

**Pennsylvania Coal Facilities & their Inevitable Demise under
RGGI – the Regional Greenhouse Gas Initiative – A Political, Policy and Economic Discussion
Presentation to Pennsylvania House Environmental Resources & Energy Committee**

February 5, 2020

SLIDE 1

Thank you Mr. Chairman and Members of the Committee.

My name is Sean Lane and I am speaking here this morning on behalf of Chief Power, one of the investors in the Keystone and Conemaugh projects.

SLIDE 2

Why are we here? Due to a Legislative Mandate? A Carbon Imperative? Chasing Tax Dollars?

I would posit that none of these are sufficient reasons for Pennsylvania to adopt RGGI.

The initiative released to the AQTAC by DEP is **regulatory** in nature **without** any firm **legislative authority**.

As to **carbon emissions** we have already outperformed all of the Carbon Metrics set for Pennsylvania generation by President Obama’s Clean Power Plan, the Paris Accords, and even Governor Wolf’s own previously established **carbon goals**. In fact, there is good reason to believe that carbon emissions and other pollutants will increase in the region if Pennsylvania adopts RGGI because our electricity generation capacity will be replaced with new or existing generation from non-RGGI PJM states such as Ohio and West Virginia.

Finally, we believe that the RGGI supporters’ **tax revenue** estimates fail to embrace the inevitable plant closures and are therefore **over valuing** the significance of **RGGI** revenue and **undervaluing or ignoring** the **severe economic harm** caused by the inevitable closures.

SLIDE 3

RGGI is an unrecoverable “**tax**” on all coal and natural gas fired electricity generation in Pennsylvania.

All Pennsylvania Generators will become less competitive within PJM as compared to neighboring non-RGGI PJM states such as Ohio, Indiana, Kentucky and West Virginia.

RGGI will cause the immediate or near immediate retirement of all of the coal fired power plants in Pennsylvania and the loss of the related economic benefits, high paying jobs, tax revenue, and the supporting industries anchored in these local communities.

SLIDE 4

RGGI is a nuclear tipped economic cruise missile aimed at the Coal Fired power plants – and the citizens – located in Allegheny, Armstrong, Cambria & Indiana Counties. These Pennsylvania counties represent “Ground Zero” for RGGI.

In light of RGGI’s impact upon the plants, and upon the vulnerable communities where they are located, certain coal-fired facilities, which have already invested billions of dollars to remain operational, Cheswick, Homer City, Keystone and Conemaugh, engaged the economic consulting firm eConsult to work with us and examine the contributions made by these plants and what will be lost if they are forced to shutter prematurely.

Here is what we found:

SLIDE 5

Locally, these four facilities annually:

- Generate **33.2 million megawatt hours** of electricity;
- Produce **\$1.07 billion** in **operating expenditures** (including fuel costs);
- Employ **622 direct workers**; and
- Pay **\$91 million** in **employee compensation** (including wages and benefits).

SLIDE 6

Statewide, these facilities annually support:

- **\$2.87 billion** in total **economic impact** within Pennsylvania,
- **8,170** total **jobs**, and
- **\$539 million** in **employee compensation**

In my slides you can also see the breakdowns by Pennsylvania county.

SLIDE 7

These same plants are very important local corporate citizens and among the largest state and local taxpayers.

They contribute **\$38 million annually** in **income** taxes, **sales** taxes, **business** taxes, **environmental** and **municipal utility** taxes and fees, and in **property** taxes.

SLIDE 8

There is no doubt that RGGI will diminish Pennsylvania’s premier national role as an exporter of electricity.

RGGI’s program history proves that participants will generate less electricity and import more out of state or out of region power – this is called “**Leakage.**”

RGGI provides a competitive advantage to new and existing non- Pennsylvania generation resources located in PJM states where RGGI is not adopted, such as West Virginia, Ohio, Indiana and Kentucky.

Net exports of Pennsylvania electricity will be **reduced** and the principle of **comparative advantage** will **prevails**.

New projects will simply move across the border to more investment friendly (non-RGGI) states.

In lieu of Pennsylvania exporting electricity, RGGI will export new investment, new construction jobs and new operations jobs – **Leakage!**

SLIDE 9

RGGI will **diminish** Pennsylvania's electric **energy resilience** by causing the immediate or near immediate shutdown of all coal fired generation in Pennsylvania and we will cease to have this robust resource available during the next polar vortex or other extreme demand for electricity whether technical or weather related.

SLIDE 10

RGGI represents value destruction and sends an investment risk message to the energy Capital Markets.

Two examples:

- In the Summer of 2019 the uncertainty of RGGI in Pennsylvania and its potentially adverse financial impact upon solid fueled plants caused lenders to withdraw from certain lending syndicates supporting the coal fired facilities.
- In the Fall of 2019 the proposed acquisition of a coal refuse facility was withdrawn following the announcement of RGGI. That plant will close at the end of March.

Simply stated, the markets are watching us and, even if unspoken, the markets will vote with their next investment dollar.

The economic principle of comparative advantage will prevail, lost Pennsylvania generation will be replaced by new investment in PJM outside of Pennsylvania in places like Ohio and West Virginia without the added RGGI tax.

SLIDE 11

Finally, how do we move forward together? There are certainly people of good faith on both sides of this discussion.

Yet, we need to ensure that transparency governs Pennsylvania's approach to RGGI and its implications for the Commonwealth – the voice of all of the stakeholders, including those most directly and adversely affected must be heard.

We ask that you commit your office to supporting the resilience and competitiveness of Pennsylvania's diversified energy portfolio and Pennsylvania's proud position as the top energy exporting state in the nation.

We ask that you embrace the vital direct economic contribution from the coal fired facilities to the communities that they serve.

As a matter of fairness and legitimate legal authority, we believe that Pennsylvania must obtain prior legislative authorization before committing the Commonwealth to RGGI or, for that matter, to any cap and trade program.

Ultimately, if Pennsylvania proceeds down this path, we can certainly agree not to implement RGGI or any cap-and-trade program in Pennsylvania without all (PJM) border states first implementing RGGI as a means of mitigating the damage caused by Leakage.

Without these sorts of protections we are unilaterally destroying existing investment and existing jobs and purchasing, at best, a diminished future for Pennsylvania's energy markets.

SLIDE 12

Thank You



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Sean P. Lane
Authorized Representative
Chief Power, LLC

Why are we here? Legislative Mandate?

- ▶ Certainly not based upon a legislative mandate. A path to the implementation of RGGI in PA was announced by Governor Wolf's Executive Order on October 3, 2019.
- ▶ On Thursday, January 30, 2020 the PADEP announced that the Air Quality Technical Advisory Committee (AQTAC) will be considering PADEP's draft RGGI proposal at its 2/13 meeting.

Why are we here? Carbon Imperative?

- ▶ Ostensibly to achieve carbon reductions, yet **we have already outperformed all of the previous Pennsylvania electricity generation metrics**. PA electric generation has already met or exceeded all of the reduction targets that have been set by President Obama (10.5% below CPP), the Paris Accords (26% below) and Governor Wolf (26% below), and these reduction trends will continue without the need for RGGI.
- ▶ PA's carbon savings have been achieved as a consequence of competitive electric markets, the natural gas bonanza and the MATS regulations.
- ▶ RGGI will not result in CO2 emissions reductions that will benefit local, regional or global climate, in fact carbon and other regulated emissions might increase due to lower emissions standards or increased production from existing and subsequently new units in WV, Ohio or elsewhere in non-RGGI PJM.

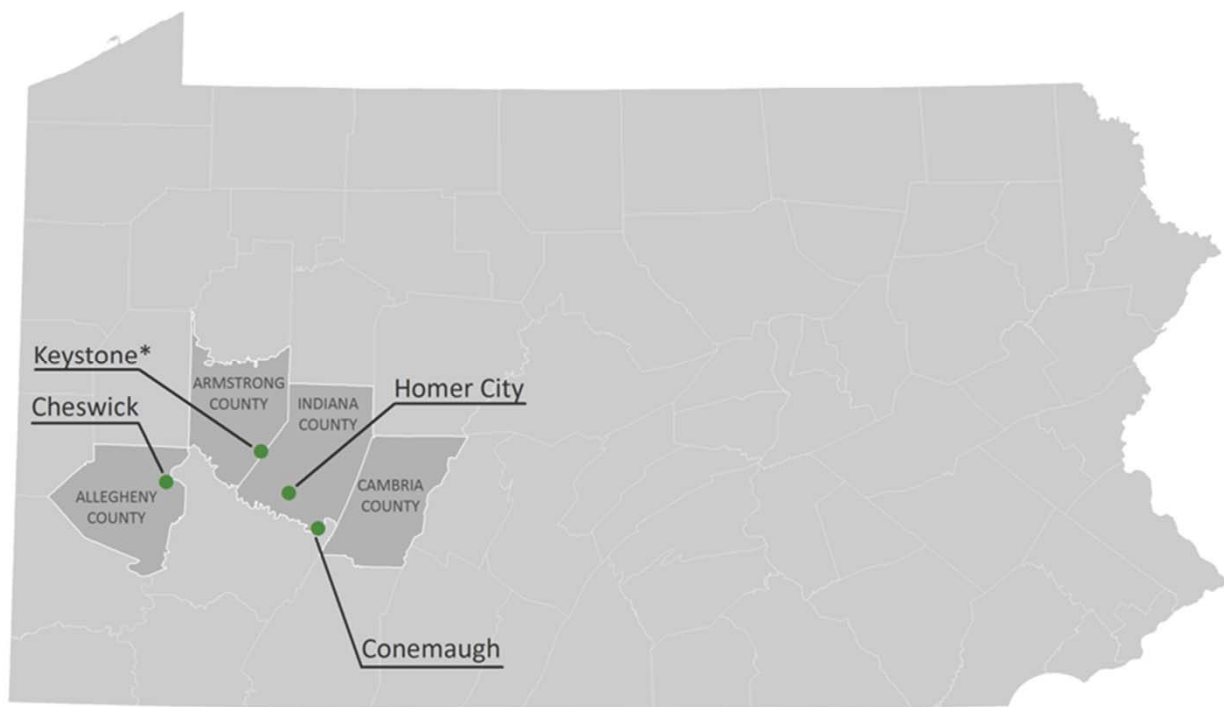
Why are we here? Chasing Tax \$\$\$?

- ▶ RGGI supporters are publicly targeting up to \$400 million in annual revenue, in reality RGGI will ensure value destruction and perhaps only generate \$175 - \$200 million - at a cost of ² thousands of jobs and billions in existing economic activity.

RGGI Will Punish PA's Electric Generation Fleet

- ▶ RGGI imposes an unrecoverable "tax" on all coal and natural gas fired electricity generation in Pennsylvania.
- ▶ All PA Generators will become less competitive within PJM as compared to neighboring non-RGGI PJM states such as Ohio, Indiana, Kentucky and West Virginia.
- ▶ Some facilities will simply go out of business, others will see their operating costs increase.
- ▶ The additional RGGI cost will immediately render the coal-fired generation facilities in PA uneconomic compared to other non-RGGI PJM state generators.
- ▶ RGGI will cause the immediate or near immediate retirement of all of the coal fired power plants in PA.
- ▶ These large employers, and all of their related economic benefits, high paying jobs, taxes, supporting industries anchored in the local communities and the Commonwealth will disappear.
- ▶ Thus, RGGI not only targets these *plants*, but it targets the *communities* where they are located.

Coal Plants in Allegheny, Armstrong, Cambria & Indiana Counties, PA - RGGI's "Ground Zero"



*Keystone Power Plant is located in both Armstrong and Indiana Counties

Source: IMPLAN (2015), Econsult Solutions economic study (November 2019, February 2020)

A quick review of the economic attributes of Cheswick, Homer City, Keystone & Conemaugh

RGGI Punishes Vulnerable Communities

- ▶ On an annual basis, the four plants that we chose to examine Generate a combined annual **33.2 million megawatt hours** of electricity; Generate **\$1.07 billion** in operating expenditures (including fuel costs); Employ **622 direct workers**; and Pay **\$91 million** in employee compensation (including wages and benefits) - primarily in Allegheny, Armstrong, Cambria and Indiana counties.

Plant	Annual Energy Generation (Millions of MWHrs)	Annual Operating Expenditures (\$M)	Total Employees	Employee Compensation (\$M)
Cheswick	1.2	\$56	60	\$9
Conemaugh	12.1	\$363	166	\$24
Homer City	8.1	\$294	230	\$35
Keystone	11.8	\$359	166	\$24
Total	33.2 million	\$1.07 billion	622 jobs	\$91 million

Source: IMPLAN (2015), Econsult Solutions (2019)

Direct source: Plant operational data
Note: Columns may not sum due to rounding

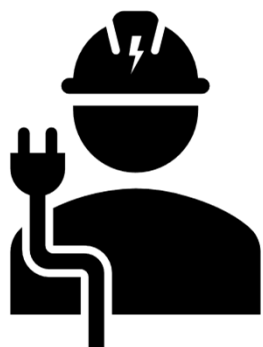
- ▶ **Timing could not be worse**, unrelated closures of coal mining operations are imposing significant economic distress on already struggling communities.

Murray Energy Is 8th Coal Company in a Year to Seek Bankruptcy



A bulldozer moving coal at the Murray Energy Corporation port facility in Powhatan Point, Ohio. Joshua Roberts/Reuters

Coal Fired Power Plants - Community Pillars



Solid Fuel Jobs

- ▶ In Pennsylvania the Coal Fired generation operations represent:
 - ▶ \$2.87 billion in total economic impact within Pennsylvania, supporting
 - ▶ 8,170 total jobs, and
 - ▶ \$539 million in employee compensation in some of the most economically vulnerable communities of the Commonwealth.

Economic Impact of Plant Operations in Pennsylvania

	Indiana County	Armstrong County	Cambria County	Allegheny County	Rest of PA	Commonwealth of Pennsylvania
Direct Impact (\$M)	\$657	\$359	\$0	\$56	\$0	\$1.07 billion
Indirect & Induced Impact (\$M)	\$216	\$186	\$122	\$55	\$1,223	\$1.80 billion
Total Economic Impact (\$M)	\$873	\$544	\$122	\$111	\$1,223	\$2.87 billion
Total Jobs Supported (FTE)	1,490	1,100	590	320	4,670	8,170 jobs
Total Employee Compensation (\$M)	\$112	\$65	\$26	\$28	\$307	\$539 million

Source: IMPLAN (2015), Econsult Solutions (2019)

Note: Rows and Columns may not sum due to rounding

Coal Fired Power Plants - Community Pillars



- ▶ These four facilities contribute over **\$34 million** to the state and local tax base in their host communities and to the commonwealth.

	Annual Total
Income Taxes (\$M)	\$10.8
Sales Tax (\$M)	\$15.6
Business Tax (\$M)	\$5.0
Environmental Taxes and Fees (\$M)	\$2.8
State Total	\$34.2 million

- ▶ In addition, these plants directly pay almost **\$4 million** per year in property taxes and utility service fees, and other costs in their local host communities.

	Annual Total
Assessed Property Value (\$M)	\$88.3
Property Tax Revenue (\$M)	\$2.5
Municipal Utility and Service Fees (\$M)	\$1.2
Local Total	\$3.7 million

Source: Plant operational data

Note: Rows and Columns may not sum due to rounding

Source: IMPLAN (2015), Econsult Solutions (2019, 2020)

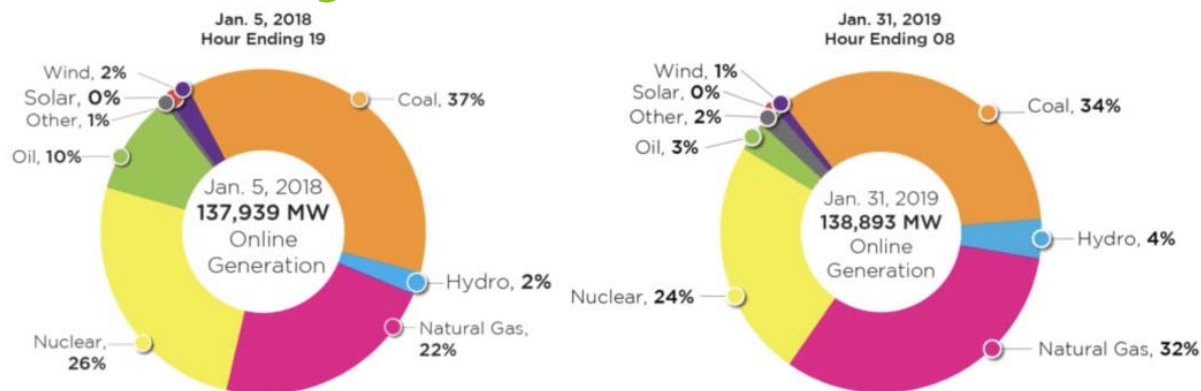
Ultimately the adverse impact upon PA will be much greater as we have not looked at Montour, Brunner Island (coal switched to natural gas), Shawville or New Castle or any of the older natural gas fired facilities that will be harmed in Schuylkill and Montour Counties and elsewhere throughout the state.

RGGI will Diminish PA's Premier Role as an Exporter of Electricity in PJM

- ▶ RGGI provides a competitive advantage to new and existing non-PA generation resources located in PJM states, such as West Virginia, Ohio, Indiana and Kentucky where RGGI is not adopted.
- ▶ RGGI program history proves that PA will generate less electricity and will import more out of state or out of region power as a consequence of RGGI - this is called "Leakage."
- ▶ RGGI will result in lost PA generation being replaced by generation from other natural gas-fired or coal-fired electric generating units located in non-RGGI PJM states.
- ▶ Net exports of PA electricity will be reduced. The principle of *comparative advantage* will prevail.
- ▶ Even the newest natural gas fired EGUs will experience a \$2.00 - \$2.50/MWh price increase; RGGI will add \$6.00/MWh to the price of coal fired electricity .
- ▶ New projects will simply move across the border to the more investment friendly (non-RGGI) states that do not impose this tax.
- ▶ In lieu of PA exporting electricity, **RGGI exports new investment, new construction jobs and new operations jobs** across PA's borders, to WV, OH, IN, KY and elsewhere.

PA's Resiliency is further threatened ...

PJM Inside Lines – “Winter Marked by Reliability and Strong Generator Performance”
3/18/2019



Fuel mixes from cold weather peaks in 2018 and 2019.

Exhibit 1-8. PJM output December 2017-January 2018, average daily GWh^m

Fuel	12/1-12/26	12/27-1/9	Delta	Percentage Change	Share of Increase
Coal	746	1,113	367	49%	74%
Gas	607	619	12	2%	2%
Renewables	127	123	-4	-4%	-1%
Nuclear	846	851	5	1%	1%
Oil	2	111	109	455%	22%
Total	2,328	2,817	496	21%	100%

- PA joining RGGI will not result in replacement with renewable electric generation built in PA; but it will diminish PA's electric energy resilience by causing the immediate or near immediate shutdown of all coal fired generation in PA.

RGGI creates Unnecessary Risk and increases Costs in the Energy Capital Markets

- ▶ RGGI represents value destruction and sends an investment risk message to the industry relative to other states.
- ▶ In the Summer of 2019 the uncertainty of RGGI in Pennsylvania and its potentially adverse financial impact upon solid fueled plants caused lenders to withdraw from certain lending syndicates.
- ▶ In the Fall of 2019 the proposed acquisition of a coal refuse facility was withdrawn following the announcement of RGGI.
- ▶ Simply stated, the markets are watching us. The adoption of RGGI will send a powerful message of political risk and uncertainty to the energy capital markets and independent power companies when comparing PA to other venues for their next investments.
- ▶ Lost PA generation in PJM post PA-RGGI will be replaced by new investment outside of PA in Ohio and West Virginia where a comparative generation advantage will exist.
- ▶ In essence RGGI invites Job Losses & Value Destruction in PA leading ultimately to \$6.4 bn of new natural gas generation investment outside of PA in order to replace lost PA capacity.

How do we move forward together?

- ▶ Ensure that **transparency** governs PA's approach to RGGI and its implications for the Commonwealth.
- ▶ Commit your office to **supporting** the **resilience** and **competitiveness** of PA's diversified energy portfolio and PA's position as the top energy exporting state in the nation.
- ▶ Embrace the vital **economic contribution** from the coal fired facilities to the communities that they serve.
- ▶ Obtain prior legislative authorization (see, **HB 2025, SB 950**) before committing the Commonwealth to RGGI or any cap and trade program.
- ▶ If RGGI is inevitable, commit not to implement RGGI or any cap-and-trade in PA without all (PJM) border states first implementing RGGI as a means of mitigating the damage caused by **Leakage** - the inevitable export of PA jobs and economic investments to non-RGGI PJM states' electric generators.

Thank You