



Ebensburg Power Company

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January 14, 2021

Submitted via <http://www.ahs.dep.pa.gov/eComment>

Environmental Quality Board
 Harrisburg, PA 17105-8477

**Re: Public Comments to the Proposed Rulemaking: CO₂ Budget
 Trading Program #7-559**

To Whom It May Concern,

On behalf of the ownership and employees of Ebensburg Power Company, please accept our comments to the Environmental Quality Board (EQB) published notice of its proposal to amend 25 Pa. Code Chapter 145 (relating to interstate pollution transport reduction) to add Subchapter E (relating to CO₂ budget trading program) to establish a program to limit the emissions of carbon dioxide (CO₂) from fossil fuel-fired electric generating units (EGU) located in this Commonwealth, with a nameplate capacity equal to or greater than 25 megawatts (MWe). 50 Pa.B. 6212. Adoption of this proposal will establish Pennsylvania's participation in the Regional Greenhouse Gas Initiative, known as RGGI, a regional CO₂ Budget Trading Program.

About Ebensburg Power Company:

Located in Ebensburg, Cambria County, Pennsylvania, Ebensburg Power Company (Ebensburg) is a 50 net MW, waste coal burning electric generation unit. The plant was originally constructed as a Qualifying Facilities (QF), subject to size restrictions pursuant to the Public Utility Regulatory Policy Act (PURPA). It was built as a Combined Heat and Power (CHP) facility to provide steam for heating and cooking at the PA Department of Public Welfare, Ebensburg Center and electric power to the grid. The plant came online in 1991 under a 22-year Power Purchase Agreement with Penelec. However, in March of 2012 providing steam service to the Ebensburg Center ceased. The Purchase Power Agreement of bulk electric sales to Penelec ended in May 2013. Since that time, Ebensburg Power operated as a merchant generator subject to the vagaries of the electric market. The plant has had two owners with the last owner buying the plant in 2017.

The plant directly employs 29 people and roughly 80 indirect jobs in the transportation industry and materials handling. The waste coal industry in Pennsylvania directly and indirectly in employs about 5,000 total family sustaining jobs in the state

The plant is a Circulating Fluid Bed Style boiler to generate electricity. It utilizes pulverized limestone when burning waste coal for SO₂ reduction and fabric filter technology for particulate control. A byproduct of utilizing limestone is that it also creates a beneficial highly alkaline ash product which is used for acid mine drainage remediation and reclamation.

At a maximum run rate, Ebensburg Power is capable of remediating about 548,000 tons annually. In past 10 years, the plant has consumed 4,197,642 tons of waste coal. Historically while under the PPA the plant ran at maximum capacity burning 545,321 tons in 2010; 545,200 tons in 2011; and 553,576 tons in 2012. More recently due to depressed power market conditions, the plant has only operated at about 60% of capacity. At that rate, Ebensburg remediates roughly 325,500 tons annually. This reduction hinders the environmental remediation Ebensburg Power could perform by roughly 225,500 tons annually. The chart below shows the actual number of waste coal tons remediated and the MMBtu for the past 10 years:

	waste coal, tons	Firing Rate MMBtu	remediation capability
2010	545,321	6,566,240	100%
2011	545,200	6,593,621	99%
2012	553,576	6,511,774	101%
2013	487,809	6,107,539	89%
2014	471,409	5,507,732	86%
2015	263,094	3,014,190	48%
2016	276,362	3,199,392	50%
2017	310,500	4,131,375	57%
2018	423,635	5,560,219	77%
2019	320,736	3,940,910	59%

Although waste coal at one time was considered a cheap fuel source, economics have changed. The very low cost and abundant natural gas is being capitalized as a fossil fuel source firing new state of the art natural gas power plants. In addition, renewable energy mandates incentivizing wind and solar capacity, states regulating their power industry have suppressed wholesale pricing in the PJM. Additionally, the waste coal piles that were located close to the facilities have been remediated. This requires sourcing waste coal further afield, thus increasing trucking expense. It is estimated that there is still over a 30-year supply of waste coal within a 50-mile radius of the plant.

At full-load operation the plant receives about 70 truckloads of waste coal a day, along with about 12 truckloads of limestone for sulfur capture during the power generation process. Since its inception, Ebensburg removed almost 13,000,000 tons of coal from the surrounding area. These piles were blight to their local communities with many of those tons coming from sites created by now defunct steel and coal companies.

Background:

In the early days of coal mining, waste-coal was discarded with no environmental regulation in regards to proper disposal. Much of this refuse material was left in large waste piles near local waterways. These piles were often referred to as “bony piles”. Due to the acidic composition, the piles leach acid mine water and heavy metals into regional waterways greatly impairing water quality in economically distressed regions. These piles also can even spontaneously combust releasing uncontrolled hazardous emissions into the air including CO₂.

During the 1990’s and early 2000’s on the back of new regulations designed to create a public private partnership to incentivize mine reclamation efforts in the state, a wave of new Circulating Fluidized Bed (CFB) power plants were constructed throughout Pennsylvania. These plants were designed to utilize fuels with lower heating values, primarily waste coal and provide the only economically viable solution for restoring the environment where refuse piles exist.

By cleaning up and restoring the land back to approximate original contour (AOC) and using the alkaline rich ash from CFB plants to remediate abandoned coal mines and waste coal sites in an environmentally safe and efficient solution that combats acid mine drainage. Ebensburg Power is a market-based, alternative energy solution to remediate legacy waste coal piles at no cost to the taxpayer in the Commonwealth. In areas where waste piles have been remediated and abandoned mining land reclaimed, streams recovered and are able to support plant and fish life.

For example, Ebensburg was built near the Revloc pile in Cambria Township, Cambria County, which was spread over 86 acres, and contained approximately 3,500,000 tons of waste coal. Remediation of the Revloc pile began in 1991 and was completed in 2010. The South Fork of the Blacklick Creek has since returned to a put-and-take stocked trout stream in part due to the remediation efforts performed by Ebensburg power. If that pile was not removed, it is highly unlikely the Blacklick Creek will be able to support the current amount of aquatic life that has since returned.

Pennsylvania has established grant and funding programs to clean up these legacy waste coal piles. However, these programs receive minimum funds. It is estimated that it could take well over a hundred years to clean up these waste coal piles if it were not for using it for electric generation and land reclamation. Moreover, the cost of remediation would be borne by the taxpayers of the Commonwealth. It is

estimated that cost is over \$5 billion which is likely understated given the full scale of the problem.

RGGI:

Ebensburg is a member of the Appalachian Region Independent Power Producers Association ("ARIPPA") and supports their comments submitted to the Department. However, we offer the following supplemental information.

The main purpose of RGGI is to reduce carbon emissions from fossil fuel electric generation thru a cap-and-trade program. Although waste coal plants generate electricity, the main purpose of these plants is to burn coal waste that had been discarded in large piles by the mining and electric generation industry in the past. These waste piles have been polluting the air and water. In addition, these rather large waste piles have been an eye sore and a danger for the communities in which they reside.

We want to thank Governor Tom Wolf, his Administration and PA DEP for recognizing the environmental benefits that waste coal plants (WC plants) provide to the Commonwealth by setting aside allowances for WC plants such as Ebensburg.

According to the PA Department of Environmental Protection (DEP)'s comment notice, *"While this Commonwealth's participation in RGGI will have tangible health, environmental and economic benefits, the inclusion of the waste coal set-aside has the additional benefit of avoiding unintended impacts to this generation sector, so that the environmental benefits of continuing to remediate this Commonwealth's legacy waste coal piles may continue. For context, since 1988 a total of 160.7 million tons of waste coal has been removed and burned to generate electricity, with an additional 200 million tons of coal ash beneficially used at mine sites. Of this Commonwealth's over 13,000 acres of waste coal piles cataloged by the Department, 3,700 acres have been reclaimed with roughly 9,000 acres remaining. Additionally, of the piles that remain, approximately 40 of them have ignited, and continually burn which significantly impacts local air quality."*

Furthermore, *"Under § 145.342(i) (relating to CO2 allowance allocations), the Department proposes to set aside 9,300,000 CO2 allowances at the beginning of each year for waste coal-fired units located in this Commonwealth. The Board is establishing this waste coal set-aside in this proposed rulemaking because waste coal-fired units provide an environmental benefit of reducing the amount of waste coal piles in this Commonwealth. Reducing waste coal piles is a significant environmental issue in this Commonwealth, because waste coal piles cause air and water pollution, as well as safety concerns. Waste coal-fired units burn waste coal to generate electricity thereby reducing the size, number and impacts of these piles otherwise abandoned and allowed to mobilize and negatively impact air and water quality in this Commonwealth. In recent years, waste coal-fired units have struggled to compete in the energy market, due in part*

to low natural gas prices, and several units have shut down or announced anticipated closure dates. Given the environmental benefit provided, the Board determined that it is necessary to assist owners or operators of waste coal-fired units with meeting their compliance obligation under this proposed rulemaking.”

In addition, “By providing a set aside, as opposed to an exemption, the CO2 emissions from waste coal-fired units are included in this Commonwealth's CO2 emissions budget and owners or operators of waste coal-fired units are still required to satisfy compliance of all the regulatory requirements in this proposed rulemaking. After reviewing the last 5 years of CO2 emission data from waste coal-fired units, the Department determined that the CO2 allowance set aside should be equal to the total of each waste coal-fired unit's highest year of CO2 emissions from that 5-year period. That total is 9,300,000 tons of CO2 emissions. Thus, the Department will set aside 9,300,000 CO2 allowances annually. Each year, the Department will allocate the CO2 allowances directly to the compliance accounts of the waste coal-fired units equal to the unit's actual emissions. However, if the waste coal-fired units emit over 9,300,000 tons of CO2 emissions sector-wide in any year, then the units must acquire the remaining CO2 allowances needed to satisfy their compliance obligation.”

Although we greatly appreciate the set aside and have welcomed the participation in stakeholder meetings, we are seeking additional changes to the definition of “legacy emissions.” We understand that DEP needs to set a number for emissions for program purposes, but randomly picking a set of years to base future needs can have negative consequences.

By only looking at the past five years, Ebensburg would be limited to 604,422 tons CO2 emissions. However, if DEP looked at the past ten years, then Ebensburg's legacy emissions would be 674,276 tons. Ten-year data most accurately represents the waste coal remediation that Ebensburg is able to achieve. Since the over-arching goal is to remediate the waste coal legacy, Ebensburg supports the ten-year period. DEP had rationalized the legacy date by looking at the market in the past and in the future and maintained that it was “highly unlikely” that these plants would run more in the future than in the past five years. The goal of remediating the greatest amount of waste coal and enhance mine land reclamation is properly realized- by considering a period of time when the CFB fleet and Ebensburg operated most effectively. The five year look back, inaccurately quantifies the capability CFBs and Ebensburg are able to achieve and inadvertently constrains the remediation effort.

Power prices over the past 5 years have been at historically low levels due to the factors mentioned above. The chart below shows the lower power prices effect on Ebensburg's operating rate as power market has decreased.

	Annual Firing Rate mmbtu's	% of Max Firing	EBENSBURG 13 KV Avg Power Pirce \$/mwh	Henry Hub Gas Price \$/mmbtu
2010	6,566,240	100%	\$ 41.16	\$ 4.37
2011	6,593,621	99%	\$ 40.24	\$ 3.99
2012	6,511,774	101%	\$ 31.85	\$ 2.75
2013	6,107,539	89%	\$ 35.61	\$ 3.72
2014	5,507,732	86%	\$ 44.03	\$ 4.32
2015	3,014,190	48%	\$ 31.14	\$ 2.60
2016	3,199,392	50%	\$ 25.34	\$ 2.48
2017	4,131,375	57%	\$ 27.25	\$ 2.96
2018	5,560,219	77%	\$ 33.12	\$ 3.12
2019	3,940,910	59%	\$ 24.71	\$ 2.51
2020	4,637,785	65%	\$ 19.17	\$ 1.99

In addition to market changes, there have been legislative changes that will influence the generation market too. On November 23, 2020, Governor Wolf signed House Bill 2536 (Act 114 of 2020) amending the Fiscal Code to include Section 1799.10-E limiting eligibility in Tier II of the Alternative Energy Portfolio Standards (AEPS) program to Alternative Energy Credits (AECs) created by alternative energy resources located in the Commonwealth, effectively closing the border on participation in this program. This language is modeled after Section 2804 of the Administrative Code (amended by Act 40 of 2017), which excluded out-of-state resources from being eligible for the Solar Photovoltaic (PV) Carveout in Tier I of the AEPS program. An AEC represents a megawatt hour of generation, is valid for three years after the date it was generated, and prior to this change could originate within Pennsylvania or the PJM regional transmission organization (RTO). Out-of-state credits created prior to November 23, 2020 or sold under existing contracts as of that date will continue to be eligible for the remaining term of the contract.

By limiting where the generation of these credits can come from, this will increase the need for in-state credit generation. Waste coal is a Tier II source. Prior to this change, the Tier II category under Pennsylvania's AEPS had two notable failures: (i) a historically low AEC price rendering it almost meaningless in the past, and (ii) a looming Tier II structural crisis leading to an expected outflow of funds per year of Pennsylvania ratepayer financial support to out-of-state resources. An oversupply of out-of-state credits historically produced Tier II AEC prices so insignificant as to offer no support for plant operations or investment decisions. While there were 6678.4 MW of Tier II generation facilities located outside of the Commonwealth registered under the AEPS program, only 4067 MW of facilities located in Pennsylvania were similarly registered.

As such, the average Tier II AEC traded around \$0.25 over the life of the AEPS program due to this massive surplus of registered out-of-state capacity.

The Public Utility Commission (PUC) has projected that there will be a 2.5 million AEC shortfall in Tier II based upon the previous three years of production from in-state Tier II resources by 2023. (See ARIPPA's comments and attached letter from the PUC on HB 2536).

At the time DEP wrote the proposed regulation it was projected that the Colver Power Plant was going to close. This resulted in DEP to exclude its legacy emissions resulting in 9,300,000 CO₂ tons instead of 10,400,000 CO₂ tons that would be needed to include Colver. Near the end of 2020, the new owners of Colver announced the plant was going to remain active and not be decommissioned.

DEP also states that "To comply with this proposed rulemaking, each CO₂ budget unit within this Commonwealth will need to acquire CO₂ allowances equal to its CO₂ emissions. If CO₂ allowances are purchased through the multistate auctions, the owner or operator of a CO₂ budget unit will pay the auction allowance price, currently around \$5 per ton, for each ton of CO₂ the unit emits. As mentioned previously, reserved CO₂ CCR allowances can be released into the auction if allowance prices exceed predefined price levels, meaning emission reduction costs are higher than projected. The total cost of purchasing allowances will therefore vary per unit based on how much CO₂ the unit emits and the allowance price. The owner or operator may also purchase CO₂ allowances on the secondary market where they could potentially purchase CO₂ allowances at a price lower than the RGGI allowance price. CO₂ allowances also have no expiration date and can be acquired and banked to defray future compliance costs.

Since the Department will allocate CO₂ allowances to waste coal-fired units each year up to 9,300,000 allowances sector-wide, waste coal-fired units will incur minimal compliance costs. Owners or operators of waste coal-fired units will only need to purchase CO₂ allowances if the set-aside amount is exceeded. However, waste coal-fired units still have to comply with the other components of the regulation, including incorporating the CO₂ budget trading programs into their permits.

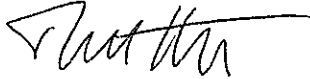
The requirements this proposed rulemaking would establish will require the owner or operator of an applicable source to submit a complete application for a new, renewed or modified permit and pay the associated fee. The application must be submitted by the later of 6 months after the effective date of the final-form rulemaking or 12 months before the date on which the CO₂ budget source, or a new unit at the source, commences operation."

Even with an increase in Tier II prices, waste coal remediation plants like Ebensburg will still face extreme economic hardship if it would have to purchase RGGI allowances for any emissions that exceeds its legacy set aside, likely capping the amount

of reclamation each year, which is counter to the goal of many local stakeholders directly impacted by these piles Therefore, we are respectfully requesting that the Administration and DEP work with us and similar stakeholders in reaching a legacy emissions definition that will hold them harmless per the goals of the Administration.

Thank you for your consideration. We look forward to working with you.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Roberts', with a long horizontal flourish extending to the right.

Thomas C. Roberts
Plant Manager