THE ECONOMIC IMPACT OF THE FORT MARTIN POWER STATION ON MONONGALIA COUNTY AND WEST VIRGINIA

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THE ECONOMIC IMPACT OF THE FORT MARTIN POWER STATION ON MONONGALIA COUNTY AND WEST VIRGINIA

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The cover photo of the Fort Martin Power Station was provided by FirstEnergy.

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Table of Contents

List of Figures and Tables ............................................................................................................................ iii
Executive Summary ........................................................................................................................................ iv
1 Introduction ............................................................................................................................................... 1
2 Methodology ............................................................................................................................................... 1
3 Economic Impact ....................................................................................................................................... 3

List of Figures and Tables

Figure 1: Total Economic Impact of the Fort Martin Power Station ............................................................ iv
Figure 2: Economic Impact Flow ................................................................................................................ 2
Table 1: Impact of Fort Martin Power Station on the West Virginia Economy ............................................ 3
Table 2: Impact of Fort Martin Power Station on the Monongalia County Economy ................................. 4
Executive Summary

FirstEnergy is one of two primary electric utility providers in West Virginia. The company serves approximately 530 thousand customers in the state through its two subsidiaries: Mon Power in the northern and central parts of the state, and Potomac Edison in the state’s Eastern Panhandle. In this study we analyze the economic impact of the company’s Fort Martin Power Station, located in Monongalia County. Our findings are summarized as follows:

- Fort Martin Power Station generates more than $487 million in total economic activity in the West Virginia economy. For context, note that the GDP for the entire state of West Virginia is around $75 billion.
- The Station’s operations support more than 980 jobs in state.
- Employees of the power stations and supported industries earn more than $93 million in compensation.
- The power station generates more than $13 million in select tax revenue for the State of West Virginia and local governments in the state.

Figure 1: Total Economic Impact of the Fort Martin Power Station
1 Introduction

FirstEnergy is one of two primary electric utility companies in West Virginia. The company serves approximately 530 thousand customers in the state through its two subsidiaries: Mon Power in the northern and central parts of the state, and Potomac Edison in the state’s Eastern Panhandle region.

In this study we estimate the economic impact of the company’s Fort Martin Power Station, located in Monongalia County. Fort Martin contains two coal-fired units that have the capacity to produce a total of 1,098 MW of electricity. The station came online between 1967 and 1968 and consumes more than 2.8 million tons of coal annually.\(^1\) We estimate the economic impact that this plant generates in Monongalia County specifically and in West Virginia as a whole.

2 Methodology

To estimate the economic impacts of the Fort Martin Power Station, we use a detailed model of the West Virginia economy that outlines how trade flows among industries interact with key economic indicators such as employment, income, output, and tax revenue.\(^2\) The power station’s expenditures for fuel, wages, benefits, and other items are referred to as the direct economic impact of the power station. However, the total economic impact is not limited to the direct impact, but also includes the secondary economic impacts accrued as those expenditures are re-spent throughout the rest of the economy.

For example, as depicted in Figure 2, each year the Fort Martin Power Station purchases a variety of goods and services, such as coal, lime, insurance, and various other items. In this case, the direct impact is the operating expenditure the station made over the course of a given year. As the suppliers of these inputs increase production, their subsequent suppliers will increase production, and so on. This additional economic activity is referred to as indirect impacts. Also, the Fort Martin Power Station directly employs numerous workers, part of whose income will be spent in the West Virginia economy, which generates additional output, income, and employment. This activity is referred to as induced impacts.

These secondary impacts together form what is known as the “multiplier effect.” The original stimulus to the economy from the Power Station’s expenditures is re-spent multiple times through the rest of the economy. At each stage, some of the expenditures “leak” out of West Virginia as they are spent at companies outside the state. The combined direct impact and secondary impacts together constitute the total economic impact of the Fort Martin Power Station’s operations.

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\(^1\) See https://www.firstenergycorp.com/content/dam/corporate/generationmap/files/FE-Ft%20Martin%20Fact%20Sheet.pdf for more detailed information.

\(^2\) This study was conducted using the IMPLAN modeling software, an industry-standard input-output model of the economy. More information about IMPLAN can be found at http://www.implan.com.
To conduct this analysis, we make several assumptions. First, in order to estimate the economic impact of the power station, we assume a counterfactual scenario in which the power station is simply eliminated from the local economy. This type of analysis is called an economic contribution analysis, and assumes the rest of the economy is unchanged by the elimination of the power station. Second, we assume that permanent employees of the power station live within the state boundaries, and spend the majority of their income within the state.
3 Economic Impact

In this section we estimate the economic impact of the Fort Martin Power Station. The data used in this study relating to the employment and expenditures of the Fort Martin Power Station were provided by FirstEnergy and were not independently audited by the authors. The company made available annual expenditure data for 2016 and 2017, which were disaggregated into several categories, including employee compensation, fuel purchases, capital expenditures, and other expenses. To determine the direct impact of these expenditures we average the two years of data together to calculate an average annual direct impact of the power station in the local economy.

In general, the economic impact of the power station will be lower in the county economy than in the state as a whole. In the state economy, the economic impact is distributed across a wider economic area, allowing the supply chains for the power plants to be more completely contained within the region under study. For example, coal for the power plants comes from multiple sources, some of which are located outside the county where the plants are located. If we expand the region to include these sources of coal, the secondary impacts are more fully accounted for.

Based on FirstEnergy financial statements, average annual expenditures at the Fort Martin Power Station were $266 million over the course of 2016 and 2017. The power station directly employed 185 workers, who earned a total compensation of nearly $45 million.

We estimate that power plant expenditures generated an additional $221 million in secondary impacts in the West Virginia economy (see Table 1), resulting in a total economic impact of just over $487 million in output in the state’s economy. We estimate that the power plant supported 796 jobs in the secondary economy, resulting in a total employment impact of 981 jobs. The overall economic activity associated with this operation is estimated to generate more than $13 million in selected state and local tax revenues.3

Table 1: Impact of Fort Martin Power Station on the West Virginia Economy

<table>
<thead>
<tr>
<th>Type of Impact</th>
<th>Direct</th>
<th>Indirect and Induced</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output ($, millions)</td>
<td>266.4</td>
<td>220.9</td>
<td>487.3</td>
</tr>
<tr>
<td>Employment (jobs)</td>
<td>185</td>
<td>796</td>
<td>981</td>
</tr>
<tr>
<td>Employee Compensation ($, millions)</td>
<td>44.4</td>
<td>48.7</td>
<td>93.1</td>
</tr>
<tr>
<td>State and Local Tax Revenue ($, millions)</td>
<td>7.5</td>
<td>5.9</td>
<td>13.4</td>
</tr>
</tbody>
</table>

Notes: Output, Employee Compensation, and Tax Revenue are measured in 2017 dollars. Tax Revenue impact includes sales, personal income, property, and corporation net income taxes.

3 Tax revenue include sales, personal income, property, and corporation net income taxes. Note: this figure does not include the coal severance tax. Doing so would increase the tax revenue impact.
Fort Martin Power Station’s impact on the Monongalia County economy specifically (Table 2) is somewhat smaller than its overall impact on the state as a whole. As reported in Table 2, the power station’s output impact on the Monongalia County economy is over $405 million, and the power station is estimated to support about 816 jobs in the economy, with total compensation of nearly $80 million. The overall economic activity associated with this operation is estimated to generate nearly $12 million in select state and local tax revenues.

Table 2: Impact of Fort Martin Power Station on the Monongalia County Economy

<table>
<thead>
<tr>
<th>Type of Impact</th>
<th>Direct</th>
<th>Indirect and Induced</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output ($, millions)</td>
<td>266.4</td>
<td>138.8</td>
<td>405.2</td>
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<tr>
<td>Employment (jobs)</td>
<td>185</td>
<td>631</td>
<td>816</td>
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<tr>
<td>Employee Compensation ($, millions)</td>
<td>44.4</td>
<td>34.8</td>
<td>79.2</td>
</tr>
<tr>
<td>State and Local Tax Revenue ($, millions)</td>
<td>7.5</td>
<td>4.1</td>
<td>11.6</td>
</tr>
</tbody>
</table>

Notes: Output, Employee Compensation, and Taxes are measured in 2017 dollars. Tax impact includes sales, personal income, property, and corporation net income taxes.
About the Bureau of Business and Economic Research

Since the 1940s, the BBER’s mission has been to serve the people of West Virginia by providing the state’s business and policymaking communities with reliable data and rigorous applied economic research and analysis that enables the state’s leaders to design better business practices and public policies. BBER research is disseminated through policy reports and briefs, through large public forums, and through traditional academic outlets. BBER researchers are widely quoted for their insightful research in state and regional news media. The BBER’s research and education/outreach efforts to public- and private-sector leaders are typically sponsored by various government and private-sector organizations.

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