written notice filed under section 4928.753 of the Revised Code ~~by~~ relating to a nuclear energy resource described in division (C~~D~~)(2) of section 4928.754 of the Revised Code, the resource shall submit with its written notice an environmental study showing that the resource meets the criteria under section 4928.754 of the Revised Code.

Sec. 4928.7511. The public utilities commission, under a procedure it adopts, shall determine and issue the appropriate order regarding whether a nuclear energy resource described in division (C~~D~~)(2) of section 4928.754 of the Revised Code ~~qualifies under~~ satisfies the criteria in section 4928.754 of the Revised Code as a zero-emissions nuclear resource. At minimum, the adopted procedure shall provide the opportunity for comment and response similar to the opportunities described under sections 4928.755 and 4928.756 of the Revised Code.

Sec. 4928.7513. A nuclear energy resource determined under section 4928.757 or 4928.7511 of the Revised Code to be a zero-emissions nuclear resource shall continue to be considered such a resource for all successive program periods as long as the resource continues to meet the criteria of divisions (A), (B), and (D~~E~~) of section 4928.754 of the Revised Code.

Sec. 4928.7514. Zero-emission nuclear resources shall provide zero-emissions nuclear credits for the zero-emissions nuclear resource program. Not later than thirty days before a program period commences, each zero-emissions nuclear resource shall confirm with the public utilities commission its intent to continue to commit its credits under the program.

Sec. 4928.7515. All financial statements, financial data, and trade secrets submitted to or received by the public utilities commission for purposes of satisfying the criteria as a zero-emissions nuclear resource and any information taken for any purpose from the statements, data, or trade secrets are not public records under section 149.43 of the Revised Code.

Sec. 4928.7520. Not later than sixty days after the initial program period commences and not later than thirty days before a subsequent program period commences, the public utilities commission shall set the price for zero-emissions nuclear credits applicable for the period. For the initial program period the price shall be seventeen dollars per credit. For each subsequent program period, that price shall be adjusted for inflation using the gross domestic product implicit price deflator as published by the United States department of commerce, bureau of economic analysis, index numbers 2007=100.

Sec. 4928.7521. At the same time the public utilities commission sets the price for zero-emissions nuclear credits, the commission shall determine the maximum number of credits to be purchased by electric distribution utilities during the program period. The amount the commission sets shall equal one-third of the total "Total End User Consumption" in megawatt-hours over the previous two calendar years as shown on PUCO Form D1 of each participating electric distribution utility's most recently filed long-term forecast report.

Sec. 4928.7522. Not later than seven days following the close of each quarter of a program period, each zero-emissions nuclear resource shall transfer all of its zero-emissions nuclear credits generated that quarter to the public utilities commission, which shall hold the credits for the sole purpose of administering the program.

Sec. 4928.7523. ~~Within~~ Not later than seven days ~~of~~ after the zero-emissions nuclear resource transfers~~ring~~ its credits, the public utilities commission shall notify each participating electric distribution utility of the total amount of zero-emissions nuclear credits received from zero-emissions nuclear resources.

Sec. 4928.7524. All participating electric distribution utilities shall purchase all zero-emissions nuclear credits transferred to the public utilities commission up to the maximum number of credits determined under section 4928.7521 of the Revised Code. The commission shall allocate the amounts to be purchased by each participating utility based on the total "Total End User Consumption" in megawatt-hours over the previous two calendar years as shown on PUCO Form D1 of each participating electric distribution utility's most recently filed long-term forecast report . Each participating electric distribution utility shall pay the credit price for each credit purchased.

Sec. 4928.7525. The public utilities commission shall deposit all payments for credits into the zero-emissions nuclear resources fund created under section 4928.7532 of the Revised Code.

Sec. 4928.7526. ~~Within~~ Not later than seven days ~~of~~ after receipt of utility payment, the public utilities commission shall pay to each zero-emissions nuclear resource the amount paid for each of the resource's zero-emissions nuclear credits purchased from the zero-emissions nuclear resources fund.

Sec. 4928.7527. Credits purchased by participating electric distribution utilities may not be transferred, sold, or assigned to any other entity.

Sec. 4928.7530. Each participating electric distribution utility shall recover any and all direct and indirect costs for the purchase of zero-emissions nuclear credits through a nonbypassable rider charged to all of its retail electric service customers, which rider shall be established within sixty days from the effective date of this section.

Sec. 4928.7532. There is hereby created the zero-emissions nuclear resources fund that shall be in the custody of the treasurer of state but shall not be part of the state treasury. The fund shall consist of all money collected by the public utilities commission from purchases of zero-emissions nuclear credits. The amounts deposited into the fund shall be used to pay the credit purchase price to the resources that generated the credits. All investment earnings from the fund shall be transferred by the treasurer to the general revenue fund in the state treasury.

Section 2. That existing section 4928.02 of the Revised Code is hereby repealed.

From: Wolf, Jimmy
Sent: Friday, February 24, 2017 10:23 AM
To: 'Seitz, William'
Subject: ZEN
Attachments: Revisions to I_132_0723 (ZEN) (04195210x7A241).docx

Ty Pine sent over a new revision of the ZEN bill which is attached.

Jimmy Wolf
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Reviewed As To Form By
Legislative Service Commission

I_ 132_0723

132nd General Assembly
Regular Session

. B. No. 2017-2018

A BILL

To amend section 4928.02 and to enact sections 4928.75, 4928.751, 4928.752, 4928.753, 4928.754, 4928.755, 4928.756, 4928.757, 4928.7510, 4928.7511, 4928.7513, 4928.7514, 4928.7515, 4928.7520, 4928.7521, 4928.7522, 4928.7523, 4928.7524, 4928.7525, 4928.7526, 4928.7527, 4928.7530, and 4928.7532 of the Revised Code regarding the zero-emissions nuclear resource program.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF OHIO:

Section 1. That section 4928.02 be amended and sections 4928.75, 4928.751, 4928.752, 4928.753, 4928.754, 4928.755, 4928.756, 4928.757, 4928.7510, 4928.7511, 4928.7513, 4928.7514, 4928.7515, 4928.7520, 4928.7521, 4928.7522, 4928.7523, 4928.7524, 4928.7525, 4928.7526, 4928.7527, 4928.7530, and 4928.7532 of the Revised Code be enacted to read as follows:

Sec. 4928.02. It is the policy of this state to do the following throughout this state:

(A) Ensure the availability to consumers of adequate, reliable, safe, efficient, nondiscriminatory, and reasonably priced retail electric service;

(B) Ensure the availability of unbundled and comparable retail electric service that provides consumers with the supplier, price, terms, conditions, and quality options they elect to meet their respective needs;

(C) Ensure diversity of ~~electricity~~ the following:

(1) Electricity supplies and suppliers, by giving consumers effective choices over the selection of those supplies and suppliers and by encouraging the development of distributed and small generation facilities;

(2) Resources, including zero-emissions nuclear resources as defined in section 4928.75 of the Revised Code, that provide fuel diversity and environmental and other benefits.

(D) Encourage innovation and market access for cost-effective supply- and demand-side retail electric service including, but not limited to, demand-side management, time-differentiated pricing, waste energy recovery systems, smart grid programs, and implementation of advanced metering infrastructure;

(E) Encourage cost-effective and efficient access to information regarding the operation of the transmission and distribution systems of electric utilities in order to promote both effective customer choice of retail electric service and the development of performance standards and targets for service quality for all consumers, including annual achievement reports written in plain language;

(F) Ensure that an electric utility's transmission and distribution systems are available to a customer-generator or owner of distributed generation, so that the customer-generator or owner can market and deliver the electricity it produces;

(G) Recognize the continuing emergence of competitive electricity markets through the development and implementation of flexible regulatory treatment, while simultaneously recognizing the need for nuclear energy resources, as defined in section 4928.75 of the Revised Code, and resources that provide fuel diversity and environmental and other benefits;

(H) Ensure effective competition in the provision of retail electric service by avoiding anticompetitive subsidies flowing from a noncompetitive retail electric service to a competitive retail electric service or to a product or service other than retail electric service, and vice versa, including by prohibiting the recovery of any generation-related costs through distribution or transmission rates;

(I) Ensure retail electric service consumers protection against unreasonable sales practices, market deficiencies, and market power;

(J) Provide coherent, transparent means of giving appropriate incentives to technologies that can adapt successfully to potential environmental mandates;

(K) Encourage implementation of distributed generation across customer classes through regular review and updating of administrative rules governing critical issues such as, but not limited to, interconnection standards, standby charges, and net metering;

(L) Protect at-risk populations, including, but not limited to, when considering the implementation of any new advanced energy or renewable energy resource;

(M) Encourage the education of small business owners in this state regarding the use of, and encourage the use of, energy efficiency programs and alternative energy resources in their businesses;

(N) Facilitate the state's effectiveness in the global economy.

In carrying out this policy, the commission shall consider rules as they apply to the costs of electric distribution infrastructure, including, but not limited to, line extensions, for the purpose of development in this state.

Sec. 4928.75. As used in sections 4928.75 to 4928.7532 of the Revised Code:

(A) "Nuclear energy resource" means an electric generation unit fueled, in whole or in part, by nuclear power and licensed by the nuclear regulatory commission.

(B) "PJM" means the PJM Interconnection, L.L.C., or its successor.

(C) "Zero-emissions nuclear credit" means the attributes associated with one megawatt hour of electricity generated by a zero-emissions nuclear resource.

(D) "Zero-emissions nuclear resource" means a nuclear energy resource that meets the criteria of section 4928.754 of the Revised Code.

Sec. 4928.751. There is hereby created a zero-emissions nuclear resource program to enable the state to meet its policy goals and requirements under which zero-emissions nuclear credits are purchased by electric distribution utilities to provide long-term energy security and environmental and other benefits to the region and to retail electric service customers in the state. An electric distribution utility in this state that has a zero-emissions nuclear resource located within its certified territory shall participate in the program. All electric distribution utilities in the same holding company system shall participate jointly and shall allocate costs across all classes of each participating utility's customers.

Sec. 4928.752. The zero-emissions nuclear resource program shall operate for successive two-year program periods beginning with the initial program period commencing on the effective date of this section.

Sec. 4928.753. To provide zero-emissions nuclear credits under the zero-emissions nuclear program, an entity that owns or operates a nuclear energy resource shall file with the public utilities commission a written notice verifying that the resource meets the criteria under section 4928.754 of the Revised Code. The entity shall file the written notice not later than ninety days after the commencement of the initial program period or, if the resource has not yet qualified, not later than prior to the commencement of a subsequent program period.

Sec. 4928.754. A nuclear energy resource that satisfies all of the following criteria is a zero-emissions nuclear resource for purposes of zero-emissions nuclear credits:

(A) The resource is interconnected within the transmission system of PJM.

(B) PJM has determined~~s~~ the resource is transmission deliverable under the metrics by which PJM calculates deliverability for purposes of capacity planning on a round-the-clock baseload basis into the transmission zone or zones of electric distribution utilities participating in the zero-emissions nuclear resource program under sections 4928.75 to 4928.7532 of the Revised Code.

(C)(1) For in-state nuclear energy resources:

(a~~1~~) The resource has benefited the air quality profile of the state more than the predominant electric generation source with similar capacity and baseload characteristics as the resource as of the time the resource commenced operation.

(b~~2~~) All of the following could occur if the resource ceased operation and its capacity were replaced at the same location by the then predominant electric generation source with similar capacity and baseload characteristics as the resource:

(i~~a~~) The ability of the state, or region of the state, to maintain or decrease existing intensity of fine particulate matter or to comply with one or more state or federal air pollution control programs, standards, or goals is reduced.

(ii~~b~~) The carbon dioxide emissions intensity of the state is negatively impacted.

(iii~~c~~) The ability of the state to maintain or decrease existing intensity of carbon monoxide, lead, ground-level ozone, particulate matter, nitrogen oxide, or sulfur dioxide is negatively impacted.

(2~~D~~) For all other nuclear energy resources, each such resource is shown to provide no less than the same level of environmental benefits to the state as nuclear energy resources located within the state, pursuant to the requirements in division (C)(1) of this section.

(DE) The resource, on or after January 1, 2017:

(1) Did not receive from another state tax exemptions, deferrals, exclusions, allowances, payments, credits, deductions, or reimbursements calculated in whole or in part using a metric that provides value for emissions not produced by the resource;

(2) Is not wholly owned by a municipal or cooperative corporation or a group, association, or consortium of those corporations; or

(3) Did not, during a program period described in section 4928.752 of the Revised Code, recover some or all of the capital or operating costs of the resource through rates regulated by a state.

Sec. 4928.755. With respect to a written notice filed under section 4928.753 of the Revised Code relating to a nuclear energy resource located in this state, any interested person may file comments with the public utilities commission within twenty days after the written notice was filed.

Sec. 4928.756. An entity that owns or operates a nuclear energy resource may file with the public utilities commission a response to any comment made under section 4928.755 of the Revised Code, not later than ten days after the comment was filed.

Sec. 4928.757. Not later than fifty days after the filing of a written notice under section 4928.753 of the Revised Code relating to a nuclear energy resource located in this state, the public utilities commission shall designate a resource that satisfies the criteria in section 4928.754 of the Revised Code as a zero-emissions nuclear resource and issue an order consistent with that designation . If the commission does not issue an order in the time required by this section, the resource shall be deemed to be a zero-emissions nuclear resource.

Sec. 4928.7510. With respect to a written notice filed under section 4928.753 of the Revised Code ~~by~~ relating to a nuclear energy resource described in division (C~~D~~)(2) of section 4928.754 of the Revised Code, the resource shall submit with its written notice an environmental study showing that the resource meets the criteria under section 4928.754 of the Revised Code.

Sec. 4928.7511. The public utilities commission, under a procedure it adopts, shall determine and issue the appropriate order regarding whether a nuclear energy resource described in division (C~~D~~)(2) of section 4928.754 of the Revised Code ~~qualifies under~~ satisfies the criteria in section 4928.754 of the Revised Code as a zero-emissions nuclear resource. At minimum, the adopted procedure shall provide the opportunity for comment and response similar to the opportunities described under sections 4928.755 and 4928.756 of the Revised Code.

Sec. 4928.7513. A nuclear energy resource determined under section 4928.757 or 4928.7511 of the Revised Code to be a zero-emissions nuclear resource shall continue to be considered such a resource for all successive program periods as long as the resource continues to meet the criteria of divisions (A), (B), and (D~~E~~) of section 4928.754 of the Revised Code.

Sec. 4928.7514. Zero-emission nuclear resources shall provide zero-emissions nuclear credits for the zero-emissions nuclear resource program. Not later than thirty days before a program period commences, each zero-emissions nuclear resource shall confirm with the public utilities commission its intent to continue to commit its credits under the program.

Sec. 4928.7515. All financial statements, financial data, and trade secrets submitted to or received by the public utilities commission for purposes of satisfying the criteria as a zero-emissions nuclear resource and any information taken for any purpose from the statements, data, or trade secrets are not public records under section 149.43 of the Revised Code.

Sec. 4928.7520. Not later than sixty days after the initial program period commences and not later than thirty days before a subsequent program period commences, the public utilities commission shall set the price for zero-emissions nuclear credits applicable for the period. For the initial program period the price shall be seventeen dollars per credit. For each subsequent program period, that price shall be adjusted for inflation using the gross domestic product implicit price deflator as published by the United States department of commerce, bureau of economic analysis, index numbers 2007=100.

Sec. 4928.7521. At the same time the public utilities commission sets the price for zero-emissions nuclear credits, the commission shall determine the maximum number of credits to be purchased by electric distribution utilities during the program period. The amount the commission sets shall equal one-third of the total "Total End User Consumption" in megawatt-hours over the previous two calendar years as shown on PUCO Form D1 of each participating electric distribution utility's most recently filed long-term forecast report.

Sec. 4928.7522. Not later than seven days following the close of each quarter of a program period, each zero-emissions nuclear resource shall transfer all of its zero-emissions nuclear credits generated that quarter to the public utilities commission, which shall hold the credits for the sole purpose of administering the program.

Sec. 4928.7523. ~~Within~~ Not later than seven days ~~of~~ after the zero-emissions nuclear resource transfers~~ring~~ its credits, the public utilities commission shall notify each participating electric distribution utility of the total amount of zero-emissions nuclear credits received from zero-emissions nuclear resources.

Sec. 4928.7524. All participating electric distribution utilities shall purchase all zero-emissions nuclear credits transferred to the public utilities commission up to the maximum number of credits determined under section 4928.7521 of the Revised Code. The commission shall allocate the amounts to be purchased by each participating utility based on the total "Total End User Consumption" in megawatt-hours over the previous two calendar years as shown on PUCO Form D1 of each participating electric distribution utility's most recently filed long-term forecast report . Each participating electric distribution utility shall pay the credit price for each credit purchased.

Sec. 4928.7525. The public utilities commission shall deposit all payments for credits into the zero-emissions nuclear resources fund created under section 4928.7532 of the Revised Code.

Sec. 4928.7526. ~~Within~~ Not later than seven days ~~of~~ after receipt of utility payment, the public utilities commission shall pay to each zero-emissions nuclear resource the amount paid for each of the resource's zero-emissions nuclear credits purchased from the zero-emissions nuclear resources fund.

Sec. 4928.7527. Credits purchased by participating electric distribution utilities may not be transferred, sold, or assigned to any other entity.

Sec. 4928.7530. Each participating electric distribution utility shall recover any and all direct and indirect costs for the purchase of zero-emissions nuclear credits through a nonbypassable rider charged to all of its retail electric service customers, which rider shall be established within sixty days from the effective date of this section.

Sec. 4928.7532. There is hereby created the zero-emissions nuclear resources fund that shall be in the custody of the treasurer of state but shall not be part of the state treasury. The fund shall consist of all money collected by the public utilities commission from purchases of zero-emissions nuclear credits. The amounts deposited into the fund shall be used to pay the credit purchase price to the resources that generated the credits. All investment earnings from the fund shall be transferred by the treasurer to the general revenue fund in the state treasury.

Section 2. That existing section 4928.02 of the Revised Code is hereby repealed.

Rep30

From: Seitz, William <william.seitz@dinsmore.com>
Sent: Friday, February 24, 2017 11:34 AM
To: Wolf, Jimmy
Subject: RE: ZEN

Are the only changes in blue? None of them address my list; were these intended to address LSC's nitpicky concerns?

From: Jimmy.Wolf@ohiohouse.gov [mailto:Jimmy.Wolf@ohiohouse.gov]
Sent: Friday, February 24, 2017 10:23 AM
To: Seitz, William
Subject: ZEN

Ty Pine sent over a new revision of the ZEN bill which is attached.

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Rep30

From: Rep30
Sent: Friday, February 24, 2017 11:41 AM
To: Lehman, Ryan; Kasych, Shawn; Rep89; Rep93
Cc: Snider, Grace; Bizjak, Joe
Subject: FW: Interesting Read - FE Earnings call from 2/22
Attachments: FE Earnings Call 022217w-highlight.pdf

Interesting perspective.

From: Snitchler, Todd A [mailto:tasnitchler@vorysadvisors.com]
Sent: Wednesday, February 22, 2017 3:45 PM
To: Rep30 <Rep30@ohiohouse.gov>
Subject: Interesting Read - FE Earnings call from 2/22

Rep. Seitz,

While I gather the other data you requested on new CCGT plant in service dates, I wanted to share a transcript from this morning's FE earnings call with investors.

I have highlighted a few items in particular re: ZEC proposals. FE President Jones says, unequivocally, don't do these ZENs for FE as it likely won't be the long term owner/operator of the plants. Who are the ZECs for then? Are Ohio ratepayers are being asked to temporarily support an Ohio utility or its unregulated affiliate and pay significant out of market charges to support plants that are soon to be owned by some other "out of state" company?

Much of the discussion around PPAs and now ZECs has been about "helping FE" or "saving a struggling Ohio company". The explanation to investors sounds like a request to increase the value of an asset to improve the FE bottom line and then they sell it off and leave Ohio's families and businesses paying the bill. This is quite different from the story being told to you and your colleagues around Capital Square.

It seems to me that this data point is particularly relevant as interested parties talk about the reasons why state intervention may be necessary, as some believe. I am happy to discuss at your convenience.

Best –

TAS

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Corrected Transcript

22-Feb-2017

FirstEnergy Corp. (FE)

Q4 2016 Earnings Call

CORPORATE PARTICIPANTS

Meghan Geiger Beringer
Director-Investor Relations, FirstEnergy Corp.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

Leila L. Vespoli
Executive Vice President, Corporate Strategy, Regulatory Affairs, and Chief Legal Officer, FirstEnergy Corp.

K. Jon Taylor
Chief Accounting Officer, VP & Controller, FirstEnergy Corp.

Steven R. Staub
Treasurer & Vice President, FirstEnergy Corp.

OTHER PARTICIPANTS

Stephen Calder Byrd
Analyst, Morgan Stanley & Co. LLC

Julien Dumoulin-Smith
Analyst, UBS Securities LLC

Paul Patterson
Analyst, Glenrock Associates LLC

Praful Mehta
Analyst, Citigroup Global Markets, Inc.

Jonathan Philip Arnold
Analyst, Deutsche Bank Securities, Inc.

Gregg Orrill
Analyst, Barclays Capital, Inc.

Angie Storozynski
Analyst, Macquarie Capital (USA), Inc.

Michael Lapides
Analyst, Goldman Sachs & Co.

Anthony C. Crowdell
Analyst, Jefferies LLC

Charles Fishman
Analyst, Morningstar, Inc.

Larry Liou
Analyst, JPMorgan Securities LLC

MANAGEMENT DISCUSSION SECTION

Operator: Greetings and welcome to the FirstEnergy Corp.'s Fourth Quarter 2016 Earnings Conference Call. At this time, all participants are in a listen-only mode. A brief question-and-answer session will follow the formal presentation. [Operator Instructions] As a reminder, this conference is being recorded.

It is now my pleasure to introduce your host, Meghan Beringer, Director, Investor Relations for FirstEnergy Corp. Thank you, Ms. Beringer. You may begin.

Meghan Geiger Beringer

Director-Investor Relations, FirstEnergy Corp.

Thank you, Rob, and good morning. Welcome to FirstEnergy's fourth quarter earnings call. Today, we will make various forward-looking statements regarding revenues, earnings, performance, strategies and prospects. These statements are based on current expectations and are subject to risk and uncertainties. Factors that could cause actual results to differ materially from those indicated by such statements can be found on the Investors section of our website under the Earnings Information link and in our SEC filings.

We will also discuss certain non-GAAP financial measures. Reconciliations between GAAP and non-GAAP financial measures can be found on the FirstEnergy Investor Relations website along with the PowerPoint presentation, which supports today's discussion.

Participants in today's call include Chuck Jones, President and Chief Executive Officer; Jim Pearson, Executive Vice President and Chief Financial Officer; Leila Vespoli, Executive Vice President, Corporate Strategy, Regulatory Affairs and Chief Legal Officer; Jon Taylor, Vice President, Controller and Chief Accounting Officer; Steve Staub, Vice President and Treasurer; and Irene Prezelj, Vice President, Investor Relations.

Now, I'd like to turn the call over to Chuck Jones.

Charles E. Jones

President, Chief Executive Officer & Director, FirstEnergy Corp.

Thanks, Meghan. Good morning, everyone. Thanks for joining us. 2016 was a successful and transformative year for FirstEnergy. Our long list of significant accomplishments includes achieving the operating earnings targets that we outlined to the financial community, making strong progress on our growth strategy, and launching a plan that supports our transition to a fully-regulated company. During today's call, Jim and I will review our results and recent developments, and provide an update on the strategic review of our Competitive business. While we have a great deal to cover, we still expect to have plenty of time for your questions.

For the year, we reported GAAP loss of $14.49 per share as a result of impairments in our Competitive business, and I'll discuss those more in a few minutes. On an operating earnings basis, we achieved results of $2.63 per share for 2016, which is in line with the revised guidance we provided in November, and for the second year in a row, higher than our original operating earnings guidance for the year. We are proud of the track record we are building to consistently deliver on the commitments we've made.

Like to briefly outline some of our major accomplishments. First, we achieved outstanding operational performance across our company in 2016 with excellent results in distribution and transmission service reliability and plant operations. I'm particularly pleased with our very strong safety results. In 2016, our employees achieved the best safety performance in our company's history. This is the second straight year of setting a new record for safety performance, and I believe this reflects the strong safety culture across our entire organization.

On the financial front, we contributed $500 million worth of stock into our qualified pension plan in December. Coupled with cash contributions totaling $382 million earlier in the year, this more than satisfies our 2016 pension funding obligations, and took pension funding obligations off the table for 2017. We continued our focus on costs through our cash flow improvement plan, exceeding the original targets we laid out with incremental fuel and capital savings in our Competitive business.

In addition, we successfully restructured our credit facilities to provide the necessary financial flexibility to become a fully regulated company. FirstEnergy Corporation and our regulated subsidiaries entered into three new five-year syndicated credit facilities in December. These replace facilities that were set to expire in 2019 and increased the credit available to our 10 distribution companies.

We've also had very successful results from our regulated growth initiatives. In our Transmission business, we completed the transfer of Penelec and Met-Ed transmission assets into our new MAIT subsidiary late last month, following approval from both FERC and the Pennsylvania Public Utilities Commission. While formula rates for both JCP&L and MAIT remain pending at FERC, we requested implementation effective January 1 and February 1 for JCPL (sic) [JCP&L] (5:38) and MAIT, respectively. We're on track for $1 billion in investments and are energizing the future growth initiative in 2017 with a majority of that spend taking place where we have formula rates.

This is the last year of our initial $4.2 billion investment. In November, we announced the continuation of the program with $3.2 billion to $4.8 billion in transmission investments planned in 2018 through 2021. We also announced our plan to issue up to $500 million of incremental equity annually in 2017 through 2019 to help fund these investments.

Turning to the Distribution business, we achieve resolution in several regulatory proceedings that will support continued investment in safe and reliable service for our customers. In Pennsylvania, we received approval of rates case settlements for our four operating companies with an expected Distribution revenue increase of approximately $290 million annually. In New Jersey, the approved settlement for JCP&L provides for an annual Distribution revenue increase of $80 million. And in Ohio, we will collect approximately $200 million annually for at least three years and up to five under the Ohio Distribution Modernization Rider. The new rates and the Ohio Rider all went into effect last month.

The combination of successful outcomes in these state proceedings, coupled with our cost savings initiatives, has helped us begin improving our credit metrics. We achieved FFO to debt levels in 2016 which exceeded the minimum thresholds established by both Moody's and S&P. We also reengaged coverage with Fitch and they recently began rating all of our entities.

In December, Mon Power issued an RFP to address the generation shortfall identified in its Integrated Resource Plan, along with a second RFP to sell its interest in the Bath County Pumped Storage Project. RFP for the Integrated Resource Plan seeks a combination of approximately 1,300 megawatts of unforced capacity generation and up to 100 megawatts of demand response. Bids were due on February 3.

Then Charles River Associates in their role as RFP manager began assessing each proposal to determine the best combination of value and reliability for the customers of Mon Power. The assessment includes cost factors, such as the expected customer impact, capacity availability, environmental considerations, and acquisition costs; as well as non-cost factors, such as West Virginia's preference for in-state fuel sources, location and ease of integration. We expect Mon Power to announce the results of both RFPs when it submits its regulatory filing to the West Virginia Public Service Commission and FERC in March.

Finally, in late 2016, we launched a strategic review of our Competitive Generation business to support our exit from that business by mid-2018. This very complex process is on track and we're very pleased with the progress we have made in the short time since our announcement. In November, FES brought on two independent board members and three new employee board members, who reviewed and authorized FES's entry into a new two-year secured credit facility with FirstEnergy that provides liquidity support through 2018. FirstEnergy and FES have both engaged legal and financial advisors to help guide this transition.

We're working on separating FES from the unregulated money pool, and as of January 31, FES, its operating subsidiaries and FENOC, in aggregate, had a money pool investment of $2 million. At this time, FES hasn't drawn on the secured credit facility that is in place with FirstEnergy, but we would expect them to use that facility in the future.

The decision to assess strategic options and our intent to exit the Competitive business by mid-2018 made it necessary to reduce the carrying value of certain of our generating assets to their fair market value, which resulted in the non-cash free tax impairment charges of $9.2 billion in the fourth quarter. I'll note that we remain in compliance with financial covenants in our bank credit facilities as the majority of this after-tax charge is excluded from our covenant calculations of debt to total capitalization.

These impairments, together with second quarter asset impairment and plant exit costs, primarily associated with Bay Shore, Sammis Units 1 through 4, and the goodwill at our Competitive business totaled $16.67 per share. While these are not the kind of results anyone likes to report, writing down the majority of our Competitive Generation assets was a necessary step towards our exit of Competitive Generation, regardless of which path we ultimately take. And it's an important step to more clearly reflect our business in 2017 and beyond.

We continue to assess and evaluate a number of strategic alternatives for our companies – for our Competitive business, including asset sales, legislative or regulatory initiatives for generation that recognizes environmental or energy security benefits, alternatives for our retail business and financial restructuring.

In January, we announced an agreement to sell 1,572 megawatts of gas and hydroelectric generation for $925 million in an all-cash deal, with net proceeds expected to exceed $300 million after we repay debt and associated make-whole call premiums. This includes the Springdale, Chambersburg, Gans and Hunlock gas units in Pennsylvania, as well as the competitive portion of our Bath Hydro unit in Virginia, which are all part of our Allegheny Energy Supply subsidiary. We expect the transaction to close in the third quarter, subject to the satisfaction of a number of regulatory approvals and consents from third parties.

We continue to explore options for the sale of our West Lorain combined cycle facility and the Buchanan natural gas unit. Otherwise, while the potential of additional generating unit sales or deactivations remains on the table, we do not expect near-term developments in those areas.

In West Virginia, our Allegheny Energy Supply subsidiary offered its 1,300 megawatt Pleasants plant into the Mon Power RFP earlier this month for approximately $195 million or $150 per KW. As I mentioned earlier, Mon Power is expected to announce the results of that RFP next month.

In Ohio, we have had meaningful dialog with our fellow utilities and with legislators on solutions that can help ensure Ohio's future energy security. Our top priority is the preservation of our two nuclear plants in the state, and legislation for zero-emission nuclear program is expected to be introduced soon.

The ZEN program is intended to give state lawmakers greater control and flexibility to preserve valuable nuclear generation. We believe this legislation would preserve not only zero-emission assets, but jobs, economic growth, fuel diversity, price stability, and reliability and grid security for the region. We are advocating for Ohio's support for its two nuclear plants, even though the likely outcome is that FirstEnergy won't be the long-term owner of these assets. We are optimistic given these discussions we've had so far, and we'll keep you posted as this process unfolds.

On a related topic, as you may know, the Nuclear Regulatory Commission typically relies on parental support agreements to provide additional assurance that U.S. merchant nuclear plants have the financial resources to maintain safe operations, particularly in the event of an extraordinary situation.

In addition to the $500 million credit facility provided to FES by FirstEnergy that provides for ordinary operating liquidity needs, FirstEnergy is now working with FES to establish conditional credit support on terms and conditions to be agreed upon for the $400 million FES parental support agreement that is currently in place, benefiting FE Nuclear Generation. As always, the continued safe operation of these nuclear assets is of utmost importance and is consistent with our pursuit of environmental credits for the assets through a ZEN program.

Moving back to our review of the Competitive business, I'd like to add that we may also explore the possibility of engaging creditors to restructure debt at FES. And as we discussed, there remains the possibility that FES and potentially FENOC may seek bankruptcy protection, although no such decision has been made. This initial phase of our review has been productive and we will continue sharing updates with you as we move forward. We remain committed to implementing our exit from Competitive Generation by mid-2018 to complete our transformation into a regulated company.

While we're speaking of generation, we received numerous questions about Bruce Mansfield's operating status last week. So I wanted to clear up some confusion. First, the new dewatering facility is in place and it is working as designed. We have had some of the normal growing pains with obtaining the right consistency for the byproducts at the third-party disposal site; however, we are working with a contractor and believe we're on track to resolve that issue. All three units at Mansfield are operational, but they are currently on economic reserve due to low power prices, consistent with our normal dispatch strategy.

Before I turn it over to Jim, I'll spend a minute reviewing our expectations for 2017. As we announced yesterday, we're raising operating earnings guidance for the year. This primarily reflects improvements at our Competitive business related to the significant reduction in depreciation expense resulting from the fourth quarter impairment, somewhat offset by advisory costs and the commodity margin impact of the proposed asset sale.

Our GAAP earnings forecast is now $2.47 to $2.77 per share. Operating earnings guidance has been raised to $2.70 to $3.00 per share from the previous range of $2.55 to $2.85 per share that we announced at EEI. In our regulated businesses, we continue to anticipate a compound annual growth rate of 4% to 6% from our 2016 weather-adjusted base, or 7% to 9%, when including the Ohio Distribution Modernization Rider through 2019. We will seek incremental opportunities for growth in our regulated businesses in the next few years.

Again, we have much to be proud of in 2016 from solid operating results to our operating performance, and the progress we are making towards our goals. In 2017, we'll remain fully focused on positioning the company for stable, predictable and customer service-oriented growth that will benefit customers, employees and shareholders.

Now, I'll turn the call over to Jim for a review of the quarter.

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

Thanks, Chuck, and good morning, everyone. As always, detailed information about the quarter can be found in the consolidated report, which was posted to our website yesterday afternoon. We also welcome your questions during the Q&A session or following the call.

As Chuck explained, the impairment of our competitive assets resulted in a fourth quarter GAAP charge of $13.54, and this drove our GAAP loss of $13.44 per share in the fourth quarter, and $14.49 per share for the full year. A full list of special items can be found in the consolidated report.

Operating earnings were $0.38 per share in the fourth quarter and $2.63 per share for the year. As Chuck indicated, these results were stronger than our original estimates and in line with our revised operating earnings guidance.

In our Distribution business, fourth quarter deliveries increased 4% overall compared to the same period in 2015 as a result of higher weather-related usage and stronger commercial and industrial demand. While heating degree days were 26% higher than the fourth quarter of 2015, they were 9% below normal, and this milder-than-normal weather impacted our fourth quarter results as compared to our guidance.

Fourth quarter 2016 residential deliveries increased 8% compared to last year and were flat on a weather-adjusted basis. Commercial deliveries were up 3% or 1% when adjusted for weather. In the industrial sector, deliveries increased 1.8%, driven primarily by higher usage in the shale and steel sectors. This follows a similar increase in the third quarter 2016, and we remain cautiously optimistic about these positive trends. We are forecasting a 3.5% increase in industrial deliveries in 2017.

Moving to our Transmission business, fourth quarter earnings increased by $0.02 per share due to higher revenues related to our Energizing the Future program. And in our corporate segment, results were primarily impacted by higher operating expenses and interest expenses.

In our Competitive business, operating earnings were slightly better than our expectations. Commodity margin decreased due to lower capacity revenues related to the capacity prices that went into effect in June as well as lower contract sales volume. This was partially offset by increased wholesale sales, lower capacity expense, and a lower fuel rate, as well as lower-than-anticipated operating expenses. The customer count for our Competitive business is currently about 1.1 million down from 1.6 million.

In 2016, our contract sales were 53 million megawatt hours with 15 million megawatt hours being sold in the wholesale spot market. On an annual basis, we currently have about 70 million to 75 million megawatt hours to sell, decreasing to 65 million to 70 million megawatt hours once we complete the gas and hydro asset sale.

As we carefully manage our collateral exposure at FES in light of its credit quality, we are closing out certain forward financial hedges we made for 2017 and 2018. This will reduce the committed sales we have and increase our open position for spot sales going forward. As a result, we expect contract sales to total 40 million megawatt hours in 2017 and 2018 with the remainder sold in the spot market.

Before I open the call to your questions, I'll spend a minute going over potential implications of some of the tax reform proposals that have been getting quite a bit of attention lately. We have been very engaged with others in our industry to work toward an outcome that would minimize any negative impacts. With ideas still percolating from the House, the Senate, and the President, it is too early to speculate on the details of an eventual tax reform proposal. But based on the blueprint that was released by the House last year, we can give you a sense of how that tax proposal might impact FirstEnergy.

Any decrease in the effective tax rate at the utilities could result in lower rates for customers, which would flow through to our FFO given that we aren't a federal cash taxpayer. In addition, since we have about $8 billion of holding company debt between FirstEnergy Corp. and FET, the loss of interest deductibility would disallow approximately $300 million of interest expense, which would negatively impact earnings by at least $0.20 per share.

Finally, with 100% bonus depreciation, we would not anticipate being a federal cash taxpayer in the near future. Again, we are working closely with others in our industry to educate Congressional leaders about the importance of interest deductibility for companies like ours. We do support sensible tax reforms which would ultimately benefit the overall economy and industries in our service territory, and we will remain focused on this important and evolving legislation.

As Chuck said, 2016 was a very productive year for FirstEnergy and we are pleased with our progress on our regulated growth strategy. We remain committed to positioning the company for stable, predictable and customer service-oriented growth to benefit customers, employees and shareholders.

Now, I'd like to open the call for your questions.

QUESTION AND ANSWER SECTION

Operator: Thank you. We will now be conducting a question-and-answer session. [Operator Instructions] Our first question comes from Mr. Stephen Byrd with Morgan Stanley. Please proceed with your question.

Stephen Calder Byrd
Analyst, Morgan Stanley & Co. LLC

Q

Hi. Good morning.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

Good morning.

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

Morning.

Stephen Calder Byrd
Analyst, Morgan Stanley & Co. LLC

Q

Wanted to discuss the zero-emission approach in Ohio, and just wanted to think about that in the context of potentially seeking bankruptcy protection. Would a success in Ohio preclude the need for bankruptcy protection or would it more likely simply allow the nuclear units to continue operating, but might not impact your overall decision about seeking bankruptcy protection for FES?

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

So, here's what I said in my prepared remarks, and I'll elaborate on it a little bit. I think that it is very important for the state of Ohio to look to the future and how they're going to provide for energy security, grid security, and not just from an electric perspective, the economic impact in terms of jobs and taxes and so forth that are associated with these two facilities. I've been very upfront with the legislators that I have met with personally to tell them don't do this for FirstEnergy because it's unlikely we're going to be the long-term owner operators of these assets.

So now, your second question on how that might enter into a bankruptcy? That decision is going to be ultimately made by the FES board. And the FES board's going to look at what impact that has at that point in time. I think, though, it's very unlikely. You saw what we did with the impairment on the assets. That leaves the book value of our FES business somewhere around $1.5 billion and we've already communicated what the secured and unsecured debt associated with that business is. I think it's highly unlikely we'll get the value of that business to a place where the book value is greater than the debt. So...

Stephen Calder Byrd
Analyst, Morgan Stanley & Co. LLC

Q

Understood. That makes sense.

Operator: Our next question comes from Mr. Julien Dumoulin-Smith with UBS. Please proceed with your question.

Julien Dumoulin-Smith
Analyst, UBS Securities LLC

Q

Hey. Good morning.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

Hi, Julien.

Julien Dumoulin-Smith
Analyst, UBS Securities LLC

Q

Hey. So, first quick question here a little bit on the numbers. Just in terms of reconciling FFO from the Competitive segment relative to adjusted EBITDA, obviously, adjusted EBITDA going down. But the FFO numbers are a little bit higher net-net versus the adjusted EBITDA. What's the reconciliation there? And also can you discuss – I imagine the bulk of the FFO is at the FES side of the CES business. To what extent should we kind of consider that as kind of a proxy for the FES cash flows, minus perhaps a little bit for the remaining coal asset on the [ph] other side of Pleasants (27:22)?

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

Let me take a shot at that, Julien, a lot of questions out there. Let me talk about the Competitive segment free cash flow. Let me start with that. It's up a little over $400 million. And what's driving that is the asset sale generated about $815 million. But then when you get into some other components, increased advisory fees are reducing it by about $90 million. The commodity margin is down about $95 million. That's associated with the sale of the AES assets. And also the cash receipts at the Competitive segments are down about $180 million. This is associated with the gain on the sale. So when I take that to the FirstEnergy level, the FFO is down about $200 million from the original guidance. And that's primarily the advisory fees that we're paying of about $90 million, as well as the reduced commodity margin, about a $95 million.

Julien Dumoulin-Smith
Analyst, UBS Securities LLC

Q

Got it. And then just reconciling adjusted EBITDA versus FFO?

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

Okay. When you look at the adjusted EBITDA, again, it's impacted primarily by the lower commodity margin of about $95 million as well as the advisory fees that were $90 million. So, those are the primary drivers there.

Julien Dumoulin-Smith
Analyst, UBS Securities LLC

Q

Got it. Okay. Fair enough. And then, the 10-K references a February 24 decision here on the coal litigation. Do you expect to 8-K that [ph] and/or (29:16) any further rollout of data points after that?

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

I don't think it references a February 24 decision. It says that that's the end of the initial phase of the hearing on whether or not – or where the liability is going to fall. Following that, the arbitration panel has time yet to then make their decision on liability. And then following that, there would be additional time, if there is liability, to determine what that liability would be. So we're...

Julien Dumoulin-Smith
Analyst, UBS Securities LLC

Q

Right.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

...several months, at least, away from knowing any damages, if there are to be damages, and a while away from knowing what the arbitrators decide on liability.

Julien Dumoulin-Smith
Analyst, UBS Securities LLC

Q

Great. Excellent. And just a last quick one, what was the earned ROE in Pennsylvania across the utilities in 2016? I know you disclosed it for 2015 here in the disclosures, but just to reconcile.

Leila L. Vespoli
Executive Vice President, Corporate Strategy, Regulatory Affairs, and Chief Legal Officer, FirstEnergy Corp.

A

As a result of our last rate case that settled, it was a black box, so there was no ROE.

Julien Dumoulin-Smith
Analyst, UBS Securities LLC

Q

Okay. All right. Fair enough. I'll follow it offline. Thank you, guys.

Operator: Our next question is from Mr. [ph] John Kiani with Cove Key Management (30:44). Please proceed with your question.

Q

Good morning.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

Morning.

Leila L. Vespoli
Executive Vice President, Corporate Strategy, Regulatory Affairs, and Chief Legal Officer, FirstEnergy Corp.

A

Morning.

Q

I'm trying to make sure I can reconcile the amount and add up the amount of support that FE Corp. is giving to FES, just wanted to see if I'm thinking about this correctly. Is the $400 million incremental – or additional credit support for the Nuclear Generation business that you disclosed in the K and on slide six of your deck, is that incremental to the $500 million secured revolver that you all put in place between the parent and FES and the $200 million additional credit support or LC facility as well? So, is the total $500 million plus $400 million plus $200 million, or how should I think about that, please?

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

So, let's take the $400 off to the side here for a second. There is an obligation under our agreements with the Nuclear Regulatory Commission to maintain $400 million of liquidity. That can be accomplished by liquidity or by a parental guarantee that we would backstop that liquidity. That is what we're working on.

That would only ever be exercised in the event of an extraordinary set of conditions resulting in all four of our nuclear reactors being offline for an extended period of time. Other than that, it's an insurance policy to the Nuclear Regulatory Commission, but there's not an opportunity for FES to draw down on that. And we're talking about three nuclear plants that are excellent operating nuclear plants. Well, at least, two that are at the high end and one at – I mean, they have run very, very well. So, the likelihood of all three sites and all four units being off for an extended period of time is very, very unlikely. But there is a requirement that we ensure that there is liquidity available under our agreements with the Nuclear Regulatory Commission. The $500 million you know about already. And then what was the – go ahead.

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

The $200 million, that was a guarantee on the surety bonds.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

Yes. So, those two are both additive.

Q

And that $200 million, is that where the LC is posted to the Pennsylvania Department of Environmental Protection for Little Blue Run? Is that correct?

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

Yeah, [ph] John (33:24). Yeah, that makes up about $169 million of the $200 million. That's right.

Q

Okay. And then, along the same lines of the nuclear support, in the hypothetical event of a FES or nuclear generation bankruptcy, who is ultimately liable for the Nuclear Decommissioning Trusts or any shortfalls or topping off that would need to be done at the – for the NDT? Is it FES? Or is it possible that FE Corp. could be required to guarantee it, because some of the licenses sit at FENOC? How should we think about that, please?

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

So, at the time that that would occur, the Nuclear Decommissioning Trusts would be funded at an appropriate level. And as long as those assets continue to run, would continue to get funded through the useful life of the plants. Ultimately, where that ends up, I believe, and I'm going to ask Leila to help me here, will be determined through a bankruptcy process, if there's a bankruptcy.

Leila L. Vespoli
Executive Vice President, Corporate Strategy, Regulatory Affairs, and Chief Legal Officer, FirstEnergy Corp.

A

So, just to add a little bit more detail, it's licensee owner that would be responsible. In our case, that's our nuclear gen-co. Right now, the NDTs, given the license duration, is fully-funded. So, FirstEnergy right now is not responsible; it is the license owner.

Q

Got it. And then, one more last question, please. How should we just think about or how would the board of FES or, just in general, how do you think about managing the liquidity of FES and the June 1 putable maturity that exists? I think the business generates a lot of its free cash flow typically towards the latter half of the year, but obviously that maturity is coming up sooner than that. So, how do you think about paying that maturity off or not in the context of how the free cash flow of the business is a little bit more back end of the year weighted, please?

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

So, in the context of the environment that we are operating in, that's not a question for FirstEnergy to answer. We have begun the process of separating FES and FirstEnergy when we put in place a separate board for FES. And that's a decision that the FES board is going to have to wrestle with as that date approaches.

Q

Got it. Thank you.

Operator: Our next question comes from Mr. Paul Patterson with Glenrock Associates. Please proceed with your question.

Paul Patterson
Analyst, Glenrock Associates LLC

Q

Good morning, guys.

Meghan Geiger Beringer
Director-Investor Relations, FirstEnergy Corp.

A

Good morning, Paul.

Paul Patterson
Analyst, Glenrock Associates LLC

Q

Just wanted to follow-up on [ph] John's (36:21) questions here, and I apologize for me being a little dense, but what is the total amount – the $400 million, you were very clear on, what – that's associated with all the four nuclear reactors being shut down. But what is the amount absent that that we should think about as being the parent's commitment to FES?

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

Yes, Paul, I would say the commitment to FES is a $500 million secured credit facility and that's secured by first mortgage bonds as well as a $200 million surety bond, which is also secured.

Paul Patterson
Analyst, Glenrock Associates LLC

Q

Okay.

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

Now, we have stated that FirstEnergy Corp. guarantees the entire amount of the pension and executive deferred compensation benefit plans, which we consider that, and always have considered that, an FE Corp. responsibility.

Paul Patterson
Analyst, Glenrock Associates LLC

Q

How much is that again?

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

That would be in the range of about $1 billion and that will change as the discount rates change as well as we make future contributions to the pension plan. And as Chuck said, we do not have any requirements to make any pension contributions in 2017. However, the period 2018 through 2021, we have about $1.8 billion of required pension contributions and about $700 million years thereafter.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

And aside from that, Paul, I think we've been very clear that we do not intend to support that business from FirstEnergy any longer.

Paul Patterson
Analyst, Glenrock Associates LLC

Q

Okay. And then the $400 million associated with the NRC commitment, you guys are looking for ZECs, and I guess what I'm wondering is, what – that would suggest that some of these plants or some of these reactors are at economic risk for closure. Am I wrong? So, how should we think about the need for ZECs, and if that weren't forthcoming, the likelihood that these reactors might have to shut down?

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

Well, I can't speak for prospective new owners of these four nuclear units. But I can tell you this. Running nuclear reactors isn't something that just anybody can do. And there is a significant amount of capital risk associated with that business, depending on how these assets, if there's a restructuring or a bankruptcy, where they ultimately go, and who ultimately owns them. I'm not sure people are going to be willing to take on the risk of even the next refueling outage, which is very expensive. So, I don't think there's any guarantee, absent some other support for these units, that they're going to keep running far into the future.

Paul Patterson
Analyst, Glenrock Associates LLC

Q

Okay. Thanks so much for the clarity.

Operator: Our next question comes from Mr. Praful Mehta with Citigroup. Please proceed with your question.

Praful Mehta
Analyst, Citigroup Global Markets, Inc.

Q

Thanks so much. Hi, guys.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

Hey, Praful.

Praful Mehta
Analyst, Citigroup Global Markets, Inc.

Q

So, on the nuclear point – Hi. So, on the nuclear point, just wanted to clarify, clearly, as you pointed out right, it's not – there's very few real buyers for nuclear assets in the market. And if there weren't ZECs, it's very unlikely that somebody steps up. Is that a fair way of understanding it that if there are no ZECs, what is the situation you're left with at that point? Because if there's no buyer for it, are you going to hold on – are you forced to hold on to the assets, or how should we think of that?

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

I think you should think about it this way. And I said earlier, these assets are now valued at somewhere around $1.5 billion. And that includes the nuclear fuel that they own. The debt is significantly higher than that. Absent something to raise the value of these units and make them attractive to a buyer, there's only one way for us to exit this business.

Praful Mehta
Analyst, Citigroup Global Markets, Inc.

Q

All right. Fair enough. Understood. And then secondly, I know that on the call you've mentioned some of the forward hedges of contracts that you had have been sold to minimize the support. Just want to understand, how is that treated? Like, is that treated as cash today? And is that flowing into EBITDA or cash flow? Where does that sit right now, the benefit of the sale of the forward contracts?

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

Yeah. Any benefit of unwinding of those forward contracts would flow through. I think the key component is, is it reduces the amount of collateral that we were required to have outstanding. So, that impacts our cash. And from the end of the year until where we are right now, we've reduced our collateral requirements by about $70 million.

Praful Mehta
Analyst, Citigroup Global Markets, Inc.

Q

Got you. No, I get the collateral requirement benefit. I'm just trying to figure out like just where does that sit, like, in your forecast or in your – is it in cash flow, free cash, but not in EBITDA, just so I understand where that does [indiscernible] (41:45)?

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

That's right. It would be in our cash flow. Any gains or losses associated with unwinding that would flow through to EBITDA, but that was not anything that would be material. Just the return of the cash would be part of our cash flow.

Praful Mehta
Analyst, Citigroup Global Markets, Inc.

Q

Got you. Thank you, guys.

Operator: Our next question is from Mr. Jonathan Arnold with Deutsche Bank. Please proceed with your question.

Jonathan Philip Arnold
Analyst, Deutsche Bank Securities, Inc.

Q

Yeah. Good morning, guys.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

Hey, Jon.

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

Good morning.

Jonathan Philip Arnold
Analyst, Deutsche Bank Securities, Inc.

Q

I had a question on the tax reform slide. Firstly, I just want to make sure I understand the $0.20 number that you referenced in the second bullet. Is that discrete to eliminating interest expense deductions at the hold-co? And am I correct that there'd be maybe another dime or so of exposure just from the lower tax rate on the parent company drag, or am I thinking about that wrong?

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

No, the way I would think about that, Jonathan, is we've got a little over $300 million in interest expense, and losing that 35% deductibility is about $100 million. And you divide it by your shares outstanding, that's how you get to the number we were talking about there. We did not try to quantify anything else at that point.

Jonathan Philip Arnold
Analyst, Deutsche Bank Securities, Inc.

Q

So, that was just the interest component of the parent company?

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

That's purely the interest component associated with that. That's correct.

Jonathan Philip Arnold
Analyst, Deutsche Bank Securities, Inc.

Q

Okay. And then as a follow-up to that, you obviously are flagging the risk to your FFO. Can you talk at all about potential implications given where you are on credit metrics at certain scenarios and maybe frame that a little more for us? And maybe what your priority responses might be if you needed to address it?

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

So, Jonathan, over the last couple of years, I have resisted trying to guess about what the future might be. And I think this whole tax reform issue is getting a lot of attention. Obviously, all of my other peers have commented on it. Whether or not it even happens in my mind is a question and what version happens. There's a different version that the President has than what the House has and what the Senate has, and we haven't even started to really run all those issues to ground.

I will tell you this. I've been attending EEI CEO meetings since 2001, and our industry coalesced around what the right answer for our industry is with regard to this, quicker on this issue than I have ever seen it happened. Several of my peers, who I have a tremendous amount of respect for, have already been to Washington DC to talk about the impact on our industry. And what they're trying to do with tax reform is inject money into the economy from a supply side to jumpstart this economy. Capital formation in our industry is not a problem. And this would actually have the inverse effect on our industry of what they're trying to accomplish.

So, I think our representatives felt like they had meaningful discussions. And so, I don't think there's any reason for us to be playing Doomsday at this point with regard to FirstEnergy or anyone else in this industry.

Jonathan Philip Arnold
Analyst, Deutsche Bank Securities, Inc.

Q

Would your inclination be to step up capital spend, I guess? Really, my question is whether – because others have emphasized that as being an offset. I felt you're not really doing that. Is the balance sheet a constraint on going down that path, or do you think you would be playing that card, too?

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

As I said, if you can tell me where it's going to end up, then we can tell you how we will react to it. But I'm not going to speculate about where it's going to end up or the impact it's going to have on what we do. I do think, obviously, if the House plan got accepted exactly as it's been promulgated so far, it would be a difficult issue for our industry to wrestle with.

Jonathan Philip Arnold
Analyst, Deutsche Bank Securities, Inc.

Q

All right. Thank you, Chuck.

Operator: Our next question is from Mr. Gregg Orrill with Barclays Bank. Please proceed with your question.

Gregg Orrill
Analyst, Barclays Capital, Inc.

Q

Yes. Thank you. I was wondering if you could talk about the taxes a little bit in terms of – you're not a cash taxpayer. Would it be possible to provide some guidance around how much of the benefits come from the NOL versus the taking of bonus depreciation, or at least, mechanically, give us a way to think about how both of those are impacting the cash flows?

K. Jon Taylor
Chief Accounting Officer, VP & Controller, FirstEnergy Corp.

A

Gregg, this is Jon. As you know, we're not a federal cash taxpayer today. The federal NOL as of the end of the year was $5 billion. So, we don't anticipate being a federal taxpayer for some time [ph] until (47:17) 2021, 2022. With respect to bonus, we've been dealing with some form of bonus depreciation for the last 5 to 10 years, and it's just something that we'll have to continue to look at.

Gregg Orrill
Analyst, Barclays Capital, Inc.

Q

Okay. Thank you.

Operator: The next question is from Ms. Angie Storozynski with Macquarie. Please proceed with your question.

Angie Storozynski
Analyst, Macquarie Capital (USA), Inc.

Q

Thank you. So, just one follow-up. So, I'm look at your financial plan slide from the fourth quarter fact-book and compare it against the EEI financial plan slide, and there's a small change in the wording. You are skipping the word for FE Corp. from your commitment to investment-grade credit rating. Is that intentional?

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

No.

Angie Storozynski
Analyst, Macquarie Capital (USA), Inc.

Q

Okay. That's all I have. Thank you.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

We are committed to investment-grade credit metrics at FE Corp.

Angie Storozynski
Analyst, Macquarie Capital (USA), Inc.

Q

Thank you.

Operator: Our next question comes from Mr. Michael Lapides with Goldman Sachs. Please proceed with your question.

Michael Lapides
Analyst, Goldman Sachs & Co.

Q

Hey, guys. Just I'm trying to get a proxy in thinking about those core regulated businesses at FE. Could you talk a little bit about what you're kind of expecting for growth on the Distribution side after 2017 and kind of compare that to growth on the Regulated Transmission side after 2017?

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

So, I would say, Michael, that what we're talking about is average annual growth for T&D of 4% to 6% per year. It would be ramped up a little bit in the earlier years because of the $200 million that we're receiving in Ohio. But obviously, that goes away at some point in time. And the way I think about it is this. We have numerous investment mechanisms through riders on the Distribution side of our company in Ohio and Pennsylvania, in particular. We have formula rates so far with ATSI and TrAILCo. And eventually, when we get another FERC Commissioner, we'll have one for MAIT and JCP&L.

So, we have the ability to move those funds around quite a bit between T&D and from state to state, et cetera, et cetera. And that gives us a lot of flexibility to address some of the reliability challenges that we see on our wire side of our company. And hopefully, at some point, some of the load growth that we're going to see on the wire side of our company. So, I think you should think about it in terms of the combination of the two, because we're going to move money around.

And I think, probably, in the very near future, we're going to start having dialog with the Ohio Commission on their grid modernization ideas. The extent we move forward there, that has the same return on equity as a transmission formula rate. So, that might move some money around there too. So there's just so many moving parts, I don't want to commit that it's going to be this for Transmission and this for Distribution. I'd rather just tell you, you can count on 4% to 6%. And as I said in my remarks, as we move a little bit farther down the tracks, we're going to look at ways to ramp that up over the next few years.

Michael Lapides
Analyst, Goldman Sachs & Co.

Q

Got it. And just curious on the Transmission – actually, before I ask that one, I want to come back to New Jersey, because you brought up JCP&L a little bit. Some of your peers in New Jersey have very different rate-making mechanisms than what JCP&L has. Just curious, where are you in the process, if anywhere, in talking with interveners and with the BPU about being able to adopt some of those same rate-making mechanisms for JCP&L?

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

Well, here's what I would say. We finally got a settlement on a rate case in New Jersey for the first time in the 15 years that we've owned JCP&L. That was a tremendous accomplishment on our part. We've had a lots of issues over there with four horrific storms, with some reliability issues early on in our ownership of JCP&L, with some union issues early on in our ownership of JCP&L. I think the settlement on this case was a big step forward for us in terms of our relationship in New Jersey. We would not have been able to get that accomplished if we didn't have solid relationships with our local elected officials that are much better than they ever were, with the BPU, and if we weren't performing over there. So, that's all a good place to be.

The paint isn't even dry on that settlement yet. It just went into effect last month. So, I think now is the time that over time we'll start having discussions with the BPU about what types of investments do they want to see and what mechanisms would they be interested in considering to do it. And more to come on that. But we're not having any right now.

Michael Lapides
Analyst, Goldman Sachs & Co.

Q

Got it. Thank you, Chuck. Much appreciated.

Operator: Our next question comes from Mr. Stephen Byrd with Morgan Stanley. Please proceed with your question.

Stephen Calder Byrd
Analyst, Morgan Stanley & Co. LLC

Q

Great. Thanks, and sorry for getting disconnected earlier. Just had one quick follow-up on the pension obligation at the Competitive business. I think I saw in the appendix that the net impact was about $700 million rather than $1 billion. But I just wanted to check on the magnitude of the liability, essentially, that the parent company has for that pension?

Steven R. Staub
Treasurer & Vice President, FirstEnergy Corp.

A

Steve, it's Steve Staub. It also takes into consideration the OPEB, which actually has a positive balance, so it nets out to about $700 million with respect to the pension and OPEB. And then, there's some other guarantees that Jim had mentioned specific to the executive deferred comp as well as some other small guarantees that add up to about $1 billion.

Stephen Calder Byrd
Analyst, Morgan Stanley & Co. LLC

Q

Great. Thank you very much. That's all I had.

Operator: Our next question comes from Mr. Anthony Crowdell with Jefferies. Please proceed with your question.

Anthony C. Crowdell
Analyst, Jefferies LLC

Q

Good morning. Just hopefully two quick questions. One, it appears that if a ZEC does get passed in Ohio, it's – I don't know if to use these words, unlikely that FE would be the owner of these assets, would that change FE's – would FE's intention – would you be inclined to own a nuclear plant if they were rate based?

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

I don't see any possibility that they're going to be rate based in the timeframe that I've committed to you that we're going to exit this Competitive Generation. So, I don't even think we should even be talking about that. We are going to work hard on this ZEN legislation, because I believe it's the right thing to do for the state of Ohio. I believe it's the right thing to do for these assets. I believe it's the right thing to do for our employees that work at these facilities. And I think it's the right thing to do for those communities that these big, huge manufacturing facilities are resident in. So, we're going to do it for all the right reasons, even though it's not going to, ultimately, I don't think, have any impact to the shareholder value of FirstEnergy over the long haul.

Anthony C. Crowdell
Analyst, Jefferies LLC

Q

Got it. And just lastly, a more housekeeping. On the fourth quarter – in fourth quarter results, corporate and other took a charge, I guess, for legacy coal plants. Any reason that was not at the op-cos?

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

Now, that...

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

Go ahead.

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

Those are assets that were former GPU assets. They are those manufactured gas plants. So, they don't really pertain to any of the other segments. That's why we've decided to keep them there. In fact, last year, we had a similar charge, but it was not in the fourth quarter. So, we've just been recording it in that segment.

Anthony C. Crowdell
Analyst, Jefferies LLC

Q

Great. Thanks for taking my questions.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

Okay, Stephen (sic) [Anthony] (56:04).

Operator: Our next question comes from Mr. Charles Fishman with Morningstar. Please proceed with your question.

Charles Fishman
Analyst, Morningstar, Inc.

Q

Thank you. Just a quick one on Transmission. You have a pretty tight earnings guidance range; $360 million to $380 million, yet there's a lot of uncertainty with respect to the timing and eventual outcome of some of these FERC-related cases and obviously with the vacancy on the FERC Commission. Does that range still take into account that uncertainty?

James F. Pearson
Executive Vice President and Chief Financial Officer, FirstEnergy Corp.

A

Charles, no, this is Jim. No, that range was based on having those rates go into effect January 1. At a time that we find out that something may be different than that, then we'll update that guidance. But what you're looking at is assuming that both MAIT and JCP&L go into effect at the beginning of the year.

Charles Fishman
Analyst, Morningstar, Inc.

Q

Okay. That's all I had. Thank you. Go ahead.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

I would add on to that, though, that inside a company that's as big as ours, with 10 regulated distribution companies and the transmission footprint that we have, we have the ability, in the interim until we have certainty on how we're going to get our returns through MAIT, to move some of our capital plan around into other formula rates. And I am not excusing our energy delivery leader from meeting his earnings targets this year just because that's been delayed.

Leila L. Vespoli
Executive Vice President, Corporate Strategy, Regulatory Affairs, and Chief Legal Officer, FirstEnergy Corp.

A

And, Charles, this is Leila. One point of clarification. So, staff does now have some delegated authority. And if they so – chose to do so, they could use that delegated authority and put the rates into effect January 1, February 1, subject to refund. So you don't need the [ph] FERC (57:56) Commissioner in order for that to happen is my point.

Charles Fishman
Analyst, Morningstar, Inc.

Q

Okay, Leila. So, these issues are staff – are at the level that the staff could make a decision?

Leila L. Vespoli
Executive Vice President, Corporate Strategy, Regulatory Affairs, and Chief Legal Officer, FirstEnergy Corp.

A

Correct. They're within staff domain at this point.

Charles Fishman
Analyst, Morningstar, Inc.

Q

Got it. Thank you. Yeah.

Operator: Our next question comes from Mr. Larry Liou with JPMorgan. Please proceed with your question.

Larry Liou
Analyst, JPMorgan Securities LLC

Q

Thanks for taking my call. I think in the beginning, you mentioned that you're in the process of separating FES from the unregulated money pool. Can you just expand on that a little? What are the kind of final hurdles there?

Steven R. Staub
Treasurer & Vice President, FirstEnergy Corp.

A

Yeah, it's Steve. We are in a process of doing that and we expect by the end of the first quarter to have FES, its subsidiaries, and FENOC operating under their own separate money pool. And so, we expect to have that in place shortly.

Larry Liou
Analyst, JPMorgan Securities LLC

Q

Okay. And then for the asset sale proceeds, I saw that in your presentation, you changed 2019 issuance guidance. Is that kind of telegraphing potential de-levering at the holding company?

Steven R. Staub
Treasurer & Vice President, FirstEnergy Corp.

A

Can you repeat your question, please?

Larry Liou
Analyst, JPMorgan Securities LLC

Q

In your EEI presentation, I think for 2019, you talked about refinancing the term loan that's due then. In the fourth quarter presentation, that's missing from the financing plan. So, is that kind of telegraphing that maybe you'll look to pay down that 2019 term loan?

Steven R. Staub
Treasurer & Vice President, FirstEnergy Corp.

A

So, the 2019 term loan was refinanced in December of 2016, in line with the restructuring of our credit facilities.

Larry Liou
Analyst, JPMorgan Securities LLC

Q

Okay. So, that just kind of pushed out everything.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

That's right.

Larry Liou
Analyst, JPMorgan Securities LLC

Q

And then, just the last one, Chuck, you mentioned West Lorain and Buchanan as potential asset sales. But also, you touched upon the alternatives for the retail business. Can you just talk a little bit more about what are you looking at there?

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

I can't talk about what we're looking at there, because again I think that is going to be the responsibility of the FES board to look at it. But I think what I said is, other than West Lorain and Buchanan, I don't think you should expect any announcements in the near future.

Larry Liou
Analyst, JPMorgan Securities LLC

Q

All right. Thank you.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

A

Okay.

Operator: There are no further questions at this time. I'd like to turn the floor back over to Mr. Pearson for closing comment.

Charles E. Jones
President, Chief Executive Officer & Director, FirstEnergy Corp.

All right. So, I'll take over for Jim, and just like to thank you all for your continued support of FirstEnergy, your questions. Look forward to seeing many of you in Boston next week. And then, Jim will see some of you in New York next week. So, thank you.

Operator: This concludes today's teleconference. You may disconnect your lines at this time. And thank you for your participation.

Rep30

From: Wolf, Jimmy
Sent: Friday, February 24, 2017 1:30 PM
To: 'Seitz, William'
Subject: RE: ZEN

The changes are what is underlined. These are intended to address LSC's nitpicky concerns, not the list I gave him yesterday. Would you like me to tell Ty that we are not going to submit another version to LSC unless the ideas you gave them are addressed in that version?

From: Seitz, William [mailto:william.seitz@dinsmore.com]
Sent: Friday, February 24, 2017 11:34 AM
To: Wolf, Jimmy
Subject: RE: ZEN

Are the only changes in blue? None of them address my list; were these intended to address LSC's nitpicky concerns?

From: Jimmy.Wolf@ohiohouse.gov [mailto:Jimmy.Wolf@ohiohouse.gov]
Sent: Friday, February 24, 2017 10:23 AM
To: Seitz, William
Subject: ZEN

Ty Pine sent over a new revision of the ZEN bill which is attached.

Jimmy Wolf
Legislative Aide to Representative Bill Seitz
30th House District
614.466.8258
Jimmy.wolf@ohiohouse.gov

Rep30

From: Seitz, William <william.seitz@dinsmore.com>
Sent: Friday, February 24, 2017 1:34 PM
To: Wolf, Jimmy
Subject: RE: ZEN

No , send these to LSC to keep the ball rolling, but at some point we need their thoughts on my list. Can you go online to see what is on the March 4 program for the Cincinnati Symphony, when it starts, and what their box office phone number is in case I decide to go?

From: Jimmy.Wolf@ohiohouse.gov [mailto:Jimmy.Wolf@ohiohouse.gov]
Sent: Friday, February 24, 2017 1:30 PM
To: Seitz, William
Subject: RE: ZEN

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Sent: Friday, February 24, 2017 10:23 AM
To: Seitz, William
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Ty Pine sent over a new revision of the ZEN bill which is attached.

Jimmy Wolf
Legislative Aide to Representative Bill Seitz
30th House District
614.466.8258
Jimmy.wolf@ohiohouse.gov

Wolf, Jimmy

From: Wolf, Jimmy
Sent: Friday, February 24, 2017 1:40 PM
To: Brian Malachowsky
Subject: ZEN Bill (0723)
Attachments: Revisions to I_132_0723 (ZEN) (04195210x7A241).docx

Good Afternoon Brian,

Representative Seitz is hoping that we could have bill draft 0723 (ZEN bill) redrafted using the version attached. It is my understanding that the attached addresses some of the concerns you raised in your cover letter that you sent along with the last draft.

As always, if you have any questions please feel free to contact me

Best,

Jimmy Wolf
Legislative Aide to Representative Bill Seitz
30th House District
614.466.8258
Jimmy.wolf@ohiohouse.gov

Rep30

From: Jamie Beier Grant <jbgrant@ocic.biz>
Sent: Tuesday, February 28, 2017 2:21 PM
To: Rep30
Cc: Rep89; Gardner@ohiosenate.gov
Subject: Preserving Ohio's Nuclear Power
Attachments: Davis Besse Cont'd Operation Resolution.pdf

Dear Representative Seitz:

Attached please find a resolution of support from the Ottawa County Improvement Corporation (OCIC) for the continued operation of Davis Besse Nuclear Power Station and also the Perry Nuclear Generating Station in Lake County. The OCIC serves as the Ottawa County's lead economic and workforce development agency and, for many reasons, we are especially concerned about the future viability of FirstEnergy's nuclear power stations in Ottawa County and Lake County. I strongly urge our state leadership to support the proposed Zero Emissions Nuclear Resource (ZEN) Program. The ZEN Program would compensate nuclear plants on a per-megawatt basis, would likely apply only to customers in the northern Ohio/FirstEnergy territory, and still allow customers the option to shop for power.

Economic Impact

- Davis Besse & Perry combined employ 2,000+ highly skilled, high wage individuals from throughout the northern Ohio region. Estimated combined annual payroll generated equals $172million ($86,000/year, not including benefits). This only accounts for FirstEnergy employees and does not include the more than 2,000 contractors that are onsite at both plants on a daily basis providing supportive services;
- Davis Besse is in the top quartile in the country for efficient operations of the plant;
- In Ottawa County, Davis Besse generates $11million in annual tax revenue;
- Davis Besse & Perry combined add $521million annually to Ohio's GDP and another $786million contributed towards Ohio's gross output;
- If these plants were new business attraction projects to the state with similar capital investment, job creation and payroll numbers, Ohio would significantly incentivize and celebrate these facilities.

Energy Diversity & Reliability in Ohio

- Davis Besse & Perry represent 90% of Ohio's carbon free power generation and 11% of Ohio's total power generation;
- HUGE RISK: Losing nuclear power, along with many Ohio coal-fired plants slated for closure, leaves Ohio with very few sources of power generation (gas-fired, wind, solar, limited hydro);
    - Having very few sources of power generation in the state means we will become a net importer of power, which poses a significant competitive disadvantage to Ohio from a business retention/expansion/attraction standpoint.
    - Manufacturers, which are the heart of Ohio's economy, will lose certainty and reliability when it comes to ensuring consistent, adequate power is available to feed their operations.
    - From 199-2004, Ohio shifted from an electric surplus state to a 15% net importer of power. If we lose our nuclear plants, which again total 11% of Ohio's overall power generation, we will immediately become at 26% net importer of power. With fewer sources of "domestic" power generation, I fear Ohio will continue to see its net importation of power grow significantly. This means we rely on other states to provide us with power and we have no control over how much we will receive and what the cost will be. It also means that any distribution system upgrades necessary to import that power will be 100% paid for by customers.
    - Essentially, we don't have a say in where our power comes from, we pay 100% of the cost to transport the power from out-of-state into Ohio, and we do not benefit from the economic impact of these generation facilities (jobs, capital expenditures, tax base, etc.).

Environmental Benefits

- Davis Besse & Perry represent 90% of Ohio's carbon free power generation;
- These plants help our regions significantly with EPA air quality attainment. If we lose carbon free power production and rely on other sources of generation, how are we going to manage air quality standards in a cost effective manner.

It is clear to see there are many local and statewide implications surrounding the future of the Davis Besse Nuclear Power Station and Perry Nuclear Generating Station. The OCIC will continue to be engaged in this process as it develops. I welcome the opportunity to meet and further discuss these critical issues for Ottawa County and Ohio.

Sincerely,

Jamie N. Beier Grant
Director
8043 W. State Route 163, #100
Oak Harbor, OH 43449
Tel: 419.898.6242
Fax: 419.898.6244
Email: jbgrant@ocic.biz
www.ocic.biz

Ottawa County Improvement Corporation

Cc: Governor John R. Kasich
Speaker Clifford A. Rosenberger, Ohio House of Representatives
Representative Steve Arndt, 89th District
President Larry Obhof, Ohio Senate
Senator Bill Beagle, Chair-Public Utilities Committee
Senator Randy Gardner, 2nd District
Chairman Asim Z. Haque, Public Utilities Commission of Ohio
Commissioner Lynn Slaby, Public Utilities Commission of Ohio
Commissioner M. Beth Trombold, Public Utilities Commission of Ohio
Commissioner Thomas W. Johnson, Public Utilities Commission of Ohio
Commissioner Lawrence Friedeman, Public Utilities Commission of Ohio

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8043 W. State Route 163, #100
Oak Harbor, OH 43449
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Fax: 419.898.6244
Email: jbgrant@ocic.biz
www.ocic.biz

Ottawa County
Improvement Corporation

Ottawa County
Improvement Corporation

RESOLUTION 01-2017

WHEREAS, the Ottawa County Improvement Corporation serves as the lead economic development agency by advancing, encouraging and promoting the industrial, economic, commercial and civic development of Ottawa County, and;

WHEREAS, Davis Besse Nuclear Power Station is Ottawa County's largest employer and taxpayer, employing more than 700 highly-skilled and highly-trained individuals from throughout Northwest Ohio and supports an additional 4,600 jobs in other industries across the State of Ohio, and contributes more than $20 million in local taxes to the community, and;

WHEREAS, Davis Besse Nuclear Power Station produces and distributes 900 megawatts of carbon-free, base load electricity that is critical to the residential, commercial and industrial base in Ottawa County and Northwest Ohio, and;

WHEREAS, FirstEnergy Corporation has formally announced its intentions to exit the competitive energy generation business, which may result in the sale, closure or declaration of bankruptcy that directly impacts Davis Besse;

NOW THEREFORE, the Executive Board of the Ottawa County Improvement Corporation asserts the following:

1. It is a priority of the Corporation to work together with the community and company to determine appropriate measures to support the continued operation of Davis Besse Nuclear Power Station and employment of the more than 700 individuals and contractors at the facility.

2. Corporation leadership will continue to work with company representatives, community leaders, and elected officials at the local, state and federal level to ensure meaningful dialogue takes place which leads to a positive outcome for the community and our residents.

Be it Resolved this 17th day of January, 2017 in Salem Township, County of Ottawa, and State of Ohio.

Marsha S. Bordner
Dr. Marsha Bordner
President

Craig Trick, STAR, Inc.
1st Vice President

Kenneth Williams, Catawba Island Club
2nd Vice President

Keith Smith
Keith Smith, Materion, Inc.
Treasurer

Brian Boles, Davis Besse Nuclear Power Station
Secretary

James V. Stouffer, Jr., Catawba Island Club
Past President

Jamie N. Beier Grant
Jamie N. Beier Grant
Director

Rep30

From: Rep30
Sent: Tuesday, February 28, 2017 2:32 PM
To: 'Ty Pine (tpine@firstenergycorp.com)'
Subject: See Enclosed
Attachments: jimmy.wolf2-28-201714-28-20.pdf

FYI, see enclosed.

CLEAN ENERGY FUTURE

Zero Emission Subsidy (First Energy) = Nuclear $ 6 Billion Public Bailout

Simple Reasons Why such a Change in Law is : Anti-voter, anti-competition and anti-Ohio

1. First E's CEO said 2/22/17 : This subsidy is just a tool to allow Davis-Besse and Perry nukes to be **sold/closed** in 2018 (1)
2. A nuclear plant sale following a Bailout would simply enrich First Energy management and Wall St., and the new Buyer, on the backs of Ohio's Main St.
3. Such an Ohio Bailout will immediately trigger litigation identical to anti-nuke bailout litigation of Illinois and New York (2)
4. Ohio is part of a de-regulated power production market since 1999. Any artificial bailout creates immediate price signal distortions in both the PJM capacity and energy markets
5. Upheaval in the Ohio free market for power, deters the current/future private sector that is investing Billions in new low- cost, gas-fired electricity plants within Ohio
6. Such market manipulation undermines the "Customer Choice" pricing dynamics that saves Ohio ratepayers $ 3 Billion/yr (3)
7. Voters have spoken loudly and clearly (6:1) : " We don't want to subsidize Ohio's monopoly utilities (4)
8. Voters have spoken loudly and clearly (5:1) : "We want to maintain cost saving "Customer Choice" (5)
9. A Legislator's vote for this subsidy means acting **AGAINST** the economic best interest and will of one's electorate
10. Nuclear subsidy is simply trying to : "Put just some of the toothpaste back in the tube !" undo de-regulation (6)
11. Nuclear plants use 300% as much water as an equal size gas-fired plant
12. The only solution for disposal of spent nuclear waste is burial at the plant site (shores of Lake Erie)
13. At $ 300 million/yr for 20 years (for both plants) , such a bailout is $ 6,000,000,000.
14. This $ 6 Billion is paid by northern Ohioans, making northern Ohio economically dis-advantaged vs. the rest of Ohio
15. Both plants produce 15,700 million kwh/year : at a $ 300 mm/year subsidy each kwh costs an added 1.9 cents/kwh (First E retail price is now about 5.3 cents/kwh) . .puts First E further out of the retail market of 4 cents/kwh (7)
16. Two of the four worse nuclear safety violators on Great Lakes : Davis Besse and Perry (8)

TheStreet

FirstEnergy Is Not Long For Nuclear Power

The utility company intends to exit the competitive power-generation business by mid-2018.

Ian Wenik Feb 24, 2017 4:24 PM EST

Exelon successfully petitioned those state governments for hundreds of millions in Zero-Emission Credit (ZEC) payments which function as rewards for giving off virtually no carbon emissions. Politically dicey as it may be, nuclear energy remains clean.

Jones has asked Ohio lawmakers to consider paying ZECs to FirstEnergy's Davis-Besse plant near Toledo and its Perry plant near Cleveland, which would keep them alive for their next owner.

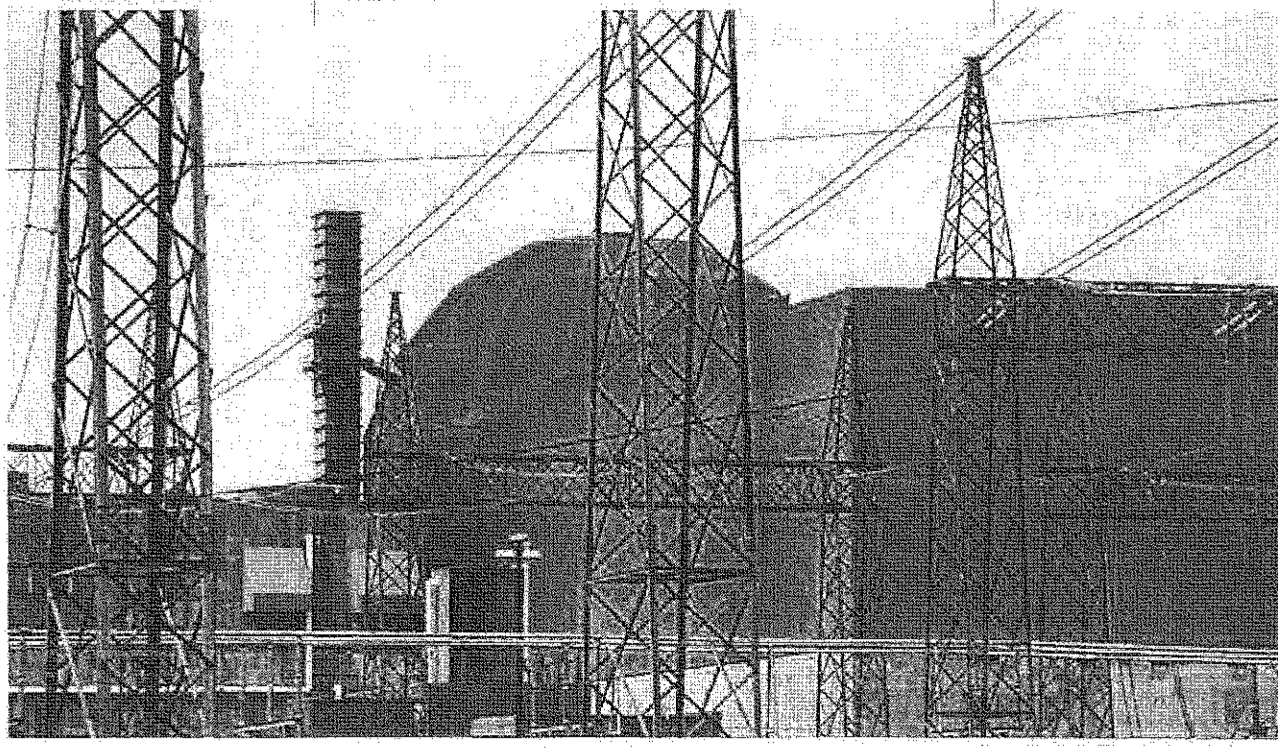
"We believe this legislation would preserve not only zero-emission assets, but jobs, economic growth, fuel diversity, price stability, and reliability and grid security for the region," he said on the call. "We are advocating for Ohio's support for its two nuclear plants, even though the likely outcome is that FirstEnergy won't be the long-term owner of these assets."

The other option is to simply close the plants, much like Entergy is doing with its Indian Point Energy Center near New York City. That facility is set to shut down by 2021.

The issue with a closure is that it will take time and money, neither of which are friends to FirstEnergy Solutions considering the state of its balance sheet.

2

Exelon competitors file lawsuit to stop nuclear subsidies



The Clinton Power Station in Clinton, Ill., is seen in June 2016. A new law allows Exelon's ComEd subsidiary, which owns the nuclear power plant, to collect up to $235 million a year to keep open the Clinton plant and one near the Quad Cities. The law is facing a court challenge from Exelon's rivals. (John Dixon / The News-Gazette)

By **Ally Marotti**
Chicago Tribune

FEBRUARY 15, 2017, 3:02 PM

Energy giant Exelon is confident that an attempt to derail a law that could help subsidize two of its downstate nuclear power plants won't hold up in federal court.

A group of the Chicago-based company's competitors filed a lawsuit Tuesday against Illinois regulators, alleging the new state law that created the subsidies intrudes on federal authority to regulate wholesale energy prices.

"All the nuclear plants and all our member plants are selling in the wholesale market," said John E. Shelk, president and CEO of the Electric Power Supply Association, one of the plaintiffs in the case. "We compete against each other; we get the same price."

Gov. Bruce Rauner signed a bill in December that could allow Exelon subsidiary Commonwealth Edison to collect up to $235 million a year from customers to keep open financially struggling nuclear plants in Clinton and near the Quad Cities. The law was designed to cap rate increases at an average of 25 cents a month over 10 years for ComEd's residential customers, but opponents said the hike could cost more than $4 a month.

Shelk said the law allows Exelon to get a side payment from customers for just two plants that otherwise would have failed.

Exelon has "very deep pockets," Shelk said. "Our members are on the other side. This is David vs. Goliath."

Another of the plaintiffs, Houston-based Dynegy, had been hoping for a subsidy in the law, called the Future Energy Jobs Act. It was cut as Exelon tried to win support from environmental groups. Dynegy has 12 power stations in Illinois, most of them fueled by coal, according to its website.

Exelon, which was not named as a defendant in the suit, disagrees with the allegations. The company has said the subsidies are warranted because nuclear plants — like subsidized wind and solar power — don't emit carbon pollution that contributes to climate change.

The Federal Energy Regulatory Commission's ability to regulate wholesale prices "does not relate to the clean-air attributes that are being recognized in this program," said Joe Dominguez, executive vice president of governmental and regulatory affairs and public policy for Exelon.

The company isn't worried that the court could take issue with the subsidies, he said.

The suit, filed in U.S. District Court in Chicago, names Illinois Power Agency Director Anthony Star and a handful of Illinois Commerce Commission members as defendants. The power companies that brought the suit along with Electric Power Supply Association and Dynegy are Eastern Generation, NRG Energy and Calpine.

Star declined to comment. The Illinois Commerce Commission "is currently reviewing the allegations contained in the complaint and will respond appropriately in the proper forum," spokeswoman Marianne Manko said in an emailed statement.

The Illinois Clean Jobs Coalition, a group of environmental, business and faith organizations, put out a statement defending the new law, saying the lawsuit "will not stop Illinois from implementing the biggest clean energy breakthrough in its history."

"(The) lawsuit suggests that big polluting industries would rather shackle Illinoisans to higher costs and dangerous fuels of the past rather than invest in Illinois' bright clean energy future," according to the statement.

The allegations in Tuesday's lawsuit are similar to those in a suit filed in federal court in Manhattan in October seeking to reverse a subsidy for several struggling upstate New York nuclear plants.

As in Illinois, the energy companies and trade associations that brought the New York case argued that the subsidy violated federal authority to regulate energy prices. Exelon has controlling stakes in three of the nuclear plants involved in the New York subsidy and is acquiring the fourth.

That case, which shares some plaintiffs with the Illinois case, is still pending.

amarotti@chicagotribune.com

Twitter @AllyMarotti

The New York Times https://nyti.ms/2elDUoQ

N.Y. / REGION

Lawsuit Seeks to Halt New York Subsidies for Upstate Nuclear Plants

By JESSE McKINLEY OCT. 19, 2016

ALBANY — A collection of energy companies and trade associations have filed a lawsuit seeking to reverse a decision by the administration of Gov. Andrew M. Cuomo to subsidize several struggling upstate nuclear plants, arguing that the state overstepped federal authority to regulate energy prices.

The suit, filed Wednesday in Federal District Court in Manhattan, comes a little more than two months after Mr. Cuomo announced a deal to provide hundreds of millions of dollars per year in subsidies to buttress the bottom lines of four upstate plants. The subsidies were included in an order from the Public Service Commission, whose chairwoman, Audrey Zibelman, is named as the lead defendant.

The suit argues that such action oversteps the federal government's policy of allowing market forces to set wholesale energy prices, and effectively makes New

York residents pay billions through higher electrical rates to prop up the plants, several of which would have failed without the governor's plan, the suit claims.

"Unless enjoined or eliminated, these credits will result in New York's captive ratepayers paying the owners an estimated $7.6 billion over 12 years," the suit reads.

In making his announcement in August, Mr. Cuomo, a Democrat, had sought to frame the subsidies as a way to help achieve renewable energy goals as part of his so-called Clean Energy Standard, which requires half of the state's electricity to be produced by sources like wind and solar by 2030.

In its order, the Public Service Commission pointed out that the state's upstate nuclear plants "avoid the emission of over 15 million tons of carbon dioxide per year," and that losing their production "would undoubtedly result in significantly increased air emissions due to heavier reliance on existing fossil-fueled plants or the construction of new gas plants to replace the supplanted energy."

On Wednesday, Ms. Zibelman characterized the lawsuit as "frivolous," saying in a statement that it was "right out of the fossil fuel industry's playbook to deny and thwart actions to combat climate change."

"The Supreme Court has repeatedly upheld the rights of states to protect their environment for the welfare of citizens," she added. The commission also disputes the cost estimates made in the suit, saying it believes the financial impact would be "less than $2 per month for a typical residential customer."

The four plants involved in the subsidy plan include two at the Nine Mile Nuclear Station in Scriba, N.Y., and the Robert Emmett Ginna Plant, east of Rochester, as well as the James A. Fitzpatrick Nuclear Power Plant, also in Scriba. One of the two Nine Mile plants is financially feasible, according to the suit.

In August, Mr. Cuomo announced a deal to keep the Fitzpatrick plant open by helping to broker a sale to Exelon, a Chicago-based company that also has controlling stakes in the other three subsidized plants. At the time, the governor characterized the deal as "an enormous win," advancing clean energy goals as well as being a none-too-subtle move to save good-paying jobs and tax revenue in long-suffering upstate communities.

"I believe that if Fitzpatrick closed, it would be a financial crisis for the entire region," the governor said at the time, estimating that the loss of the plant would cost the region $500 million in lost wages and tax revenue. "Central New York can't lose $500 million."

The governor's attitude toward the Fitzpatrick plant and the others stands in marked contrast to his continued opposition to the Indian Point power plant — owned by Entergy — which he feels is dangerously close to New York City should an accident occur.

Reaction to the subsidies has been mixed. A coalition of consumer and environmental organizations have named the plan "the Cuomo tax," and likened it to a giveaway to the horse-and-buggy industry when cars were invented. At the same time, Wednesday's lawsuit was criticized by some supporters of nuclear power, as well as pro-business groups like Upstate Energy Jobs, which estimates that the closing of the plants along Lake Ontario would cost some 25,000 jobs.

Lawyers for the plaintiffs in the case — which include several direct competitors of Exelon — said that the state was unfairly "tipping the scales in favor of nuclear." And as for the state's clean energy goals, they said that there were better ways to meet such an ambitious target.

"There are investments in new and emerging clean energy technologies that will not increase New Yorkers' electricity bills like this one," said Jonathan D. Schiller, a lawyer for the plaintiffs.

A version of this article appears in print on October 20, 2016, on Page A21 of the New York edition with the headline: Lawsuit Seeks to Halt Nuclear Plant Subsidies.

WAMC NORTHEAST PUBLIC RADIO (/) Pledge (https://goo.gl/vJCEQ2)

WAMC
Morning Edition

Midday Magazine (/programs/midday-magazine-wamc)

Clearwater, Farm File Lawsuit Against NYS PSC Over Nuclear Subsidies

By ALLISON DUNNE • DEC 5, 2016

- Tweet (http://twitter.com/intent/tweet?url=http%3A%2F%2Fwww.tinyurl.com%2Fj8rqns4&text=Clearwater%2C%20Farm%20File%20Lawsuit%20Against%20NYS%20PSC%20Over%20Nuclear%20Subsidies)
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- Google+ (https://plus.google.com/share?url=http%3A%2F%2Fwww.tinyurl.com%2Fj8rqns4)
- Email (mailto:?subject=Clearwater%2C%20Farm%20File%20Lawsuit%20Against%20NYS%20PSC%20Over%20Nuclear%20Subsidies&body=http%3A%2F%2Fwww.tinyurl.com%2Fj8rqns4)

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4:04

An environmental group and organic farm in the Hudson Valley have filed a lawsuit against the New York state Public Service Commission. The two groups oppose state subsidies of upstate nuclear power plants.

The PSC in August issued an order adopting the Clean Energy Standard and the nuclear subsidy is one of the standard's three tiers. Beacon-based Hudson River Sloop Clearwater and Goshen Green Farms, an organic family farm near Middletown in Orange County, have filed a lawsuit against the PSC, arguing it acted improperly when it mandated the subsidy, called a Zero Emission Credit, to aid New York's upstate nuclear power plants. Manna Jo Greene is environmental action director at Clearwater and says it was important to escalate sheer opposition to legal action.

"Clearwater feels it's important to challenge the nuclear subsidy in court because if unchallenged this will go into effect as a mandatory $7.6 billion -to-$10 billion subsidy that New York ratepayers are going to have to pay over the next 12 years." says Greene. "And we felt that this plan needed to be stopped and reconsidered."

Attorney Susan Shapiro represents Clearwater and Goshen Green Farms.

"So why should New Yorkers, every New Yorker, be required to pay a surcharge to support this failing industry and, by doing so, we're taking away money that can go to true renewables, especially for people and companies that have already invested in renewables like Goshen Green and Clearwater," says Shapiro. "We spent the money to go to non-nuclear energy. Now we're going to be paying a surcharge to support nuclear energy? It's a double payment."

Plus, says Shapiro.

"The PSC is calling nuclear emission free and that is just actually wrong, incorrect, and we're suing on that," Shapiro says.

Paul Steidler takes issue with that statement.

"Well, the reality is there are no emissions from nuclear power plants," Steidler says. "It's plain and simple. It just does not happen."

Steidler is spokesman for the New York Affordable Reliable Electricity Alliance, whose members include Entergy, parent company of the Indian Point nuclear power plant in Westchester County, which could benefit from the subsidy down the road.

A PSC spokesman, in a statement, says, "Clearwater's opposition to nuclear energy is based on ideology, not reality and ignores the many benefits these upstate nuclear plants provide. Our Zero Emission Credit plan is a cheaper, sensible way to have the existing carbon-free nuke fleet serve as a bridge to renewables as opposed to importing fracked gas and using dirty oil."

Clearwater's Greene says the lawsuit is of historic significance, demonstrating to the country that dollars should not be spent on nuclear power but rather a fully-renewable energy economy.

"These aging facilities are neither clean nor safe, and to be subsidizing them is putting ratepayers' money in the wrong direction," Greene says. "The first two tiers of the so-called Clean Energy Standard we strongly support. Tier 1 and Tier 2 provide subsidies for new and existing renewable energy."

Again, Steidler.

"The reality is is it's going to be about a 2 percent increase," Steidler says. "And if the measure does not go through, there's going to be a lot more economic loss in terms of plants and jobs and communities getting funding for things like schools."

Meanwhile, the New York-headquartered Environmental Defense Fund has said it intends to intervene in a case and side with PSC Chair Audrey Zibelman. It's a lawsuit from The Coalition for Competitive Energy against Zibelman seeking to block the nuclear subsidy provision.

The Clean Energy Standard will require 50 percent of New York's electricity to come from renewable energy sources like wind and solar by 2030.

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Electricity Customer Choice in Ohio: How Competition Has Outperformed Traditional Monopoly Regulation

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November 2016

Prepared for:
Northeast Ohio Public Energy Council

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EXECUTIVE SUMMARY

It took nearly a decade of sorting out regulatory problems, but by 2011 deregulation of electricity in Ohio began to work exactly how economic theory projected it would. Since 2011, a robust retail market for electricity has developed in Ohio. As a result, deregulation of electricity has saved consumers an average of $3 billion per year, for a total of $15 billion over five years. Moreover, it is projected to continue to save consumers nearly that amount for the next five years, through 2020, totaling another $15 billion in savings. Further, the Midwestern deregulated states (Ohio, Pennsylvania and Illinois) have, over time, outperformed their regulated Midwestern neighbors (Michigan, Indiana and Wisconsin) in terms of constraining electricity costs for consumers.

This study was undertaken to assess the effects that deregulation of electricity generation has had on electricity prices in Ohio. Deregulation has recently become controversial in Ohio as a result of several of Ohio's investor-owned utilities ("IOUs") having sought price supports for their uncompetitive generation facilities. The IOUs sought these supports even though Ohio had deregulated the generation side of the electricity business in 2001.

The utilities argued that the price supports were necessary because without them, major existing generation facilities would be shut down, threatening grid reliability and increasing price volatility. In short, competition in Ohio had become a problem for its IOUs, whose aging generation fleet was struggling to remain competitive. Accordingly, Ohio's IOUs sought, and received, authority from the Public Utilities Commission of Ohio (PUCO) to assess ratepayers with additional fees to subsidize the flagging generation fleets.

The Federal Regulatory Commission subsequently ruled that the proposed price supports, which would have been passed through to ratepayers as a rider on the regulated side, were illegal, finding that they were inconsistent with deregulated markets and threatened to undermine regional wholesale electricity markets. Consequently, the IOUs have begun to argue through media and other venues that Ohio should abandon its deregulated electricity markets in favor of the traditional fully regulated monopoly model that American utilities have followed for most of the 20th century.

Such a strategy, however, would cost Ohio's ratepayers significantly. The research contained in this Study demonstrates that Ohio consumers have realized billions of dollars in savings in each of the past five years due to the deregulation of electricity generation. The savings have been realized in part because Ohio's IOUs have begun setting their electricity generation standard service offers (SSO, also called "Price to Compare," or "PTC") through competitive auctions, and in part because Ohio's consumers (over 70%) have been able to shop for their electricity loads. Further, these savings are in keeping with the trends seen by other states that have switched to competitive electricity generation.

These results are consistent with research to date looking at the effects of deregulation, which have tended to find that deregulation reduces electricity prices. As has been done with other studies, this Study relied on data from the Energy Information Agency, comparing similarly situated states in the Midwest, namely Ohio, Illinois and Pennsylvania (deregulated) against Wisconsin, Indiana and Michigan (regulated). However, the Study differed from most prior studies in two important ways. First, the Study Team used difference-in-difference statistical modeling to control for variables that would affect electricity price (e.g. time-related trends). Second, the Study Team assessed savings due to shopping.

The reason why prior studies have not sought to evaluate savings from shopping is that the data supporting such a study is not publicly available. The Study Team resolved this problem by organizing the shopping data into two sets: mercantile (greater than 700,000 kWh/year consumption) and non-mercantile (less than 700,000 kWh/year). For the latter, the Study Team assumed a savings rate of 6% for residential shoppers and 4% for commercial shoppers off of the Price to Compare. These sorts of rates have generally been available from aggregators in Ohio in the past five years. For the former, the Study Team used data sets aggregated from private data banks held by local brokers who track electricity procurement by their clients.

Analysis of the pricing data demonstrates that Ohio ratepayers have avoided nearly $15 billion in the past five years in result of competition. Of this, around $3 billion is from shopping; 4/5 of which is from mercantile and 1/5 from non-mercantile shopping.

Total Shopping Savings from Mercantile and Non-Mercantile Markets, 2011-2015 (millions of dollars)

Year	Mercantile	Non-Mercantile	Total
2011	$391.60	$105.1	$496.70
2012	$324.69	$118.6	$443.29
2013	$600.81	$143.3	$744.11
2014	$664.21	$160.0	$824.21
2015	$487.19	$157.8	$645.19
Total	**$2,468.50**	**$684.80**	**$3,153.30**

In addition to shopping savings, an additional $12 billion was saved by Ohio's ratepayers between 2011-2015 as a result of using deregulation strategies to set the Standard Service Offer (Price to Compare). These savings inured to all customers of the IOUs, regardless of whether they shopped.

Total savings due to deregulation was around $3 billion per year between 2011 and 2015.

Total Savings Due to Deregulation in Ohio, 2011-2015 (millions of dollars)

Year	Shopping	SSO	Total
2011	$496.70	$2,395.00	$2,891.70
2012	$443.29	$2,366.00	$2,809.29
2013	$744.11	$2,342.00	$3,086.11
2014	$824.21	$2,380.00	$3,204.21
2015	$645.19	$2,339.00	$2,984.19
Total	**$3,153.30**	**$11,822.00**	**$14,975.30**

Ohio has also seen significant price drops in the standard service offers since moving to 100% auctions to set the Price to Compare (as opposed to cost-based accounting). As these standard service auctions mature, we might expect that the available "headroom" (the difference between the price to compare and the price that commercial retail providers can offer) will be diminished. Accordingly, shopping savings in Ohio may not increase significantly going forward, if the standard service auction process has fully matured. In 2015 shoppers saved around $645 million off of the SSO. If we assume that 2015 represents a mature auction market, we can forecast additional savings from deregulation going forward by adding this amount to the savings generated through the SSO auctions.

Using the $645 million/year savings, along with the PUCO long term projections for electricity consumption to forecast savings from the standard service offer auctions, the Study Team forecasts that Ohio's ratepayers will save around $2.98 billion/year for the next five years from deregulation, totaling $14.9 billion. Projected savings for 2016-2020 are as follows:

Total Projected Savings Due to Deregulation in Ohio, 2016-2020 (millions of dollars)

Year	Shopping Savings	SSO Auction Savings	Total Savings
2016	$645	$2,333	$2,844
2017	$645	$2,338	$2,829
2018	$645	$2,343	$2,833
2019	$645	$2,349	$2,839
2020	$645	$2,354	$2,844
Total	**$3,225**	**$11,717**	**$14,942**

Unfortunately, the regulated portion of electricity – called "non-bypassable costs" (distribution, transmission and various riders) -- have been trending upwards at the same time that competition has been pushing the generation portion of the costs down. As a result, the overall cost of electricity has not fully reflected the savings achieved through deregulation.

However, reregulating the generation portion of electricity will not reverse the rising costs of distribution and other non-bypassable charges. This only makes the argument for deregulation more compelling, since deregulation has been most responsible for the relatively low cost of electricity in Ohio. There exists no public policy basis for reregulating generation in Ohio.

11-2016

Electricity Customer Choice in Ohio: How Competition Has Outperformed Traditional Monopoly Regulation

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Energy

Ohioans Prefer Energy Choice

A recent poll of Ohioans found support for the benefits of a deregulated energy marketplace. The Fallon Research firm was engaged by the Alliance for Energy Choice to measure Ohioans' attitudes and opinions about energy policies.

- 91.5% oppose changing Ohio law to allow utilities, like AEP and First Energy, to charge customers for the cost to build their new plants.
- 78.7% oppose a change in law that would eliminate the ability to shop for the best price for electric and natural gas service from a variety of providers and require customers to take services only from their local utility.
- 62% disagree that utility customers should pay the additional cost to support uneconomical power plants because it may preserve jobs in certain communities.
- 55.5% agree that Ohio should increase electric market competition, even if it means the elimination of the government-mandated electric utility monopoly that has existed for decades.

OHIO STATEWIDE SURVEY
1/24/17 – 1/28/2017
N=801, +/- 3.46%
General Election Voters
(percentages may not add up to 100% due to rounding)

FALLON RESEARCH

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Generally speaking, would you say that Ohio is going in the right direction or has it gotten off onto the wrong track?

53.9% Right direction
23.2 Wrong track
6.8 Mixed/both (volunteered)
16.1 Unsure/no answer

Currently, private energy development companies pay for many of the power plants under construction in Ohio without any financial obligation from you. As an alternative, would you support or oppose changing Ohio law to allow utilities, like AEP and First Energy, to charge you for the cost to build their new plants, even though the power might not even be used in Ohio?

4% Support
91.5 Oppose
4.5 Unsure/no answer

Many fuel sources can be used to produce electricity, including coal, natural gas, nuclear, water, wind and solar sources, and all have different benefits and costs. Would you support or oppose a state program where the subsidies you pay for only go to one type of fuel source, instead of all of them?

29.8% Support
59.7 Oppose
10.5 Unsure/no answer

Ohio law currently allows you to shop for the best price for electric and natural gas service from a variety of providers. Multiple studies have found that this has saved Ohioans billions of dollars over the last decade. Would you support or oppose a change in law that would eliminate the ability to choose and require customers to take services only from their local utility?

16.5% Support
78.7 Oppose
4.8 Unsure/no answer

Do you agree or disagree that Ohio should increase electric market competition, even if it means the elimination of the government-mandated electric utility monopoly that has existed for decades? Interviewer follow-up, if agree or disagree: Would you say that you strongly agree/disagree or just somewhat agree/disagree?

55.5% TOTAL AGREE
24.9 Strongly agree
30.6 Somewhat agree

29.6% TOTAL DISAGREE
18.9 Somewhat disagree
10.7 Strongly disagree

14.9% Unsure/no answer

Do you agree or disagree that utility customers should pay the additional cost to support uneconomical power plants because it may preserve jobs in certain communities? Interviewer follow-up, if agree or disagree: Would you say that you strongly agree/disagree or just somewhat agree/disagree?

29% TOTAL AGREE
8.2 Strongly agree
20.8 Somewhat agree

62% TOTAL DISAGREE
28.4 Somewhat disagree
33.6 Strongly disagree

9% Unsure/no answer

Finally, I have a few short questions for statistical purposes...

I would like to read you a list of age groups. Please stop me when I get to the one you are in.

13.7% 18 to 29
21.8 30 to 44
27.5 45 to 59
35.8 60 and older
1.1 Unsure/no answer

Which of the following do you consider to be your main race? Is it...

77.6% White

13.6	African-American
1.7	Hispanic/Latino
.9	Asian/Indian…or…
2.3	Something else
.6	Mixed race (volunteered)
3.3	Unsure/no answer

Gender:

48%	Male
52	Female

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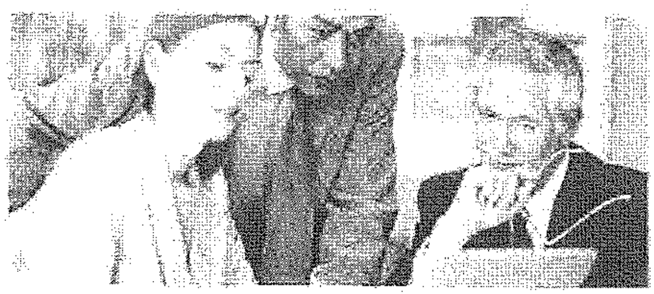

Fallon Research & Communications, Inc. is a full-service public opinion research and polling firm that serves a variety of clients, from major political, corporate and public affairs campaigns to local governments and community initiatives.

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Paul Fallon is a public opinion researcher, political pollster and advisor for corporations, levy committees, interest groups, political candidates and public organizations. He also conducts customer, member, contributor and citizen satisfaction studies for government agencies, industry and labor groups...

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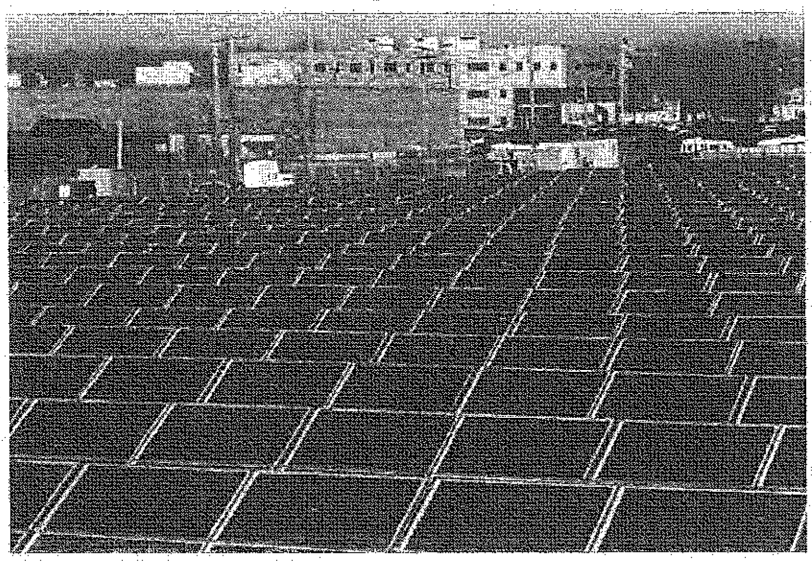
Ohio GOP voters support green energy, efficiency programs and customer choice



More than 4,200 solar panels feed power to the Cuyahoga Metropolitan Housing Authority's headquarters on Kinsman Road in Cleveland. A new poll of Republican voters has found that conservatives support solar and other renewable technologies. *(Gus Chan, The Plain Dealer)*

By **John Funk, The Plain Dealer**
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on September 21, 2016 at 7:00 AM, updated September 21, 2016 at 12:03 PM

COLUMBUS, Ohio -- Ohio's Republican voters and conservative independents are greener than state politicians might have believed.

They strongly support green energy and want to see more of it in Ohio, a new poll of only Republican and conservative independents has determined.

The poll also found that:

- 82 percent of these conservative voters want the state to keep on requiring electric utilities to provide efficiency programs that help consumers cut their monthly bills.
- 85 percent want the state to continue the policy that gives them the right the choose their own power suppliers, even after hearing about their utility's concerns about the option.
- 87 percent want utilities to continue crediting customers who have home solar systems for excess power they generate.
- 74 percent would increase research and development of battery storage technologies to increase the use of renewable power.
- 72 percent would advise Republican candidates to support energy efficiency and renewable energy policies.
- Large majorities oppose ongoing utility efforts to convince law makers to scrap laws requiring power companies to provide renewable power -- 62 percent would support a modified renewable standard requiring power companies to supply at least 5 percent renewable power over the next five years.

  In fact, most of these voters want a lot more renewable power in the mix. -- even if it raises their electric bills. Seventeen percent said they would pay $20 a month extra for renewable power. Nearly 50 percent said they would pay at least $5 more a month.

- 79 percent oppose surcharges to prop up old coal and nuclear power plants unable to compete well against gas-fired power plants.

FirstEnergy is still arguing for special subsidies, though what it would be called and how the money would be used are no longer certain. AEP dropped its proposals and has sold off some its power plants to investors that would run them as independent power companies.

Public Opinion Strategies, a Colorado-based polling company widely used by GOP candidates, talked to 400 registered Ohio Republican voters earlier this month, including some independents who said they voted for Mitt Romney in 2012.

The poll has a margin of error of 4.9 percent, adequate, considering that its findings are overwhelming.

"The survey clearly demonstrates support among conservative voters for a broad rage of policies to encourage energy efficiency and greater use of renewable energy," wrote Lori Weigel, a partner in the polling firm.

Elected officials understand polling numbers. Numbers don't lie."

"The vast majority of voters in this conservative portion of the ideological spectrum say they would tell GOP candidates to back these kinds of policies. They think of renewable energy as a job creator, and place these sources of energy squarely in the mix of more traditional energy sources," she wrote.

"They even go so far as to be willing to pay more in higher electricity prices if renewable energy cost more."

The Ohio Conservative Energy Forum, a group led by Mike Hartley, former Kasich administration director of public liaison, sponsored the poll. Hartley will take part in a City Club of Cleveland luncheon panel discussion today on conservatives embracing renewable energy policies.

Hartley said the poll's results clearly show that conservative voters want their candidates to support renewable energy policies and are more likely to vote for those who do. He said his group plans to talk to lawmakers and policy makers about the poll's findings.

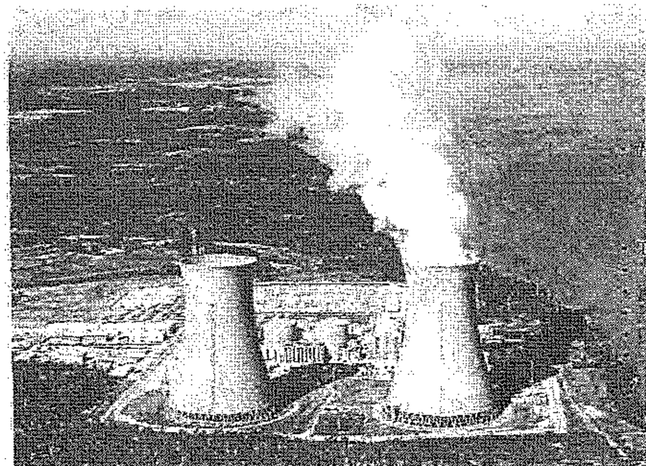
"Elected officials understand polling numbers," he said. "Numbers don't lie."

He added that the poll did not strongly focus on the question of whether the state ought to return to traditional regulation, a topic the utilities have been talking to lawmakers about.

The survey did include a question about wind farms and state rules determining how close a wind turbine can be to other properties. GOP lawmakers slipped a new setback rule into a budget bill in 2014 that has effectively stopped all major wind development in the state. The poll found that 72 percent would support "more reasonable set-back limits for wind turbines."

The poll also measured how voters feel about different kinds of power generation, including coal, nuclear and gas, as well as wind and solar. It found that voters favor natural gas power plants and energy efficiency efforts, that solar is more popular than coal, wind or nuclear power.

FirstEnergy looking to sell or shutter Perry Nuclear Power Plant



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FirstEnergy's Perry Nuclear Power Plant is unlikely News-Herald file

By Andrew Cass, The News-Herald

Posted: 02/24/17, 3:20 PM EST | Updated: 1 day ago

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The Perry Nuclear Power Plant could be sold or closed by mid-2018 as FirstEnergy looks to exit the competitive power generation business.

FirstEnergy President and CEO Charles E. Jones has previously said that market prices for energy have been pushed down by cheap energy from natural gas and other sources and those low prices aren't high enough to justify continuing to power those plants.

In a teleconference call this week, Jones reported the company lost $6.2 billion in 2016. In the same call Jones reaffirmed plans to quit power generation.

The nuclear plant in North Perry is one of two FirstEnergy owns in the state. The other is the Davis-Besse plant in Ottawa County, which would also be sold or shuttered.

The Perry plant was commissioned in 1987 and employees about 720.

As FirstEnergy looks to off the power plants, it has met with state lawmakers to propose legislation that would make the nuclear plants more enticing to potential buyers.

The proposal is for "zero emission credits," (ZEC) which aims to raise about $300 million annually and is estimated to add at least 5 percent to customer bills.

The ZEC would help to offset the losses incurred by competing against natural gas.

According to E&E News, the soon-to-be-proposed legislation would follow similar plans that were recently approved in New York and Illinois.

Lake County Commissioner Daniel P. Troy was at the Ohio Energy Conference in Columbus Feb. 21 and 22 when Sen. Bill Seitz, R-Cincinnati, broke the news of upcoming legislation.

"Senator Seitz spoke to the conference Tuesday morning and said he wasn't sure if deregulation was the right idea in 2000 but he said 'trying to put all that toothpaste back in the tube 17 years later' was unlikely to happen," Troy said at the Feb. 23 commissioners meeting. "So I think there's going to be a big battle in the legislature over renewable energy standards."

In the teleconference call, Jones said they are working hard on the legislation "because it is the right thing to do for the state of Ohio."

"I think it's the right thing to do for these employees that work at these facilities," Jones said. And I think it's the right thing to do for those communities that these big huge manufacturing facilities are resident in."

They're doing this, Jones said, even though he doesn't think it will have "any impact on the shareholder value of FirstEnergy at all."

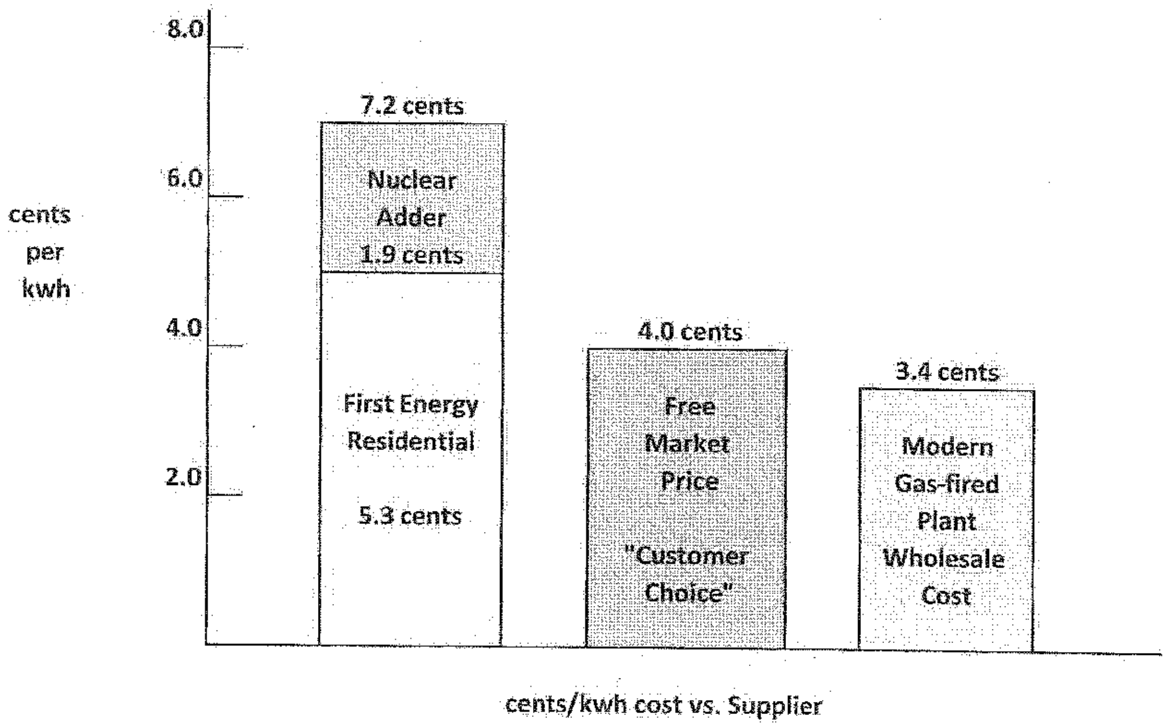
Jones said the nuclear assets are valued at about $1.5 billion while the debt is "significantly higher than that."

Troy said they're "going to have to wait to see what proceeds here."

Perry Schools, Perry Joint Fire District and Perry Joint Economic Development District all get a "considerable amount" of tax revenue from the power plant "so obviously that's a concern," Troy said. He added Lake County Auditor Edward Zupancic will keep them up-to-date on what the impact will be down the road.

"We as the commissioners know as much as anyone else does at this point," he said.

First Energy's Excessive Electricity Costs



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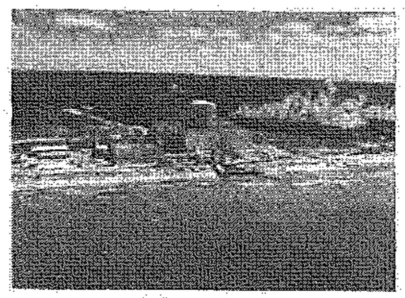
All Things Great Lakes
News and views from the center of the freshwater universe

Four nuclear power plants on the Great Lakes rank among the nation's worst for high level safety violations

Posted on October 17, 2013

A new government report on safety violations at nuclear power plants shows that four of the nation's worst facilities (in terms of higher level violations) are located on the shores of the Great Lakes.

The report by the General Accounting Office, the investigative arm of Congress, revealed several problems with how the Nuclear Regulatory Commission enforces safety regulations at the nation's aging fleet of nuclear power plants. The Associated Press, which broke the story, said the GAO study "showed that the number of safety violations at nuclear power plants varies dramatically from region to region, pointing to inconsistent enforcement in an industry now operating mostly beyond its original 40-year licenses. Read the entire AP story here.


The Palisades nuclear power plant in West Michigan recently spilled radioactive water into Lake Michigan.

Most alarming for those of us in the Great Lakes region was the GAO's disclosure that four of the six nuclear power plants with the most "higher level violations" between 2000 and 2012 are located on the shores of Lake Michigan and Lake Erie. They are: The **Davis-Besse** Nuclear Power Station in Oak Harbor, Ohio, which had 14 higher level violations; the recently closed **Kewaunee Power Station** in Kewaunee, Wis., with nine violations; the **Perry Nuclear Generating Station** in Perry, Ohio, eight violations; and the **Palisades Nuclear Power Plant** in Covert, Mich., which had eight higher level violations, according to the GAO report.

These findings are disturbing for obvious reasons: The four troubled nuclear power plants are located on the largest source of surface freshwater on the planet. More than 30 million people rely on the Great Lakes for drinking water and the lakes support one of the world's largest regional economies.

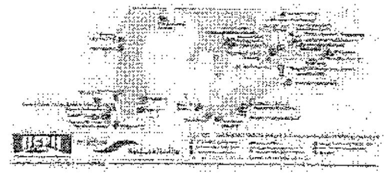
Some violations have resulted in radioactive water being discharged into the Great Lakes and the air.

Earlier this year, a leaky tank at the Palisades facility in West Michigan spilled 79 gallons of radioactive water into Lake Michigan. That followed a 2011 incident in which an unplanned shutdown at Palisades resulted in the radioactive tritium being released into the air. Federal officials said neither incident posed health risks.

Concerns about nuclear power plants on the Great Lakes are not limited to Lake Michigan and Lake Erie. There are 38 operating nuclear power plants in the Great Lakes basin, according to a map produced by the International Institute of Concern for Public Health.

And there's this: A Canadian utility is seeking approval to bury 200,000 cubic meters of low and intermediate level radioactive waste near Lake

Huron. Ontario Power Generation says burying nuclear waste in dense rock deposits near Lake Huron poses no threats to the lake.



Conservation groups and some Michigan lawmakers are fighting the proposed nuclear waste dump near Kincardine, Ontario. Read more about that here.

We've been told for decades that nuclear power is a clean and safe source of electricity. Industry officials have long argued that concerns about the safety of nuclear power plants are wildly exaggerated.

Granted, most nuclear power plants in the U.S. have operated for decades without major incidents. The problem is that when things go awry at nuclear power plants (often due to unforeseen circumstances) the results are often catastrophic. That became painfully evident when a tsunami wiped out the nuclear power plant in Fukushima, Japan.

Of course, nothing like the Fukushima disaster could ever happen at any of the nuclear power plants that line the Great Lakes. That's what the nuclear power industry wants us to believe. We can only hope that such predictions are correct.

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Growing concern about Great Lakes nuclear hot spots
In "Great Lakes"

Latest Asian carp discovery conjures memories of nuclear Doomsday clock; is the dreaded Great Lakes invasion at hand?
In "Army Corps of Engineers"

NBC News produces interesting view of climate change
In "Climate"

This entry was posted in Air pollution, Climate, Energy, Fish, Great Lakes, Nuclear power, Pollution, Water and tagged Great Lakes, nuclear power, pollution, radioactive waste. Bookmark the permalink.

4 Responses to *Four nuclear power plants on the Great Lakes rank among the nation's worst for high level safety violations*

Rep30

From: Rep30
Sent: Tuesday, February 28, 2017 2:36 PM
To: Rep72
Cc: Gray, Bryan
Subject: See Enclosed
Attachments: jimmy.wolf2-28-201714-28-20.pdf

FYI, see enclosed.

Rep30

From: Rep30
Sent: Tuesday, February 28, 2017 2:37 PM
To: Rep89
Cc: Bizjak, Joe
Subject: See Enclosed
Attachments: jimmy.wolf2-28-201714-28-20.pdf

FYI, see enclosed.

Rep30

From: Rep30
Sent: Tuesday, February 28, 2017 3:55 PM
To: 'tasnitchler@vorysadvisors.com'
Subject: FW: Preserving Ohio's Nuclear Power
Attachments: Davis Besse Cont'd Operation Resolution.pdf

FYI

From: Jamie Beier Grant [mailto:jbgrant@ocic.biz]
Sent: Tuesday, February 28, 2017 2:21 PM
To: Rep30 <Rep30@ohiohouse.gov>
Cc: Rep89 <Rep89@ohiohouse.gov>; Gardner@ohiosenate.gov
Subject: Preserving Ohio's Nuclear Power

Dear Representative Seitz:

Attached please find a resolution of support from the Ottawa County Improvement Corporation (OCIC) for the continued operation of Davis Besse Nuclear Power Station and also the Perry Nuclear Generating Station in Lake County. The OCIC serves as the Ottawa County's lead economic and workforce development agency and, for many reasons, we are especially concerned about the future viability of FirstEnergy's nuclear power stations in Ottawa County and Lake County. I strongly urge our state leadership to support the proposed Zero Emissions Nuclear Resource (ZEN) Program. The ZEN Program would compensate nuclear plants on a per-megawatt basis, would likely apply only to customers in the northern Ohio/FirstEnergy territory, and still allow customers the option to shop for power.

Economic Impact

- Davis Besse & Perry combined employ 2,000+ highly skilled, high wage individuals from throughout the northern Ohio region. Estimated combined annual payroll generated equals $172million ($86,000/year, not including benefits). This only accounts for FirstEnergy employees and does not include the more than 2,000 contractors that are onsite at both plants on a daily basis providing supportive services;
- Davis Besse is in the top quartile in the country for efficient operations of the plant;
- In Ottawa County, Davis Besse generates $11million in annual tax revenue;
- Davis Besse & Perry combined add $521million annually to Ohio's GDP and another $786million contributed towards Ohio's gross output;
- If these plants were new business attraction projects to the state with similar capital investment, job creation and payroll numbers, Ohio would significantly incentivize and celebrate these facilities.

Energy Diversity & Reliability in Ohio

- Davis Besse & Perry represent 90% of Ohio's carbon free power generation and 11% of Ohio's total power generation;
- HUGE RISK: Losing nuclear power, along with many Ohio coal-fired plants slated for closure, leaves Ohio with very few sources of power generation (gas-fired, wind, solar, limited hydro);
    - Having very few sources of power generation in the state means we will become a net importer of power, which poses a significant competitive disadvantage to Ohio from a business retention/expansion/attraction standpoint.
    - Manufacturers, which are the heart of Ohio's economy, will lose certainty and reliability when it comes to ensuring consistent, adequate power is available to feed their operations.
    - From 199-2004, Ohio shifted from an electric surplus state to a 15% net importer of power. If we lose our nuclear plants, which again total 11% of Ohio's overall power generation, we will immediately become at 26% net importer of power. With fewer sources of "domestic" power generation, I fear Ohio

will continue to see its net importation of power grow significantly. This means we rely on other states to provide us with power and we have no control over how much we will receive and what the cost will be. It also means that any distribution system upgrades necessary to import that power will be 100% paid for by customers.

  - Essentially, we don't have a say in where our power comes from, we pay 100% of the cost to transport the power from out-of-state into Ohio, and we do not benefit from the economic impact of these generation facilities (jobs, capital expenditures, tax base, etc.).

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It is clear to see there are many local and statewide implications surrounding the future of the Davis Besse Nuclear Power Station and Perry Nuclear Generating Station. The OCIC will continue to be engaged in this process as it develops. I welcome the opportunity to meet and further discuss these critical issues for Ottawa County and Ohio.

Sincerely,

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Director
8043 W. State Route 163, #100
Oak Harbor, OH 43449
Tel: 419.898.6242
Fax: 419.898.6244
Email: jbgrant@ocic.biz
www.ocic.biz

Ottawa County
Improvement Corporation

Cc: Governor John R. Kasich
Speaker Clifford A. Rosenberger, Ohio House of Representatives
Representative Steve Arndt, 89th District
President Larry Obhof, Ohio Senate
Senator Bill Beagle, Chair-Public Utilities Committee
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Ottawa County
Improvement Corporation

Rep30

From: Rep30
Sent: Tuesday, February 28, 2017 3:56 PM
To: 'bills@perpower.com'
Subject: FW: Preserving Ohio's Nuclear Power
Attachments: Davis Besse Cont'd Operation Resolution.pdf

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Ottawa County
Improvement Corporation

Rep30

From: Snitchler, Todd A <tasnitchler@vorysadvisors.com>
Sent: Tuesday, February 28, 2017 4:05 PM
To: Rep30
Subject: RE: Preserving Ohio's Nuclear Power

Thank you for sharing. Many of these same arguments as laid out below are not accurate (*e.g.* Ohio's historic status as a power importer or the number of jobs at the plants [FE only says there are 1,320)]). I am happy to discuss at your convenience, but did have to note that one of the people signing the resolution actually works at the Davis-Besse facility.

TAS

VORYS Advisors

Todd A. Snitchler
Principal
Vorys Advisors LLC
52 East Gay Street | Columbus, Ohio 43215

Direct: 614.464.6222 | Fax: 614.719.4787 | Email: tasnitchler@vorysadvisors.com
www.vorysadvisors.com

From: Rep30@ohiohouse.gov [mailto:Rep30@ohiohouse.gov]
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To: Snitchler, Todd A
Subject: FW: Preserving Ohio's Nuclear Power

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