# EXPEDITION GENERATING STATION

# ECONOMIC & FISCAL CONTRIBUTION TO FLUVANNA COUNTY AND TO THE STATE OF VIRGINIA



**Prepared for** 



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MANGUMECONOMICS.COM

# About Mangum Economics, LLC

Mangum Economics was founded in 2003 and since then, we have become known as a leader in industry analysis, economic impact assessment, policy and program evaluation, and economic and workforce strategy development. The Mangum Team specializes in producing objective and actionable quantitative economic research that our clients use for strategic decision making in a variety of industries and environments. We know that our clients are unique, and that one size does not fit all. As a result, we have a well-earned reputation for tailoring our analyses to meet the specific needs of specific clients, with a specific audience.

Most of our research falls into four general categories:

- Economic Development and Special Projects: The Mangum Team has performed hundreds of
  analyses of proposed economic development projects and existing entities including museums and
  tourist attractions, hospital systems, industrial development and mixed-use projects, and economic
  development regions. The Mangum Team has also authored multiple economic development plans
  and assessed the impacts of international trade and an overseas trade office.
- Energy: The Mangum Team has produced analyses of the economic and fiscal impact of over 40 GW of proposed solar, wind, battery energy storage, and hydro project spanning more than thirty states ranging from 1 MW to over 800 MW in capacity, including small-scale distributed facilities. Among those projects was Dominion's 2.6 GW Coastal Virginia Offshore Wind project off of Virginia Beach. In addition, the Mangum Team has also performed economic and fiscal impact analyses for the natural gas, nuclear, oil, and pipeline industries.
- Advanced Applied Technology: The Mangum Team specializes in analyzing how advanced technology developments (like data centers, fiber networks, and advanced manufacturing plants) contribute to the state and local economies. We have worked with local governments, trade associations, developers, and operating firms across the country to show how investments in advanced critical infrastructure transform local economies across the country.
- Policy Analysis: The Mangum Team also has extensive experience in identifying and quantifying the intended and unintended economic consequences of proposed legislative and regulatory initiatives.

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# **Executive Summary**

This report assesses the economic and fiscal contribution that the construction and ongoing operation of Tenaska's proposed Expedition Generating Station project would make to Fluvanna County and to the state of Virginia.

The Expedition Generating Station project is a proposed natural gas-fueled power plant with a generation capacity of up to 1,540 megawatts (MW) in Fluvanna County, Virginia. The facility would be located near the existing Tenaska Virginia Generating Station and would have a similar design and layout.

#### The primary findings from the assessment are as follows:

#### Economic Contribution – Construction<sup>1,2</sup>

- The Expedition Generating Station project would support approximately 1,500 local and nonlocal full-time equivalent construction workers during a representative 12-month construction period (1,500 job years).<sup>3</sup>
- The Expedition Generating Station project would provide an estimated pulse of economic activity to <u>Fluvanna County</u> during its construction phase supporting approximately:
  - 66 direct and 50 indirect and induced local job years.
  - \$7.5 million in associated local wages and benefits.
  - \$20.3 million in local economic output (in 2025 dollars).
- The Expedition Generating Station project would provide an estimated pulse of economic activity to the state of Viriginia during its construction phase supporting approximately:
  - o 1,188 direct and 854 indirect and induced statewide job years.
  - \$170.6 million in associated statewide wages and benefits.
  - \$445.6 million in statewide economic output (in 2025 dollars).

#### The Expedition Generating Station project would provide a boost to Fluvanna County's construction sector:

 At 867 jobs, construction is Fluvanna County's largest major industry sector, paying average weekly wages (\$1,475 per week) that are 33 percent above the countywide average (\$1,107 per week).<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> Data Source: U.S. Bureau of Labor Statistics.



<sup>&</sup>lt;sup>1</sup> A construction sector job, also referred to as a job year, is equal to one job over one year. It is used to denote employment on construction projects to account for the fact that actual on-site employment may vary over the period.

<sup>&</sup>lt;sup>2</sup> It is important to note that construction sector jobs are not necessarily new jobs, but the investments made can also support an existing job during the construction of the project. Additionally, it is not possible to know with certainty what proportion of these jobs would go to county or state construction contractors or be filled by county or state residents.

<sup>&</sup>lt;sup>3</sup> Please note actual construction is expected to take approximately 4 years. 1,500 job years can also be expressed as 375 full-time equivalent construction workers employed for each year of construction.

- However, the construction sector experienced the largest employment loss among industry sectors between 2023 and 2024, a loss of approximately 270 jobs.<sup>5</sup>
- The Expedition Generating Station project would directly support approximately 66 jobs and \$5.4 million in wages and benefits in Fluvanna County's construction sector.

#### Fiscal Contribution – Construction

- The Expedition Generating Station project would provide an estimated <u>one-time</u> fiscal contribution during its construction phase of approximately:
  - \$9.7 million in Fluvanna County sales and use tax revenue.
  - \$41.7 million in state sales and use tax revenue (in 2025 dollars).

#### Economic Contribution – Ongoing Operations

- The Expedition Generating Station project would provide an estimated annual economic impact to <u>Fluvanna County</u> during its ongoing operational phase supporting approximately:
  - 29 direct and 53 indirect and induced local jobs.
  - \$8.8 million in associated local wages and benefits.
  - \$75.2 million in local economic output (in 2025 dollars).
- The Expedition Generating Station project would provide an estimated annual economic impact to <a href="to-the-state-of-Virginia">the-state-of-Virginia</a> during its ongoing operational phase supporting approximately:
  - 29 direct and 106 indirect and induced statewide jobs.
  - \$13.4 million in associated statewide wages and benefits.
  - \$90.6 million in statewide economic output (in 2025 dollars).

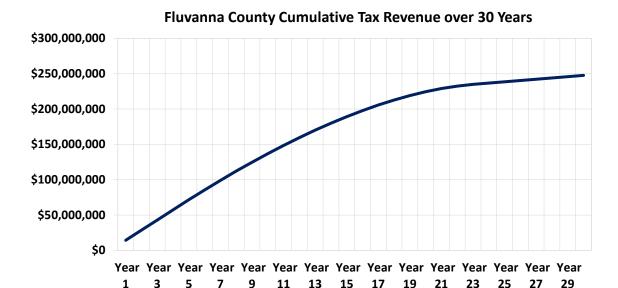
#### Fiscal Contribution – Ongoing Operations

• The Expedition Generating Station project would generate approximately \$247.7 million in tax revenue to Fluvanna County over its anticipated 30-year operational life from the taxation of the capital investment in the project (in 2025 dollars).

<sup>&</sup>lt;sup>5</sup> Data Source: U.S. Bureau of Labor Statistics.







#### Fiscal Contribution – Comparisons

- Tenaska remains one of Fluvanna County's Top Taxpayers:
  - The current operating natural gas generating facility in Fluvanna County, Tenaska Virginia Generating Station, has remained a principal property taxpayer in the county for the last twenty years of operations, with its assessed value ranging from approximately 12 to 5 percent of the county's total assessed valuation from 2005 to 2024 respectively.
  - The addition of the Expedition Generating Station project would reinforce Tenaska as a top principal taxpayer in Fluvanna County.
- The Expedition Generating Station project would make significant contributions to the county's budget. The estimated \$8.3 million in average annual county revenue represents approximately:
  - 12 percent of the county's projected operating revenue for Fiscal Year (FY) 2026. The operating revenue includes all the property taxes collected by Fluvanna County.
  - Over 100 percent of most expenditure types including 106 percent of Health and Welfare,
     566 percent of Parks, Recreation, and Culture, and 544 percent of Community
     Development.

The estimates provided in this report are based on the best information available and all reasonable care has been taken in assessing the quality of that information. However, because these estimates attempt to foresee the consequences of circumstances that have not yet occurred, it is not possible to be certain that they will be representative of actual events. These estimates are intended to provide a good indication of likely future outcomes and should not be construed to represent a precise measure of those outcomes.



# Introduction

This report assesses the economic and fiscal contribution that the construction and ongoing operation of Tenaska's proposed Expedition Generating Station project would make to Fluvanna County and to the state of Virginia. This report was commissioned by Tenaska and produced by Mangum Economics.

# The Project

Expedition Generating Station is a proposed natural gas-fueled power plant with a generation capacity of up to 1,540 megawatts (MW) in Fluvanna County, Virginia. The facility would be located near the existing Tenaska Virginia Generating Station and would have a similar design and layout.

# **Electricity Production in Virginia**

This section provides a backdrop for the proposed Expedition Generating Station project by profiling Virginia's electricity production sector and the role that natural gas could play in that sector.

#### **Overall Market**

As shown in Figure 1, in 2023 electricity sales and direct use in Virginia totaled 134.7 million megawatt hours. However, only 68 percent of that demand was met by in-state utilities, independent producers, and other sources. As a result, Virginia had to import the remaining electricity it consumed from producers in other states. As with all imports, this means that the jobs, wages, and economic output created by that production went to localities in those states, not to localities in Virginia.

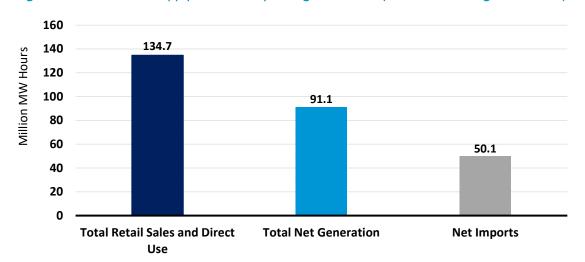


Figure 1: Demand and Supply of Electricity in Virginia in 2023 (in millions of megawatt-hours)<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> Data Source: U.S. Energy Information Administration. In this chart, "Net Imports" also takes into account losses during transmission. As a result, it does not directly equal the residual of "Total Net Generation" minus "Total Retail Sales and Direct Use."



#### Sources of Production

Between 2013 and 2023, the total amount of electricity produced in Virginia increased from 76.9 to 91.1 million megawatt hours, while retail and direct consumption of electricity increased from 113.0 to 134.7 million megawatt hours. Consequently, imports of electricity increased by 6.5 million megawatt hours (or 15 percent) during this time. Figure 2 provides a comparison of the energy sources that were used to produce electricity in Virginia in each of those years. As these data show, the most significant change between 2013 and 2023 was a decrease in the use of coal and an increase in the use of natural gas. Where coal was the state's third largest source of electricity in 2013, accounting for 21.2 million megawatt hours (or 28 percent) of production, by 2023 production had fallen by 19.8 million megawatt hours, making coal a fifth-place source of electricity with only 2 percent of production.

In contrast, the share of electricity produced using cleaner-burning low-emissions energy sources increased over the period. Where natural gas accounted for 22.7 million megawatt hours (or 30 percent) of Virginia's electricity production in 2013, by 2023 that proportion had more than doubled to 50.6 million megawatt hours (or 56 percent of production), making natural gas the state's largest source of electricity. In addition, solar, which entered the Virginia electricity production market in 2016, increased its share to 5.4 million megawatt hours in 2023.

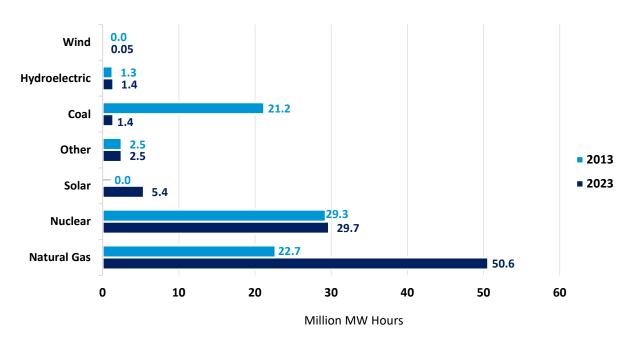


Figure 2: Electricity Generation in Virginia by Energy Source in 2013 and 2023 (in millions of megawatt-hours)<sup>8</sup>

<sup>&</sup>lt;sup>8</sup> Data Source: U.S. Energy Information Administration. The "Other" category includes battery, wood, petroleum, other biomass, "other", and pumped storage.



<sup>&</sup>lt;sup>7</sup> Imports also takes into account losses during transmission. As a result, totals do not equal sum of components.

Figure 3 provides similar data for the U.S. as a whole. A quick comparison of Figures 2 and 3 shows that although the degree of reliance on specific energy sources for electricity production is quite different between the U.S. and Virginia, the trend toward lower-emissions energy sources is the same. Nationally, between 2013 and 2023 the amount of electricity produced using coal declined by 906.0 million megawatt hours from 39 to 16 percent of production, while in contrast the amount of electricity produced using natural gas increased by 681.3 million megawatt hours from 28 to 43 percent of production.

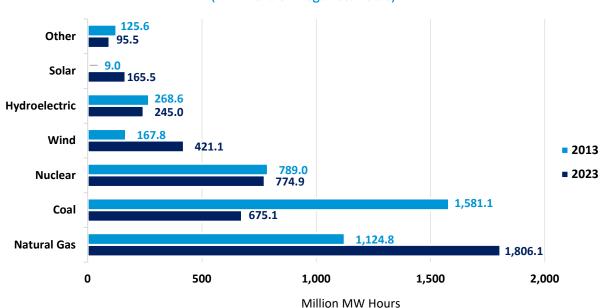


Figure 3: Electricity Generation in the United States by Energy Source in 2013 and 2023 (in millions of megawatt-hours)<sup>9</sup>

# Virginia Natural Gas Industry Trends

#### Generation

Figure 4 depicts natural gas energy generation in Virginia from 2013 to 2023 expressed in millions of megawatt-hours. Generation increased through 2020 when it reached its peak so far with 62.6 million megawatt hours. Natural gas generation has since decreased to 50.6 million megawatt hours in 2023, which is more than double the 22.7-million-megawatt hours of natural gas generation in 2013 in Virginia.

<sup>&</sup>lt;sup>9</sup> Data Source: U.S. Energy Information Administration. "Other" includes battery, geothermal, other, other biomass, other gas, petroleum, pumped storage, and wood.



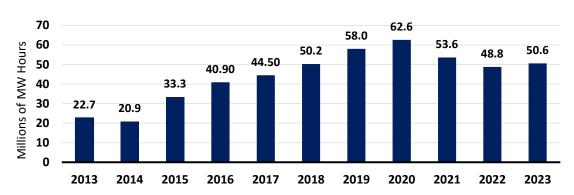


Figure 4: Natural Gas Generation in Virginia (in millions of megawatt-hours) – 2013 to 2023<sup>10</sup>

#### Capacity

Figure 5 depicts natural gas energy capacity in Virginia from 2013 to 2023 expressed in gigawatts (GW). Natural gas capacity has increased throughout the period, reaching 15.02 GW in 2021 and plateauing since then. Over the ten-year period natural gas capacity has increased by over 65 percent (or 5.92 GW).

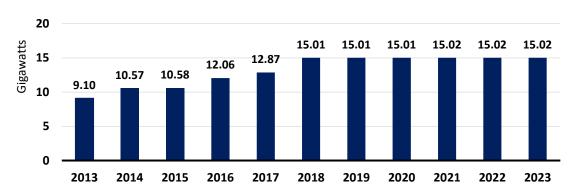


Figure 5: Natural Gas Capacity in Virginia (in gigawatts) – 2013 to 2023<sup>11</sup>

# Summary of Electricity Production in Virginia

Natural gas capacity has grown over the ten-year period of 2013 to 2023 and continues to generate the majority of electricity for both Virginia (56 percent of production) and the United States as a whole (43 percent of production). Virginia has historically been an importer of electricity with retail sales and direct use consistently increasing year-to-year since 2013. The addition of natural gas capacity and generation in Virginia could help the state meet the increasing demand for electricity and decrease Virginia's imports.

<sup>&</sup>lt;sup>12</sup> Data Source: U.S. Energy Information Administration.



<sup>&</sup>lt;sup>10</sup> Data Source: U.S. Energy Information Administration.

<sup>&</sup>lt;sup>11</sup> Data Source: U.S. Energy Information Administration.

# Local Economic Profile

This section provides context for the economic and fiscal impact assessments to follow by profiling the local economy of Fluvanna County.

# **Total Employment**

Figure 6 depicts the trend in total employment in Fluvanna County during the five-year period from December 2019 through December 2024. Fluvanna County experienced a noticeable decline in employment in April 2020 due to the decrease in economic activity during the COVID-19 pandemic. Employment has since recovered and continued to increase until 2023 when it began to slowly decline. As of June 2024, total employment in the county stood at 3,244 jobs, which represents an overall increase in employment of 11.8 percent (or 504 jobs) over the five-year period. To put this number in perspective, over this same period, total statewide employment in Virginia increased by 4.0 percent. <sup>13</sup>

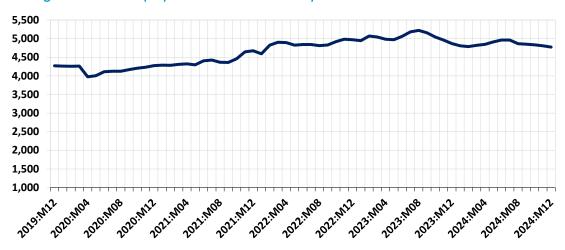


Figure 6: Total Employment in Fluvanna County – December 2019 to December 2024<sup>14</sup>

To control for seasonality and provide a point of reference, Figure 7 compares the year-over-year change in total employment in Fluvanna County to that of the state of Virginia over the same five-year period. Any point above the zero line in this graph indicates an increase in employment, while any point below the zero line indicates a decline in employment. As these data show, Fluvanna County experienced large fluctuations around the statewide trend throughout the period. As of December 2024, the year-over-year change in total employment in Fluvanna County was minus 2.0 percent as compared to 1.2 percent statewide in Virginia.

<sup>&</sup>lt;sup>14</sup> Data Source: U.S. Bureau of Labor Statistics.



<sup>&</sup>lt;sup>13</sup> Data Source: U.S. Bureau of Labor Statistics.

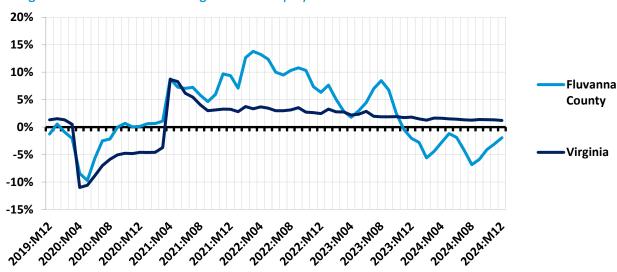


Figure 7: Year-Over-Year Change in Total Employment – December 2019 to December 2024 15

# **Employment and Wages by Industry Supersector**

To provide a better understanding of the underlying factors motivating the total employment trends depicted in Figures 6 and 7, Figures 8 through 10 provide data on private employment and wages in Fluvanna County by industry supersector. <sup>16</sup>

Figure 8 provides an indication of the distribution of private sector employment across industry supersectors in Fluvanna County in 2024. As these data indicate, the county's largest industry sectors that year were Construction (867 jobs), followed by Trade, Transportation and Utilities (583 jobs), and Education and Health Services (538 jobs).

Figure 9 provides a similar ranking for average private sector weekly wages by industry supersector in Fluvanna County in 2024. As these data show, the highest paying industry sectors that year were Financial Activities (\$1,521 per week), Information (\$1,486 per week), and Construction (\$1,475 per week). To provide a point of reference, the average private sector weekly wage across all industry sectors in Fluvanna County that year was \$1,107 per week.

<sup>&</sup>lt;sup>16</sup> A "supersector" is the highest level of aggregation in the coding system that the U.S. Bureau of Labor Statistics uses to classify industries.



<sup>&</sup>lt;sup>15</sup> Data Source: U.S. Bureau of Labor Statistics.

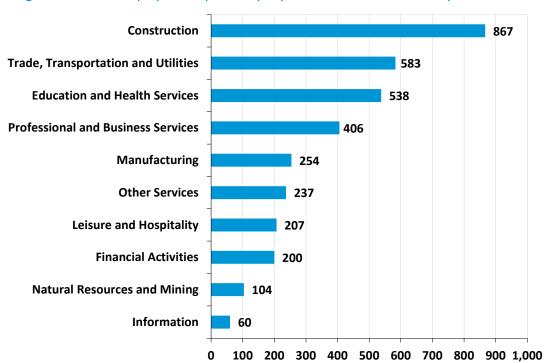
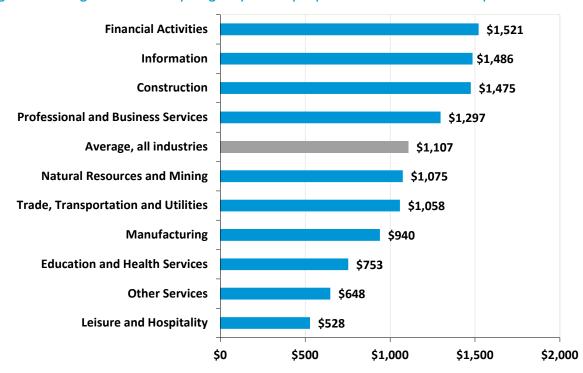


Figure 8: Private Employment by Industry Supersector in Fluvanna County – 2024<sup>17</sup>

Figure 9: Average Private Weekly Wages by Industry Supersector in Fluvanna County – 2024<sup>18</sup>



<sup>&</sup>lt;sup>17</sup> Data Source: U.S. Bureau of Labor Statistics.

<sup>&</sup>lt;sup>18</sup> Data Source: U.S. Bureau of Labor Statistics.



Figure 10 details the year-over-year change in private sector employment from 2023 to 2024 in Fluvanna County by industry supersector. Over this period, the largest employment gains occurred in the Education and Health Services (up 31 jobs), Other Services (up 12 jobs), and Natural Resources and Mining (up 7 jobs) sectors. The largest employment losses occurred in the Construction (down 270 jobs), Professional and Business Services (down 26 jobs), and Manufacturing (down 9 jobs) sectors.

**Education and Health Services** 31 **Other Services** 12 **Natural Resources and Mining** Information **Financial Activities** 0 **Trade, Transportation and Utilities** Leisure and Hospitality -6 Manufacturing -9 **Professional and Business Services** -26 Construction -270 -350 -300 -250 -200 -150 -100 -50 0 50

Figure 10: Change in Private Employment by Industry Supersector in Fluvanna County from 2023 to 2024<sup>19</sup>

#### Unemployment

Figure 11 illustrates the trend in Fluvanna County's unemployment rate over the five-year period from May 2020 through May 2025 and benchmarks those data against the statewide trend for Virginia. As these data show, unemployment rates in Fluvanna County tracked slightly below the statewide trend throughout the period. In April 2020 unemployment in the county and state significantly rose as a result of the labor dislocations caused by the COVID-19 pandemic. As of May 2025, unemployment stood at 3.1 percent in Fluvanna County compared to 3.5 percent in Virginia as a whole.

<sup>&</sup>lt;sup>19</sup> Data Source: U.S. Bureau of Labor Statistics.





Figure 11: Unemployment Rate – May 2020 through May 2025<sup>20</sup>

# Summary of the Local Economic Profile

Fluvanna County has experienced overall employment growth over the five-year period from December 2019 to December 2024, increasing by 11.8 percent. Additionally, the county's unemployment rate has remained below the state of Virginia's rate from May 2020 to May 2025. The Expedition Generating Station would directly support Fluvanna County's largest employment sector, construction. As of December 2024, the county's construction sector consisted of 867 employees. However, the sector had a loss of 270 jobs between 2023 and 2024. The construction of the Expedition Generating Station would directly support the county's construction employment, and the project would pay wages that are at or above the current average weekly wage (\$1,475 per week)<sup>21</sup> that is 33 percent above the countywide weekly wage of \$1,107 per week.

<sup>&</sup>lt;sup>21</sup> Tenaska.



<sup>&</sup>lt;sup>20</sup> Data Source: U.S. Bureau of Labor Statistics.

# **Economic Impact**

The analysis provided in this section quantifies the economic contribution that the proposed Expedition Generating Station project would make to Fluvanna County and to the state of Virginia. The analysis separately evaluates the pulse of economic activity that would occur during the construction phase of the project, as well as the annual economic activity that the project would generate during its ongoing operations phase.

#### Method

To empirically evaluate the likely local economic impact attributable to the proposed Expedition Generating Station project, the analysis employs a regional economic impact model called IMPLAN. <sup>22</sup> The IMPLAN model is one of the most commonly used economic impact simulation models in the U.S. and in Virginia is used by UVA's Weldon Cooper Center, the Virginia Department of Planning and Budget, the Virginia Employment Commission, and other state agencies and research institutes. Like all economic impact models, the IMPLAN model uses economic multipliers to quantify economic impact.

Economic multipliers measure the ripple effects that an expenditure generates as it makes its way through the economy. For example, when the Expedition Generating Station project purchases goods and services — or when contractors and employees hired by the facility use their salaries and wages to make household purchases — thereby generating income for someone else, which is in turn spent, thereby becoming income for yet someone else, and so on, and so on. Through this process, one dollar in expenditures generates multiple dollars of income. The mathematical relationship between the initial expenditure and the total income generated is the economic multiplier.

One of the primary advantages of the IMPLAN model is that it uses regional and national production and trade flow data to construct region-specific and industry-specific economic multipliers, which are then further adjusted to reflect anticipated actual spending patterns within the specific geographic study area that is being evaluated. As a result, the economic impact estimates produced by IMPLAN are not generic. They reflect as precisely as possible the economic realities of the specific industry, and the specific study area, being evaluated.

In the analysis that follows, these impact estimates are divided into three categories. The first-round direct impact measures the direct economic contribution of the entity being evaluated (e.g., own employment, wages paid, goods and services purchased by the Expedition Generating Station project). The second-round indirect and induced impact measures the economic ripple effects of this direct impact in terms of business to business, and household (employee) to business, transactions. The total impact is simply the sum of the preceding two. These categories of impact are then further defined in terms of employment (the jobs that are created), labor income (the wages and benefits associated with those jobs), and economic output (the total amount of economic activity that is created in the economy).

<sup>&</sup>lt;sup>22</sup> IMPLAN is produced by IMPLAN Group, LLC.



#### **Construction Phase**

This portion of the section assesses the economic impact that the pulse of activity associated with the construction of the Expedition Generating Station project would have on Fluvanna County and the state of Virginia.

#### **Economic Impact Assumptions**

The analysis is based on the following assumptions:

- Total capitalized investment in the Expedition Generating Station project is estimated to be approximately \$2.4 billion, consisting of approximately:<sup>23</sup>
  - \$948.4 million in equipment and procurement expenses.
  - \$1.4 billion in construction and development costs.
- For modeling purposes, all construction expenditures are assumed to take place during a representative 12-month period. The actual construction period will be approximately 4 years.

#### Economic Impact – Fluvanna County

The Expedition Generating Station project would directly support approximately 1,500 local and non-local full-time equivalent construction workers during a representative 12-month construction period (1,500 job years).<sup>24</sup>

As shown in Table 1, based on the IMPLAN analysis, construction of the Expedition Generating Station project would provide a pulse of economic activity directly supporting approximately: 1) 66 job years, 2) \$5.4 million in wages and benefits, and 3) \$12.9 million in economic output to Fluvanna County (in 2025 dollars).

Taking into account the economic ripple effects that direct investment and the per diem spending of non-local construction workers would generate, the total estimated impact on Fluvanna County would support approximately: 1) 116 job years, 2) \$7.5 million in wages and benefits, and 3) \$20.3 million in economic output (in 2025 dollars).

<sup>&</sup>lt;sup>24</sup> Please note actual construction is expected to take approximately 4 years. 1,500 job years can also be expressed as 375 full-time equivalent construction workers employed for each year of construction.



<sup>&</sup>lt;sup>23</sup> Data Source: Tenaska. Preliminary investment estimate is subject to change based on final vendor contracts.

Table 1: Estimated Economic Impact on Fluvanna County from Construction of the Expedition Generating Station Project (2025 Dollars)<sup>25,26,27</sup>

Economic Impact	Employment – Job Years	Wages and Benefits	Economic Output
1 <sup>st</sup> Round Direct Economic Activity	66	\$5,383,000	\$12,851,000
2 <sup>nd</sup> Round Indirect and Induced Economic Activity	50	\$2,075,000	\$7,431,000
Total Economic Activity	116	\$7,458,000	\$20,282,000

<sup>\*</sup>Totals may not sum due to rounding.

#### Economic Impact – Virginia Statewide

(includes Fluvanna County Impact).

The Expedition Generating Station project would directly support approximately 1,500 local and non-local full-time equivalent construction workers during a representative 12-month construction period (or 1,500 job years).<sup>28</sup>

Applying the above stated assumptions in the IMPLAN model results in the following estimates of economic impact on the state of Virginia. As shown in Table 2, construction of the Expedition Generating Station project would directly provide a pulse of economic activity supporting approximately: 1) 1,188 job years, 2) \$115.7 million in wages and benefits, and 3) \$274.0 million in economic output to the state of Virginia as a whole (in 2025 dollars).

Taking into account the economic ripple effects that direct investment would generate, the total estimated impact on the state of Virginia would support approximately: 1) 2,041 job years, 2) \$170.6 million in wages and benefits, and 3) \$445.6 million in economic output (in 2025 dollars).

Table 2: Estimated Economic Impact on the State of Virginia from Construction of the Expedition Generating Station Project (2025 Dollars)

Economic Impact	Employment – Job Years	Wages and Benefits	Economic Output
1st Round Direct Economic Activity	1,188	\$115,681,000	\$274,013,000
2 <sup>nd</sup> Round Indirect and Induced Economic Activity	854	\$54,948,000	\$171,615,000
Total Economic Activity	2,041	\$170,628,000	\$445,629,000

<sup>\*</sup>Totals may not sum due to rounding.

<sup>&</sup>lt;sup>28</sup> Please note actual construction is expected to take approximately 4 years. 1,500 job years can also be expressed as 375 full-time equivalent construction workers employed for each year of construction.



<sup>&</sup>lt;sup>25</sup> A construction sector job, also referred to as a job year, is equal to one job over one year. It is used to denote employment on construction projects to account for the fact that actual on-site employment may vary over the period.

<sup>&</sup>lt;sup>26</sup> It is important to note that construction sector jobs are not necessarily new jobs, but the investments made can also support an existing job during the construction of the project. Additionally, it is important to note that it is not possible to know with certainty what proportion of jobs would go to county or state construction contractors or be filled by county or state residents.

<sup>&</sup>lt;sup>27</sup> Wages and Benefits are included in the Economic Output associated with the project.

# **Ongoing Operations Phase**

This portion of the section assesses the annual economic impact that the ongoing operations of the Expedition Generating Station project would have on Fluvanna County and the state of Virginia.

#### **Economic Impact Assumptions**

The analysis is based on the following information and assumptions:

 The Expedition Generating Station project would employ approximately 29 full-time onsite workers and source locally available materials and services for the maintenance of the facility.<sup>29</sup>

# Economic Impact – Fluvanna County

Applying these assumptions in the IMPLAN model results in the following estimates of annual economic impact on Fluvanna County. As shown in Table 3, annual operation of the Expedition Generating Station project would on average directly support approximately: 1) 29 jobs, 2) \$5.5 million in wages and benefits, and 3) \$55.4 million in economic output to Fluvanna County (in 2025 dollars).

Taking into account the economic ripple effects that direct impact would generate, the total estimated annually supported impact on Fluvanna County would be approximately: 1) 82 jobs, 2) \$8.8 million in wages and benefits, and 3) \$75.2 million in economic output (in 2025 dollars).

Table 3: Estimated Annual Economic Impact on Fluvanna County from the Ongoing Operation of the Expedition Generating Station Project (2025 Dollars)

Economic Impact	Employment	Wages and Benefits	Economic Output
1 <sup>st</sup> Round Direct Economic Activity	29	\$5,543,000	\$55,386,000
2 <sup>nd</sup> Round Indirect and Induced Economic Activity	53	\$3,306,000	\$19,838,000
Total Economic Activity	82	\$8,849,000	\$75,224,000

<sup>\*</sup>Totals may not sum due to rounding.

# Economic Impact - Virginia Statewide

(includes Fluvanna County Impact).

Applying these assumptions in the IMPLAN model results in the following estimates of annual economic impact on the state of Virginia. As shown in Table 4, annual operation of the proposed Expedition Generating Station project would directly support approximately: 1) 29 jobs, 2) \$5.5 million in wages and benefits, and 3) \$55.4 million in economic output to the state of Virginia (in 2025 dollars).

<sup>&</sup>lt;sup>29</sup> Data Source: Tenaska.



Taking into account the economic ripple effects that direct impact would generate, the total estimated annually supported impact on the state of Virginia would be approximately: 1) 135 jobs, 2) \$13.4 million in wages and benefits, and 3) \$90.6 million in economic output (in 2025 dollars).

Table 4: Estimated Annual Economic Impact on the State of Virginia from the Ongoing Operation of the Expedition Generating Station Project (2025 Dollars)

Economic Impact	Employment	Wages and Benefits	Economic Output
1 <sup>st</sup> Round Direct Economic Activity	29	\$5,543,000	\$55,386,000
2 <sup>nd</sup> Round Indirect and Induced Economic Activity	106	\$7,839,000	\$35,170,000
Total Economic Activity	135	\$13,381,000	\$90,556,000

<sup>\*</sup>Totals may not sum due to rounding.

# **Fiscal Impact**

The analysis on the following pages quantifies the direct fiscal contribution that the Expedition Generating Station project would make to Fluvanna County and to the state of Virginia. It should be noted at the outset, however, that the analysis that follows likely understates the actual fiscal impact that the Expedition Generating Station project would have, as it only accounts for the direct fiscal impact that the Expedition Generating Station project would have on Fluvanna County. It does not take into account any additional tax revenue that would be generated as a result of the indirect economic activity attributable to the ongoing operation of the Expedition Generating Station project.

# **Fiscal Impact Assumptions**

The analysis is based on the following assumptions:

- Total capitalized investment in the Expedition Generating Station project is estimated to be approximately \$2.4 billion.<sup>30</sup>
- Total investment in equipment and materials associated with the Expedition Generating Station project that would be subject to sales and use tax is approximately \$970.1 million.<sup>31</sup>
- The anticipated operational life of the Expedition Generating Station project is 30 years.<sup>32</sup>
- Tax rates and locality ratios remain constant throughout the analysis.

<sup>&</sup>lt;sup>32</sup> Data Source: Tenaska.



<sup>&</sup>lt;sup>30</sup> Data Source: Tenaska. Preliminary investment estimate. Please note that actual costs may increase or decrease depending on vendor contracts.

<sup>&</sup>lt;sup>31</sup> Data Source: Tenaska. Preliminary investment estimates are subject to change based on final vendor contracts.

# **Fiscal Impact Results**

#### Sales and Use Tax

Table 5 shows the estimated sales tax generated during the construction phase of the project in Fluvanna County and the state of Virginia. As indicated in Table 5, the Fluvanna County sales tax revenue is estimated to be approximately \$9.7 million and the state sales tax revenue is estimated to be approximately \$41.7 million (in 2025 dollars).

Table 5: Estimated <u>One-Time</u> Sales Tax Revenue from Construction of the Expedition Generating Station Project (2025 Dollars)

Fiscal Impact	Fluvanna County	State of Virginia
Sales Tax Rate	1.0%	4.3%
Taxable Base	\$970,077,900	\$970,077,900
Total Sales Tax Revenue	\$9,700,800	\$41,713,300

#### Taxation of Capital Investment

The following calculations of the estimated additional revenue generated from taxation of the capital investment in the project are based on: 1) the total taxable capital investment in Fluvanna County, times 2) the State Corporation Commission's current utility assessment ratio for taxation of public utilities in Fluvanna County, times 3) the current applicable State Corporation Commission depreciation guidelines, times 4) Fluvanna County's real property tax rate of \$0.75 per \$100 pursuant to Virginia Code §58.1-2606.

As the data in Table 6 indicate, the estimated additional county revenue from taxation of capital investments associated with the Expedition Generating Station project would be approximately \$14.3 million in the project's first year of operation, with that figure projected to decline to approximately \$1.8 million by the project's 25<sup>th</sup> year of operation and thereafter as the value of the proposed capital investments is depreciated, for a cumulative total of approximately \$247.7 million over 30 years (in 2025 dollars).



Table 6: Estimated <u>Annual</u> Fluvanna County Tax Revenue Generated by the Expedition Generating Station Project (in 2025 Dollars)

Year	Depreciated Value of Taxable Capital Investment <sup>33</sup>	Additional Annual County Tax Revenue from Investment <sup>34</sup>				
Total Taxable Capital Investment in Fluvanna County: \$2,210,950,000 <sup>35</sup>						
1	\$1,912,281,000	\$14,342,000				
2	\$1,912,281,000	\$14,342,000				
3	\$1,912,281,000	\$14,342,000				
4	\$1,912,281,000	\$14,342,000				
5	\$1,906,670,000	\$14,300,000				
6	\$1,855,968,000	\$13,920,000				
7	\$1,799,809,000	\$13,499,000				
8	\$1,742,873,000	\$13,072,000				
9	\$1,682,613,000	\$12,620,000				
10	\$1,618,612,000	\$12,140,000				
11	\$1,548,322,000	\$11,612,000				
12	\$1,476,425,000	\$11,073,000				
13	\$1,400,164,000	\$10,501,000				
14	\$1,319,539,000	\$9,897,000				
15	\$1,233,928,000	\$9,254,000				
16	\$1,143,121,000	\$8,573,000				
17	\$1,046,912,000	\$7,852,000				
18	\$944,884,000	\$7,087,000				
19	\$836,830,000	\$6,276,000				
20	\$722,127,000	\$5,416,000				
21	\$600,774,000	\$4,506,000				
22	\$471,941,000	\$3,540,000				
23	\$335,419,000	\$2,516,000				
24	\$245,236,000	\$1,839,000				
25	\$240,556,000	\$1,804,000				
26	\$240,556,000	\$1,804,000				
27	\$240,556,000	\$1,804,000				
28	\$240,556,000	\$1,804,000				
29	\$240,556,000	\$1,804,000				
30	\$240,556,000	\$1,804,000				
Cumulative	Total	<u>\$247,685,000</u>				

<sup>\*</sup>Totals may not sum due to rounding.

<sup>&</sup>lt;sup>35</sup> Data Source: Tenaska. Excludes the value of land and non-utility buildings as assessment methods are currently unknown.



<sup>&</sup>lt;sup>33</sup> Accounts for the State Corporation Commission's applicable depreciation guidelines by type of investment and the utility assessment ratio for taxation of public utilities.

<sup>&</sup>lt;sup>34</sup> Calculated pursuant to Virginia Code §58.1-2606. Please note that the tax rate and locality ratio remain constant throughout the analysis. Actual rates may vary over time.

# **Relative Comparisons**

This section provides a benchmark for the previous estimates of the fiscal contribution that the Expedition Generating Station project would make to Fluvanna County by comparing the estimated average annual revenue generated by the Expedition Generating Station project to Fluvanna County's adopted Fiscal Year (FY) 2026 budget as well as showing the fiscal impact of Tenaska's natural gas generating facility that is currently operating in Fluvanna County.

# Fluvanna County Fiscal Year 2026 Budget

As shown in Table 7, in FY 2026, Fluvanna County projected operating revenues, which include all property taxes from real estate, personal property, machinery and tools, and other state and federal sources, are estimated at approximately \$68.1 million. The average annual Expedition Generating Station revenue for the county, approximately \$8.3 million, would contribute annual revenues comparable to approximately 12 percent of the county's operating revenues.

Table 7 also compares Fluvanna County's estimated FY 2026 expenditures to the estimated average annual revenue generated by the Expedition Generating Station project. The estimated average annual revenue represents over 100 percent of most expenditure types including 566 percent of Health and Welfare, 106 percent of Parks, Recreation, and Culture, and 544 percent of Community Development.

Table 7: Estimated Average Annual Tax Revenue Generated by the Expedition Generating Station Project as a Percent of Fluvanna County Expenditures and Revenue for FY 2026<sup>36</sup>

Expedition Generating Station Average Annual Revenue <sup>37</sup> \$8,256,200				
FY 2026 Revenues		Percent of Revenue		
Operating Revenue <sup>38</sup>	\$68,124,900	12%		
Total Revenues <sup>39</sup>	\$117,769,600	7%		
FY 2026 Expenditures		Percent of Expenditures		
General Government	\$4,141,827	199%		
Judicial Administration	\$1,790,622	461%		
Public Safety	\$14,828,870	56%		
Public Works	\$4,581,331	180%		
Health and Welfare	\$7,763,666	566%		
Parks, Recreation & Cultural	\$1,458,262	106%		

<sup>&</sup>lt;sup>36</sup> Data Source: Fluvanna County FY 2026 adopted budget.

<sup>&</sup>lt;sup>39</sup> Total Revenues include Operating Revenue, Schools, Social Services, Debt Service, Capital Improvement Plan, Enterprise.



<sup>&</sup>lt;sup>37</sup> Calculated as the total revenue from Table 6 divided by 30 years.

<sup>&</sup>lt;sup>38</sup> Operating Revenue includes revenues from all real estate, personal property, machinery and tools, Mobile Homes, and Other Local, Commonwealth, Federal – ARPA, Use of Fund Balance.

Community Development	\$1,518,202	544%
Nondepartmental	\$1,342,704	615%
Schools <sup>40</sup>	\$56,950,316	14%
Debt Service	\$8,876,348	93%
Capital Improvement Plan	10,261,439	80%
Enterprise	\$4,256,022	194%
Total Expenditures <sup>41</sup>	\$117,769,600	7%

# Fiscal Impact of Tenaska Virginia Generating Station

The Expedition Generating Station project would be located near the site of the Tenaska Virginia Generating Station. This is a 940 MW natural gas generating facility located in Fluvanna County that has been in operation since 2004. Since the beginning of its operations, the Tenaska Virginia Generating Station has paid approximately \$35.4 million in cumulative property taxes to Fluvanna County.<sup>42</sup>

Tenaska Virginia Generating Station has remained a principal property taxpayer in Fluvanna County for the last twenty years of operations. The facility was the county's highest taxpayer for 18 out of the last 20 years, with its assessed value ranging from approximately 12 to 5 percent of the county's total assessed valuation from 2005 to 2024 respectively. The addition of the Expedition Generating Station project would reinforce Tenaska as a top principal taxpayer in Fluvanna County.

# **Total Benefits**

Table 8 summarizes Tables 1 through 6 to show the total economic and fiscal impact of the Expedition Generating Station project.

As Table 8 shows, the total economic output of the Expedition Generating Station project during construction would be approximately \$20.3 million in Fluvanna County and approximately \$445.6 million in the state of Virginia. The average annual economic output during ongoing operations of the project would be approximately \$75.2 million in Fluvanna County and \$90.6 million in the state of Virginia.

Table 8 also shows the total fiscal impact of the project on Fluvanna County and the state of Virginia. During construction of the Expedition Generating Station, the project would generate approximately \$9.7 million in Fluvanna County sales tax revenue and approximately \$41.7 million in state sales tax revenue. Over its anticipated 30-year operational life, the project would generate approximately \$247.7 million in cumulative Fluvanna County revenue from the taxation of the capital investment.

<sup>&</sup>lt;sup>43</sup> Data Source: Fluvanna County's Comprehensive Annual Financial Report for FY 2014-2024.



<sup>&</sup>lt;sup>40</sup> Schools expenditures include local/county, state, federal, and other local.

<sup>&</sup>lt;sup>41</sup> Total Revenues include Operating Revenue, Schools, Social Services, Debt Service, Capital Improvement Plan, Enterprise.

<sup>&</sup>lt;sup>42</sup> Data Source: Tenaska.

Table 8: Estimated Total Economic and Fiscal Impact of the Expedition Generating Station Project

	Fluvanna County Virginia	
Total Economic Impact – Construction		
Employment (Job Years)44	116	2,041
Wages and Benefits	\$7,458,000	\$170,628,000
Economic Output <sup>45</sup>	\$20,282,000	\$445,629,000
Total Economic Impact – Ongoing Operations		
Employment	82	135
Wages and Benefits	\$8,849,000	\$13,381,000
Economic Output	\$75,224,000	\$90,556,000
Total Fiscal Impact – Construction		
One-Time Sales Tax Revenue	\$9,700,800	\$41,713,300
Total Fiscal Impact – Ongoing Operations		
Cumulative Total Revenue	\$247,685,000	N/A

The estimates provided in this report are based on the best information available and all reasonable care has been taken in assessing the quality of that information. However, because these estimates attempt to foresee the consequences of circumstances that have not yet occurred, it is not possible to be certain that they will be representative of actual events. These estimates are intended to provide a good indication of likely future outcomes and should not be construed to represent a precise measure of those outcomes.

<sup>&</sup>lt;sup>45</sup> A construction sector job, also referred to as a job year, is equal to one job over one year. It is used to denote employment on construction projects to account for the fact that actual on-site employment may vary over the period.



<sup>&</sup>lt;sup>44</sup> Wages and Benefits are included in the Economic Output associated with the project.

# **Expedition Generation Station: Economic Output and Local Spending**

Economic Output = Wages and Benefits + Purchases of Goods and Services + Business Profits + Taxes

For the Expedition Generating Station, the total economic output was estimated to be approximately \$75.2 million, with \$8.8 million associated with wages and benefits of labor. The remaining \$66.4 million consists of purchases of goods and services, business profits, and taxes (see Table A).

Table A: Estimated Annual Economic Impact on Fluvanna County from the Ongoing Operation of the Expedition Generating Station Project (2025 Dollars)

Economic Impact	Employment	Wages and Benefits	Purchases / Profits / Taxes	Economic Output
1 <sup>st</sup> Round Direct Economic Activity	29	\$5,543,000	\$49,844,000	\$55,386,000
2 <sup>nd</sup> Round Indirect and Induced Economic Activity	53	\$3,306,000	\$16,532,000	\$19,838,000
Total Economic Activity	82	\$8,849,000	\$66,375,000	\$75,224,000

<sup>\*</sup>Totals may not sum due to rounding.

Table A also shows the estimated value of the spending with local suppliers and businesses associated with business to business and household (employee) to business interactions. That value is approximately \$19.8 million. Table B details how this 2<sup>nd</sup> round spending is distributed among the top 10 industry sectors in Fluvanna County.

Table B: Estimated Local Ripple Effect on Fluvanna County's Industries from the Ongoing Operation of the Expedition Generating Station Project (2025 Dollars)

Local Industries Benefiting from Local Spending	Indirect and Induced Output
22 Utilities	\$8,687,700
21 Mining, Quarrying, and Oil and Gas Extraction	\$4,952,500
54 Professional, Scientific, and Technical Services	\$1,573,100
53 Real Estate and Rental and Leasing	\$1,077,400
48-49 Transportation & Warehousing	\$851,600
56 Administrative & Support & Waste Management & Remediation Services	\$601,900
23 Construction	\$436,200
52 Finance & insurance	\$338,300
51 Information	\$302,200
44-45 Retail trade	\$234,600
All Others	\$782,300
Total	\$19,838,000



# **Appendix: Terms and Definitions**

**Construction Phase Economic Impact:** The one-time economic boost during the construction period of a project. This includes employment, wages and benefits, and economic output generated by construction activities that occur only during the construction period.

**Direct Impact:** Measures the immediate (first-round) economic contribution of an economic event or an entity including employment, wages and benefits, and purchases.

**Economic Impact:** The value an entity adds to the economy through purchases, production, job creation, tax revenue, and related activities associated with a project's economic boost from construction or operational phases.

**Economic Multipliers:** Factors used in economic models like IMPLAN to estimate the broader impact of a dollar spent in an economy. These multipliers help measure the total economic contribution generated from initial direct investment or economic activity. Applying multipliers to a direct economic impact results in indirect and induced economic impacts.

**Economic Output:** An accounting of all the money that changes hands within a local economy, reflecting the total value of goods and services produced. It includes all business revenues, wages and benefits, taxes, and other income generated through the production and distribution of goods and services in a specific region.

**Fiscal Impact:** The financial contribution a project makes to government revenues.

**IMPLAN:** A regional economic impact modeling software used to estimate the effects of economic activities such as job creation or construction spending on local, regional, or statewide economies. The model calculates location specific impacts using economic multipliers.

**Indirect and Induced Impact:** Refers to the broader (second-round) economic ripple effects that result from the initial direct (first-round) impact of an entity or economic event. Indirect impacts occur when businesses purchase goods and services from other businesses, while induced impacts occur when employees spend their wages in the local economy. Together, these effects measure how the original activity generates further economic activity across other sectors in the local economy.

**Job Years:** A construction sector job, also referred to as a job year, is equal to one job over one year. It is used to denote employment on construction projects to account for the fact that actual on-site employment may vary over the period.

**Ongoing Operations Phase Economic Impact:** The continual economic contribution of a project once it is operational including employment, wages and benefits, and economic output that occurs annually.



 $\mathcal{N}$ 

**Megawatt (MW):** A measure of power equivalent to one million watts. Often used to quantify the output capacity of large power plants or energy consumption.

**Wages and Benefits:** Wages are the direct payments employees receive for their work, such as salaries or hourly pay. Benefits include additional forms of compensation like health insurance, retirement plans, and paid time off.

