

ANTHRACITE COAL: CURRENT CHALLENGES AND FUTURE PROSPECTS

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JOINT LEGISLATIVE *Air and Water Pollution Control &* CONSERVATION COMMITTEE

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ANTHRACITE COAL IN PENNSYLVANIA

On October 4, 2018, the Committee held a roundtable discussion to bring together legislators and stakeholders to discuss the changes seen in the anthracite coal industry over the years and how to adjust and adapt for the future. With a topic like the anthracite industry, it was fitting that the discussion took place in Coaldale, Schuylkill County.

Legislators in attendance were:

- **Chairman Senator Scott Hutchinson**
- **Senator David Argall**
- **Senator Sharif Street**
- **Representative Stephen McCarter**
- **Representative Jerry Knowles**
- **Representative Doyle Heffley**

There were also several stakeholders from various organizations related to or reliant on anthracite coal.

Joining the roundtable were:

- **Greg Driscoll, President and CEO of Blaschak Coal Corporation**
- **Duane Feagley, Executive Director of the PA Anthracite Council**
- **Jaret Gibbons, Executive Director of ARIPPA**
- **Rusty Taylor, President and CEO of Lehigh Anthracite**
- **Pat Grier, Controller and Alex van Hoekelen of van Hoekelen Greenhouses, Inc.**

ROUNDTABLE DISCUSSION

“ANTHRACITE:

A hard, black, lustrous coal containing a high percentage of fixed carbon and a low percentage of volatile matter. Often referred to as hard coal.”

-Environmental
Protection Agency

The **Blaschak Coal Corporation**, represented by president and CEO, **Greg Driscoll**, began the discussion.

Mr. Driscoll started by recognizing the impact of generations of coal mining on Pennsylvania’s landscape and environment. While the anthracite industry of the past was responsible for the abandoned mines, open pits and acid mine drainage, he emphasized how the modern industry is helping remediate this legacy in a cost-effective manner.

Modern anthracite mines do not break virgin ground but instead open old locations and retrieve the coal that was left behind. This method uses the “Reclamation and Re-mining” permit from the Pennsylvania Department of Environmental Protection and requires them to return the surface and water flow to their original condition.

Ultimately, he argued, the industry-funded backfilling of old mines saves the Commonwealth millions of dollars on projects that are crucial for the local environment and for public safety. Without mining companies returning to abandoned sites and remediating them as they extract the anthracite, the burden

would fall to the state, or the mines would remain as they are, creating acid mine drainage and other hazards. Anthracite miners also pay a reclamation tax per ton of coal extracted which funds the state's efforts, taking the burden off of the public funds and by extension, the taxpayers.

In addition, Mr. Driscoll highlighted anthracite's potential in markets beyond the energy sector. While some see coal as a dying industry due to the rising prominence of other energy sources, he noted that the largest single consumer for anthracite is steelmaking, both as a source of carbon for the alloy itself and as a heat source.

Another major market for anthracite is water treatment, purification and management. He cited the use of anthracite in the cleanup of PCB spills in the Hudson River and its use for water filtration across the globe for over a century.

There are also many future markets being explored by research and development within the industry and within academia. Anthracite is being tested as a soil amendment, a source of rare earth elements and a component in carbon capture technology. These potential markets for anthracite as well as the growth of current markets has given Blaschak Coal Corporation the confidence to expand their operations in recent years, despite the dramatic downturn in sales to the energy sector.

He argued that their optimism is shared by others as well, pointing to the \$300 million dollars that has been invested in anthracite mining in the last few years.

Lehigh Anthracite's president and CEO Rusty Taylor also joined the roundtable to represent the anthracite mining sector.

Representative Knowles asked Mr. Taylor to elaborate on the concept of remining and reclaiming. Mr. Taylor was able to point to his company's own operation that laid within view

of Coaldale, where the roundtable was held. He described how this surface mine was situated on top of a 150 year old mine that at one time produced over 500 million tons of coal in one year. Now Lehigh Anthracite recovers what was left, which is an inherently uncertain process, due to the inconsistency of how thorough the deep mining was.

Mr. Taylor also discussed the difference in extraction between anthracite and bituminous, as well as the differences between these forms of coal. While anthracite can be burned, he said that many in the industry think of it as an industrial mineral rather than a fuel source. This is reflected in the current markets, with steel using it for its high carbon content rather than its BTUs. Another example is the use of the carbon to react with zinc oxide to create a more pure zinc compound. However anthracite is often grouped together with coal that is primarily sold for combustion furnaces.

In response to a question from Representative Knowles about the industry's role in cleaning up the anthracite region, Mr. Taylor reiterated what Mr. Driscoll had said about the responsibility to address the environmental legacy of the past. He added the importance of the coal refuse power plants in this ongoing cleanup effort. Not only for their role in reducing the amount and size of coal refuse piles, but also in creating the beneficial ash that is used to backfill abandoned mines and pits.



Cogeneration plants had previously bought both virgin coal and refuse from Lehigh Anthracite, returning the ash. However, the facility they had partnered with has since stopped operations, decreasing sales for his company and depriving them of an environmentally responsible avenue for their waste product.

In reference to the coal refuse to energy industry, the roundtable acknowledged **Jaret Gibbons, Executive Director of ARIPPA.**

According to ARIPPA, their industry returns \$26 million in environmental cleanup annually, money that would have to come from public funds if coal refuse plants continue to go out of business. As a whole, they represent a \$780 million industry, returning more value to the Commonwealth through taxes and by providing jobs to local communities.

Their struggle to remain profitable is driven by a few overlapping variables.

As unique operations that both unearth the refuse and burn it, cogeneration plants face regulations as power plants and as miners. This, Mr. Gibbons argued, results in undue and often redundant strain.

The low price of electricity adds to these difficulties. Mr. Gibbons cited prices from 2014 when cogeneration plants spent an average of \$39 per megawatt hour to produce electricity, yet received only \$31 for it.



Cogeneration plants do receive a \$10 million tax credit from the Commonwealth, but Mr. Gibbons stated that the overproduction of natural gas and the subsidies for renewables leave them in an uncompetitive position. This amount is also much smaller than the environmental benefit provided by these plants. He noted that the original value of the credit was intended to be \$4 per ton, but due to a cap, the credits are only worth approximately one dollar.

Another stakeholder in the anthracite industry present at the roundtable was **van Hoekelen Greenhouses, Inc., represented by Alex van Hoekelen and Pat Grier.** While not a part of the anthracite industry directly, Mr. van Hoekelen explained how they used to source steam from a cogeneration plant to heat their greenhouses which cover 15 acres of land in McDoo, Pennsylvania. This steam was given off from the plant as waste, meaning low costs for the greenhouses as well as a carbon neutral way to grow plants in the dead of winter.

The cogeneration plant has since stopped continuous generation, switching to an intermittent service as they became financially inviable, as Mr. Gibbons discussed earlier. To continue operating, the van Hoekelen Greenhouses had to install two propane generators, increasing their costs significantly.

When the plant does eventually shut down, as was announced, the original greenhouses will switch to natural gas to heat their facilities. One greenhouse currently runs a coal boiler, however they have struggled to obtain permits to install coal boilers in other facilities. These difficulties have stalled the company's plans to expand their operations.

Ms. Grier elaborated on the regulatory and reporting requirements that have caused this strain. She cited the difficulty in testing the various boilers that they have sought to install. Without the tests, they have been unable to get

permits and cannot move forward with their expansions.

Duane Feagley, executive director of the Pennsylvania Anthracite Council weighed in on the regional impact of the industry.

Today, the anthracite industry employs approximately one thousand people. While this is a far cry from the 177,000 miners needed in 1917, the industry still contributes \$200 million to the economy and the environmental benefits discussed by others before him.

One important point is the location of Pennsylvania's anthracite deposits. Many of them are in regions that were built around the previously booming mining industry. This reliance has resulted in the communities being heavily impacted by the industry's decline. While there are less jobs now, Mr. Driscoll noted that current miners' "wages are two times the median household income level for counties in the Pennsylvania anthracite region."

Mr. Feagley reiterated the work done by both anthracite and bituminous miners to remediate land in the region. He cited the 40 thousand acres that have been remediated to date, according to the DEP. The total savings enjoyed by the taxpayers for the environmental work done since 1998 is estimated to be \$900 million dollars.



Special thanks to the organizations who joined us in Coaldale.

The Joint Legislative Air and Water Pollution Control and Conservation Committee, commonly referred to as the Joint Legislative Conservation Committee, is a bipartisan and bicameral legislative service agency of the Pennsylvania General Assembly. The committee provides research and recommendations on a variety of topics related to the sustainable use of the Commonwealth's diverse natural resources. For more information, visit our website at jcc.legis.state.pa.us or contact the report author, Coleen Engvall, at 717.787.7570.