

**Economic Impacts  
of the proposed  
Buccaneer Natural Gas Pipeline  
Pasco County Summary**

Prepared By:



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**Economic Impacts of the Buccaneer Natural Gas Pipeline  
Pasco County, Florida (2001 - 2020)  
SUMMARY TABLE**

|                        | Construction |               | Operation & Maintenance |         | <i><u>SubTotal</u></i> | Other Benefits      |                | <i><u>Total</u></i> |
|------------------------|--------------|---------------|-------------------------|---------|------------------------|---------------------|----------------|---------------------|
|                        | Labor        | Sales & Svcs. | Employment              | Taxes   |                        | Pollution Reduction | Energy Savings |                     |
| <b>Employment</b>      | 98           | 101           | 6                       | 68      | <b>273</b>             | 23                  | 52             | <b>349</b>          |
| <b>Personel Income</b> | \$3.60       | \$3.30        | \$5.30                  | \$50.30 | <b>\$62.50</b>         | \$35.60             | \$48.40        | <b>\$146.50</b>     |
| <b>GRP</b>             | \$3.80       | \$5.66        | \$8.00                  | \$66.00 | <b>\$83.46</b>         | \$29.90             | \$56.90        | <b>\$170.26</b>     |
| <b>Output</b>          | \$7.97       | \$13.09       | \$15.20                 | \$68.50 | <b>\$104.76</b>        | \$34.00             | \$92.50        | <b>\$231.26</b>     |

**\$ are in Millions adjusted for inflation**

During the construction phase of the project approximately 200 jobs will be generated. Additionally, 74 permanent jobs will be created by the operation and maintenance (including tax payments) of the Buccaneer Pipeline. During the study period, the construction and operation of the pipeline will generate over \$62 million in personal income for the County's residents and contribute in excess of \$83 Million to Pasco's Gross Regional Product (GRP). Gross Regional Product as a value added concept is analogous to the national concept of Gross Domestic Product. It is equal to output excluding the intermediate inputs. It represents compensation and profits. Total output for the project from construction and operation and maintenance is estimated at \$104.7 Million.

Other benefits from the Buccaneer Natural Gas Pipeline include improvements to air quality and reduced energy prices due to competitive energy prices. Employment gains associated with the air quality improvements are estimated at 23 jobs and total economic output at \$34 Million. Economic impacts associated with reduced energy costs are dramatic. Energy is one of the three main factors of economic production. Labor and capital are the other two. Even a moderate reduction in energy costs, like 1% as modeled for this report, can produce 52 jobs and add over \$92 Million in economic output.

Total economic output benefits for Pasco County from the project are anticipated to exceed \$231 Million from 2001 to 2020.

## Economic Impact of Expenditures, Taxes, Operation and Maintenance

### Pasco Totals

During the construction phase of the project over 238 job equivalents will be generated in Pasco County. Additionally, 46 to 75 permanent jobs will be created in the County by the operation and maintenance (including tax payments) of the pipeline. The project will generate over \$62 million in personal income for the County's residents and contribute in excess of \$83 Million to Pasco's Gross Regional Product (GRP). Gross Regional Product as a value added concept is analogous to the national concept of Gross Domestic Product. It is equal to output excluding the intermediate inputs. It represents compensation and profits.

| <b>Pasco Totals</b>        | <b>2001</b> | <b>2002</b> | <b>2003</b> | <b>2004</b> | <b>2005</b> | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>Total</b> |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Employment (FTEs)          | 239         | 46          | 47          | 48          | 49          | 57          | 66          | 75          |              |
| Personal Income (Millions) | \$5.31      | \$1.45      | \$1.43      | \$1.54      | \$1.68      | \$2.63      | \$3.87      | \$4.98      | \$62.50      |
| GRP (Millions)             | \$11.37     | \$1.98      | \$2.10      | \$2.23      | \$2.38      | \$3.36      | \$4.68      | \$6.14      | \$83.50      |
| Output (Millions)          | \$22.94     | \$2.57      | \$2.64      | \$2.74      | \$2.86      | \$3.79      | \$5.20      | \$6.81      | \$104.70     |

### Pasco County Construction Employment and Construction Sales/Professional Services

Below is a break-out of the economic impacts associated with construction employment, professional services, and sales of construction materials during the construction period. The methodology takes into account the importation of labor and materials into Florida and Pasco County.

| <b>Pasco Construction Employment</b>     | <b>2001</b> | <b>2002</b> | <b>2003</b> | <b>2004</b> | <b>2005</b> | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>Total</b> |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Employment (FTEs)                        | 98          |             |             |             |             |             |             |             |              |
| Personal Income (Millions)               | \$2.00      | \$0.16      | \$0.11      | \$0.09      | \$0.08      | \$0.08      | \$0.08      | \$0.06      | \$3.60       |
| GRP (Millions)                           | \$4.05      |             |             |             |             |             |             |             |              |
| Output (Millions)                        | \$7.97      |             |             |             |             |             |             |             |              |
| <b>Pasco Construction Sales/Services</b> | <b>2001</b> | <b>2002</b> | <b>2003</b> | <b>2004</b> | <b>2005</b> | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>Total</b> |
| Employment (FTEs)                        | 101         |             |             |             |             |             |             |             |              |
| Personal Income (Millions)               | \$2.52      | \$0.19      | \$0.07      | \$0.06      | \$0.04      | \$0.03      | \$0.03      | \$0.02      | \$3.30       |
| GRP (Millions)                           | \$5.66      |             |             |             |             |             |             |             |              |
| Output (Millions)                        | \$13.09     |             |             |             |             |             |             |             |              |

Pasco County Operation and Maintenance

The operation and maintenance analysis takes into consideration that Buccaneer will have a small office in Pasco County to handle business activity and coordinate the maintenance of the liquid separation facility. The study considers that most maintenance workers will be specialized in pipeline operations and will be hired from out-of-state. The impacts of these workers include expenditures on transportation, lodging, and eating drinking, etc.

| <b>Pasco Operation &amp; Maintenance</b> | <b>2001</b> | <b>2002</b> | <b>2003</b> | <b>2004</b> | <b>2005</b> | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>Total</b> |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Employment (FTEs)                        | 0           | 6           | 6           | 6           | 6           | 6           | 6           | 6           |              |
| Personal Income (Millions)               | \$0.00      | \$0.17      | \$0.18      | \$0.19      | \$0.20      | \$0.26      | \$0.33      | \$0.41      | \$5.30       |
| GRP (Millions)                           | \$0.00      | \$0.32      | \$0.33      | \$0.34      | \$0.35      | \$0.40      | \$0.46      | \$0.55      | \$8.00       |
| Output (Millions)                        | \$0.00      | \$0.64      | \$0.65      | \$0.66      | \$0.67      | \$0.76      | \$0.87      | \$1.02      | \$15.20      |

Pasco County Property Tax Impacts

The property tax impacts are the amount of employment and economic output associated with the payment of ad valorem taxes by Buccaneer pipeline. The estimated \$3 Million in property taxes paid annually will be multiplied throughout the economy via tax savings passed along by local governments to citizens and additional government spending. The property tax payments are significant contributors to the project’s economic impact. The property tax impacts account for 40 to 70 permanent jobs between 2001 and 2020. The property tax collections are estimated to contribute over \$66 Million to Pasco County’s GRP by 2020.

| <b>Pasco Property Tax Impacts</b> | <b>2001</b> | <b>2002</b> | <b>2003</b> | <b>2004</b> | <b>2005</b> | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>Total</b> |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Employment (FTEs)                 | 40          | 40          | 41          | 42          | 43          | 51          | 60          | 68          |              |
| Personal Income (Millions)        | \$0.79      | \$0.94      | \$1.07      | \$1.21      | \$1.35      | \$2.26      | \$3.43      | \$4.49      | \$50.30      |
| GRP (Millions)                    | \$1.66      | \$1.76      | \$1.86      | \$1.98      | \$2.11      | \$2.97      | \$4.19      | \$5.56      | \$66.00      |
| Output (Millions)                 | \$1.88      | \$1.93      | \$2.00      | \$2.08      | \$2.19      | \$3.03      | \$4.32      | \$5.79      | \$68.50      |

Savings from Reduced Pollution

It is obvious that reducing the three main pollutants associated with burning coal and fuel oil can significantly improve the health of the population and economy. Savings are accrued by reduced health care costs, reduced worker absenteeism, improved worker productivity, reduced maintenance requirements for buildings due to less corrosion, better visibility (improved tourism). Research conducted by the EPA has estimated that the savings per ton are:

**Savings per Ton Reduced (in dollars)**

| <u>Pollutant</u>                  | <u>Low Estimate</u> | <u>High Estimate</u> |
|-----------------------------------|---------------------|----------------------|
| Sulfur Dioxide (SO <sub>2</sub> ) | \$3,768             | \$11,539             |
| Nitrogen Oxide (NO <sub>x</sub> ) | \$519               | \$2,360              |
| Particulate Matter (PM)           |                     | \$11,539             |

Source: Federal Register, August 17, 1998

**Annual Economic Impacts From Reduced Pollutants**

| <b>Pasco Air Quality</b>   | <b>2005</b> | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>Total</b>   |
|----------------------------|-------------|-------------|-------------|-------------|----------------|
| Employment (FTEs)          | 23          | 23          | 23          | 23          |                |
| Personal Income (Millions) | \$1.83      | \$2.08      | \$2.35      | \$2.67      | <b>\$35.60</b> |
| GRP (Millions)             | \$1.54      | \$1.75      | \$1.98      | \$2.24      | <b>\$29.90</b> |
| Output (Millions)          | \$1.75      | \$1.98      | \$2.25      | \$2.54      | <b>\$34.00</b> |

Results represent the impacts from the low range savings.

## **Benefits from Energy Cost Savings**

Competition is good. That simple sentence when translated to the increased presence of natural gas in Florida means increased savings to business and residents in energy costs. A study prepared in 1997 by the Energy Information Administration (EIA) indicates that by 2015, electricity production and delivery costs could be reduced by 10% or more. These savings include reduced fuel costs and higher efficiencies in electricity production such as the increased use of combined cycle technology. For our study, savings of one percent to each of the industrial, commercial, and residential sectors were modeled. One percent was chosen as a conservative estimate for modeling and reporting purposes. As documented by the EIA. Savings are shown beginning in the projected first full year of pipeline capacity.

### **Economic Impacts of One Percent (1%) Reduction in Energy Costs to the Buccaneer Natural Gas Pipeline Service Area (2005- 2020)**

| <b>Pasco Industrial</b>    | <b>2005</b> | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>Total</b> |
|----------------------------|-------------|-------------|-------------|-------------|--------------|
| Employment (FTEs)          | 1           | 2           | 2           | 2           |              |
| Personal Income (Millions) | \$0.06      | \$0.19      | \$0.25      | \$0.30      | \$3.30       |
| GRP (Millions)             | \$0.06      | \$0.18      | \$0.25      | \$0.32      | \$3.30       |
| Output (Millions)          | \$0.12      | \$0.36      | \$0.51      | \$0.64      | \$6.70       |

| <b>Pasco Commercial</b>    | <b>2005</b> | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>Total</b> |
|----------------------------|-------------|-------------|-------------|-------------|--------------|
| Employment (FTEs)          | 19          | 20          | 23          | 25          |              |
| Personal Income (Millions) | \$0.92      | \$1.14      | \$1.60      | \$2.11      | \$22.50      |
| GRP (Millions)             | \$1.13      | \$1.43      | \$1.85      | \$2.35      | \$26.80      |
| Output (Millions)          | \$2.05      | \$2.34      | \$2.90      | \$3.61      | \$42.90      |

| <b>Pasco Residential</b>   | <b>2005</b> | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>Total</b> |
|----------------------------|-------------|-------------|-------------|-------------|--------------|
| Employment (FTEs)          | 19          | 20          | 23          | 25          |              |
| Personal Income (Millions) | \$1         | \$1         | \$2         | \$2         | \$23         |
| GRP (Millions)             | \$1         | \$1         | \$2         | \$2         | \$27         |
| Output (Millions)          | \$2         | \$2         | \$3         | \$4         | \$43         |

| <b>Pasco Totals</b>        | <b>2005</b> | <b>2010</b> | <b>2015</b> | <b>2020</b> | <b>Total</b> |
|----------------------------|-------------|-------------|-------------|-------------|--------------|
| Employment (FTEs)          | 39          | 42          | 48          | 52          |              |
| Personal Income (Millions) | \$2         | \$2         | \$3         | \$5         | \$48         |
| GRP (Millions)             | \$2         | \$3         | \$4         | \$5         | \$57         |
| Output (Millions)          | \$4         | \$5         | \$6         | \$8         | \$93         |

## METHODOLOGY

The table below depicts the variables that were input into the Policy Insight model. Construction phase variables were only input for the construction period. Operation and maintenance, tax, reduced pollution, and energy savings variables were input for the 2001 to 2020 period.

### Summary of Inputs

| <i><b>Construction Phase</b></i>   |   |
|--|---|
| <b>Construction Employment</b><br>local labor pool-30% of project average                  | 40.8 annual equivalent  |
| <b>Spending by Non Local Pipeline Construction Workers</b>                                 | lodging, food, nondurable goods and travel (\$65 per day)<br>34,398 worker days           |
| <b>Construction Material Sales</b><br>pipe, coating, professional services and other misc. | Pasco Supplied<br>\$10,375,682  |
| <i><b>Operation &amp; Maintenance</b></i>  |   |
| <b>Employment</b>  | Local: 4 jobs / \$200,000 annual salary<br>Non Local: 60 worker day equivalent (\$65 day) |
| <b>Property Taxes</b>  | \$2,997,080   |
| <i><b>Other Benefits</b></i>   |   |
| <b>Savings from Air Quality Improvements</b>   | EPA estimates of the benefits per ton of emission reduction                               |
| <b>Energy Savings</b>  | 1% reduction in energy cost to industry, commerce and residents                           |

Source: TBRPC, Buccaneer and EPA

## GLOSSARY

Demand - The amount of goods and services demanded by the local region; demand equals imports plus self supply.

Employment - Bureau of Economic Analysis (BEA) concept based on place of work; includes full-time and part-time employees; includes the self-employed. Expressed as a full time equivalent concept (FTE).

Exports - The amount of local production exported out of the local region, i.e. to the rest of the US and the rest of the world.

Gross Regional Product - Gross Regional Product as a value added concept is analogous to the national concept of Gross Domestic Product. It is equal to output excluding the intermediate inputs. It represents compensation and profits.

Imports - The amount of goods and services produced outside the area and consumed locally; a component of demand.

Induced Effects - Economic effects resulting from the re-spending of wages, i.e., new employees have money to spend. Explains why the demand is higher than the direct expenditures.

Output - The amount of production in dollars, including all intermediate goods purchased as well as value-added (compensation and profit). Can also be thought of as sales.  $Output = Self-Supply + Exports + Intraregional\ Trade + Exogenous\ Production$ .

Self Supply - The amount of local demand supplied locally; equals the Regional Purchase Coefficient multiplied by Demand.

Personal Income - This is a concept based on place of residence; the sum of wage and salary disbursements, other labor income, proprietors' income, rental income, personal dividend income, personal interest income, and transfer payments, less personal contributions for social insurance. Reported as a nominal dollar concept.



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Data related to the construction, operation and maintenance of the project were obtained from the project estimates provided by the Buccaneer Gas Pipeline Company ("Buccaneer") as well as other sources. The majority of the data supplied by Buccaneer was submitted by Buccaneer to the Federal Energy Regulatory Commission (FERC), Docket No. CP00-14-00, October 1999, and, where possible, TBRPC verified the data against other sources. Other data sources included federal agencies, Regional Economic Models, Inc. and TBRPC Files.. TBRPC was compensated for the preparation of this report.