

**Testimony before the Senate Environmental Resources & Energy Committee on the Coal
Refuse to Energy Industry**

Carbon County Commissioner's Conference Room

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Good morning Senator Yaw, Senator Yudichak, members of the Senate Environmental Resources and Energy Committee. My name is Ethan Conner-Ross and I am a Director for Econsult Solutions, a Philadelphia-based economic and public policy consulting firm. Our firm was engaged by ARIPPA this year to conduct a detailed analysis of the economic and environmental impact of the 14 plants comprising the Pennsylvania coal refuse to energy industry.

Our study, which is being publicly released today, identified a number of important economic, environmental and social benefits associated with the activity of the industry. ARIPPA plants remove refuse piles left behind by Pennsylvania's mining industry, thereby addressing environmental and public safety hazards and reclaiming land for productive use. Plant operations generate significant economic stimulus in the rural communities of Pennsylvania's coal country, and directly and indirectly support thousands of jobs with family-sustaining wages and serve as community anchors.

Importantly, this activity is based on a comprehensive fuel cycle, in which coal refuse is used to produce energy, offsetting mining and transportation costs, and beneficial use ash returned to mining sites for reclamation. The Commonwealth, by contrast, cannot generate energy and attendant revenue with refuse, does not have beneficial ash available for reclamation, and must pay to dispose safely of coal refuse that it removes. As a result, the remediation activities of the industry are far more cost-effective than those of the Commonwealth, and result in a greater level of environmental remediation.

My testimony today will review each of these benefits in turn, and I would certainly encourage everyone to read the comprehensive report for more detail.

Environmental / Social

The coal refuse industry is historically the most prolific actor in the remediation of coal refuse piles across the Commonwealth. Plant activities improve the quality of local waterways, remove threats to environmental and human health, and restore land to beneficial uses through the components of the fuel cycle.

Our report quantifies these benefits through well-established environmental valuation frameworks included avoided cost, societal benefits, and land value impacts at historic industry activity levels. This framework recognizes that simply “doing nothing” in the absence of the industry efforts does not eliminate the costs or impacts of Pennsylvania’s legacy coal refuse problem.

- Water quality represents the largest single category of benefits estimated in the report. Over the past two decades, plants have improved or restored more than 1,200 miles of polluted streams. This activity yields significant avoided water treatment costs.
- Air quality and fire safety benefits arise because refuse piles generate coal dust and can catch on fire, resulting in emissions that hang over localized areas.
- Public safety benefits arise because refuse piles are often located in or near residential areas. Piles are unstable and can collapse, and in addition are often used for dangerous recreational activities, often with all-terrain vehicles, that have resulted in injury and even death.
- Finally, when piles are remediated and land is restored and reclaimed, significant land impacts occur. Remediated land is returned to productive use, and adjacent residents see increases in property values.

Importantly, many of the benefits accumulate over time. When piles are remediated and land is restored, environmental threats to water and air quality and public safety hazards are reduced and the benefits achieved from the remediation of that site remain in future years. Benefits therefore compound over time.

Total environmental and social benefits estimated in these categories accelerate from nearly \$6 million in year one to nearly \$47 million in year 20. Benefits total more than \$520 million in nominal terms over the 20 year period, averaging \$26 million per year. These benefits are entirely forward looking, and do not consider the significant volume of benefits the industry has already delivered over the past two decades.

Economic / Fiscal Impact

Plants also generate significant activity and employment within the Commonwealth. Plants are at the center of a web of activities that includes suppliers and of course plant employees, who bring home family sustaining wages and then circulate those dollars through the economy in the form of household spending. Industry activities generate jobs across the spectrum in areas like remining, transportation, operations and management, and this activity has ripple effects across the economy.

- At historic operating levels, the industry generates an annual economic impact of nearly \$740 million. This activity directly and indirectly supports 3,600 jobs, with total earnings of more than \$220 million.

This economic activity is also associated with significant increases in the tax base for the Commonwealth of Pennsylvania. Plant activities are estimated to generate nearly \$20 million in annual taxes and fees for the Commonwealth of Pennsylvania through sales, income and business taxes and environmental taxes and fees.

Contribution to Rural Communities

The environmental and economic benefits are particularly salient given their concentration in the rural communities of Pennsylvania's coal regions. Many of the areas containing the greatest concentrations of abandoned mine lands and coal refuse piles not only face the environmental legacy of decades of coal production, but have struggled to provide economic opportunities to residents as the state and national economy have shifted away from the industries concentrated in those regions. The coal refuse industry provides community anchors for small towns in these areas in several ways.

- Plants provide a major hub of employment activity, with their activities directly and indirectly supporting a range of employment at a variety of skill levels.
- They also serve as major contributors to the local tax base, both through the direct value of their properties and through the economic stimulus and environmental improvements they facilitate.
- Finally, plants have historically made significant investments in the community through public-serving infrastructure improvements, as well as contributions through scholarships, educational services and donations.

Cost Structure

Ultimately, from an economic standpoint, it is important to appreciate why the removal and remediation of coal refuse piles undertaken by the industry is far more feasible than what could be accomplished by the Commonwealth.

When the industry re-mines a refuse pile site, a portion of the cost is offset by the revenue yielded by turning this fuel into energy. Further, the energy generation process results in beneficial use ash, which is typically utilized in the remediation of the original site. Finally, the energy generation process means that the industry does not need to store the refuse in a landfill, which the Commonwealth needs to do when it addresses unsafe coal refuse sites.

For these reasons, the industry remediation activities are vastly more cost-effective than what can be undertaken by the Commonwealth, which typically only addresses refuse piles reactively rather than proactively when they pose an active public safety hazard. The activities of the industry are crucial in decreasing the significant environmental liability that these refuse piles pose to the Commonwealth over the long-term.

Unfortunately, market forces have driven energy prices down significantly over the past two years, creating a challenging economic structure for coal refuse to energy plants in which production costs exceed revenues. In the short run, this has led to the idling of plants during certain seasons, reducing both the economic and environmental impacts of industry activities. Over the long-run, it is unsustainable for plants to continue without assistance when their costs exceed revenues. The tax credit appropriated by the Commonwealth to assist plants in their operations represents a logical legislative response given the major positive externalities generated by the industry. Plants protect the health of Pennsylvanians, and increase economic opportunity and grow the tax base in its rural communities, while addressing a long-term environmental liability to the Commonwealth in a cost-effective way.

Thank you.