

**AUSLEY & McMULLEN**

ATTORNEYS AND COUNSELORS AT LAW

227 SOUTH CALHOUN STREET  
P.O. BOX 391 (ZIP 32302)  
TALLAHASSEE, FLORIDA 32301  
(850) 224-9115 FAX (850) 222-7560

**ORIGINAL**

RECEIVED - FPSC

JUN 21 PM 2:58

COMMISSION  
CLERK

June 21, 2005

HAND DELIVERED

Ms. Blanca S. Bayo, Director  
Division of Commission Clerk  
and Administrative Services  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

070001-EI

Re: Fuel and Purchased Power Cost Recovery Clause with Generating  
Performance Incentive Factor; FPSC Docket No. 050001-EI

**CONFIDENTIAL DOCUMENT ENCLOSED**

Dear Ms. Bayo:

Pursuant to a Notice of Intent to Seek Confidential Treatment Tampa Electric is simultaneously filing with your office, we enclose a single unredacted confidential version of a report prepared by Hill & Associates, Inc. The confidential information contained in this filing is highlighted in yellow and stamped "CONFIDENTIAL." We would appreciate your maintaining confidential treatment of the enclosed materials.

Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and returning same to this writer.

Thank you for your assistance in connection with this matter.

**DECLASSIFIED CONFIDENTIAL**

*James D. Beasley*  
James D. Beasley

JDB/pp  
Enclosure

This docketed notice of intent was filed with Confidential Document No. 05888-05. The document has been placed in confidential storage pending timely receipt of a request for confidentiality.

cc: All parties of record (w/o enc.)

RECEIVED & FILED

*On*  
FPSC-BUREAU OF RECORDS

DOCUMENT NUMBER DATE

05888 JUN 21 05

FPSC-COMMISSION CLERK

CONFIDENTIAL  
**DECLASSIFIED** (Entire DN)



HILL & ASSOCIATES INC.

**Determination of Delivered Cost of Coals  
From the Illinois Basin and Northern Appalachian Coal Regions  
To Tampa Electric Company's  
Big Bend Station and Polk Station**

**June 2005**

DOCUMENT NUMBER 05888

JUN 21 13

FPSC-COMMISSION CLERK

## TABLE OF CONTENTS

I.	Executive Summary	1
II.	Illinois Basin and Northern Appalachian Coal Regions	5
III.	Tampa Electric Coal Quality Specifications	9
IV.	Coal Transportation Alternatives and Rates	13
V.	Delivered Cost Determinations and Conclusions	16
VI.	Rail Rates and Performance Issues	27
VII.	Recommendations	30
VIII.	Glossary of Terms	32

### Exhibits

1. Big Bend Station Candidate Coal Mines
2. Polk Station Candidate Coal Mines
3. Big Bend Station Coal Mines that Do Not Qualify as Candidate Mines
4. Polk Station Coal Mines that Do Not Qualify as Candidate Mines

### Appendices

- A. CSX Rail Rates to the Stations
- B. CSX Rail Rates to Tampaplex

## I. EXECUTIVE SUMMARY

Hill & Associates, Inc. ("H&A") is an internationally known management-consulting firm that specializes in providing clients with expert advice in the areas of domestic and international coal markets, prices, forecasts, strategies, mining, geology, transportation, and related subjects. The firm's headquarters are in Annapolis, Maryland, and branch offices are located in Colorado, West Virginia, and North Carolina. The principals of the firm each have over 25 years of experience in the coal and/or utility industries and have degrees in business administration, geology, mining engineering, industrial engineering, chemical engineering, and chemistry. Most of the firm's consulting staff members have also earned advanced degrees. H&A owns Energy Publishing LLC, a Tennessee company that publishes coal databases, newsletters, and other products relating to coal and transportation prices and markets. More information on the firm is available at [www.hillandassoc.com](http://www.hillandassoc.com).

Tampa Electric engaged H&A to conduct a rail feasibility study to determine whether procuring coal from rail origin mines is feasible and cost effective if Tampa Electric were to accept up to 50 percent of its annual coal requirements by rail and up to 100 percent of its annual coal requirements by rail. Analysis of these two volume scenarios was required by a 2004 Florida Public Service Commission order. H&A was asked to identify the sources of coals Tampa Electric can burn or gasify; determine whether the mines are accessible by barge, rail, or truck; and compare comprehensive costs for transportation under each available option. H&A recommends that Tampa Electric should not limit its options to consider only these two volume scenarios in deciding upon its optimal amount of rail and waterborne deliveries.

Given the technical nature of certain industry terms in this report and the use of industry specific acronyms, the report includes a detailed glossary of terms in Section VIII of the report.

In conducting the feasibility study, H&A analyzed the costs relating to potential rail and barge deliveries of coal from various mines in the Illinois Basin ("ILB") and Northern Appalachian ("NAPP") regions to Tampa Electric's Big Bend and Polk Stations ("Stations"). This study focused on comparing the costs of delivering coal to the Stations by the following alternatives:

- Barge delivery to TECO Bulk Terminal, with final delivery by ocean barge to Big Bend Station, or ocean barge to Big Bend Station with trans-loading into truck for final delivery to Polk Station;
- Rail delivery by CSX to Kinder Morgan's Tampaplex bulk terminal in Tampa, Florida, for final delivery by truck to the Stations; and
- Rail delivery by CSX directly to the Stations.

For each mine that met Tampa Electric's quality specifications and selected other mines from which Tampa Electric has purchased coal in the past, H&A determined a

transportation path that could provide delivery of the coal to the Stations for the waterborne and rail delivery cases. H&A then calculated a total delivered cost for each case, considering the mine price plus all transportation cost components that would be incurred for such deliveries. The facility requirements for blending different coals to achieve Tampa Electric's quality specifications were not considered.

H&A used Tampa Electric's second quarter 2005 rates under its existing contract with TECO Transport to estimate the total delivered costs of coals delivered via the waterborne alternative. These rates are not the adjusted rates that include a disallowance for the river and ocean segments, which Tampa Electric uses for cost recovery purposes based upon a 2004 Florida Public Service Commission order.

For coals delivered to the Stations by CSX rail, H&A estimated the total delivered cost using the "informational" rail rates contained in CSX's May 18, 2005 letter to Tampa Electric. For deliveries to Tampaplex, H&A used rates furnished to Tampa Electric by CSX in October 2004 and January 2005, escalated to the current period.

H&A used the estimated costs for the installation of rail receipt and unloading facilities ("Facility Costs") provided by the engineering design firm Sargent & Lundy, amortized over 20 years, with a zero cost of capital. H&A added these amortized costs to the total delivered cost for rail shipments to the Stations.<sup>1</sup> H&A considered the 50 percent and 100 percent coal volume scenarios at the Stations.

H&A converted the total delivered cost of coal to the Stations, including Facility Costs, to cents per million Btu in order to compare the candidate coals on an equal basis. The results of H&A's comprehensive analyses are shown in Exhibits 1 and 2.

## **Conclusions**

The largest component of the delivered coal price is often the commodity price. Therefore, future changes in the commodity price and availability of a particular coal may have the most substantial effect on the delivered prices of Tampa Electric's coal purchases.

H&A's analyses reveal that, of the alternatives considered, coal deliveries by rail to Tampaplex do not appear to be the most cost-effective option for either Big Bend Station or Polk Station.

The study determined that most of the candidate coals in both the ILB and NAPP regions were from mines that do not have CSX loading capabilities, and only five of the 31 candidate coal mines have CSX loading capabilities. Therefore, Tampa Electric's coal sourcing would be severely limited if it were to ship all or a significant portion of its coal directly by the CSX. It might also be unable to meet its plant coal quality specifications, or lock itself into higher delivered coal prices because it could become "leveraged" to a CSX-

---

<sup>1</sup> It is important to note that if coal deliveries by rail are not economical or become unreliable within the 20-year period, Tampa Electric would incur stranded costs associated with the Facility Costs.

rail origin mine if it did not also have waterborne delivery capabilities.

Using the assumptions provided, the study demonstrates that neither 100 percent rail nor 100 percent waterborne delivered coal is the most cost-effective under every scenario. The study confirms that the most cost-effective delivered price of coal varies by mine. Deliveries from one mine may be more cost-effective via a waterborne route, while deliveries from a nearby mine in the same state may be more cost-effective by rail. The most significant determining factors are coal quality, location, and loading capabilities of a specific mine within a given state or coal region.

The study demonstrates that there are significant differences between the total delivered costs for CSX rail direct deliveries using the higher volume case (100 percent of tons) and the lower volume case (50 percent of tons). The higher volume rail delivery case may appear to be more cost-effective than waterborne for a particular mine, but this may not hold true for the lower volume case. Therefore, it is important to determine which case is the most relevant for comparing the cost of CSX rail direct deliveries with waterborne deliveries.

H&A strongly recommends against the reliance upon the railroad for 100 percent of the coal deliveries to Big Bend Station or Polk Station. The recent service level of the railroads is a sufficient reminder of the danger of a 100 percent rail delivery strategy. Some utility coal inventories are dangerously low, and their stockpiles are reportedly not recovering because the railroads have not delivered coal in a timely manner.

Furthermore, many railroads reportedly do not have enough track infrastructure, railcars, locomotives, and labor to increase their delivery capacity to the extent needed. Given CSX's reported service level and the time needed to make significant improvements, one must question whether CSX could reliably service a significant amount of new business.

Additionally, the railroads have made it evident in recent months that they intend to significantly increase rail rates, which has been demonstrated by reported increases for Progress Energy Carolinas, Duke Energy, and South Carolina Electric & Gas. H&A questions whether CSX will honor the rates quoted to Tampa Electric in July 2003, which it later withdrew, and then recently updated by escalating them to the second quarter of 2005. In its May 18, 2005 letter to Tampa Electric, CSX did not affirm that it would honor such rates, but instead provided "informational" rates that would "illustrate the contractual rates that would have been in place between CSX and Tampa Electric...if Tampa Electric had accepted the offer" made by CSX on July 30, 2003. The footnote on the rate schedule also states that these rates are "Based upon the expired and withdrawn CSX offer of July 30, 2003." H&A used these "informational" rates for purposes of this study but is not convinced that Tampa Electric can rely upon such rates. Transitioning to 100 percent rail deliveries could place Tampa Electric in a highly disadvantageous position, as railroads can exert tremendous monopoly pricing power, and such a transition could keep Tampa Electric from sourcing coals from mines with much lower, barge-delivered costs, as is evidenced in the study.

If Tampa Electric decides to pursue a rail-delivered option, H&A believes that it should also maintain barge deliveries to the Stations. The study confirms that TECO Transport is a strategically advantageous fuel carrier to the Stations, as it is often the lower cost transportation provider. The study also shows that there are few CSX-origin mines in Tampa Electric's typical coal source regions, which are dictated by the quality specifications required by its Stations' designs. The additional costs of transferring coal to a CSX delivery point raises the total delivered costs for most candidate mines such that rail transportation is not competitive with waterborne transportation. For these coal production regions, H&A recommends that Tampa Electric continue to maintain a significant portion of its fuel deliveries by the waterborne method.

Given that the high and low volume cases were the only two cases required for evaluating the feasibility of rail coal deliveries to the Stations, H&A concludes that of these two scenarios, the low volume case (50 percent of tons) provides the best result of potential cost savings and delivery flexibility. H&A believes that it could be advantageous to Tampa Electric to receive a mix of coal deliveries by barge and rail. Such a delivery mix could broaden Tampa Electric's fuel source options and convey the potential for lower delivered costs from some rail-served mines. H&A has not concluded that the 50 percent case represents an appropriate amount of rail deliveries. An appropriate balance of rail and waterborne deliveries for Tampa Electric should be determined by utilizing a procurement process that weighs all applicable data, including commodity availability, prices, and costs; mine reliability; quality specifications; environmental and operational requirements; and transportation reliability and costs.

## II. ILLINOIS BASIN AND NORTHERN APPALACHIAN COAL REGIONS

There are two major U.S. coal supply regions capable of providing large volumes of coal that will meet Tampa Electric's coal quality specifications: Illinois Basin (ILB) and Northern Appalachia (NAPP). These regions have supplied various coals to Tampa Electric for many years, and were the focus of this study.

### ***Production***

The coalfields of the ILB are located in Illinois, Indiana, and western Kentucky. The region covers more than 50,000 square miles, and contains a tremendous economic reserve base estimated to be in excess of nine billion tons, as much as five to ten times larger than the high sulfur coal reserves found in the NAPP region.

The economic coal seams of the ILB range in thickness from four to six feet. Most of the remaining reserves in the ILB are found 300 to 400 below the surface and are mined by underground methods.

ILB coal production declined from a high of 145 million tons ("mmt") in 1989 to 89 mmt in 2000, mainly due to utilities switching to low-sulfur coals from other regions to comply with the 1990 Clean Air Act Amendments. ILB production increased to approximately 95 mmt in 2003, but fell again in 2004 to about 91 mmt.

Significant consolidation has occurred in the Basin. In 1997, the top 15 producers controlled 82 percent of the production. By 2003, the top 15 producers controlled nearly 98 percent of all ILB production. In 2003, the top five producers controlled 72 percent of the production, up from 49 percent in 1997. This market power development could have significant price consequences in the future.

The NAPP region encompasses a wide area stretching from northern West Virginia through southwestern Pennsylvania and into southeastern Ohio. Coal has been produced in the NAPP region for over 200 years and the remaining reserve base is expected to support expanded production levels for at least the next 30 years. Both underground and surface mines produce coal in the NAPP region.

Most economic coal seams in the NAPP region range from five to eight feet in thickness. A great deal of the underground mining is accomplished by longwall mining, which is a highly capital-intensive but relatively low cost and highly productive mining method. In 2004, almost 98 percent of the Pittsburgh seam production was accomplished by longwall operations.

NAPP production was approximately 132 mmt in 2004, and it is projected to increase by an additional 20 to 30 mmt per year over the next 20 years. Since the early 1990s, significant consolidation has also occurred in the NAPP region, and additional consolidation could take place. In 1992, seven producers each produced more than one-half million tons per year. By 2003, only four producers reached this level. During the same period, the



percent of total Pittsburgh coal produced by the top four companies increased from 89 percent to 99 percent. This market concentration has contributed to the high prices from this region and will act to strengthen prices in the future.

### **Coal Quality**

Most coal produced in the ILB is medium to high in sulfur content; however, limited deposits of low-sulfur coal exist in some parts of the region. The wide variety of coal quality found within the ILB is shown in the table below.

**ILB Coal Quality Ranges**

<b>Range</b>	<b>Btu</b>	<b>Sulfur (%)</b>	<b>Lbs SO<sub>2</sub></b>	<b>Ash (%)</b>	<b>Chlorine (%)</b>
Illinois Range	10,400 - 13,000	0.5 - 4.5	1.1 - 8.6	6.5 - 17.0	0.09 - 0.41
Indiana Range	10,400 - 11,500	0.5 - 4.5	1.1 - 7.0	6.5 - 17.0	0.09 - 0.23
West Kentucky	10,000 - 12,400	1.3 - 5.5	2.0 - 10.5	7.5 - 25.0	0.07 - 0.19

Tampa Electric has purchased a significant amount of ILB coals in the past and this region is expected to remain a viable supply source well into the future. Not all of the coals produced in the ILB are acceptable for use by Tampa Electric due to their high sulfur, ash, and chlorine contents.

A similar quality situation exists in the NAPP region where the large majority of reserves and production is characterized by mid to high sulfur content. However a wide variation in the coal quality exists as shown in the table below.

**NAPP Coal Quality Ranges**

<b>Range</b>	<b>Btu</b>	<b>Sulfur (%)</b>	<b>Lbs SO<sub>2</sub></b>	<b>Ash (%)</b>	<b>Chlorine (%)</b>
Pittsburgh Seam	11,400 - 13,600	0.8 - 6.0	1.1 - 8.0	6.0 - 10.0	0.005 - 0.144

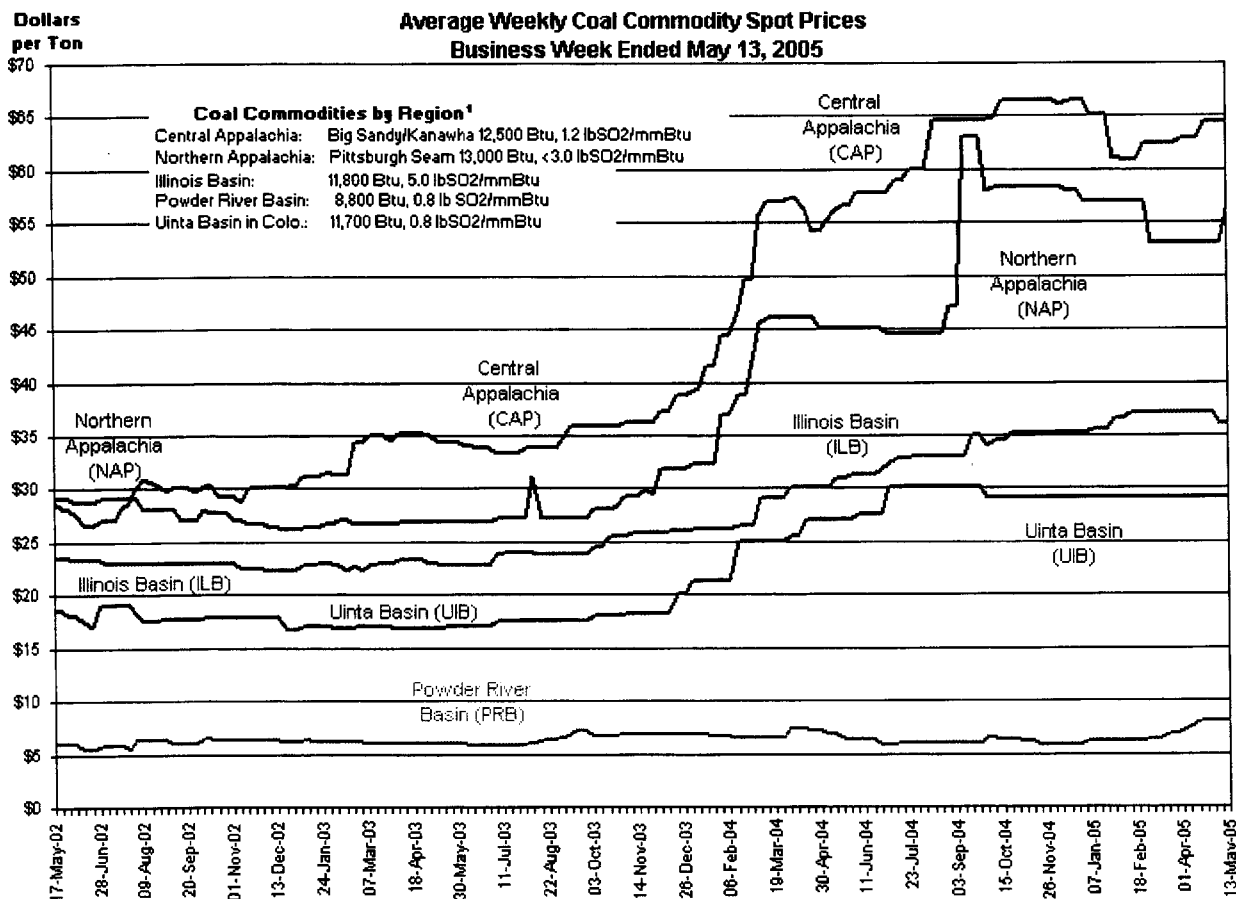
Tampa Electric has also purchased NAPP coals in the past, and it is likely that this pattern may continue because some of these coals are a good match with Tampa Electric's specifications. However, some of the NAPP coals are likewise unacceptable for Tampa Electric due to their high sulfur and ash contents.

### **Price Trends for ILB and NAPP Coals**

Prices for almost all U.S. coals have increased dramatically to historic or near-historic levels, especially in the Central Appalachian ("CAPP") and NAPP coal regions. This is attributable to a number of factors, including the following:

- High demand for coal in the U.S. and international markets, especially in China and India;
- High international coal prices and transportation rates;
- Low coal inventory levels at electric generating stations, especially in the eastern U.S., due to rail carriers' lack of reliability causing coal to be "shut-in" at the mines;
- Reserve depletion in Central Appalachia;
- High natural gas and oil prices;
- High costs for mining materials and supplies, especially fuel, tires, roof bolts, and other steel products;
- Increases in rail rates by eastern and western rail carriers; and
- Lack of qualified coal miners in various regions.

The following chart published by the Energy Information Administration ("EIA") shows the coal market price history for major U.S. coal-producing regions for the middle of May 2002 through the middle of May 2005.



\* Coal prices shown are for a relatively high-Btu coal selected in each region, for delivery in the "prompt" quarter. The "prompt quarter" is the next calendar quarter, with quarters shifting forward after the 15th of the month preceding each quarter's end.

**Source:** with permission, selected from listed prices in Platts Coal Outlook, "Weekly Price Survey." **Note:** the historical data file of spot prices is proprietary and cannot be released by EIA; see <http://www.platts.com/Coal/>. > Analytic Solutions > COALdat, or > Newsletters > Coal Outlook.

Some important conclusions can be drawn from the graph above:

- Spot market commodity price increases for ILB coals have been more moderate compared to the increases from the NAPP and CAPP regions.
  - ILB coal prices increased 56 percent, to \$36 per ton from \$23 per ton.
  - NAPP coal prices increased 96 percent, to \$55 per ton from \$28 per ton.
  - CAPP coal prices increased 128 percent, to \$64 per ton from \$28 per ton.

Future price uncertainty in both the ILB and NAPP coal-producing regions is likely to continue due to mine permitting issues, high development costs, and new scrubber installations in eastern generating plants. High coal prices are expected to continue through 2005, and possibly into 2006, as utilities try to rebuild their stockpiles to acceptable levels while rail transportation service continues to be problematic. H&A believes that ILB coal prices will remain low in comparison with NAPP and CAPP prices, in part due to the large number of potential expansions and new mine development in the Basin. This should bode well for Tampa Electric since many ILB coals meet Tampa Electric plants' specifications.

### III. TAMPA ELECTRIC COAL QUALITY SPECIFICATIONS

Coal is not a homogeneous commodity, and the coal quality specifications are vitally important to power generating facilities. Coal characteristics can vary widely depending upon the region, the seam, and, to some extent, the mining techniques employed. The design of a coal-fired electric power generating unit requires the choice of various types of equipment, which impose operational constraints on the range of acceptable coal quality specifications. Coals that are different from the unit's design coal can cause severe operating problems. Certain coal characteristics, such as sulfur content, may also be regulated by environmental agencies to meet state or federal emission standards.

Tampa Electric purchases coal for its generating units using detailed specifications based on the needs of the particular units expected to consume the coal. These specifications define limits for each characteristic of the coal that will allow for safe and efficient operation of the unit and ensure compliance with environmental regulations. The table below shows the quality specifications for sulfur, ash, Btu, and chlorine for the Stations.

**Tampa Electric's Coal Quality Specifications**

<u>Plant</u>	<u>SO<sub>2</sub></u> <u>(Lbs / mmBtu)</u>	<u>Ash</u> <u>(Lbs / mmBtu)</u>	<u>Btu</u>	<u>Chlorine (%)</u>
Big Bend Station	4.0 – 6.0	6.0 – 8.5	> 11,000	< 0.25
Polk Station	< 5.5 *	< 9.0**	11,400 - 13,000	< 0.10

\* Sulfur content must be greater than 2.5 percent at Polk Station.

\*\* Ash content must be greater than 2.0 percent at Polk Station.

Additional details for the Stations' coal quality characteristics are provided below:

#### Sulfur content (lbs SO<sub>2</sub>/mmBtu)

**Big Bend Station** – A minimum level of sulfur is typically needed in the fuel to enable the electrostatic precipitators to function properly to recover particulate matter. Sulfur changes the resistivity of ash, which affects precipitator performance. Sulfur content is limited to a maximum level based on the capacity of the flue gas desulfurization ("FGD") equipment to remove SO<sub>2</sub> from the flue gas. Sulfur in excess of this maximum may cause unacceptable emissions levels.

**Polk Station** – The amount of sulfur in the fuel is directly limited by environmental permit. Sulfur content is also limited by the capacity of the sulfur removal unit and sulfuric acid plant.

Sulfur content is typically inversely proportional to the price of coal. Additional costs may be incurred for the use of sulfur emissions allowances.

#### Ash Content (lbs ash/mmBtu)

**Big Bend Station** – A minimum amount of ash must be present in the coal to protect the lower furnace area of the wet bottom boilers and allow for proper operation of the slag removal systems. Ash is limited to a maximum level based on the capacity of the electrostatic precipitators to remove and handle the flyash from the flue gas as well as the capacity of the slag handling systems to remove and transport slag from the boilers.

**Polk Station** – Some minimum level of ash must be present in the fuel to form a protective coating over the refractory in the gasifier vessel. Ash content is limited to a maximum level based on the capacity of the slag handling and transport systems.

Ash content is typically inversely proportional to the price of coal at the mine and increases transportation expense by shipping extra weight that does not contain heating value.

#### Heat Content (Btu/lb)

**Big Bend Station** – Coal heating value below a minimum level will cause a reduction in the amount of power the unit can produce due to the finite capacity of the coal handling and milling systems.

**Polk Station** – Very low heating values may cause a reduction in the unit's power generation capability due to the capacity of the slurry preparation equipment and the oxygen plant.

Heat content is related to other coal properties such as ash content, moisture content, and sulfur content. An upper limit for heating value may be established based on a combination of effects from these other variables.

Heat content is also generally inversely proportional to the price of coal, and more coal is required at a lower heat content to equal the same amount of Btu's that would be needed by purchasing less coal at a higher heat content.

#### Chlorine content (percent)

**Big Bend Station** – Chlorine may cause corrosion in FGD system components, so it is limited to a maximum amount based on the capacity of the chloride treatment system.

**Polk Station** – Chlorine may cause corrosion in the greywater and blackwater systems in the plant. A maximum limit is established based on the capacity of the brine removal system.

### ***Determination of Available Coals***

H&A used various proprietary, U.S. Geological Survey ("USGS"), Mine Health & Safety

Administration (“MSHA”), and other industry databases and information, to identify mines in the ILB and NAPP regions that produce coals that meet Tampa Electric’s principal coal specifications for the following quality parameters:

- Btu/lb
- Ash content
- Moisture content
- Sulfur content
- Chlorine content

Other key specifications such as Ash Fusion Temperatures (“AFT”), although important, were not included in H&A’s analyses due to a lack of comprehensive data at the mine level. As a result, for any coal that has been identified as a potential candidate for Tampa Electric, further investigation of the AFT and any other critical coal specifications should be conducted by Tampa Electric to ensure that the coal quality would be acceptable.

The USGS data contains general information on coal samples that were taken in various coal regions, identified by county and state, for a number of specific coal quality parameters. The MSHA database identifies the producing mines, their annual production, and their average quality specifications during 2004. The summary of total coal production and quality for the ILB and NAPP regions is in the following table.

<u>Region</u>	<u>Production (Tons)</u>	<u>Btu</u>	<u>Ash (Lbs / mmBtu)</u>	<u>SO<sub>2</sub> (Lbs / mmBtu)</u>
Illinois Basin	90,674,993	11,171	8.42	4.46
Northern Appalachian	132,271,920	12,690	7.99	3.83

H&A’s search of the USGS/MSHA databases resulted in the identification of over 300 active mines in these regions. Most of the coal quality information examined for this study was based on annual averages and can be considered representative of the coal quality that could be expected from these mines. Where pertinent coal quality and other data was not available or reported, H&A used other industry-recognized sources, such as the *Keystone Coal Industry Manual*, various state agencies, and H&A’s databases.

The coals that H&A identified as potential candidates for Tampa Electric were labeled as “Coals that Meet Tampa Electric’s Specifications,” shown in Exhibits 1 and 2 attached to this report. “Coals that Do Not Meet Tampa Electric’s Specifications” are shown in Exhibits 3 and 4 attached to this report. H&A created a matrix that identifies the reason(s) why each coal failed to meet Tampa Electric’s specifications. The matrix below contains the letter “keys” that indicate why the coal did not meet the specifications.

### Specification Key

---

<u>Ash</u>	<u>Btu</u>	<u>Chlorine</u>	<u>Sulfur</u>
A	B	C	S

---

H&A also reviewed data for a number of current and former suppliers of coal to Tampa Electric. Some of those mines were already identified by H&A as meeting the plant specifications, but others did not appear to meet such specifications. It is possible that some coals Tampa Electric used in the past were acceptable because they were blended with other coals. Consideration of the feasibility of every coal that could be blended with other coals in some small amount to meet specifications would be an almost endless task and is outside the scope of H&A's review.

Once the coals that might meet Tampa Electric's plant specifications were identified, they were further analyzed and the others were eliminated. H&A's next step was to consider the transportation alternatives that could be used to deliver these candidate coals to the Stations.

#### IV. COAL TRANSPORTATION ALTERNATIVES AND RATES

Because the Stations are located such a great distance from the ILB and NAPP coal regions the only realistic methods of delivering coal from the mines to the plants are by barge or rail. Big Bend Station generally receives coal deliveries by barge, and Polk Station receives coal by barge delivery to Big Bend Station, with final delivery by truck. Each plant's current annual coal requirements and receipt modes are shown in the table below.

<u>Plant</u>	<u>Tons</u>	<u>Receipt Modes</u>
Big Bend Station	4,825,000	Barge and Limited Volume by Truck
Polk Station	675,000	Barge with Final Delivery by Truck

H&A prepared delivered cost estimates for each candidate coal under each of the following delivery alternatives:

- Barge to TECO Bulk Terminal, with final delivery by ocean barge to Big Bend Station, or ocean barge to Big Bend Station with trans-loading into truck for Polk Station;
- CSX rail delivery to the Tampaplex Bulk Terminal in Tampa, Florida, with final delivery by truck to the Stations; and
- CSX rail delivery directly to the Stations.

H&A determined a reasonable route for transporting the coal from the mine to the Stations, considering various truck, rail, and barge alternatives. Coal routes were determined by identifying the mine's location, loading capabilities, and a transportation path. The full matrix of shipment and delivery options H&A considered is provided in Exhibits 1 and 2.

For mines that could load directly on CSX, the coal was considered as loaded at the mine into CSX-provided railcars. For non-CSX served mines, H&A assumed that the coal would be delivered to CSX at a nearby transfer point using another railroad or an alternate transportation method.

For mines that were able to ship coal only by truck, H&A identified a delivery point where the coal could be delivered by truck to the following locations: a barge loading facility for trans-loading into barges; a nearby CSX interchange point for trans-loading into railcars; or a nearby non-CSX interchange point for trans-loading into railcars for delivery to a CSX interchange point.

H&A generally assumed that the closest CSX transfer point was a city within its rail system, not necessarily a defined CSX loading point. H&A did not assume that a mine with CSX loading capabilities would accept deliveries of coal from a competing mine, nor could H&A



be certain what the mine would charge the competitor even if it agreed to accept such deliveries. There may have been significantly longer distances, and therefore much higher costs, for transferring coal to CSX, if H&A had assumed that the coal was delivered to a "defined" CSX loading operation rather than to a closer transfer point.

For mines that were able to ship coal directly by barge, H&A identified a delivery point where the coal could be loaded into river barges for delivery to TECO Bulk Terminal.

### ***Barge Deliveries to TECO Bulk Terminal***

Since Tampa Electric has an existing contract with TECO Transport, it was the assumed carrier of the coal from the barge loading facility to TECO Bulk Terminal in Davant, Louisiana. Once the coal was received and unloaded at TECO Bulk Terminal, it was then re-loaded into ocean-going barges for delivery to Big Bend Station, or delivery to Big Bend Station for trans-loading and delivery by truck to Polk Station.

### ***CSX Deliveries to Tampaplex***

The Tampaplex facility is a bulk-unloading terminal located at the Port of Tampa, about eight miles from Big Bend Station and approximately 42 miles from Polk Station. Kinder Morgan Bulk Terminals, Inc. purchased the Tampaplex facility in 2003, and it began accepting rail coal or petcoke deliveries in 2004.

Because CSX is the only delivering carrier to Tampaplex, all coals had to be loaded onto this carrier at some point in the transportation chain. If CSX was not the originating carrier, the coal was assumed to have originated on another railroad or truck for transfer to CSX.

### ***CSX Direct Deliveries to the Stations***

CSX is currently the only railroad providing service directly to Tampa Electric's service area. Therefore, H&A assumed that the CSX railroad was the carrier for rail deliveries directly to the Stations. H&A also assumed that the necessary rail unloading facilities required to receive rail coal at the Stations would be constructed.

For any non-CSX rail origin coals, H&A used the proprietary PC Rail™ software to determine the mileage from such railroad to a connecting point with the CSX, and H&A used its proprietary rail-rate curves to determine the applicable rate for moving the coal by rail for this distance.

PC-Rail is a software product developed by ALK Technologies Inc., a privately held company in Princeton, NJ that develops technology solutions for the transportation and travel industries. The PC-Rail software is widely accepted in the industry for use in determining the rail logistics and distances between various origins and destinations. H&A

is a licensed user of this product, and has relied upon its determinations where needed for the study.

H&A has developed its proprietary rail-rate curves over the years by sourcing and studying rail rates that have been identified or reported in various governmental and industry publications. These rate curves have been developed for each of the major eastern and western railroads for rail movements of coal to captive and non-captive rail customers. H&A has calculated an estimated rail rate in "mils per ton-mile" for each railroad for distances from a few miles up to thousands of miles. H&A recently updated these rail curves due to the increasing costs of fuel and the railroads' recent efforts to substantially increase rail rates, which is further discussed in Section VI.

### ***Transportation Rates***

For barge rates, H&A used Tampa Electric's second quarter 2005 waterborne transportation rates, the most current under its contract with TECO Transport. Tampa Electric also furnished its current contractual rates for trucking the coal from Big Bend Station to Polk Station.

For direct rail deliveries by CSX to the Stations, H&A used the "informational" rates that CSX provided in its May 18, 2005 letter to Tampa Electric, which "illustrate the contractual rates that would have been in place between CSX and Tampa Electric...if Tampa Electric had accepted the offer" made by CSX on July 30, 2003. Given the disclaimers CSX stated and the railroad's recent efforts to substantially increase rail rates, these rates may not be representative of current market rates. A copy of the May 18, 2005 letter is attached to this report in Appendix A.

For rail rates by CSX to Tampaplex, H&A used the rates provided in CSX's October 12, 2004 and January 20, 2005 letters to Tampa Electric, escalated to the second quarter of 2005. A copy of these letters is attached to this report in Appendix B. For truck rates from Tampaplex to the Stations, H&A used the rates Tampa Electric obtained through a 2004 solicitation.

For trucking rates from the mines to transfer points, H&A used its proprietary estimates of trucking costs per ton-mile and trucking routes determined using MapQuest<sup>TM</sup> estimated mileages.

A description of the escalation methodologies and the rates used in H&A's analyses is provided in Section V.

## V. DELIVERED COST DETERMINATIONS AND CONCLUSIONS

To determine the final total delivered cost for each alternative, H&A used the following estimated price and cost components, as applicable:

- FOB mine prices for different coal qualities;
- Transportation cost components;
- Tampaplex service charges; and
- Additional costs for rail-unloading facilities at the plants, as provided by the updated Sargent & Lundy cost estimates.

### **FOB Mine Prices**

H&A reviewed recent prices from the industry-recognized publication, *Coal Daily*, to estimate the FOB mine prices for ILB and NAPP coals. There are significant differences in prices for the coal qualities and regions reported by *Coal Daily*, and there can be significant differences in actual coal prices from a particular mine within these regions for the following reasons:

- Coals have wide variations in Btu, sulfur, ash, chlorine, and other quality contents.
- Coals are produced from multiple mines in Indiana, western Kentucky, Illinois, Ohio, Pennsylvania, Maryland, and West Virginia.
- Mines can load coal by barge, rail, truck, or sometimes a combination thereof.
- Market power implications due to the differences in the size of the mines and/or companies that produce the coal in the region.
- Differences in the type of mining to produce the coals, e.g. underground, surface, longwall, highwall, continuous mining, and conventional mining methods.
- Differences in the markets for these coals, e.g., utility, industrial, metallurgical, domestic, and international.
- Differences in the mining costs for each mine in a given state or coal region.
- Some mines may have excess coal to sell and others may not.

*Coal Daily* prices are “marker” prices that are intended to reflect the spot market price for these coals at a given time. These prices may be used for comparisons, but should not be considered absolute. Tampa Electric would have better market price information from bids it has received or offers made to it, as well as prices in existing contracts.

The table below shows the *Coal Daily* prices that H&A used in developing the estimated prices for candidate coals.

<u>Region</u>	<u>Period</u>	<u>Location</u>	<u>Btu</u>	<u>Lbs SO<sub>2</sub></u>	<u>Price</u>
ILB	Q2 2005	Ohio River/KY Barge	11,200	4.5	\$35.00
ILB	Q2 2005	Illinois/Indiana Mine	11,200	4.5	\$32.75
ILB	Q2 2005	Illinois/Indiana Mine	11,500	1.2 – 1.8	\$44.50
ILB	Q2 2005	WKY Ohio Barge	11,800	2.5 – 3.0	\$41.50
ILB	Q2 2005	Illinois/Indiana Mine	11,000	6.0	\$26.00
ILB	Q2 2005	WKY Ohio Barge	11,000	6.0	\$29.00
NAPP	Q2 2005	FOB Mine	13,000	2.5	\$56.00
NAPP	Q2 2005	FOB Mine	13,000	3.0 – 4.0	\$51.50
NAPP	Q2 2005	FOB Mine	12,500	6.0	\$36.00

Source: *Coal Daily*

H&A adjusted the *Coal Daily* prices for the actual Btu content and, if significant, the sulfur content of the candidates to compensate for the differences in coal quality. It is possible that Tampa Electric would make additional price adjustments related to coal quality, based upon expected impacts on its plant operations.

### ***Transportation Cost Components***

H&A determined the costs for loading and delivering the candidate coals, and performed an analysis under each of the three delivery scenarios previously described. The specific transportation cost components that H&A used for these scenarios were, as applicable:

- Truck loading costs at the mine;
- Trucking costs from the mine to the next interchange or loading point;
- Rail loading costs at the mine or at the interchange point between trucks and railcars;
- Rail transportation costs to the next interchange, loading or delivery point;
- Switching charges between railroads;
- Barge loading costs;
- Belt conveying costs for loading coal into barges;
- Barge transportation costs to the next interchange or transfer point;
- Barge unloading and other costs at TECO Bulk Terminal for transferring or re-loading coal from river barges into ocean-going barges;
- Ocean barge transportation costs from TECO Bulk Terminal to Big Bend Station;
- Trucking costs for transporting coal from Big Bend Station to Polk Station;
- Rail unloading and other costs at Tampaplex for transferring or re-loading coal from railcars into trucks;
- Trucking costs for transporting coal from Tampaplex to Big Bend Station and Polk Station;
- Fuel surcharges for the CSX; and
- Plant unloading facility costs for installing rail-unloading capabilities at the Station(s), under various coal volume considerations.

## CONFIDENTIAL

The specific transportation cost components for each mode of delivery in the transportation chain are described below.

### ***Barge Deliveries***

For coal delivered by truck to a barge loading point, H&A assumed a cost of \$0.50 per ton for trans-loading the coal into barges or railcars. H&A recognizes that this may be a conservative rate for this service, but H&A used this rate consistently throughout the study for trans-loading into barges, railcars or trucks so that no form of transportation would be unduly favored or penalized in the analyses. The actual rates charged for loading services are market-related and are highly dependent upon the loading conditions at the facility, volume of activity at the terminal, and available capacity at the terminal.

For coal that was loaded directly into the barge at the mine origin, H&A assumed a loading charge of \$0.50 per ton. For the mines with belt conveying transportation, H&A assumed an additional cost of \$0.20 per ton-mile, based on H&A's knowledge of costs for similar services.

Once the barge loading point was determined, H&A used Tampa Electric's contractual rates for waterborne transportation from the various origins to TECO Bulk Terminal; trans-loading coal into ocean barges; and ocean transport from TECO Bulk Terminal to Big Bend Station. These rates include fuel surcharges and escalation through the second quarter of 2005. The current contractual rate for trans-loading coal into ocean barges at TECO Bulk Terminal is \$2.45 per ton, and the rate for ocean shipments from TECO Bulk Terminal to Big Bend Station is \$8.85 per ton, including fuel. For river barge shipments from terminals which are not in Tampa Electric's contractual rate schedules, H&A extrapolated the rates using an average miles-per-ton-mile derived from the contractual rates.

Since Big Bend Station receives coal by barge, there is no additional trucking charge required. For deliveries to Big Bend Station for final delivery to Polk Station by truck, H&A used the current contractual rate of \$3.50 per ton.

In the course of the Florida Public Service Commission's review of Tampa Electric's contract for waterborne transportation services conducted in Docket No. 031033-EI, Dr. Sansom, testifying on behalf of CSX, asserted that there are losses and inefficiencies associated with transporting coal by the waterborne alternative. Dr. Sansom stated that moisture gain and additional handling occur with waterborne coal transportation, which results in additional costs when compared to rail transportation. However, H&A is not aware of any industry recognized studies which conclude that additional inefficiencies exist in water-transported coal versus rail-transported coal, and H&A could not confirm the existence of any such costs. To the contrary, H&A's conversations with other industry colleagues affirmed that any alleged Btu or moisture impacts could result in either higher or lower Btu contents, or higher or lower moisture contents, at any given time. Therefore, imputing any water route Btu losses or moisture gains would be arbitrary and inconsistent with experience throughout the industry.

Additionally, the amount of coal handling is dependent on the mine loading facilities and the transportation route required to deliver the coal to the Stations. If H&A had included costs for losses during coal transfers in its analysis, the costs would have been applied to both rail and waterborne deliveries. Many mines in the ILB and NAPP regions do not have direct CSX-served loading points and require additional truck or rail transportation in order to deliver the coal to a CSX railroad transfer point for ultimate delivery to the Stations. Waterborne deliveries are transferred from river barges to ocean barges at TECO Bulk Terminal. Since the additional costs affect both delivery modes, they effectively cancel each other out in the analyses. Therefore, H&A considered rail and waterborne transportation routes without imposing penalties required for transloading coal for ultimate delivery. For these reasons, no additional costs associated with losses and inefficiencies of transporting coal by barge, such as those suggested by Dr. Sansom, were included in H&A's analysis.

### ***Rail Deliveries***

For rail deliveries of coal, H&A included a charge of \$0.50 per ton for loading the coal into railcars. H&A consistently used this charge throughout the study so that no form of transportation would be unduly favored or penalized in the analyses. If there was a transfer of railcars from one originating carrier to another, a switching charge of \$1.00 per ton was added to the rail transportation costs. This amount is indicative of the charge for transfers between eastern railroads, based on H&A's industry experience.

For direct CSX rail deliveries to Tampaplex, H&A used the applicable origin district rates included in CSX's October 12, 2004 and January 20, 2005 letters to Tampa Electric. According to the terms of CSX's letters, H&A escalated the rates quoted for the MGA-Blacksville, Southern Illinois, and West Kentucky districts by the changes in the All-Inclusive Index Less Fuel indexes from the first to the second quarter of 2005. The result was a quarter-on-quarter increase of approximately 1.68 percent, effective April 1, 2005. H&A also added the current CSX-imposed 12.8 percent fuel surcharge to these escalated rates.

For direct CSX rail deliveries to the Stations, H&A used the applicable origin district rates included in CSX's May 18, 2005 letter to Tampa Electric. In the letter, CSX provided rates to the Stations that were apparently escalated to May 1, 2005, and a fixed dollar amount for the fuel surcharge from each rate district.

H&A used its best judgment to match the candidate mines with the appropriate rail districts to determine which rates CSX would charge. It is possible that the rates could be higher or lower than the rates H&A used if there were no specific CSX rates for such mines.

TECO Transport currently provides the equipment and labor for transporting coal to Tampa Electric, so H&A assumed that CSX would provide the railroad cars, equipment, and labor needed to transport Tampa Electric's coal to Tampaplex and to the Stations. If CSX would not provide such equipment, Tampa Electric would incur additional costs to buy, lease,

## CONFIDENTIAL

maintain, repair, insure, and operate the large number of trainsets and locomotives needed to transport the coal by rail, and this would increase the rail delivered costs.

### ***Truck Deliveries***

For truck deliveries, H&A assumed a general truck-loading cost of \$0.50 per ton and used MapQuest™ to determine the approximate mileage from the mine origin to the next delivery or interchange point. Based on its experience, H&A applied an indicative trucking rate of \$1.00 per ton plus \$0.10 per mile for the distance from the mine origin to the next delivery point. As for the barge and rail loadings, H&A assumed the same loading cost of \$0.50 per ton for trucks in order to treat each loading method fairly in comparison with the others.

### ***Tampaplex Charges***

H&A used rates that CSX provided to Tampa Electric for rail deliveries to Tampaplex. Additional charges apply for trans-loading at Tampaplex and delivery by truck to the Stations. Currently Kinder Morgan's, trans-loading charges at Tampaplex are \$3.00 per ton, and the rate for truck deliveries from Tampaplex are \$2.50 per ton to Big Bend Station and \$4.50 per ton to Polk Station.

### ***Plant Unloading Facility Costs***

H&A recognizes that additional costs for direct rail deliveries to the Stations would be incurred because of the costs to construct rail receipt and unloading facilities at the Stations ("Facility Costs"). Engineering design firm Sargent & Lundy updated its estimate of the construction costs for Tampa Electric. Tampa Electric concluded that the Rapid Discharge option for Big Bend Station and the Rotary Dumper option for Polk Station were the optimal unloading configurations in the Sargent & Lundy study.

The table below illustrates the Facility Costs for each scenario.

<u>Plant</u>	<u>Rapid Discharge 2 – 5.5 MMT/yr</u>	<u>Rotary Dumper at 2,500 TPH</u>
Big Bend Station	\$48,330,096	NA
Polk Station	NA	\$46,644,262

H&A amortized the Facility Costs over 20 years, using a zero cost of capital, allocated the costs over the required high and low volume cases, and added the costs to the CSX rail delivered candidate coals. The results of this simple amortization are provided below.

<u>Case</u>	<u>Big Bend</u>	<u>Polk Station</u>
100 percent	\$0.50 per ton	\$3.46 per ton
50 percent	\$1.00 per ton	\$6.91 per ton

Analysis of these two volume scenarios was required by a 2004 Florida Public Service Commission order. H&A recommends that Tampa Electric should not limit its options to consider only these two scenarios in deciding upon its optimal amount of rail and waterborne deliveries.

Polk Station currently utilizes petcoke for up to 60 percent of its annual fuel burn, which can be purchased in the Gulf Coast, Caribbean or South American markets at a significant discount to the commodity price of acceptable coal for the Station. Due to the location of the petcoke production, rail deliveries are not cost-effective. Therefore, the 100 percent case is unlikely to be feasible for Polk Station now or in the future.

### ***Total Delivered Costs of Coal to Big Bend Station and Polk Stations***

Once the various price and cost components were determined for the FOB price, transportation costs, and Facility Costs, H&A summed them into a total delivered cost to each plant on a dollar per ton basis. H&A then converted the dollar per ton total to cents per million Btu, placing all delivered coals on an equal comparative level based upon the Btu content of each coal.

### ***Summary of Delivered Cost Analyses***

The study confirms that the most cost-effective delivered cost of coal generally varies by mine rather than region. Deliveries from one mine may be the most cost-effective via a waterborne route, while deliveries from a nearby mine in the same state may be the most cost-effective by rail. The most significant determining factors are coal quality, location, and loading capabilities of a specific mine.

For example, the delivered cost of coal to Big Bend Station from Dotiki Mine located in Western Kentucky is lower when delivered directly by CSX rail compared to the waterborne alternative. On the other hand, the delivered cost of coal to Big Bend Station from the Dodge Hill Mine, also located in Western Kentucky, is lower using waterborne transportation compared to the CSX rail alternative.

The study also demonstrates that there are significant differences between the total delivered costs for CSX rail direct deliveries using the higher volume case (100 percent of tons) and the lower volume case (50 percent of tons). The higher volume rail delivery case is more cost-effective than waterborne for selected mines; however, this conclusion does not necessarily hold for the lower volume case.

For example, for coal to Polk Station from the Back-in-Black Mine located in Kentucky, the



total delivered cost for the higher volume direct rail case is 265.5 cents per mmBtu compared to the waterborne delivered cost of 270.2 cents per mmBtu. The results of this rail-to-waterborne cost comparison are close, which means that slight changes in any of the assumed costs could alter the results. On the other hand, the cost for the same delivery using the lower volume direct rail case yields a total delivered cost of 280.3 cents per mmBtu, which is higher than the waterborne alternative and the higher volume rail case. Therefore, it is important to determine which case is the most relevant for comparing the cost of CSX rail direct deliveries with waterborne deliveries.

H&A's analyses also reveal that coal deliveries by rail to Tampaplex do not appear to be the most cost-effective option for either Big Bend Station or Polk Station of the alternatives considered.

The study also determined that most of the candidate coals in both the ILB and NAPP regions were from mines that do not have CSX-loading capabilities. As a matter of note, only five of the 31 candidate coal mines had CSX loading capabilities. Therefore, Tampa Electric's coal sourcing would be severely limited if it were to ship all or a significant portion of its coal directly by the CSX. It might also be unable to meet its plant coal quality specifications, and/or lock itself into higher delivered coal prices because it could become "leveraged" to a CSX-rail origin mine if it did not also have waterborne delivery capabilities.

The results of H&A's delivered cost analyses are shown in the tables below.

## Total Delivered Costs of Coals Meeting Specifications – Big Bend Station

STATE	MINE	DELIVERY MIX TO BIG BEND	TOTAL DELIV. COST		CASE
			TO PLANT INCL. FACILITY COSTS	¢/MMBTU	
IL	WILLOW LAKE PORTAL	TRK/BRG		240.9	THRO' DAVANT
IL	WILLOW LAKE PORTAL	TRK/CSX/TRK		271.7	THRO' TAMPAPLEX
IL	WILLOW LAKE PORTAL	TRK/CSX		252.7	BIG BEND DIRECT - 4.825 MMT/Yr.
IL	WILLOW LAKE PORTAL	TRK/CSX		254.7	BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	DOTIKI MINE	CSX/BRG		251.3	THRO' DAVANT
KY	DOTIKI MINE	CSX/TRK		252.1	THRO' TAMPAPLEX
KY	DOTIKI MINE	CSX		232.7	BIG BEND DIRECT - 4.825 MMT/Yr.
KY	DOTIKI MINE	CSX		234.8	BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	DODGE HILL MINE #1 UNDERGROUND	TRK/BRG		236.7	THRO' DAVANT
KY	DODGE HILL MINE #1 UNDERGROUND	TRK/CSX/TRK		262.9	THRO' TAMPAPLEX
KY	DODGE HILL MINE #1 UNDERGROUND	TRK/CSX		244.0	BIG BEND DIRECT - 4.825 MMT/Yr.
KY	DODGE HILL MINE #1 UNDERGROUND	TRK/CSX		246.1	BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	HIGHLAND #9	BELT/BRG		246.8	THRO' DAVANT
KY	HIGHLAND #9	TRK/CSX/TRK		271.4	THRO' TAMPAPLEX
KY	HIGHLAND #9	TRK/CSX		251.4	BIG BEND DIRECT - 4.825 MMT/Yr.
KY	HIGHLAND #9	TRK/CSX		253.6	BIG BEND DIRECT - 2.4125 MMT/Yr.
IL	CREEK PAUM MINE	TRK/BRG		248.2	THRO' DAVANT
IL	CREEK PAUM MINE	TRK/UP/CSX/TRK		288.7	THRO' TAMPAPLEX
IL	CREEK PAUM MINE	TRK/UP/CSX		269.2	BIG BEND DIRECT - 4.825 MMT/Yr.
IL	CREEK PAUM MINE	TRK/UP/CSX		271.3	BIG BEND DIRECT - 2.4125 MMT/Yr.
IL	WILDCAT HILLS	TRK/BRG		242.9	THRO' DAVANT
IL	WILDCAT HILLS	TRK/CSX/TRK		274.3	THRO' TAMPAPLEX
IL	WILDCAT HILLS	TRK/CSX		254.9	BIG BEND DIRECT - 4.825 MMT/Yr.
IL	WILDCAT HILLS	TRK/CSX		257.0	BIG BEND DIRECT - 2.4125 MMT/Yr.
IN	SOMERVILLE	TRK/BRG		257.0	THRO' DAVANT
IN	SOMERVILLE	ISRR/CSX/TRK		279.2	THRO' TAMPAPLEX
IN	SOMERVILLE	ISRR/CSX		259.0	BIG BEND DIRECT - 4.825 MMT/Yr.
IN	SOMERVILLE	ISRR/CSX		261.2	BIG BEND DIRECT - 2.4125 MMT/Yr.
IN	FREELANDVILLE UG	TRK/BRG		279.1	THRO' DAVANT
IN	FREELANDVILLE UG	TRK/CSX/TRK		276.0	THRO' TAMPAPLEX
IN	FREELANDVILLE UG	TRK/CSX		259.4	BIG BEND DIRECT - 4.825 MMT/Yr.
IN	FREELANDVILLE UG	TRK/CSX		261.6	BIG BEND DIRECT - 2.4125 MMT/Yr.
IN	AUGUSTA	TRK/BRG		258.7	THRO' DAVANT
IN	AUGUSTA	TRK/CSX/TRK		280.0	THRO' TAMPAPLEX
IN	AUGUSTA	TRK/CSX		264.0	BIG BEND DIRECT - 4.825 MMT/Yr.
IN	AUGUSTA	TRK/CSX		266.1	BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	BACK IN BLACK MINE	TRK/BRG		255.2	THRO' DAVANT
KY	BACK IN BLACK MINE	TRK/CSX/TRK		272.8	THRO' TAMPAPLEX
KY	BACK IN BLACK MINE	TRK/CSX		252.9	BIG BEND DIRECT - 4.825 MMT/Yr.
KY	BACK IN BLACK MINE	TRK/CSX		255.0	BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	VECTOR (DRIVE)	TRK/BRG		257.1	THRO' DAVANT
KY	VECTOR (DRIVE)	TRK/CSX/TRK		265.9	THRO' TAMPAPLEX
KY	VECTOR (DRIVE)	TRK/CSX		245.9	BIG BEND DIRECT - 4.825 MMT/Yr.
KY	VECTOR (DRIVE)	TRK/CSX		248.1	BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	MINE NO. 2	TRK/BRG		257.1	THRO' DAVANT
KY	MINE NO. 2	TRK/CSX/TRK		265.9	THRO' TAMPAPLEX
KY	MINE NO. 2	TRK/CSX		245.9	BIG BEND DIRECT - 4.825 MMT/Yr.
KY	MINE NO. 2	TRK/CSX		248.1	BIG BEND DIRECT - 2.4125 MMT/Yr.
OH	COLUMBIANA PITS	TRK/BRG		265.0	THRO' DAVANT
OH	COLUMBIANA PITS	NS/CSX/TRK		306.1	THRO' TAMPAPLEX
OH	COLUMBIANA PITS	NS/CSX		268.2	BIG BEND DIRECT - 4.825 MMT/Yr.
OH	COLUMBIANA PITS	NS/CSX		270.3	BIG BEND DIRECT - 2.4125 MMT/Yr.
OH	NELMS MINE - CADIZ PORTAL	TRK/BRG		265.5	THRO' DAVANT
OH	NELMS MINE - CADIZ PORTAL	NS/CSX/TRK		284.6	THRO' TAMPAPLEX
OH	NELMS MINE - CADIZ PORTAL	NS/CSX		247.9	BIG BEND DIRECT - 4.825 MMT/Yr.
OH	NELMS MINE - CADIZ PORTAL	NS/CSX		249.9	BIG BEND DIRECT - 2.4125 MMT/Yr.
IN	SOMERVILLE CENTRAL	TRK/BRG		228.5	THRO' DAVANT
IN	SOMERVILLE CENTRAL	ISRR/CSX/TRK		250.6	THRO' TAMPAPLEX
IN	SOMERVILLE CENTRAL	ISRR/CSX		230.5	BIG BEND DIRECT - 4.825 MMT/Yr.
IN	SOMERVILLE CENTRAL	ISRR/CSX		232.7	BIG BEND DIRECT - 2.4125 MMT/Yr.

## Total Delivered Costs of Coals Meeting Specifications – Big Bend Station (cont.)

STATE	MINE	DELIVERY MIX TO BIG BEND	TOTAL DELIV. COST		CASE
			TO PLANT INCL. FACILITY COSTS	¢/MMBTU	
IN	FREELANDVILLE EAST	TRK/BRG	278.4		THRO' DAVANT
IN	FREELANDVILLE EAST	TRK/CSX/TRK	275.3		THRO' TAMPAPLEX
IN	FREELANDVILLE EAST	TRK/CSX	258.8		BIG BEND DIRECT - 4.825 MMT/Yr.
IN	FREELANDVILLE EAST	TRK/CSX	261.1		BIG BEND DIRECT - 2.4125 MMT/Yr.
WV	NANCY	TRK/BRG	326.2		THRO' DAVANT
WV	NANCY	TRK/CSX/TRK	327.9		THRO' TAMPAPLEX
WV	NANCY	TRK/CSX	292.4		BIG BEND DIRECT - 4.825 MMT/Yr.
WV	NANCY	TRK/CSX	294.3		BIG BEND DIRECT - 2.4125 MMT/Yr.
WV	MINE NO 108-I	TRK/BRG	341.4		THRO' DAVANT
WV	MINE NO 108-I	TRK/CSX/TRK	336.6		THRO' TAMPAPLEX
WV	MINE NO 108-I	TRK/CSX	301.1		BIG BEND DIRECT - 4.825 MMT/Yr.
WV	MINE NO 108-I	TRK/CSX	303.0		BIG BEND DIRECT - 2.4125 MMT/Yr.
WV	FLAG RUN #1	TRK/BRG	332.8		THRO' DAVANT
WV	FLAG RUN #1	TRK/CSX/TRK	328.1		THRO' TAMPAPLEX
WV	FLAG RUN #1	TRK/CSX	292.5		BIG BEND DIRECT - 4.825 MMT/Yr.
WV	FLAG RUN #1	TRK/CSX	294.5		BIG BEND DIRECT - 2.4125 MMT/Yr.
WV	UPSHUR DEEP MINE NO. 1	TRK/BRG	344.5		THRO' DAVANT
WV	UPSHUR DEEP MINE NO. 1	TRK/CSX/TRK	339.6		THRO' TAMPAPLEX
WV	UPSHUR DEEP MINE NO. 1	TRK/CSX	303.8		BIG BEND DIRECT - 4.825 MMT/Yr.
WV	UPSHUR DEEP MINE NO. 1	TRK/CSX	305.8		BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	PATRIOT SURFACE	BELT/BRG	246.2		THRO' DAVANT
KY	PATRIOT SURFACE	TRK/CSX/TRK	273.1		THRO' TAMPAPLEX
KY	PATRIOT SURFACE	TRK/CSX	251.9		BIG BEND DIRECT - 4.825 MMT/Yr.
KY	PATRIOT SURFACE	TRK/CSX	254.2		BIG BEND DIRECT - 2.4125 MMT/Yr.
IL	RIOLA/VERMILLION GROVE PORTAL	CSX/BRG	327.9		THRO' DAVANT
IL	RIOLA/VERMILLION GROVE PORTAL	CSX/TRK	316.8		THRO' TAMPAPLEX
IL	RIOLA/VERMILLION GROVE PORTAL	CSX	297.5		BIG BEND DIRECT - 4.825 MMT/Yr.
IL	RIOLA/VERMILLION GROVE PORTAL	CSX	299.9		BIG BEND DIRECT - 2.4125 MMT/Yr.
IN	VIKING MINE	TRK/BRG	272.4		THRO' DAVANT
IN	VIKING MINE	TRK/CSX/TRK	269.8		THRO' TAMPAPLEX
IN	VIKING MINE	TRK/CSX	253.5		BIG BEND DIRECT - 4.825 MMT/Yr.
IN	VIKING MINE	TRK/CSX	255.7		BIG BEND DIRECT - 2.4125 MMT/Yr.
IL	PATTIKI MINE II	CSX/BRG	246.4		THRO' DAVANT
IL	PATTIKI MINE II	CSX/TRK	256.8		THRO' TAMPAPLEX
IL	PATTIKI MINE II	CSX	236.9		BIG BEND DIRECT - 4.825 MMT/Yr.
IL	PATTIKI MINE II	CSX	239.0		BIG BEND DIRECT - 2.4125 MMT/Yr.
IN	FARMERSBURG	CSX/BRG	275.9		THRO' DAVANT
IN	FARMERSBURG	CSX/TRK	263.8		THRO' TAMPAPLEX
IN	FARMERSBURG	CSX	245.5		BIG BEND DIRECT - 4.825 MMT/Yr.
IN	FARMERSBURG	CSX	247.8		BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	VISION 9 (KNOB LICK #9)	TRK/BRG	236.9		THRO' DAVANT
KY	VISION 9 (KNOB LICK #9)	TRK/CSX/TRK	258.7		THRO' TAMPAPLEX
KY	VISION 9 (KNOB LICK #9)	TRK/CSX	238.4		BIG BEND DIRECT - 4.825 MMT/Yr.
KY	VISION 9 (KNOB LICK #9)	TRK/CSX	240.6		BIG BEND DIRECT - 2.4125 MMT/Yr.
OH	POWHATAN NO 6	TRK/BRG	255.5		THRO' DAVANT
OH	POWHATAN NO 6	NS/CSX/TRK	287.9		THRO' TAMPAPLEX
OH	POWHATAN NO 6	NS/CSX	251.8		BIG BEND DIRECT - 4.825 MMT/Yr.
OH	POWHATAN NO 6	NS/CSX	253.8		BIG BEND DIRECT - 2.4125 MMT/Yr.
WV	ROBINSON RUN NO. 95	CSX/BRG	276.8		THRO' DAVANT
WV	ROBINSON RUN NO. 95	CSX/TRK	267.5		THRO' TAMPAPLEX
WV	ROBINSON RUN NO. 95	CSX	234.1		BIG BEND DIRECT - 4.825 MMT/Yr.
WV	ROBINSON RUN NO. 95	CSX	236.1		BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	FREEDOM MINE	BELT/BRG	241.9		THRO' DAVANT
KY	FREEDOM MINE	TRK/CSX/TRK	267.6		THRO' TAMPAPLEX
KY	FREEDOM MINE	TRK/CSX	247.3		BIG BEND DIRECT - 4.825 MMT/Yr.
KY	FREEDOM MINE	TRK/CSX	249.5		BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	PARADISE #9	TRK/BRG	236.4		THRO' DAVANT
KY	PARADISE #9	TRK/CSX/TRK	255.1		THRO' TAMPAPLEX
KY	PARADISE #9	TRK/CSX	233.2		BIG BEND DIRECT - 4.825 MMT/Yr.
KY	PARADISE #9	TRK/CSX	235.6		BIG BEND DIRECT - 2.4125 MMT/Yr.

## Total Delivered Costs of Coals Meeting Specifications – Polk Station

STATE	MINE	DELIVERY MIX TO POLK	TOTAL DELIV. COST	
			TO PLANT INCL. FACILITY COSTS ¢/MMBTU	CASE
IL	WILDCAT HILLS	TRK/BRG/TRK	257.5	THRO' DAVANT
IL	WILDCAT HILLS	TRK/CSX/TRK	282.6	THRO' TAMPAPLEX
IL	WILDCAT HILLS	TRK/CSX	267.2	POLK DIRECT - 675 KT/Yr.
IL	WILDCAT HILLS	TRK/CSX	281.6	POLK DIRECT - 337.5 KT/Yr.
IL	CREEK PAUM MINE	TRK/BRG/TRK	262.8	THRO' DAVANT
IL	CREEK PAUM MINE	TRK/UP/CSX/TRK	297.0	THRO' TAMPAPLEX
IL	CREEK PAUM MINE	TRK/UP/CSX	281.6	POLK DIRECT - 675 KT/Yr.
IL	CREEK PAUM MINE	TRK/UP/CSX	295.9	POLK DIRECT - 337.5 KT/Yr.
IN	AUGUSTA	TRK/BRG/TRK	273.8	THRO' DAVANT
IN	AUGUSTA	TRK/CSX/TRK	288.6	THRO' TAMPAPLEX
IN	AUGUSTA	TRK/CSX	276.7	POLK DIRECT - 675 KT/Yr.
IN	AUGUSTA	TRK/CSX	291.6	POLK DIRECT - 337.5 KT/Yr.
KY	BACK IN BLACK MINE	TRK/BRG/TRK	270.2	THRO' DAVANT
KY	BACK IN BLACK MINE	TRK/CSX/TRK	281.4	THRO' TAMPAPLEX
KY	BACK IN BLACK MINE	TRK/CSX	265.5	POLK DIRECT - 675 KT/Yr.
KY	BACK IN BLACK MINE	TRK/CSX	280.3	POLK DIRECT - 337.5 KT/Yr.
KY	VECTOR (DRIVE)	TRK/BRG/TRK	272.1	THRO' DAVANT
KY	VECTOR (DRIVE)	TRK/CSX/TRK	274.5	THRO' TAMPAPLEX
KY	VECTOR (DRIVE)	TRK/CSX	258.6	POLK DIRECT - 675 KT/Yr.
KY	VECTOR (DRIVE)	TRK/CSX	273.4	POLK DIRECT - 337.5 KT/Yr.
KY	MINE NO. 2	TRK/BRG/TRK	272.1	THRO' DAVANT
KY	MINE NO. 2	TRK/CSX/TRK	274.5	THRO' TAMPAPLEX
KY	MINE NO. 2	TRK/CSX	258.6	POLK DIRECT - 675 KT/Yr.
KY	MINE NO. 2	TRK/CSX	273.4	POLK DIRECT - 337.5 KT/Yr.
OH	COLUMBIANA PITS	TRK/BRG/TRK	279.6	THRO' DAVANT
OH	COLUMBIANA PITS	NS/CSX/TRK	314.4	THRO' TAMPAPLEX
OH	COLUMBIANA PITS	NS/CSX	280.5	POLK DIRECT - 675 KT/Yr.
OH	COLUMBIANA PITS	NS/CSX	294.9	POLK DIRECT - 337.5 KT/Yr.
OH	NELMS MINE - CADIZ PORTAL	TRK/BRG/TRK	279.6	THRO' DAVANT
OH	NELMS MINE - CADIZ PORTAL	NS/CSX/TRK	292.7	THRO' TAMPAPLEX
OH	NELMS MINE - CADIZ PORTAL	NS/CSX	259.8	POLK DIRECT - 675 KT/Yr.
OH	NELMS MINE - CADIZ PORTAL	NS/CSX	273.8	POLK DIRECT - 337.5 KT/Yr.
WV	NANCY	TRK/BRG/TRK	339.8	THRO' DAVANT
WV	NANCY	TRK/CSX/TRK	335.7	THRO' TAMPAPLEX
WV	NANCY	TRK/CSX	303.9	POLK DIRECT - 675 KT/Yr.
WV	NANCY	TRK/CSX	317.4	POLK DIRECT - 337.5 KT/Yr.
WV	FLAG RUN #1	TRK/BRG/TRK	346.5	THRO' DAVANT
WV	FLAG RUN #1	TRK/CSX/TRK	335.9	THRO' TAMPAPLEX
WV	FLAG RUN #1	TRK/CSX	304.1	POLK DIRECT - 675 KT/Yr.
WV	FLAG RUN #1	TRK/CSX	317.6	POLK DIRECT - 337.5 KT/Yr.
WV	MINE NO 108-I	TRK/BRG/TRK	355.1	THRO' DAVANT
WV	MINE NO 108-I	TRK/CSX/TRK	344.4	THRO' TAMPAPLEX
WV	MINE NO 108-I	TRK/CSX	312.6	POLK DIRECT - 675 KT/Yr.
WV	MINE NO 108-I	TRK/CSX	326.1	POLK DIRECT - 337.5 KT/Yr.

## Total Delivered Costs of Coals Meeting Specifications – Polk Station (cont.)

STATE	MINE	DELIV. MIX TO POLK	TOTAL DELIV. COST TO PLANT INCL. FACILITY COSTS ¢/MMBTU	CASE
WV	UPSHUR DEEP MINE NO. 1	TRK/BRG/TRK	358.3	THRO' DAVANT
WV	UPSHUR DEEP MINE NO. 1	TRK/CSX/TRK	347.5	THRO' TAMPAPLEX
WV	UPSHUR DEEP MINE NO. 1	TRK/CSX	315.5	POLK DIRECT - 675 KT/Yr.
WV	UPSHUR DEEP MINE NO. 1	TRK/CSX	329.1	POLK DIRECT - 337.5 KT/Yr.
KY	PATRIOT SURFACE	BELT/BRG/TRK	262.1	THRO' DAVANT
KY	PATRIOT SURFACE	TRK/CSX/TRK	282.2	THRO' TAMPAPLEX
KY	PATRIOT SURFACE	TRK/CSX	265.3	POLK DIRECT - 675 KT/Yr.
KY	PATRIOT SURFACE	TRK/CSX	281.0	POLK DIRECT - 337.5 KT/Yr.
KY	HIGHLAND #9	BELT/BRG/TRK	261.8	THRO' DAVANT
KY	HIGHLAND #9	TRK/CSX/TRK	280.0	THRO' TAMPAPLEX
KY	HIGHLAND #9	TRK/CSX	264.1	POLK DIRECT - 675 KT/Yr.
KY	HIGHLAND #9	TRK/CSX	278.9	POLK DIRECT - 337.5 KT/Yr.
PA	CUMBERLAND (KIRBY, PA)	RAIL/BRG/TRK	321.2	THRO' DAVANT
PA	CUMBERLAND (KIRBY, PA)	TRK/CSX/TRK	333.2	THRO' TAMPAPLEX
PA	CUMBERLAND (KIRBY, PA)	TRK/CSX	302.4	POLK DIRECT - 675 KT/Yr.
PA	CUMBERLAND (KIRBY, PA)	TRK/CSX	315.5	POLK DIRECT - 337.5 KT/Yr.

## VI. RAIL RATES AND PERFORMANCE ISSUES

### *Rail Rates*

In considering the feasibility of rail deliveries to Tampa Electric, it is important to consider that in the past few years, there has been a strong effort by eastern and western railroads to significantly increase their rates to utility and non-utility customers. Many of these rate increases have been affirmed by the Surface Transportation Board (“STB”), which has the authority to oversee and approve rates for the U.S. railroads.

In the distant past, railroads and their customers used common-carrier freight rates that were developed and specified in “tariffs” that were published by the railroads and filed with the Interstate Commerce Commission, the regulatory body that was established in 1887. These rates were not based on the railroads’ costs, but were instead based on their relationship to other tariffs that were in place at that time. In 1980, however, Congress passed the Staggers Rail Act, which allowed railroads to enter into private contracts with their customers at whatever rates the parties agreed.

In general, the rail rates that were agreed to in these new contracts were less than those published in the tariffs. In some cases, the contract rates were as much as 50 percent less than the tariff rates. Railroads still publish tariffs to provide for general terms and conditions of carriage on their rail system, and some tariffs are still in place for specific movements of commodities. If the railroad and the customer do not agree to specific terms, conditions, and rates in a contract, the customer may use or may be required to use the published tariff to transport its goods on that particular railroad. Such tariff rates are generally much higher than the contract rates.

The following describes some specific examples where rail rates have been substantially increased recently.

- Xcel/Public Service Company of Colorado’s rates to the Pawnee plant had been set by the STB at 82.2 percent of tariff rates. These rates were recently re-set again by the STB at a level that is about \$0.30 per ton higher than the STB’s previous ruling only several months earlier.
- Carolina Power & Light’s Norfolk Southern Railroad (“NS”) and CSX rates have been approved by the STB at approximately 100 percent of tariff rates, a reported increase of 50 percent over their previous contract rates.
- Duke Energy’s NS and CSX rates have been approved by the STB at approximately 85 percent of tariff rates, a reported increase of 35 percent over their previous contract rates.
- Arizona Public Service’s Cholla rates from Burlington Northern Santa Fe Railroad (“BNSF”) have been recently re-set by the STB to levels approximately 90 percent of the tariff rate.

- South Carolina Electric & Gas recently reported rail rate increases of 41 percent for eastern coal deliveries, as described in *Coal & Energy Price Report* and *Coal Weekly*.
- Springfield City Utilities reported in *U.S. Coal Review* ("USCR") on January 31, 2005, an increase of 30 percent or more for its rail rates for Powder River Basin coal deliveries.
- Missouri River Energy Services recently reported to a Senate Energy Committee that the Laramie River Station's rail rates were recently doubled by the BNSF following the expiration of the rail contract.
- Industry contacts have affirmed that rail rates have risen by 20 percent to 40 percent, including fuel.

There is ongoing investigation of rates charged by the BNSF and Union Pacific Railroad by the Department of Justice, and this may help keep focus and pressure on broad-based or unilaterally applied increases in rates by these two large western rail carriers. The investigation may also have implications on the eastern rail carriers' attempts to raise rates to much higher levels.

Additionally, fuel costs have increased substantially in the past few years, and CSX has been applying fuel surcharges in the range of 10 to 12.8 percent on top of base rail rates, even after the rates have been raised to high tariff-related levels. This information is available at CSX's Web site at [www.csxt.com](http://www.csxt.com) under the Price Look-up/Fuel Surcharge Sections.

The implications of these trends toward higher rail rates are significant to Tampa Electric. If Tampa Electric considers receiving rail coal at Big Bend Station and Polk Station, it should consider whether rail deliveries that may appear to be cost-effective today will remain so even in the very near future, especially given the monopoly power of the four major U.S. railroads, which control most of the rail deliveries for the entire U.S. The CSX and NS railroads control almost all the long-haul rail deliveries for the eastern U.S. Therefore, the market power of these railroads is tremendous.

### ***Rail Performance***

Demands on the rail system have increased substantially in the past year or so, resulting in higher rail rates, service or delivery impairments, and changes in rail logistics in part due to the following:

- (1) Significant increases in volumes of rail delivered commodities and products;
- (2) Shifts in coal demand to/from different producing regions;
- (3) Shifts in the transportation of steam coals to more profitable metallurgical ("met") coal markets, resulting in railroads' focus on more highly profitable rail moves to export terminals and/or to met coal users.

As a result, rail transportation infrastructure and capacity has been severely strained and service has deteriorated. This has been reported many times recently, in articles published by USCR and *Argus Coal Transportation* ("ACT"). A few examples of these articles follow:

- "CSX – Tracts Some More Anguish from Harried Shippers, Producers" published in USCR Issue #1537, April 8, 2005.
- "Sources Skeptical of Any Claims That Rail Transportation Will Improve Soon" published in USCR Issue #1534, March 21, 2005.
- "Coal Deals Will Have to Wait for Railroad Performance Improvement" published in USCR Issue #1526, January 21, 2005.
- "Utilities Report NS Service 'Imploding'" published in ACT, April 21, 2005.



## VII. RECOMMENDATIONS

There are a number of variables that should be considered when determining whether to ship coal by rail, barge, or both methods. H&A's analyses include a number of assumptions that could affect the actual delivered cost of coal that would be incurred from the candidate mines.

H&A believes that any decision to pursue rail deliveries should consider factors such as:

- loading capabilities of the mines
- delivered costs of the fuels
- types and location of the fuel(s) to be burned (e.g. coal, petcoke, etc.)
- coal volumes
- potential escalation of the transportation rates over time
- implications of fuel costs and/or surcharges that would be incurred
- creditworthiness of the companies/mines in Tampa Electric's preferred coal source region(s)
- current and future fuel market issues (e.g. mining costs, prices, availability, etc.)
- transportation issues (e.g. equipment, service, rates, availability, etc.)
- potential shifts in coal transportation patterns
- facility construction, operating and maintenance costs, etc.
- capital requirements and costs
- negotiating leverage or monopoly pricing power
- contractual obligations that may be required, including volume requirements, restrictions on alternative transportation options, etc.
- firm and enforceable service guarantees that the railroad would deliver the coal to Tampa Electric in a timely manner to meet its requirements or suffer penalties commensurate with service disruptions.

H&A believes that Tampa Electric should further consider the delivery of coals by rail if competitive rail rates from the candidate mines are available. It could be advantageous for Tampa Electric to have multiple transportation options, which could broaden its fuel sourcing options; however, relying solely on rail deliveries could be detrimental to Tampa Electric. Future CSX rates could be considerably higher if Tampa Electric was to become a "captive" customer to the CSX. Therefore, H&A believes that Tampa Electric should also maintain barge deliveries to the Stations. The study confirms that TECO Transport is a strategically advantageous fuel carrier to the Stations, as it is often the lower cost transportation provider. The study also shows that there are few CSX-origin mines in Tampa Electric's typical coal source regions, which are dictated by the quality specifications required by its Stations' designs. The additional costs of transferring coal to a CSX delivery point raises the total delivered costs for most candidate mines such that rail transportation is not competitive with waterborne transportation. For these regions, H&A recommends that Tampa Electric continue to maintain a significant portion of its fuel deliveries by the waterborne method.

Given that the high and low volume cases were the only two cases required for evaluating the feasibility of rail coal deliveries to the Stations, H&A concludes that of these two scenarios, the low volume case (50 percent of tons) provides the best result of potential cost savings and delivery flexibility. H&A believes that it could be advantageous to Tampa Electric to receive a mix of coal deliveries by barge and rail. Such a delivery mix could broaden Tampa Electric's fuel source options and convey the potential for lower delivered costs from some rail-served mines in the study. H&A has not concluded that the 50 percent case represents an appropriate amount of rail deliveries. An appropriate balance of rail and waterborne deliveries for Tampa Electric will be determined by utilizing a procurement process that weighs all appropriate data, including commodity availability, price, and costs; mine reliability; quality specifications; environmental and operational requirements; and transportation reliability and costs.

## VIII. GLOSSARY OF TERMS

**Ash** – the amount of ash residue that is contained in the coal, typically stated in the percent by weight.

**Ash Fusion or Ash Fusion Temperature (“AFT”)** – the fusion properties of laboratory prepared coal ash, which are demonstrated by the heating of the ash in a mildly reducing or oxidizing atmosphere. It typically describes the temperature at which the ash in the coal becomes “fused” in a boiler when the coal is burned, potentially resulting in slagging, fouling, or other detrimental effects in the coal boilers.

**Burlington Northern Santa Fe Railroad (“BNSF”)** - a rail carrier of primarily western coals.

**British Thermal Units (“Btu”)** – one Btu is equal to the amount of heat required to raise the temperature of one pound of liquid water by one degree Fahrenheit at its maximum density, which occurs at a temperature of 39.1 degrees Fahrenheit. Used to measure the heating value that is contained in one pound of coal. Often stated in million Btu or mmBtu.

**Candidate coals** – those coals that H&A has determined may meet Tampa Electric's coal quality specifications for Big Bend Station and/or Polk Station, including coals that Tampa Electric purchased and may have blended in the past.

**Central Appalachian coal producing region (“CAPP”)** – mines in eastern Kentucky, southern West Virginia, and Virginia.

**Cents per million Btu (“¢/mmBtu”)** –used to convert the dollar per ton cost to an equivalent cost based upon the Btus that were received in the coal. It allows cost comparisons of different coals.

**Coal Daily** – publication that provides physical market assessments of coal prices for various coal-producing regions in the U.S.

**Coal reserves** – the amount of coal that is contained in a geographical area, typically stated in thousands or millions of tons.

**Coal seam** – the band or thickness of coal that is present in the coal reserves. The seam can vary between a few inches up to many feet, depending upon the coal source.

**Delivered cost** – the total cost of the coal delivered to the plants. Typically includes the FOB mine price plus the transportation cost or charge(s).

**Destination** – the final delivery or termination point for a shipment of coal by rail, barge, or truck.

**Energy Information Administration (“EIA”)** – The U.S. government agency that oversees the collection of numerous data and information including fuel costs, utility and non-utility generation, and other energy-related data.

**Facility Costs** – The estimated costs prepared by Sargent & Lundy for constructing rail receipt and unloading facilities at Big Bend and Polk Stations.

**Free on Board (“FOB”)** – describes the price of the coal that is provided at a mine, or in a railcar, barge, or truck at a loading point.

**Illinois Basin coal producing region (“ILB”)** – mines in Illinois, Indiana, and western Kentucky.

**Interchange** – the transfer of coal from one carrier to another, typically from one railroad to another.

**Loading point** – the location at which the coal is loaded.

**Mine Health & Safety Administration (“MSHA”)** – The U.S. agency that collects information and statistics on mining-related activities, including production, productivity, etc.

**Northern Appalachian coal producing region (“NAPP”)** – mines in northern West Virginia, eastern Ohio, and western Pennsylvania.

**Origin** – generally, the location where the coal is mined or loaded.

**Petroleum coke (“petcoke”)** – a fuel by-product of the oil refining process.

**Plant(s)** – used interchangeably with Station(s) and meaning Big Bend Station and/or Polk Station.

**Pounds per million Btu (“Lbs/mmBtu”)** – Measurement used to describe the amount of ash, sulfur, or sulfur-dioxide that is contained in coal.

**Railroad Cost Adjustment Factor-Unadjusted (“RCAF-U”)** – factor developed by the Association of American Railroads for use in determining quarterly adjustments to rail rates.

**Scrubber** – a facility or equipment that is designed to remove sulfur dioxide from the coal after it is burned in a power plant.

**SO<sub>2</sub>** – Sulfur-dioxide.

**Sulfur** – the amount of sulfur that is contained in the coal, typically stated as a percent by weight.

**Surface Transportation Board (“STB”)** - The U.S. regulatory/adjudicatory agency that is charged with resolving railroad rate and service disputes and reviewing proposed railroad mergers.

**Ton** – a weight of 2,000 pounds avoirdupois.

**Trans-loaded** – the transfer and/or re-loading of coal from one carrier to another, typically from rail to barge, or barge to rail or truck.

**Union Pacific Railroad (“UPRR”)** - a rail carrier of primarily western coals.

**U. S. Geological Survey (“USGS”)** – This organization was created by Congress for the purpose of collecting, monitoring, analyzing and providing scientific knowledge relating to biological, mineral and energy resources.

**Exhibit 1**

**Big Bend Station  
Candidate Coal Mines**

**HILL & ASSOCIATES - EXHIBIT 1 - BIG BEND  
COALS MEETING TEC'S SPECIFICATIONS AND MINES SELECTED BY TEC**

STATE	MINE	MINE SHIPMENT MODE(S)			DELIV. MIX TO BIG BEND	BIG BEND TYPICAL COAL SPECIFICATION RANGES							TOTAL DELIV. COST TO PLANT INCL. FACILITY COSTS \$/MMBTU	CASE
		BRG	RAIL	TRK		ASH LBS./	ESTIMATED 2004 QUALITY			SO2	% CL <sub>2</sub>			
						MMBTU	% A	% S	LBS./	BTU/LB	% CL <sub>2</sub>	@ 10% M		
									MMBTU		(DRY)	A.R.		
IL	WILLOW LAKE PORTAL			T	TRK/BRG	6.53	8.00	2.52	4.11	12,250	0.25	0.225	240.9	THRO' DAVANT
IL	WILLOW LAKE PORTAL			T	TRK/CSX/TRK	6.53	8.00	2.52	4.11	12,250	0.25	0.225	271.7	THRO' TAMPAPLEX
IL	WILLOW LAKE PORTAL			T	TRK/CSX	6.53	8.00	2.52	4.11	12,250	0.25	0.225	252.7	BIG BEND DIRECT - 4.825 MMT/Yr.
IL	WILLOW LAKE PORTAL			T	TRK/CSX	6.53	8.00	2.52	4.11	12,250	0.25	0.225	254.7	BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	DOTIKI MINE		R	T	CSX/BRG	8.33	10.00	2.92	4.87	12,000	0.21	0.189	251.3	THRO' DAVANT
KY	DOTIKI MINE		R	T	CSX/TRK	8.33	10.00	2.92	4.87	12,000	0.21	0.189	252.1	THRO' TAMPAPLEX
KY	DOTIKI MINE		R	T	CSX	8.33	10.00	2.92	4.87	12,000	0.21	0.189	232.7	BIG BEND DIRECT - 4.825 MMT/Yr.
KY	DOTIKI MINE		R	T	CSX	8.33	10.00	2.92	4.87	12,000	0.21	0.189	234.8	BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	DODGE HILL MINE #1 UNDERGROUND			T	TRK/BRG	8.10	10.00	2.74	4.44	12,349	0.20	0.180	236.7	THRO' DAVANT
KY	DODGE HILL MINE #1 UNDERGROUND			T	TRK/CSX/TRK	8.10	10.00	2.74	4.44	12,349	0.20	0.180	262.9	THRO' TAMPAPLEX
KY	DODGE HILL MINE #1 UNDERGROUND			T	TRK/CSX	8.10	10.00	2.74	4.44	12,349	0.20	0.180	244.0	BIG BEND DIRECT - 4.825 MMT/Yr.
KY	DODGE HILL MINE #1 UNDERGROUND			T	TRK/CSX	8.10	10.00	2.74	4.44	12,349	0.20	0.180	246.1	BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	HIGHLAND #9	B		T	BELT/BRG	6.44	7.50	3.10	5.32	11,650	0.20	0.180	246.8	THRO' DAVANT
KY	HIGHLAND #9	B		T	TRK/CSX/TRK	6.44	7.50	3.10	5.32	11,650	0.20	0.180	271.4	THRO' TAMPAPLEX
KY	HIGHLAND #9	B		T	TRK/CSX	6.44	7.50	3.10	5.32	11,650	0.20	0.180	251.4	BIG BEND DIRECT - 4.825 MMT/Yr.
KY	HIGHLAND #9	B		T	TRK/CSX	6.44	7.50	3.10	5.32	11,650	0.20	0.180	253.6	BIG BEND DIRECT - 2.4125 MMT/Yr.
IL	CREEK PAUM MINE			T	TRK/BRG	8.34	10.01	2.51	4.18	12,001	0.10	0.090	248.2	THRO' DAVANT
IL	CREEK PAUM MINE			T	TRK/UP/CSX/TRK	8.34	10.01	2.51	4.18	12,001	0.10	0.090	288.7	THRO' TAMPAPLEX
IL	CREEK PAUM MINE			T	TRK/UP/CSX	8.34	10.01	2.51	4.18	12,001	0.10	0.090	269.2	BIG BEND DIRECT - 4.825 MMT/Yr.
IL	CREEK PAUM MINE			T	TRK/UP/CSX	8.34	10.01	2.51	4.18	12,001	0.10	0.090	271.3	BIG BEND DIRECT - 2.4125 MMT/Yr.
IL	WILDCAT HILLS			T	TRK/BRG	8.34	10.01	2.51	4.18	12,001	0.10	0.090	242.9	THRO' DAVANT
IL	WILDCAT HILLS			T	TRK/CSX/TRK	8.34	10.01	2.51	4.18	12,001	0.10	0.090	274.3	THRO' TAMPAPLEX
IL	WILDCAT HILLS			T	TRK/CSX	8.34	10.01	2.51	4.18	12,001	0.10	0.090	254.9	BIG BEND DIRECT - 4.825 MMT/Yr.
IL	WILDCAT HILLS			T	TRK/CSX	8.34	10.01	2.51	4.18	12,001	0.10	0.090	257.0	BIG BEND DIRECT - 2.4125 MMT/Yr.
IN	SOMERVILLE		R	T	TRK/BRG	7.61	8.60	2.70	4.78	11,300	0.10	0.090	257.0	THRO' DAVANT
IN	SOMERVILLE		R	T	ISRR/CSX/TRK	7.61	8.60	2.70	4.78	11,300	0.10	0.090	279.2	THRO' TAMPAPLEX
IN	SOMERVILLE		R	T	ISRR/CSX	7.61	8.60	2.70	4.78	11,300	0.10	0.090	259.0	BIG BEND DIRECT - 4.825 MMT/Yr.
IN	SOMERVILLE		R	T	ISRR/CSX	7.61	8.60	2.70	4.78	11,300	0.10	0.090	261.2	BIG BEND DIRECT - 2.4125 MMT/Yr.
IN	FREELANDVILLE UG			T	TRK/BRG	8.21	9.20	3.00	5.36	11,200	0.25	0.225	279.1	THRO' DAVANT
IN	FREELANDVILLE UG			T	TRK/CSX/TRK	8.21	9.20	3.00	5.36	11,200	0.25	0.225	276.0	THRO' TAMPAPLEX
IN	FREELANDVILLE UG			T	TRK/CSX	8.21	9.20	3.00	5.36	11,200	0.25	0.225	259.4	BIG BEND DIRECT - 4.825 MMT/Yr.
IN	FREELANDVILLE UG			T	TRK/CSX	8.21	9.20	3.00	5.36	11,200	0.25	0.225	261.6	BIG BEND DIRECT - 2.4125 MMT/Yr.
IN	AUGUSTA			T	TRK/BRG	6.21	7.20	2.90	5.00	11,600	0.10	0.090	258.7	THRO' DAVANT
IN	AUGUSTA			T	TRK/CSX/TRK	6.21	7.20	2.90	5.00	11,600	0.10	0.090	280.0	THRO' TAMPAPLEX
IN	AUGUSTA			T	TRK/CSX	6.21	7.20	2.90	5.00	11,600	0.10	0.090	264.0	BIG BEND DIRECT - 4.825 MMT/Yr.
IN	AUGUSTA			T	TRK/CSX	6.21	7.20	2.90	5.00	11,600	0.10	0.090	266.1	BIG BEND DIRECT - 2.4125 MMT/Yr.

STATE	MINE	MINE SHIPMENT MODE(S)			DELIV. MIX TO	BIG BEND TYPICAL COAL SPECIFICATION RANGES							TOTAL	PLANT INCL. FACILITY COSTS	CASE
						>6.0 Lbs. <8.5 Lbs.		>4.0 Lbs. <6.0 Lbs. >11,000			<0.25 %		DELIV. COST TO		
		BRG	RAIL	TRK	BIG BEND	CALC'D. ASH LBS./MMBTU	ESTIMATED 2004 QUALITY				CALC'D. % CL <sub>2</sub> @ 10% M (DRY) A.R.	¢/MMBTU			
							% A	% S	SO <sub>2</sub> LBS./MMBTU	BTU/LB			% CL <sub>2</sub>		
KY	BACK IN BLACK MINE			T	TRK/BRG	6.86	8.00	2.60	4.46	11,660	0.10	0.090	255.2	THRO' DAVANT	
KY	BACK IN BLACK MINE			T	TRK/CSX/TRK	6.86	8.00	2.60	4.46	11,660	0.10	0.090	272.8	THRO' TAMPAPLEX	
KY	BACK IN BLACK MINE			T	TRK/CSX	6.86	8.00	2.60	4.46	11,660	0.10	0.090	252.9	BIG BEND DIRECT - 4.825 MMT/Yr.	
KY	BACK IN BLACK MINE			T	TRK/CSX	6.86	8.00	2.60	4.46	11,660	0.10	0.090	255.0	BIG BEND DIRECT - 2.4125 MMT/Yr.	
KY	VECTOR (DRIVE)			T	TRK/BRG	6.86	8.00	2.60	4.46	11,660	0.10	0.090	257.1	THRO' DAVANT	
KY	VECTOR (DRIVE)			T	TRK/CSX/TRK	6.86	8.00	2.60	4.46	11,660	0.10	0.090	265.9	THRO' TAMPAPLEX	
KY	VECTOR (DRIVE)			T	TRK/CSX	6.86	8.00	2.60	4.46	11,660	0.10	0.090	245.9	BIG BEND DIRECT - 4.825 MMT/Yr.	
KY	VECTOR (DRIVE)			T	TRK/CSX	6.86	8.00	2.60	4.46	11,660	0.10	0.090	248.1	BIG BEND DIRECT - 2.4125 MMT/Yr.	
KY	MINE NO. 2			T	TRK/BRG	6.86	8.00	2.60	4.46	11,660	0.10	0.090	257.1	THRO' DAVANT	
KY	MINE NO. 2			T	TRK/CSX/TRK	6.86	8.00	2.60	4.46	11,660	0.10	0.090	265.9	THRO' TAMPAPLEX	
KY	MINE NO. 2			T	TRK/CSX	6.86	8.00	2.60	4.46	11,660	0.10	0.090	245.9	BIG BEND DIRECT - 4.825 MMT/Yr.	
KY	MINE NO. 2			T	TRK/CSX	6.86	8.00	2.60	4.46	11,660	0.10	0.090	248.1	BIG BEND DIRECT - 2.4125 MMT/Yr.	
OH	COLUMBIANA PITS		R	T	TRK/BRG	7.50	9.00	2.51	4.18	12,000	0.11	0.099	265.0	THRO' DAVANT	
OH	COLUMBIANA PITS		R	T	NS/CSX/TRK	7.50	9.00	2.51	4.18	12,000	0.11	0.099	306.1	THRO' TAMPAPLEX	
OH	COLUMBIANA PITS		R	T	NS/CSX	7.50	9.00	2.51	4.18	12,000	0.11	0.099	268.2	BIG BEND DIRECT - 4.825 MMT/Yr.	
OH	COLUMBIANA PITS		R	T	NS/CSX	7.50	9.00	2.51	4.18	12,000	0.11	0.099	270.3	BIG BEND DIRECT - 2.4125 MMT/Yr.	
OH	NELMS MINE - CADIZ PORTAL		R	T	TRK/BRG	7.53	9.33	3.10	5.00	12,390	0.06	0.054	265.5	THRO' DAVANT	
OH	NELMS MINE - CADIZ PORTAL		R	T	NS/CSX/TRK	7.53	9.33	3.10	5.00	12,390	0.06	0.054	284.6	THRO' TAMPAPLEX	
OH	NELMS MINE - CADIZ PORTAL		R	T	NS/CSX	7.53	9.33	3.10	5.00	12,390	0.06	0.054	247.9	BIG BEND DIRECT - 4.825 MMT/Yr.	
OH	NELMS MINE - CADIZ PORTAL		R	T	NS/CSX	7.53	9.33	3.10	5.00	12,390	0.06	0.054	249.9	BIG BEND DIRECT - 2.4125 MMT/Yr.	
IN	SOMERVILLE CENTRAL		R	T	TRK/BRG	7.83	8.88	3.22	5.68	11,345	0.10	0.090	228.5	THRO' DAVANT	
IN	SOMERVILLE CENTRAL		R	T	ISRR/CSX/TRK	7.83	8.88	3.22	5.68	11,345	0.10	0.090	250.6	THRO' TAMPAPLEX	
IN	SOMERVILLE CENTRAL		R	T	ISRR/CSX	7.83	8.88	3.22	5.68	11,345	0.10	0.090	230.5	BIG BEND DIRECT - 4.825 MMT/Yr.	
IN	SOMERVILLE CENTRAL		R	T	ISRR/CSX	7.83	8.88	3.22	5.68	11,345	0.10	0.090	232.7	BIG BEND DIRECT - 2.4125 MMT/Yr.	
IN	FREELANDVILLE EAST			T	TRK/BRG	7.23	8.14	2.90	5.15	11,255	0.10	0.090	278.4	THRO' DAVANT	
IN	FREELANDVILLE EAST			T	TRK/CSX/TRK	7.23	8.14	2.90	5.15	11,255	0.10	0.090	275.3	THRO' TAMPAPLEX	
IN	FREELANDVILLE EAST			T	TRK/CSX	7.23	8.14	2.90	5.15	11,255	0.10	0.090	258.8	BIG BEND DIRECT - 4.825 MMT/Yr.	
IN	FREELANDVILLE EAST			T	TRK/CSX	7.23	8.14	2.90	5.15	11,255	0.10	0.090	261.1	BIG BEND DIRECT - 2.4125 MMT/Yr.	
WV	NANCY			T	TRK/BRG	7.81	10.00	3.00	4.69	12,800	0.03	0.027	326.2	THRO' DAVANT	
WV	NANCY			T	TRK/CSX/TRK	7.81	10.00	3.00	4.69	12,800	0.03	0.027	327.9	THRO' TAMPAPLEX	
WV	NANCY			T	TRK/CSX	7.81	10.00	3.00	4.69	12,800	0.03	0.027	292.4	BIG BEND DIRECT - 4.825 MMT/Yr.	
WV	NANCY			T	TRK/CSX	7.81	10.00	3.00	4.69	12,800	0.03	0.027	294.3	BIG BEND DIRECT - 2.4125 MMT/Yr.	
WV	MINE NO 108-I			T	TRK/BRG	7.81	10.00	3.00	4.69	12,800	0.05	0.041	341.4	THRO' DAVANT	
WV	MINE NO 108-I			T	TRK/CSX/TRK	7.81	10.00	3.00	4.69	12,800	0.05	0.041	336.6	THRO' TAMPAPLEX	
WV	MINE NO 108-I			T	TRK/CSX	7.81	10.00	3.00	4.69	12,800	0.05	0.041	301.1	BIG BEND DIRECT - 4.825 MMT/Yr.	
WV	MINE NO 108-I			T	TRK/CSX	7.81	10.00	3.00	4.69	12,800	0.05	0.041	303.0	BIG BEND DIRECT - 2.4125 MMT/Yr.	
WV	FLAG RUN #1			T	TRK/BRG	7.81	10.00	3.00	4.69	12,800	0.03	0.027	332.8	THRO' DAVANT	
WV	FLAG RUN #1			T	TRK/CSX/TRK	7.81	10.00	3.00	4.69	12,800	0.03	0.027	328.1	THRO' TAMPAPLEX	
WV	FLAG RUN #1			T	TRK/CSX	7.81	10.00	3.00	4.69	12,800	0.03	0.027	292.5	BIG BEND DIRECT - 4.825 MMT/Yr.	
WV	FLAG RUN #1			T	TRK/CSX	7.81	10.00	3.00	4.69	12,800	0.03	0.027	294.5	BIG BEND DIRECT - 2.4125 MMT/Yr.	
WV	UPSHUR DEEP MINE NO. 1			T	TRK/BRG	7.87	10.00	3.00	4.72	12,700	0.03	0.029	344.5	THRO' DAVANT	



STATE	MINE	BIG BEND TYPICAL COAL SPECIFICATION RANGES											TOTAL	PLANT INCL.
		MINE SHIPMENT MODE(S)			DELIV.	ESTIMATED 2004 QUALITY					CALC'D.	DELIV.		
		BRG	RAIL	TRK	MIX TO	ASH LBS./	% A	% S	SO2	BTU/LB	% CL <sub>2</sub>	% CL <sub>2</sub>	COST TO	
					BIG BEND	MMBTU			MMBTU		(DRY)	A.R.	FACILITY	
												COSTS	CASE	
												¢/MMBTU		
WV	UPSHUR DEEP MINE NO. 1			T	TRK/CSX/TRK	7.87	10.00	3.00	4.72	12,700	0.03	0.029	339.6	THRO' TAMPAPLEX
WV	UPSHUR DEEP MINE NO. 1			T	TRK/CSX	7.87	10.00	3.00	4.72	12,700	0.03	0.029	303.8	BIG BEND DIRECT - 4.825 MMT/Yr.
WV	UPSHUR DEEP MINE NO. 1			T	TRK/CSX	7.87	10.00	3.00	4.72	12,700	0.03	0.029	305.8	BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	PATRIOT SURFACE	B		T	BELT/BRG	8.18	9.00	2.50	4.55	11,001	0.10	0.090	246.2	THRO' DAVANT
KY	PATRIOT SURFACE	B		T	TRK/CSX/TRK	8.18	9.00	2.50	4.55	11,001	0.10	0.090	273.1	THRO' TAMPAPLEX
KY	PATRIOT SURFACE	B		T	TRK/CSX	8.18	9.00	2.50	4.55	11,001	0.10	0.090	251.9	BIG BEND DIRECT - 4.825 MMT/Yr.
KY	PATRIOT SURFACE	B		T	TRK/CSX	8.18	9.00	2.50	4.55	11,001	0.10	0.090	254.2	BIG BEND DIRECT - 2.4125 MMT/Yr.
IL	RIOLAVERMILLION GROVE PORTAL		R	T	CSX/BRG	7.15	7.50	0.69	1.32	10,494	0.10	0.090	327.9	THRO' DAVANT
IL	RIOLAVERMILLION GROVE PORTAL		R	T	CSX/TRK	7.15	7.50	0.69	1.32	10,494	0.10	0.090	316.8	THRO' TAMPAPLEX
IL	RIOLAVERMILLION GROVE PORTAL		R	T	CSX	7.15	7.50	0.69	1.32	10,494	0.10	0.090	297.5	BIG BEND DIRECT - 4.825 MMT/Yr.
IL	RIOLAVERMILLION GROVE PORTAL		R	T	CSX	7.15	7.50	0.69	1.32	10,494	0.10	0.090	299.9	BIG BEND DIRECT - 2.4125 MMT/Yr.
IN	VIKING MINE			T	TRK/BRG	7.56	8.60	2.26	3.97	11,379	0.10	0.090	272.4	THRO' DAVANT
IN	VIKING MINE			T	TRK/CSX/TRK	7.56	8.60	2.26	3.97	11,379	0.10	0.090	269.8	THRO' TAMPAPLEX
IN	VIKING MINE			T	TRK/CSX	7.56	8.60	2.26	3.97	11,379	0.10	0.090	253.5	BIG BEND DIRECT - 4.825 MMT/Yr.
IN	VIKING MINE			T	TRK/CSX	7.56	8.60	2.26	3.97	11,379	0.10	0.090	255.7	BIG BEND DIRECT - 2.4125 MMT/Yr.
IL	PATTIKI MINE II		R	T	CSX/BRG	6.98	8.16	2.81	4.81	11,694	0.30	0.270	246.4	THRO' DAVANT
IL	PATTIKI MINE II		R	T	CSX/TRK	6.98	8.16	2.81	4.81	11,694	0.30	0.270	256.8	THRO' TAMPAPLEX
IL	PATTIKI MINE II		R	T	CSX	6.98	8.16	2.81	4.81	11,694	0.30	0.270	236.9	BIG BEND DIRECT - 4.825 MMT/Yr.
IL	PATTIKI MINE II		R	T	CSX	6.98	8.16	2.81	4.81	11,694	0.30	0.270	239.0	BIG BEND DIRECT - 2.4125 MMT/Yr.
IN	FARMERSBURG		R	T	CSX/BRG	9.09	10.00	2.20	4.00	11,000	0.10	0.090	275.9	THRO' DAVANT
IN	FARMERSBURG		R	T	CSX/TRK	9.09	10.00	2.20	4.00	11,000	0.10	0.090	263.8	THRO' TAMPAPLEX
IN	FARMERSBURG		R	T	CSX	9.09	10.00	2.20	4.00	11,000	0.10	0.090	245.5	BIG BEND DIRECT - 4.825 MMT/Yr.
IN	FARMERSBURG		R	T	CSX	9.09	10.00	2.20	4.00	11,000	0.10	0.090	247.8	BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	VISION 9 (KNOB LICK #9)			T	TRK/BRG	11.13	12.81	3.27	5.68	11,506	0.20	0.180	236.9	THRO' DAVANT
KY	VISION 9 (KNOB LICK #9)			T	TRK/CSX/TRK	11.13	12.81	3.27	5.68	11,506	0.20	0.180	258.7	THRO' TAMPAPLEX
KY	VISION 9 (KNOB LICK #9)			T	TRK/CSX	11.13	12.81	3.27	5.68	11,506	0.20	0.180	238.4	BIG BEND DIRECT - 4.825 MMT/Yr.
KY	VISION 9 (KNOB LICK #9)			T	TRK/CSX	11.13	12.81	3.27	5.68	11,506	0.20	0.180	240.6	BIG BEND DIRECT - 2.4125 MMT/Yr.
OH	POWHATAN NO 6		R	T	TRK/BRG	7.15	9.00	4.14	6.58	12,580	0.10	0.090	255.5	THRO' DAVANT
OH	POWHATAN NO 6		R	T	NS/CSX/TRK	7.15	9.00	4.14	6.58	12,580	0.10	0.090	287.9	THRO' TAMPAPLEX
OH	POWHATAN NO 6		R	T	NS/CSX	7.15	9.00	4.14	6.58	12,580	0.10	0.090	251.8	BIG BEND DIRECT - 4.825 MMT/Yr.
OH	POWHATAN NO 6		R	T	NS/CSX	7.15	9.00	4.14	6.58	12,580	0.10	0.090	253.8	BIG BEND DIRECT - 2.4125 MMT/Yr.
WV	ROBINSON RUN NO. 95		R	T	CSX/BRG	8.70	11.00	3.56	5.63	12,645	0.03	0.027	276.8	THRO' DAVANT
WV	ROBINSON RUN NO. 95		R	T	CSX/TRK	8.70	11.00	3.56	5.63	12,645	0.03	0.027	267.5	THRO' TAMPAPLEX
WV	ROBINSON RUN NO. 95		R	T	CSX	8.70	11.00	3.56	5.63	12,645	0.03	0.027	234.1	BIG BEND DIRECT - 4.825 MMT/Yr.
WV	ROBINSON RUN NO. 95		R	T	CSX	8.70	11.00	3.56	5.63	12,645	0.03	0.027	236.1	BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	FREEDOM MINE	B		T	BELT/BRG	8.70	10.00	2.20	3.83	11,500	0.20	0.180	241.9	THRO' DAVANT
KY	FREEDOM MINE	B		T	TRK/CSX/TRK	8.70	10.00	2.20	3.83	11,500	0.20	0.180	267.6	THRO' TAMPAPLEX
KY	FREEDOM MINE	B		T	TRK/CSX	8.70	10.00	2.20	3.83	11,500	0.20	0.180	247.3	BIG BEND DIRECT - 4.825 MMT/Yr.
KY	FREEDOM MINE	B		T	TRK/CSX	8.70	10.00	2.20	3.83	11,500	0.20	0.180	249.5	BIG BEND DIRECT - 2.4125 MMT/Yr.
KY	PARADISE #9			T	TRK/BRG	14.08	15.00	5.00	9.39	10,650	0.20	0.180	236.4	THRO' DAVANT
KY	PARADISE #9			T	TRK/CSX/TRK	14.08	15.00	5.00	9.39	10,650	0.20	0.180	255.1	THRO' TAMPAPLEX

					BIG BEND TYPICAL COAL SPECIFICATION RANGES							TOTAL		
					>6.0 Lbs.	>4.0 Lbs.				<0.25 %	DELIV.			
					<8.5 Lbs.	<6.0 Lbs.	>11,000				COST TO			
					DELIV.	ESTIMATED 2004 QUALITY					CALC'D.	PLANT INCL.		
MINE SHIPMENT MODE(S)			MIX TO	CALC'D.	SO2				% CL <sub>2</sub>	FACILITY				
STATE	MINE	BRG	RAIL	TRK	BIG BEND	ASH LBS./	% A	% S	LBS./	BTU/LB	% CL <sub>2</sub>	@ 10% M	COSTS	
					MMBTU			MMBTU		(DRY)	A.R.	¢/MMBTU	CASE	
KY	PARADISE #9			T	TRK/CSX	14.08	15.00	5.00	9.39	10,650	0.20	0.180	233.2	BIG BEND DIRECT - 4.825 MMT/Yr.
KY	PARADISE #9			T	TRK/CSX	14.08	15.00	5.00	9.39	10,650	0.20	0.180	235.6	BIG BEND DIRECT - 2.4125 MMT/Yr.
TECO BigBend Exhibit1 060805 Report.xls														

**Exhibit 2**

**Polk Station**  
**Candidate Coal Mines**

**HILL & ASSOCIATES - EXHIBIT 2 - POLK  
COALS MEETING TEC'S SPECIFICATIONS AND MINES SELECTED BY TEC**

STATE	MINE	MINE SHIPMENT MODE(S)			DELIV MIX TO POLK	POLK TYPICAL COAL SPECIFICATION RANGES							TOTAL DELIV. COST TO PLANT INCL. FACILITY COSTS \$/MMBTU	CASE		
		BRG	RAIL	TRK		ASH LBS./ MMBTU	<9.0 Lbs.	>2.0%	>2.5%	<5.5 Lbs.	>11,400 <13,000	<0.10 %				
						CALC'D.	ESTIMATED 2004 QUALITY				SO2	BTU/LB			% CL <sub>2</sub>	CL <sub>2</sub>
							% A	% S	LBS./ MMBTU			(DRY)			@ 10% M A.R.	
IL	WILDCAT HILLS			T	TRK/BRG/TRK	8.34	10.01	2.51	4.18	12,001	0.10	0.090	257.5	THRO' DAVANT		
IL	WILDCAT HILLS			T	TRK/CSX/TRK	8.34	10.01	2.51	4.18	12,001	0.10	0.090	282.6	THRO' TAMPAPLEX		
IL	WILDCAT HILLS			T	TRK/CSX	8.34	10.01	2.51	4.18	12,001	0.10	0.090	267.2	POLK DIRECT - 675 KT/Yr.		
IL	WILDCAT HILLS			T	TRK/CSX	8.34	10.01	2.51	4.18	12,001	0.10	0.090	281.6	POLK DIRECT - 337.5 KT/Yr.		
IL	CREEK PAUM MINE			T	TRK/BRG/TRK	8.34	10.01	2.51	4.18	12,001	0.10	0.090	262.8	THRO' DAVANT		
IL	CREEK PAUM MINE			T	TRK/UP/CSX/TRK	8.34	10.01	2.51	4.18	12,001	0.10	0.090	297.0	THRO' TAMPAPLEX		
IL	CREEK PAUM MINE			T	TRK/UP/CSX	8.34	10.01	2.51	4.18	12,001	0.10	0.090	281.6	POLK DIRECT - 675 KT/Yr.		
IL	CREEK PAUM MINE			T	TRK/UP/CSX	8.34	10.01	2.51	4.18	12,001	0.10	0.090	295.9	POLK DIRECT - 337.5 KT/Yr.		
IN	AUGUSTA			T	TRK/BRG/TRK	6.21	7.20	2.90	5.00	11,600	0.10	0.090	273.8	THRO' DAVANT		
IN	AUGUSTA			T	TRK/CSX/TRK	6.21	7.20	2.90	5.00	11,600	0.10	0.090	288.6	THRO' TAMPAPLEX		
IN	AUGUSTA			T	TRK/CSX	6.21	7.20	2.90	5.00	11,600	0.10	0.090	276.7	POLK DIRECT - 675 KT/Yr.		
IN	AUGUSTA			T	TRK/CSX	6.21	7.20	2.90	5.00	11,600	0.10	0.090	291.6	POLK DIRECT - 337.5 KT/Yr.		
KY	BACK IN BLACK MINE			T	TRK/BRG/TRK	6.86	8.00	2.60	4.46	11,660	0.10	0.090	270.2	THRO' DAVANT		
KY	BACK IN BLACK MINE			T	TRK/CSX/TRK	6.86	8.00	2.60	4.46	11,660	0.10	0.090	281.4	THRO' TAMPAPLEX		
KY	BACK IN BLACK MINE			T	TRK/CSX	6.86	8.00	2.60	4.46	11,660	0.10	0.090	265.5	POLK DIRECT - 675 KT/Yr.		
KY	BACK IN BLACK MINE			T	TRK/CSX	6.86	8.00	2.60	4.46	11,660	0.10	0.090	280.3	POLK DIRECT - 337.5 KT/Yr.		
KY	VECTOR (DRIVE)			T	TRK/BRG/TRK	6.86	8.00	2.60	4.46	11,660	0.10	0.090	272.1	THRO' DAVANT		
KY	VECTOR (DRIVE)			T	TRK/CSX/TRK	6.86	8.00	2.60	4.46	11,660	0.10	0.090	274.5	THRO' TAMPAPLEX		
KY	VECTOR (DRIVE)			T	TRK/CSX	6.86	8.00	2.60	4.46	11,660	0.10	0.090	258.6	POLK DIRECT - 675 KT/Yr.		
KY	VECTOR (DRIVE)			T	TRK/CSX	6.86	8.00	2.60	4.46	11,660	0.10	0.090	273.4	POLK DIRECT - 337.5 KT/Yr.		
KY	MINE NO. 2			T	TRK/BRG/TRK	6.86	8.00	2.60	4.46	11,660	0.10	0.090	272.1	THRO' DAVANT		
KY	MINE NO. 2			T	TRK/CSX/TRK	6.86	8.00	2.60	4.46	11,660	0.10	0.090	274.5	THRO' TAMPAPLEX		
KY	MINE NO. 2			T	TRK/CSX	6.86	8.00	2.60	4.46	11,660	0.10	0.090	258.6	POLK DIRECT - 675 KT/Yr.		
KY	MINE NO. 2			T	TRK/CSX	6.86	8.00	2.60	4.46	11,660	0.10	0.090	273.4	POLK DIRECT - 337.5 KT/Yr.		
OH	COLUMBIANA PITS		R	T	TRK/BRG/TRK	7.50	9.00	2.51	4.18	12,000	0.11	0.099	279.6	THRO' DAVANT		
OH	COLUMBIANA PITS		R	T	NS/CSX/TRK	7.50	9.00	2.51	4.18	12,000	0.11	0.099	314.4	THRO' TAMPAPLEX		
OH	COLUMBIANA PITS		R	T	NS/CSX	7.50	9.00	2.51	4.18	12,000	0.11	0.099	280.5	POLK DIRECT - 675 KT/Yr.		
OH	COLUMBIANA PITS		R	T	NS/CSX	7.50	9.00	2.51	4.18	12,000	0.11	0.099	294.9	POLK DIRECT - 337.5 KT/Yr.		
OH	NELMS MINE - CADIZ PORTAL		R	T	TRK/BRG/TRK	7.53	9.33	3.10	5.00	12,390	0.06	0.054	279.6	THRO' DAVANT		
OH	NELMS MINE - CADIZ PORTAL		R	T	NS/CSX/TRK	7.53	9.33	3.10	5.00	12,390	0.06	0.054	292.7	THRO' TAMPAPLEX		
OH	NELMS MINE - CADIZ PORTAL		R	T	NS/CSX	7.53	9.33	3.10	5.00	12,390	0.06	0.054	259.8	POLK DIRECT - 675 KT/Yr.		
OH	NELMS MINE - CADIZ PORTAL		R	T	NS/CSX	7.53	9.33	3.10	5.00	12,390	0.06	0.054	273.8	POLK DIRECT - 337.5 KT/Yr.		
WV	NANCY			T	TRK/BRG/TRK	7.81	10.00	3.00	4.69	12,800	0.03	0.027	339.8	THRO' DAVANT		
WV	NANCY			T	TRK/CSX/TRK	7.81	10.00	3.00	4.69	12,800	0.03	0.027	335.7	THRO' TAMPAPLEX		

STATE	MINE	MINE SHIPMENT MODE(S)			TO	POLK TYPICAL COAL SPECIFICATION RANGES							TOTAL	FACILITY
						DELIV	<9.0 Lbs.	>2.0%	>2.5%	<5.5 Lbs.	>11,400	<0.10 %	DELIV.	
						MIX	ESTIMATED 2004 QUALITY					CALC'D.	COST TO	
						POLK	ASH LBS./	% A	% S	LBS./	BTU/LB	% CL <sub>2</sub>	PLANT INCL.	
BRG	RAIL	TRK	MMBTU	MMBTU	(DRY)	A.R.	COSTS	CASE						
WV	NANCY			T	TRK/CSX	7.81	10.00	3.00	4.69	12,800	0.03	0.027	303.9	POLK DIRECT - 675 KT/Yr.
WV	NANCY			T	TRK/CSX	7.81	10.00	3.00	4.69	12,800	0.03	0.027	317.4	POLK DIRECT - 337.5 KT/Yr.
WV	FLAG RUN #1			T	TRK/BRG/TRK	7.81	10.00	3.00	4.69	12,800	0.03	0.027	346.5	THRO' DAVANT
WV	FLAG RUN #1			T	TRK/CSX/TRK	7.81	10.00	3.00	4.69	12,800	0.03	0.027	335.9	THRO' TAMPAPLEX
WV	FLAG RUN #1			T	TRK/CSX	7.81	10.00	3.00	4.69	12,800	0.03	0.027	304.1	POLK DIRECT - 675 KT/Yr.
WV	FLAG RUN #1			T	TRK/CSX	7.81	10.00	3.00	4.69	12,800	0.03	0.027	317.6	POLK DIRECT - 337.5 KT/Yr.
WV	MINE NO 108-I			T	TRK/BRG/TRK	7.81	10.00	3.00	4.69	12,800	0.05	0.041	355.1	THRO' DAVANT
WV	MINE NO 108-I			T	TRK/CSX/TRK	7.81	10.00	3.00	4.69	12,800	0.05	0.041	344.4	THRO' TAMPAPLEX
WV	MINE NO 108-I			T	TRK/CSX	7.81	10.00	3.00	4.69	12,800	0.05	0.041	312.6	POLK DIRECT - 675 KT/Yr.
WV	MINE NO 108-I			T	TRK/CSX	7.81	10.00	3.00	4.69	12,800	0.05	0.041	326.1	POLK DIRECT - 337.5 KT/Yr.
WV	UPSHUR DEEP MINE NO. 1			T	TRK/BRG/TRK	7.87	10.00	3.00	4.72	12,700	0.03	0.029	358.3	THRO' DAVANT
WV	UPSHUR DEEP MINE NO. 1			T	TRK/CSX/TRK	7.87	10.00	3.00	4.72	12,700	0.03	0.029	347.5	THRO' TAMPAPLEX
WV	UPSHUR DEEP MINE NO. 1			T	TRK/CSX	7.87	10.00	3.00	4.72	12,700	0.03	0.029	315.5	POLK DIRECT - 675 KT/Yr.
WV	UPSHUR DEEP MINE NO. 1			T	TRK/CSX	7.87	10.00	3.00	4.72	12,700	0.03	0.029	329.1	POLK DIRECT - 337.5 KT/Yr.
KY	PATRIOT SURFACE	B		T	BELT/BRG/TRK	8.18	9.00	2.50	4.55	11,001	0.10	0.090	262.1	THRO' DAVANT
KY	PATRIOT SURFACE	B		T	TRK/CSX/TRK	8.18	9.00	2.50	4.55	11,001	0.10	0.090	282.2	THRO' TAMPAPLEX
KY	PATRIOT SURFACE	B		T	TRK/CSX	8.18	9.00	2.50	4.55	11,001	0.10	0.090	265.3	POLK DIRECT - 675 KT/Yr.
KY	PATRIOT SURFACE	B		T	TRK/CSX	8.18	9.00	2.50	4.55	11,001	0.10	0.090	281.0	POLK DIRECT - 337.5 KT/Yr.
KY	HIGHLAND #9	B		T	BELT/BRG/TRK	6.44	7.50	3.10	5.32	11,650	0.20	0.180	261.8	THRO' DAVANT
KY	HIGHLAND #9	B		T	TRK/CSX/TRK	6.44	7.50	3.10	5.32	11,650	0.20	0.180	280.0	THRO' TAMPAPLEX
KY	HIGHLAND #9	B		T	TRK/CSX	6.44	7.50	3.10	5.32	11,650	0.20	0.180	264.1	POLK DIRECT - 675 KT/Yr.
KY	HIGHLAND #9	B		T	TRK/CSX	6.44	7.50	3.10	5.32	11,650	0.20	0.180	278.9	POLK DIRECT - 337.5 KT/Yr.
PA	CUMBERLAND (KIRBY, PA)	B	R	T	RAIL/BRG/TRK	6.06	8.00	2.54	3.85	13,196	0.05	0.045	321.2	THRO' DAVANT
PA	CUMBERLAND (KIRBY, PA)	B	R	T	TRK/CSX/TRK	6.06	8.00	2.54	3.85	13,196	0.05	0.045	333.2	THRO' TAMPAPLEX
PA	CUMBERLAND (KIRBY, PA)	B	R	T	TRK/CSX	6.06	8.00	2.54	3.85	13,196	0.05	0.045	302.4	POLK DIRECT - 675 KT/Yr.
PA	CUMBERLAND (KIRBY, PA)	B	R	T	TRK/CSX	6.06	8.00	2.54	3.85	13,196	0.05	0.045	315.5	POLK DIRECT - 337.5 KT/Yr.

TECO Polk Exhibit 2 060805 Report.xls

**Exhibit 3**

**Big Bend Station  
Coal Mines that Do Not Qualify as Candidate Mines**

EXHIBIT 3 - BIG BEND														
COALS NOT MEETING TEC'S SPECIFICATIONS														
BIG BEND TYPICAL COAL SPECIFICATION RANGES														
			>6.0 Lbs.				>4.0 Lbs.							
			<8.5 Lbs.				<6.0 Lbs.	>11,000				<0.25 %		
			ESTIMATED 2004 QUALITY					CALC'D.		SPECS NOT MET				
STATE	MINE	CALC'D.	ASH LBS./	% A	% S	SO2	BTU/LB	% CL <sub>2</sub>	% CL <sub>2</sub>	CHLORINE	SULFUR	BTU	ASH	
		MMBTU	MMBTU			LBS./		(DRY)	@ 10% M					
						MMBTU			A.R.					
IL	ORIENT NO. 4 (FREEMAN)	20.88	18.40	1.74	3.95	8,812	0.20	0.180			S	B	A	
IL	MONTEREY #1	7.75	8.00	1.64	3.18	10,328	0.30	0.270	C		S	B		
IL	WABASH	11.82	13.00	1.30	2.36	11,000	0.25	0.225			S	B	A	
IL	CROWN II	7.50	8.00	3.47	6.51	10,664	0.30	0.270	C		S	B		
IL	OLD BEN #11 (closed 3Q04)													
IL	CROWN III	7.86	8.39	3.69	6.91	10,681	0.30	0.270	C		S	B		
IL	LIBERTY	6.25	7.50	1.75	2.92	12,000	0.37	0.333	C		S			
IL	GALATIA #5/ MILLENIUM	5.83	6.90	1.59	2.68	11,845	0.45	0.405	C		S		A	
IL	RED HAWK (RAZORBACK #2)	10.42	11.46	3.23	5.87	10,998	0.10	0.090				B	A	
IL	FRIENDSVILLE	9.26	10.00	2.50	4.63	10,800	0.10	0.090				B	A	
IL	N.A.A.M. NO. 3	10.00	11.00	2.80	5.09	11,000	0.10	0.090				B	A	
IL	ELK 2 (BOUGHT FROM FREEMAN)	18.95	18.00	2.70	5.68	9,500	0.10	0.090				B	A	
IN	CRANEY MINE	6.76	7.70	1.10	1.93	11,397	0.10	0.090			S			
IN	AIR QUALITY #1	7.49	8.20	0.61	1.11	10,949	0.25	0.225			S	B		
IN	MONROE CITY MINE	7.45	8.20	1.80	3.27	11,000	0.17	0.153			S	B		
IN	FRANCISCO MINE	8.56	9.50	2.00	3.60	11,100	0.10	0.090			S		A	
IN	PATOKA RIVER	9.09	10.00	2.20	4.00	11,000	0.10	0.090			S	B	A	
IN	FREELANDVILLE	7.45	8.20	1.80	3.27	11,000	0.10	0.090			S	B		
IN	CYPRESS CREEK	9.02	10.01	2.51	4.52	11,101	0.10	0.090					A	
IN	GIBSON COUNTY	8.94	9.86	0.95	1.72	11,026	0.25	0.225			S		A	
IN	FLINT HILL	6.22	7.21	1.92	3.31	11,586	0.10	0.090			S			
IN	LEWIS	12.68	13.29	3.46	6.60	10,479	0.10	0.090			S	B	A	
IN	PROSPERITY	4.06	4.74	1.10	1.88	11,673	0.25	0.225			S		A	
IN	LYONS	7.08	8.00	1.60	2.83	11,300	0.10	0.090			S			
IN	MILLER CREEK/SUGAR RIDGE	7.03	7.90	1.27	2.26	11,240	0.10	0.090			S			
IN	FRANCISCO MINE - UNDERGROUND	8.88	9.50	3.00	5.61	10,700	0.15	0.135				B	A	
IN	DISCOVERY	11.37	11.90	2.40	4.58	10,470	0.10	0.090				B	A	
IN	RANGE LINE	11.16	12.00	4.00	7.44	10,750	0.10	0.090			S	B	A	
IN	HAZELTON	15.45	17.00	0.80	1.45	11,000	0.20	0.180			S		A	
IN	N.A.A.M. NO. 26	10.46	11.60	4.47	8.06	11,095	0.10	0.090			S		A	
KY	EAST VOLUNTEER	10.31	11.86	3.02	5.25	11,500	0.10	0.090					A	
KY	GIBRALTAR P&L	19.69	20.08	4.07	7.98	10,199	0.10	0.090			S	B	A	
KY	HAMILTON 1 SLURRY	17.65	15.00	3.00	7.06	8,500	0.20	0.180			S	B	A	
KY	CARDINAL #2 (WARRIOR)	9.51	10.00	4.81	9.15	10,516	0.08	0.072					A	
KY	RICHLAND (NO 9) MINE	8.52	10.00	3.00	5.11	11,735	0.20	0.180					A	
KY	NO 1 CONTRACTOR #2	11.30	13.00	4.00	6.96	11,500	0.10	0.090			S		A	
KY	BRIAR HILL (POWDERLY)	9.74	11.01	2.51	4.44	11,301	0.10	0.090					A	

STATE	MINE	CALC'D.			SO2			CALC'D.		SPECS NOT MET			
		ASH LBS./ MMBTU	% A	% S	LBS./ MMBTU	BTU/LB	% CL <sub>2</sub> (DRY)	% CL <sub>2</sub> @ 10% M A.R.	CHLORINE	SULFUR	BTU	ASH	
KY	T&T WASHING RECOVERY 2	9.74	11.01	2.51	4.44	11,301	0.10	0.090				A	
KY	BEECH CREEK (LUZERNE)	10.60	11.90	3.81	6.79	11,225	0.10	0.090		S		A	
KY	MINE 3 (VOGUE)	10.91	12.00	3.50	6.36	11,000	0.10	0.090		S	B	A	
KY	IFC #3 (BH #1 FUTURE ENERGY-CARLISLE)	18.20	18.63	4.24	8.28	10,239	0.10	0.090		S	B	A	
KY	BIG RUN DEEP MINE	11.71	13.00	3.70	6.67	11,100	0.20	0.180		S		A	
KY	STONES CHAPEL	9.48	11.00	3.00	5.17	11,600	0.20	0.180				A	
KY	N.A.A.M. NO. 10	10.00	11.00	2.80	5.09	11,000	0.10	0.090			B	A	
KY	OLD SUNRISE (SUNRISE BLACK GOLD 3)	16.36	17.70	2.68	4.95	10,822	0.20	0.180			B	A	
KY	BURDEN #2	8.94	10.50	3.30	5.62	11,742	0.10	0.090				A	
MD	BARTON STRIP	14.34	17.00	1.64	2.77	11,859		0.000		S		A	
MD	NO 1 MINE	11.67	14.00	1.00	1.67	12,000		0.000		S		A	
MD	NO 1 STRIP	11.67	14.00	1.00	1.67	12,000	0.10	0.086		S		A	
MD	COBRA NO 1	11.57	14.00	1.60	2.64	12,100		0.000		S		A	
MD	METTIKI MINE	10.13	13.00	1.50	2.34	12,837	0.10	0.086		S		A	
MD	#1 STRIP	11.67	14.00	2.00	3.33	12,000	0.10	0.086		S		A	
MD	FAIRVIEW COAL CO.	11.67	14.00	2.00	3.33	12,000		0.000		S		A	
MD	JOB #3	11.07	13.60	2.00	3.26	12,287		0.000		S		A	
MD	NO 1 STRIP	11.67	14.00	1.00	1.67	12,000		0.000		S		A	
MD	TAYLOR # 1	6.67	9.00	1.80	2.67	13,500		0.000		S		A	
MD	VINDEX DOUGLAS	13.33	16.00	1.60	2.67	12,000	0.10	0.086		S		A	
MD	WILDMAN MINE	5.93	8.00	1.50	2.22	13,500	0.10	0.086		S		A	
MD	NO. 1 SURFACE	5.93	8.00	1.50	2.22	13,500	0.10	0.086		S		A	
OH	BOWMAN STRIP	10.74	12.00	3.60	6.44	11,177	0.02	0.018		S		A	
OH	CRAVAT STRIP-BELMONT	10.00	12.00	3.50	5.83	12,000	0.10	0.090				A	
OH	RICE #1 (STRIP)	9.61	11.73	3.08	5.05	12,201	0.10	0.090				A	
OH	CENTURY (AMERICAN ENERGY)	7.45	9.21	4.08	6.60	12,360	0.06	0.054		S		A	
OH	SANDS HILL STRIP	10.00	12.00	3.50	5.83	12,000	0.03	0.027				A	
OH	ORANGE STRIP	10.40	12.00	4.77	8.27	11,541	0.11	0.099		S		A	
OH	DUNDA\$ JOB	10.27	12.00	3.21	5.49	11,685	0.03	0.027				A	
OH	EMPIRE/WHITE	10.51	12.00	3.95	6.92	11,413	0.12	0.108		S		A	
OH	F & M STRIP	10.00	12.00	3.50	5.83	12,000	0.09	0.081				A	
OH	CRAVAT STRIP-HARRISON	10.00	12.00	3.50	5.83	12,000	0.06	0.054				A	
OH	STRIP #1	10.00	12.00	3.50	5.83	12,000	0.10	0.090				A	
OH	C.A.M. CO. AUGER #3	10.00	12.00	3.50	5.83	12,000	0.12	0.108				A	
OH	D. AND D. STRIP	10.00	12.00	3.50	5.83	12,000	0.14	0.126				A	
OH	STRIP #3	9.93	12.00	2.43	4.02	12,087	0.09	0.081				A	
OH	LISBON MINE	10.00	12.00	3.50	5.83	12,000	0.11	0.099				A	
OH	SICKAFOOSE MINE	10.00	12.00	3.50	5.83	12,000	0.09	0.081				A	
OH	STARK PITS	10.00	12.00	3.50	5.83	12,000	0.09	0.081				A	
OH	KIMBLE #1	10.00	12.00	3.50	5.83	12,000	0.12	0.108				A	
OH	MAHONING VALLEY #36	10.00	12.00	3.50	5.83	12,000	0.06	0.054				A	
OH	TUSCARAWAS STRIP	10.52	12.00	3.90	6.84	11,402	0.12	0.108		S		A	
OH	COSHOCTON STRIP	10.00	12.00	3.00	5.00	12,000	0.07	0.063				A	
OH	STARK STRIP	10.00	12.00	3.50	5.83	12,000	0.09	0.081				A	
OH	SOUTH MINE	7.20	9.00	1.78	2.85	12,500	0.09	0.081		S		A	
OH	SHEAN HILL MINE	10.00	12.00	3.50	5.83	12,000	0.09	0.081				A	
OH	OXFORD MINING #3	10.00	12.00	3.50	5.83	12,000	0.03	0.027				A	



STATE	MINE	CALC'D. ASH LBS./ MMBTU	% A	% S	SO2 LBS./ MMBTU	BTU/LB	% CL <sub>2</sub> (DRY)	CALC'D. % CL <sub>2</sub> @ 10% M A.R.	SPECS NOT MET			
									CHLORINE	SULFUR	BTU	ASH
OH	SCHANNEY MINING (STRIP)	10.00	12.00	3.50	5.83	12,000	0.06	0.054				A
OH	T. P. STRIP	10.00	12.00	3.00	5.00	12,000	0.10	0.090				A
OH	BUCKINGHAM MINE #2	10.00	12.00	3.50	5.83	12,000	0.04	0.036				A
OH	STANDING STONE MINE	10.00	12.00	3.50	5.83	12,000	0.06	0.054				A
OH	SNYDER MINE	10.00	12.00	3.50	5.83	12,000	0.06	0.054				A
OH	OXFORD AUGER NO 1	9.61	11.73	3.08	5.05	12,201	0.10	0.090				A
OH	NO 10-6A	10.00	12.00	3.50	5.83	12,000	0.09	0.081				A
OH	CARROLL HOLLOW MINE	10.00	12.00	0.50	0.83	12,000	0.07	0.063		S		A
OH	TUSKY #1	10.53	12.00	4.40	7.72	11,400	0.12	0.108		S		A
OH	CRAVAT STRIP - CARROLLTON	10.00	12.00	0.50	0.83	12,000	0.07	0.063		S		A
OH	DAIRY JEAN MINE	10.00	12.00	3.50	5.83	12,000	0.09	0.081				A
PA	KERRY COAL STRIPS	9.20	11.50	1.90	3.04	12,500	0.13	0.117		S		A
PA	RAMPSTEAD #1	6.83	9.30	1.60	2.35	13,620	0.12	0.108		S		A
PA	RIVER HILL COAL CO., INC.	10.25	13.00	1.90	2.99	12,689	0.09	0.081		S		A
PA	MINE #4	6.06	8.00	1.30	1.97	13,192	0.06	0.054		S		A
PA	WALTER L HOUSER STRIP	9.63	12.00	2.29	3.68	12,457	0.01	0.005		S		A
PA	FELLER #2 STRIP	6.71	8.50	0.90	1.42	12,669	0.12	0.108		S		A
PA	ROCKTON/SHAFFER MINE	9.95	13.00	1.78	2.72	13,066	0.09	0.081		S		A
PA	TAMBURLIN STRIP	10.00	12.00	1.90	3.17	12,000	0.09	0.081		S		A
PA	COBRA MINE	9.60	12.00	1.90	3.04	12,500	0.05	0.045		S		A
PA	TITUS	7.75	10.20	2.40	3.65	13,160	0.05	0.045		S		A
PA	STRISHOCK STRIP MINE/ZIMMERMAN	6.38	8.50	1.20	1.80	13,330	0.15	0.135		S		A
PA	SVONAVEC STRIP MINES	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	ENERGY RESOURCES INC	8.73	11.00	1.40	2.22	12,600	0.15	0.135		S		A
PA	FISHER MINING COMPANY	10.02	11.00	0.95	1.73	10,980	0.05	0.045		S	B	A
PA	SHANE MINE	12.02	13.00	1.20	2.22	10,818	0.09	0.081		S	B	A
PA	KASUBICK #4	10.57	13.00	1.80	2.93	12,300	0.09	0.081		S		A
PA	SHAW	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	ZUBEK INCORPORATED	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	PURCO STRIP	10.66	13.00	1.80	2.95	12,200	0.06	0.051		S		A
PA	MCCLURE STRIP	8.73	11.00	1.40	2.22	12,600	0.15	0.135		S		A
PA	WORTHVILLE MINE	8.73	11.00	1.40	2.22	12,600	0.15	0.135		S		A
PA	CUMBERLAND (KIRBY, PA)	6.06	8.00	2.54	3.85	13,196	0.05	0.045		S		A
PA	TWIN BROOK #3	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A
PA	FAIRVIEW NO 1 STRIP	6.44	8.50	1.80	2.73	13,190	0.09	0.081		S		A
PA	ANCIENT SUN STRIP SAYLOR-MCKIN	7.17	8.90	2.23	3.59	12,418	0.13	0.117		S		A
PA	EMERALD	6.11	8.00	1.80	2.75	13,100	0.05	0.045		S		A
PA	PATTERSON STRIP	10.66	13.00	1.80	2.95	12,200	0.06	0.051		S		A
PA	REESE NO 1 & 2 STRIP	10.44	13.00	1.79	2.88	12,447	0.09	0.081		S		A
PA	SPEEDWAY NO 1 STRIP MINE	10.43	13.00	1.63	2.62	12,461	0.09	0.081		S		A
PA	YENZI STRIP #2 MINE	8.73	11.00	1.40	2.22	12,600	0.15	0.135		S		A
PA	BROSIOUS MINE	6.38	8.50	1.20	1.80	13,330	0.15	0.135		S		A
PA	BRINK STRIP	10.57	13.00	1.70	2.76	12,300	0.09	0.081		S		A
PA	HILL STRIP	10.66	13.00	1.80	2.95	12,200	0.06	0.051		S		A
PA	SWENGLISH STRIP	7.57	10.00	1.70	2.57	13,210	0.06	0.051		S		A
PA	HOFFMAN NO 1	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	ROSIO NO 1 STRIP MINE	8.73	11.00	1.40	2.22	12,600	0.15	0.135		S		A

STATE	MINE	CALC'D.			SO2			CALC'D.		SPECS NOT MET			
		ASH LBS./ MMBTU	% A	% S	LBS./ MMBTU	BTU/LB	% CL <sub>2</sub> (DRY)	% CL <sub>2</sub> @ 10% M A.R.	CHLORINE	SULFUR	BTU	ASH	
PA	REICHARD STRIPS	7.15	8.90	1.86	2.99	12,443	0.15	0.135				S	
PA	WAROQUIER #1	10.61	13.00	1.84	3.00	12,252	0.09	0.081				S	A
PA	HAWK RUN MINE	8.68	11.00	4.60	7.26	12,670	0.06	0.054				S	A
PA	AMERIKOHL MINING, INC.	9.59	11.50	1.68	2.80	11,990	0.13	0.117				S	A
PA	BELL #1	10.33	13.00	1.88	2.99	12,579	0.09	0.081				S	A
PA	BAILEY MINE	6.86	9.00	1.75	2.67	13,123		0.000				S	
PA	ROMAN MINE	8.87	11.00	2.00	3.23	12,400	0.06	0.054				S	A
PA	MARSHALL MINE	9.60	12.00	1.90	3.04	12,500	0.03	0.027				S	A
PA	FALLS CREEK STRIP	8.73	11.00	1.40	2.22	12,600	0.15	0.135				S	A
PA	ENLOW FORK MINE	6.86	9.00	1.75	2.67	13,124		0.000				S	
PA	ROCHESTER MILLS STRIP MINE	12.50	15.00	2.00	3.33	12,000	0.03	0.027				S	A
PA	REED	7.56	10.00	1.60	2.42	13,220	0.09	0.081				S	
PA	MSM COAL CO. INC.	6.38	8.50	1.20	1.80	13,330	0.15	0.135				S	
PA	SWISHER CONTRACTING	10.40	13.00	1.90	3.04	12,500	0.09	0.081				S	A
PA	BAUMGARDNER OPERATION	8.80	11.00	1.90	3.04	12,500	0.09	0.081				S	A
PA	STATE INDUSTRIES STRIPS	9.60	12.00	1.90	3.04	12,500	0.01	0.005				S	A
PA	KING #1	10.71	13.00	1.97	3.25	12,141	0.09	0.081				S	A
PA	SMITH MINE	9.60	12.00	1.90	3.04	12,500	0.01	0.005				S	A
PA	KOCHANOWSKI	12.50	15.00	2.00	3.33	12,000	0.03	0.027				S	A
PA	FIEG BROS COAL CO.	10.57	13.00	1.60	2.60	12,300	0.01	0.008				S	A
PA	TRIPLE K #1	9.68	12.00	1.90	3.06	12,400	0.01	0.005				S	A
PA	DEBOLT SURFACE MINE	10.66	13.00	1.80	2.95	12,200	0.06	0.051				S	A
PA	T.C. STRIPS	7.32	9.60	2.20	3.36	13,110	0.01	0.005				S	A
PA	SMITH NO. 1 MINE	9.60	12.00	1.90	3.04	12,500	0.01	0.005				S	
PA	G-P KNOXDALE MINE	6.38	8.50	1.20	1.80	13,330	0.15	0.135				S	
PA	ENERCORP INC	10.57	13.00	1.90	3.09	12,300	0.09	0.081				S	A
PA	HENRY MINE	7.36	9.90	1.80	2.67	13,460	0.03	0.027				S	A
PA	JOEPA	10.57	13.00	1.60	2.60	12,300	0.01	0.008				S	A
PA	T J #1	8.80	11.00	1.90	3.04	12,500	0.12	0.108				S	A
PA	LARSON #1 STRIP	11.46	13.00	1.10	1.94	11,339	0.09	0.081				S	A
PA	WILLIAMS MINE	10.57	13.00	1.60	2.60	12,300	0.01	0.008				S	A
PA	DARMAC NO. 2 MINE	7.32	9.60	2.20	3.36	13,110	0.01	0.005				S	A
PA	HOOVER JOB	10.57	13.00	1.80	2.93	12,300	0.09	0.081				S	A
PA	HEPLER #1	8.80	11.00	1.90	3.04	12,500	0.12	0.108				S	A
PA	STASH MINING CO USX STRIP	8.80	11.00	1.90	3.04	12,500	0.06	0.051				S	A
PA	HARDROCK COAL CO.	10.57	13.00	1.60	2.60	12,300	0.01	0.008				S	A
PA	CLARK MINE	8.80	11.00	1.90	3.04	12,500	0.13	0.117				S	A
PA	HIGH QUALITY	5.15	7.00	0.90	1.32	13,600	0.06	0.054				S	A
PA	EPB STRIP	8.80	11.00	1.90	3.04	12,500	0.12	0.108				S	A
PA	JOHNSON #1	7.56	10.00	1.60	2.42	13,220	0.09	0.081				S	A
PA	MORAVIAN STRIP	10.57	13.00	1.80	2.93	12,300	0.09	0.081				S	A
PA	JMW MINE NO. 1	8.80	11.00	1.90	3.04	12,500	0.13	0.117				S	A
PA	EHENGER	12.50	15.00	2.00	3.33	12,000	0.03	0.027				S	A
PA	NOVISON MINE	10.57	13.00	1.60	2.60	12,300	0.01	0.008				S	A
PA	MOUNTAINEER #1	10.57	13.00	1.60	2.60	12,300	0.01	0.008				S	A
PA	PIONEER #1	8.73	11.00	1.40	2.22	12,600	0.09	0.081				S	A
PA	AJAMM	7.57	10.00	1.70	2.57	13,210	0.06	0.051				S	

STATE	MINE	CALC'D.			SO2			CALC'D.		SPECS NOT MET			
		ASH LBS./ MMBTU	% A	% S	LBS./ MMBTU	BTU/LB	% CL <sub>2</sub> (DRY)	% CL <sub>2</sub> @ 10% M A.R.	CHLORINE	SULFUR	BTU	ASH	
PA	BILLY STRIP JONES PITS 3 & 4	8.00	10.00	1.90	3.04	12,500	0.12	0.108		S			
PA	SMELTZER MINE	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S			
PA	SCHUMANN	10.83	13.00	3.50	5.83	12,000	0.14	0.126				A	
PA	SARAH	7.86	10.50	1.70	2.54	13,360	0.01	0.008		S			
PA	MATHER STRIP	7.75	10.20	2.40	3.65	13,160	0.05	0.045		S			
PA	BUHLER	8.80	11.00	1.90	3.04	12,500	0.09	0.081		S		A	
PA	SOUTH FORK	6.83	9.30	1.60	2.35	13,620	0.12	0.108		S			
PA	TRACY LYNNE	9.68	12.00	2.00	3.23	12,400	0.01	0.005		S		A	
PA	MILESTONE PIT #1	7.06	8.90	1.90	3.02	12,600	0.13	0.117		S			
PA	SKAPURA MINE	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A	
PA	INDIANA COUNTY	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A	
PA	FOSSIL #1	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A	
PA	AGUSTUS	7.86	10.50	1.70	2.54	13,360	0.01	0.008		S			
PA	GERONIMO	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A	
PA	MARQUISE STRIPS	7.86	10.50	1.70	2.54	13,360	0.01	0.008		S			
PA	LUCERNE #1	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A	
PA	DUTCH RUN	9.60	12.00	1.90	3.04	12,500	0.01	0.005		S		A	
PA	DORA 8	6.38	8.50	1.20	1.80	13,330	0.15	0.135		S			
PA	JOSEPHINE #3	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A	
PA	INDIANA COUNTY STRIPS	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A	
PA	JEFFERSON COUNTY STRIPS	6.38	8.50	1.20	1.80	13,330	0.15	0.135		S			
PA	BEAVER VALLEY	9.60	12.00	2.00	3.20	12,500	0.15	0.135		S		A	
PA	CARINO NO 1 MINE	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A	
PA	RIDGE DEEP MINE	12.50	15.00	2.00	3.33	12,000	0.01	0.005		S		A	
PA	PENN VIEW MINE	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A	
PA	QUECREEK #1MINE	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A	
PA	BELL RESOURCES, INC	8.80	11.00	1.90	3.04	12,500	0.12	0.108		S			
PA	EAST RUN COAL CO 2	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S			
PA	RFI STRIP & TIPPLE	7.06	8.90	1.90	3.02	12,600	0.13	0.117		S			
PA	MATHEWS SURFACE MINE	9.60	12.00	1.90	3.04	12,500	0.05	0.045		S		A	
PA	LENTZ/MCINTYRE 2	9.60	12.00	1.90	3.04	12,500	0.03	0.027		S		A	
PA	PARKWOOD MINE	9.60	12.00	1.90	3.04	12,500	0.01	0.005		S		A	
PA	DIMMICK #1	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			
PA	GAMELAND SE (BURGETTSTOWN, PA)	8.87	11.00	2.00	3.23	12,400	0.06	0.054		S		A	
PA	STITT	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S			
PA	BAYLOR	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S			
PA	TWIN ROCKS MINE	8.80	11.00	1.90	3.04	12,500	0.12	0.108		S		A	
PA	LOGANSPORT MINE	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S			
PA	LITTLE TOBY MINE	6.44	8.50	1.80	2.73	13,190	0.09	0.081		S			
PA	NOLO	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S			
PA	SHUD HOUNDS STRIP	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			
PA	CLEMENTINE MINE	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S			
PA	IRISHTOWN STRIPS	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			
PA	STITT MINE	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S			
PA	WYNN/FAIRCHANCE SITE	7.57	10.00	1.70	2.57	13,210	0.06	0.051		S			
PA	BLOOM 2	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			
PA	BROWN CREST 6	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			

STATE	MINE	CALC'D.			SO2			CALC'D.		SPECS NOT MET			
		ASH LBS./ MMBTU	% A	% S	LBS./ MMBTU	BTU/LB	% CL <sub>2</sub> (DRY)	% CL <sub>2</sub> @ 10% M A.R.	CHLORINE	SULFUR	BTU	ASH	
PA	RISHEL #1	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			
PA	GENESIS NO. 17	7.86	10.50	1.70	2.54	13,360	0.01	0.008		S			
PA	SHORT BROS I	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S			
PA	ONDO EXTENSION MINE	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S			
PA	MT MORRIS SURFACE MINE	7.75	10.20	2.40	3.65	13,160	0.05	0.045		S			
PA	DAVIDSON/WHITE MINE	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			
PA	MAY STRIP	7.57	10.00	1.70	2.57	13,210	0.06	0.051		S			
PA	AKS #1	7.30	9.70	1.60	2.41	13,290	0.12	0.108		S			
PA	WHITETAIL #1	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			
PA	ROSSMOYNE NO. 1 MINE	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S			
PA	RATES SURFACE MINE	7.57	10.00	1.70	2.57	13,210	0.06	0.051		S			
PA	BENEZETTE OPERATION	6.44	8.50	1.80	2.73	13,190	0.09	0.081		S			
PA	GLR #2	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			
PA	MYERS AND SUPKO	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			
PA	MADISON MINE	6.83	9.30	1.60	2.35	13,620	0.12	0.108		S			
PA	SHERPA MINING	7.86	10.50	1.70	2.54	13,360	0.01	0.008		S			
PA	BERTOVICH GFCC SITE	7.57	10.00	1.70	2.57	13,210	0.06	0.051		S			
PA	TOBY MINE	6.44	8.50	1.80	2.73	13,190	0.09	0.081		S			
PA	LEE COAL	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			
PA	KELLAR #1	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S			
PA	AUGER #1	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			
PA	AUGER NO 3152	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S			
PA	AUGER NO 3174	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			
PA	AUGER NO. 3132	7.86	10.50	1.70	2.54	13,360	0.01	0.008		S			
PA	AUGERING MACHINE SER #3163	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			
PA	AUGER MACHINE SER.#3165	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S			
PA	KEYSTONE EAST	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S			
PA	AUGER NO. 1	6.44	8.50	1.80	2.73	13,190	0.09	0.081		S			
PA	AUGER #2	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S			
PA	WALBURN RUN-JOB 128	6.44	8.50	1.80	2.73	13,190	0.09	0.081		S			
PA	MCGOWAN	7.63	9.80	2.00	3.12	12,840	0.06	0.054		S			
PA	JOB 122 TWO LICK	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S			
PA	BERTOVICH SURFACE MINE	7.57	10.00	1.70	2.57	13,210	0.06	0.051		S			
WV	LOVERIDGE NO 22 - MID SULFUR	6.41	8.40	2.00	3.05	13,100	0.13	0.117		S			
WV	SHOEMAKER	9.02	11.00	3.79	6.21	12,200		0.000		S		A	
WV	MCELROY	9.07	11.00	3.98	6.56	12,134		0.000		S		A	
WV	FEDERAL NO. 2 (East)	5.32	7.00	2.36	3.58	13,167	0.06	0.051		S		A	
WV	BLACKSVILLE NO 2	6.45	8.50	2.16	3.28	13,171	0.06	0.051		S			
WV	NO 1 STRIP	9.90	12.00	1.50	2.47	12,124		0.000		S		A	
WV	HAMPSHIRE HILL STRIP	6.43	9.00	2.25	3.21	14,000		0.000		S			
WV	WILSON STRIP #6	9.60	12.00	1.60	2.56	12,500		0.000		S		A	
WV	SENTINEL MINE	6.06	8.00	1.20	1.82	13,200	0.05	0.041		S			
WV	PRIME NO 1	8.80	11.00	1.70	2.72	12,500	0.06	0.051		S		A	
WV	CRAWDAD NO 1 MINE	9.60	12.00	1.60	2.56	12,500	0.06	0.051		S		A	
WV	PREPARATION PLANT	5.00	6.50	1.60	2.46	13,000	0.06	0.051		S		A	
WV	RIDER #1	7.50	9.60	2.50	3.91	12,800	0.03	0.027		S			
WV	PATRIOT MINING COMPANY INC	8.80	11.00	1.45	2.32	12,500	0.06	0.051		S		A	

STATE	MINE	CALC'D.		SO2			CALC'D.		SPECS NOT MET			
		ASH LBS./ MMBTU	% A	% S	LBS./ MMBTU	BTU/LB	% CL <sub>2</sub> (DRY)	% CL <sub>2</sub> @ 10% M A.R.	CHLORINE	SULFUR	BTU	ASH
WV	BIRCH RIVER MINE	10.47	12.94	1.02	1.65	12,356	0.16	0.144		S		A
WV	PLEASANT HILL MINE	7.86	11.00	1.60	2.29	14,000	0.06	0.054		S		
WV	MINE NO 5	7.03	9.00	0.80	1.25	12,800	0.16	0.144		S		
WV	FLAG RUN SURFACE MINE	6.92	9.00	1.60	2.46	13,000	0.03	0.027		S		
WV	CABIN MINE	9.29	13.00	1.40	2.00	14,000		0.000		S		A
WV	BEAVER CREEK	7.20	9.00	1.80	2.88	12,500	0.05	0.041		S		
WV	ODYSSEY ENERGY MINE #1	10.40	13.00	1.80	2.88	12,500	0.03	0.029		S		A
WV	UPSHUR #1	10.40	13.00	1.80	2.88	12,500	0.03	0.029		S		A
WV	FAIRFAX #3 (SYCAMORE #1)	10.64	13.00	3.68	6.02	12,218	0.03	0.027		S		A
WV	WESLEY STRIP	9.76	12.00	1.80	2.93	12,300	0.17	0.153		S		A
WV	WHITETAIL KITTANNING MINE	6.15	8.00	1.30	2.00	13,000	0.17	0.153		S		
WV	SAGO MINE	6.43	9.00	2.25	3.21	14,000	0.03	0.029		S		
WV	HACKER'S CREEK MINE NO 1	10.40	13.00	1.80	2.88	12,500	0.03	0.029		S		A
WV	10A MINE	7.86	11.00	1.40	2.00	14,000	0.16	0.144		S		
WV	MERCER DEEP MINE	7.86	11.00	1.40	2.00	14,000	0.16	0.144		S		
WV	KING MINE #1	6.43	9.00	2.25	3.21	14,000	0.03	0.029		S		
WV	PATRIOT-MARION	6.92	9.00	2.25	3.46	13,000	0.13	0.117		S		
WV	BOOTH'S CREEK SURFACE MINE	5.00	6.50	1.60	2.46	13,000	0.06	0.051		S		A
WV	FAIRMONT ENERGY MINE #2	6.43	9.00	2.25	3.21	14,000	0.05	0.041		S		
WV	CENTURY #1	6.43	9.00	2.25	3.21	14,000	0.05	0.041		S		
WV	BAM 7	7.86	11.00	1.40	2.00	14,000	0.16	0.144		S		

**Exhibit 4**

**Polk Station**

**Coal Mines that Do Not Qualify as Candidate Mines**

EXHIBIT 4 - POLK													
COALS NOT MEETING TEC'S SPECIFICATIONS													
POLK TYPICAL COAL SPECIFICATION RANGES													
			<9.0 Lbs.	>2.0%	>2.5%	<5.5 Lbs.	>11,400	<13,000					
			ESTIMATED 2004 QUALITY					CLC'D.	SPECS NOT MET				
STATE	MINE	CLC'D.	SO2	% A	% S	LBS./	BTU/LB	% CL <sub>2</sub>	% CL <sub>2</sub>	CHLORINE	SULFUR	BTU	ASH
		ASH LBS./	MMBTU			MMBTU		(DRY)	@ 10% M				
		MMBTU							A.R.				
IL	ORIENT NO. 4 (FREEMAN)	20.88	18.40	1.74	3.95	8,812	0.20	0.180	C	S	B	A	
IL	MONTEREY #1	7.75	8.00	1.64	3.18	10,328	0.30	0.270	C	S	B		
IL	WABASH	11.82	13.00	1.30	2.36	11,000	0.25	0.225	C	S	B	A	
IL	CROWN II	7.50	8.00	3.47	6.51	10,664	0.30	0.270	C	S	B		
IL	OLD BEN #11 (closed 3Q04)												
IL	CROWN III	7.86	8.39	3.69	6.91	10,681	0.30	0.270	C	S	B		
IL	LIBERTY	6.25	7.50	1.75	2.92	12,000	0.37	0.333	C	S			
IL	GALATIA #5/ MILLENIUM	5.83	6.90	1.59	2.68	11,845	0.45	0.405	C	S			
IL	RIOLA #1 - RIOLA PORTAL	9.09	10.00	2.50	4.55	11,000	0.10	0.090		S	B	A	
IL	RED HAWK (RAZORBACK #2)	10.42	11.46	3.23	5.87	10,998	0.10	0.090		S	B	A	
IL	WILLOW LAKE PORTAL	6.53	8.00	2.52	4.11	12,250	0.25	0.225	C				
IL	PATTIKI MINE II	6.98	8.16	2.81	4.81	11,694	0.30	0.270	C				
IL	RIOLA/VERMILLION GROVE PORTAL	7.15	7.50	0.69	1.32	10,494	0.10	0.090		S	B		
IL	FRIENDSVILLE	9.26	10.00	2.50	4.63	10,800	0.10	0.090		S	B	A	
IL	N.A.A.M. NO. 3	10.00	11.00	2.80	5.09	11,000	0.10	0.090			B	A	
IL	ELK 2 (BOUGHT FROM FREEMAN)	18.95	18.00	2.70	5.68	9,500	0.10	0.090		S	B	A	
IN	CRANEY MINE	6.76	7.70	1.10	1.93	11,397	0.10	0.090		S	B		
IN	VIKING MINE	7.56	8.60	2.26	3.97	11,379	0.10	0.090		S	B		
IN	AIR QUALITY #1	7.49	8.20	0.61	1.11	10,949	0.25	0.225	C	S	B		
IN	MONROE CITY MINE	7.45	8.20	1.80	3.27	11,000	0.17	0.153	C	S	B		
IN	FRANCISCO MINE	8.56	9.50	2.00	3.60	11,100	0.10	0.090		S	B		
IN	PATOKA RIVER	9.09	10.00	2.20	4.00	11,000	0.10	0.090		S	B	A	
IN	FREELANDVILLE	7.45	8.20	1.80	3.27	11,000	0.10	0.090		S	B		
IN	FARMERSBURG	9.09	10.00	2.20	4.00	11,000	0.10	0.090		S	B	A	
IN	CYPRESS CREEK	9.02	10.01	2.51	4.52	11,101	0.10	0.090			B	A	
IN	SOMERVILLE	7.61	8.60	2.70	4.78	11,300	0.10	0.090			B		
IN	GIBSON COUNTY	8.94	9.86	0.95	1.72	11,026	0.25	0.225	C	S	B		
IN	FLINT HILL	6.22	7.21	1.92	3.31	11,586	0.10	0.090		S			
IN	LEWIS	12.68	13.29	3.46	6.60	10,479	0.10	0.090		S	B	A	
IN	PROSPERITY	4.06	4.74	1.10	1.88	11,673	0.25	0.225	C	S			
IN	SOMERVILLE CENTRAL	7.83	8.88	3.22	5.68	11,345	0.10	0.090		S	B		
IN	LYONS	7.08	8.00	1.60	2.83	11,300	0.10	0.090		S	B		
IN	MILLER CREEK/SUGAR RIDGE	7.03	7.90	1.27	2.26	11,240	0.10	0.090		S	B		
IN	FRANCISCO MINE - UNDERGROUND	8.88	9.50	3.00	5.61	10,700	0.15	0.135	C	S	B		
IN	DISCOVERY	11.37	11.90	2.40	4.58	10,470	0.10	0.090		S	B	A	
IN	RANGE LINE	11.16	12.00	4.00	7.44	10,750	0.10	0.090		S	B	A	
IN	FREELANDVILLE UG	8.21	9.20	3.00	5.36	11,200	0.25	0.225	C		B		
IN	HAZELTON	15.45	17.00	0.80	1.45	11,000	0.20	0.180	C	S	B	A	
IN	FREELANDVILLE EAST	7.45	8.20	1.80	3.27	11,000	0.10	0.090		S	B		

		POLK TYPICAL COAL SPECIFICATION RANGES										
		<9.0 Lbs.	>2.0%	>2.5%	<5.5 Lbs.	>11,400 <13,000		<0.10 %				
		ESTIMATED 2004 QUALITY						CALC'D.	SPECS NOT MET			
STATE	MINE	ASH LBS./ MMBTU	% A	% S	SO2 LBS./ MMBTU	BTU/LB	% CL <sub>2</sub> (DRY)	% CL <sub>2</sub> @ 10% M A.R.	CHLORINE	SULFUR	BTU	ASH
IN	N.A.A.M. NO. 26	10.46	11.60	4.47	8.06	11,095	0.10	0.090		S	B	A
KY	EAST VOLUNTEER	10.31	11.86	3.02	5.25	11,500	0.10	0.090				A
KY	GIBRALTAR P&L	19.69	20.08	4.07	7.98	10,199	0.10	0.090		S	B	A
KY	HAMILTON 1 SLURRY	17.65	15.00	3.00	7.06	8,500	0.20	0.180	C	S	B	A
KY	DOTIKI MINE	8.33	10.00	2.92	4.87	12,000	0.21	0.189	C			
KY	VISION 9 (KNOB LICK #9)	11.13	12.81	3.27	5.68	11,506	0.20	0.180	C	S		A
KY	CARDINAL #2 (WARRIOR)	9.51	10.00	4.81	9.15	10,516	0.08	0.072		S	B	A
KY	RICHLAND (NO 9) MINE	8.52	10.00	3.00	5.11	11,735	0.20	0.180	C			
KY	FREEDOM MINE	8.70	10.00	2.20	3.83	11,500	0.20	0.180	C	S		
KY	PARADISE#9	14.08	15.00	5.00	9.39	10,650	0.20	0.180	C	S	B	A
KY	NO 1 CONTRACTOR #2	11.30	13.00	4.00	6.96	11,500	0.10	0.090		S		A
KY	BRIAR HILL (POWDERLY)	9.74	11.01	2.51	4.44	11,301	0.10	0.090			B	A
KY	T&T WASHING RECOVERY 2	9.74	11.01	2.51	4.44	11,301	0.10	0.090			B	A
KY	DODGE HILL MINE #1 UNDERGROUND	8.10	10.00	2.74	4.44	12,349	0.20	0.180	C			
KY	BEECH CREEK (LUZERNE)	10.60	11.90	3.81	6.79	11,225	0.10	0.090		S	B	A
KY	MINE 3 (VOGUE)	10.91	12.00	3.50	6.36	11,000	0.10	0.090		S	B	A
KY	IFC #3 (BH #1 FUTURE ENERGY-CARLISLE)	18.20	18.63	4.24	8.28	10,239	0.10	0.090		S	B	A
KY	BIG RUN DEEP MINE	11.71	13.00	3.70	6.67	11,100	0.20	0.180	C	S	B	A
KY	STONES CHAPEL	9.48	11.00	3.00	5.17	11,600	0.20	0.180	C			A
KY	N.A.A.M. NO. 10	10.00	11.00	2.80	5.09	11,000	0.10	0.090			B	A
KY	OLD SUNRISE (SUNRISE BLACK GOLD 3)	16.36	17.70	2.68	4.95	10,822	0.20	0.180	C		B	A
KY	BURDEN #2	8.94	10.50	3.30	5.62	11,742	0.10	0.090		S		
MD	BARTON STRIP	14.34	17.00	1.64	2.77	11,859		0.000		S		A
MD	NO 1 MINE	11.67	14.00	1.00	1.67	12,000		0.000		S		A
MD	NO 1 STRIP	11.67	14.00	1.00	1.67	12,000	0.10	0.086		S		A
MD	COBRA NO 1	11.57	14.00	1.60	2.64	12,100		0.000		S		A
MD	METTIKI MINE	10.13	13.00	1.50	2.34	12,837	0.10	0.086		S		A
MD	#1 STRIP	11.67	14.00	2.00	3.33	12,000	0.10	0.086		S		A
MD	FAIRVIEW COAL CO.	11.67	14.00	2.00	3.33	12,000		0.000		S		A
MD	JOB #3	11.07	13.60	2.00	3.26	12,287		0.000		S		A
MD	NO 1 STRIP	11.67	14.00	1.00	1.67	12,000		0.000		S		A
MD	TAYLOR # 1	6.67	9.00	1.80	2.67	13,500		0.000		S	B	
MD	VINDEX DOUGLAS	13.33	16.00	1.60	2.67	12,000	0.10	0.086		S		A
MD	WILDMAN MINE	5.93	8.00	1.50	2.22	13,500	0.10	0.086		S	B	
MD	NO. 1 SURFACE	5.93	8.00	1.50	2.22	13,500	0.10	0.086		S	B	
OH	BOWMAN STRIP	10.74	12.00	3.60	6.44	11,177	0.02	0.018		S	B	A
OH	CRAVAT STRIP-BELMONT	10.00	12.00	3.50	5.83	12,000	0.10	0.090		S		A
OH	RICE #1 (STRIP)	9.61	11.73	3.08	5.05	12,201	0.10	0.090				A
OH	CENTURY (AMERICAN ENERGY)	7.45	9.21	4.08	6.60	12,360	0.06	0.054		S		
OH	POWHATAN NO 6 (OHIO VALLEY COAL)	7.15	9.00	4.14	6.58	12,580	0.10	0.090		S		
OH	SANDS HILL STRIP	10.00	12.00	3.50	5.83	12,000	0.03	0.027		S		A
OH	ORANGE STRIP	10.40	12.00	4.77	8.27	11,541	0.11	0.099		S		A
OH	DUNDAS JOB	10.27	12.00	3.21	5.49	11,685	0.03	0.027				A
OH	EMPIRE/WHITE	10.51	12.00	3.95	6.92	11,413	0.12	0.108	C	S		A



		POLK TYPICAL COAL SPECIFICATION RANGES										
		<9.0 Lbs.	>2.0%	>2.5%	<5.5 Lbs.	>11,400 <13,000	<0.10 %					
		ESTIMATED 2004 QUALITY						CALC'D.	SPECS NOT MET			
STATE	MINE	ASH LBS./ MMBTU	% A	% S	SO2 LBS./ MMBTU	BTU/LB	% CL <sub>2</sub> (DRY)	% CL <sub>2</sub> @ 10% M A.R.	CHLORINE	SULFUR	BTU	ASH
OH	F & M STRIP	10.00	12.00	3.50	5.83	12,000	0.09	0.081		S		A
OH	CRAVAT STRIP-HARRISON	10.00	12.00	3.50	5.83	12,000	0.06	0.054		S		A
OH	STRIP #1	10.00	12.00	3.50	5.83	12,000	0.10	0.090		S		A
OH	C.A.M. CO. AUGER #3	10.00	12.00	3.50	5.83	12,000	0.12	0.108	C	S		A
OH	D. AND D. STRIP	10.00	12.00	3.50	5.83	12,000	0.14	0.126	C	S		A
OH	STRIP #3	9.93	12.00	2.43	4.02	12,087	0.09	0.081		S		A
OH	LISBON MINE	10.00	12.00	3.50	5.83	12,000	0.11	0.099		S		A
OH	SICKAFODSE MINE	10.00	12.00	3.50	5.83	12,000	0.09	0.081		S		A
OH	STARK PITS	10.00	12.00	3.50	5.83	12,000	0.09	0.081		S		A
OH	KIMBLE #1	10.00	12.00	3.50	5.83	12,000	0.12	0.108	C	S		A
OH	MAHONING VALLEY #36	10.00	12.00	3.50	5.83	12,000	0.06	0.054		S		A
OH	TUSCARAWAS STRIP	10.52	12.00	3.90	6.84	11,402	0.12	0.108	C	S		A
OH	COSHOCTON STRIP	10.00	12.00	3.00	5.00	12,000	0.07	0.063				A
OH	STARK STRIP	10.00	12.00	3.50	5.83	12,000	0.09	0.081		S		A
OH	SOUTH MINE	7.20	9.00	1.78	2.85	12,500	0.09	0.081		S		A
OH	SHEAN HILL MINE	10.00	12.00	3.50	5.83	12,000	0.09	0.081		S		A
OH	OXFORD MINING #3	10.00	12.00	3.50	5.83	12,000	0.03	0.027		S		A
OH	SCHANEY MINING (STRIP)	10.00	12.00	3.50	5.83	12,000	0.06	0.054		S		A
OH	T. P. STRIP	10.00	12.00	3.00	5.00	12,000	0.10	0.090				A
OH	BUCKINGHAM MINE #2	10.00	12.00	3.50	5.83	12,000	0.04	0.036		S		A
OH	STANDING STONE MINE	10.00	12.00	3.50	5.83	12,000	0.06	0.054		S		A
OH	SNYDER MINE	10.00	12.00	3.50	5.83	12,000	0.06	0.054		S		A
OH	OXFORD AUGER NO 1	9.61	11.73	3.08	5.05	12,201	0.10	0.090				A
OH	NO 10-6A	10.00	12.00	3.50	5.83	12,000	0.09	0.081		S		A
OH	CARROLL HOLLOW MINE	10.00	12.00	0.50	0.83	12,000	0.07	0.063		S		A
OH	TUSKY #1	10.53	12.00	4.40	7.72	11,400	0.12	0.108	C	S	B	A
OH	CRAVAT STRIP - CARROLLTON	10.00	12.00	0.50	0.83	12,000	0.07	0.063		S		A
OH	DAIRY JEAN MINE	10.00	12.00	3.50	5.83	12,000	0.09	0.081		S		A
PA	KERRY COAL STRIPS	9.20	11.50	1.90	3.04	12,500	0.13	0.117	C	S		A
PA	RAMPSIDE #1	6.83	9.30	1.60	2.35	13,620	0.12	0.108	C	S	B	A
PA	RIVER HILL COAL CO., INC.	10.25	13.00	1.90	2.99	12,689	0.09	0.081		S		A
PA	MINE 84	6.06	8.00	1.30	1.97	13,192	0.06	0.054		S	B	A
PA	WALTER L HOUSER STRIP	9.63	12.00	2.29	3.68	12,457	0.01	0.005		S		A
PA	FELLER #2 STRIP	6.71	8.50	0.90	1.42	12,669	0.12	0.108	C	S		A
PA	ROCKTON/SHAFFER MINE	9.95	13.00	1.78	2.72	13,066	0.09	0.081		S	B	A
PA	TAMBURLIN STRIP	10.00	12.00	1.90	3.17	12,000	0.09	0.081		S		A
PA	COBRA MINE	9.60	12.00	1.90	3.04	12,500	0.05	0.045		S		A
PA	TITUS	7.75	10.20	2.40	3.65	13,160	0.05	0.045		S	B	A
PA	STRISHOCK STRIP MINE/ZIMMERMAN	6.38	8.50	1.20	1.80	13,330	0.15	0.135	C	S	B	A
PA	SVONAVEC STRIP MINES	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	ENERGY RESOURCES INC	8.73	11.00	1.40	2.22	12,600	0.15	0.135	C	S		A
PA	FISHER MINING COMPANY	10.02	11.00	0.95	1.73	10,980	0.05	0.045		S	B	A
PA	SHANE MINE	12.02	13.00	1.20	2.22	10,818	0.09	0.081		S	B	A
PA	KASUBICK #4	10.57	13.00	1.80	2.93	12,300	0.09	0.081		S		A

		POLK TYPICAL COAL SPECIFICATION RANGES										
		<9.0 Lbs.	>2.0%	>2.5%	<5.5 Lbs.	>11,400 <13,000		<0.10 %				
		ESTIMATED 2004 QUALITY						CALC'D.	SPECS NOT MET			
STATE	MINE	ASH LBS./ MMBTU	% A	% S	SO2 LBS./ MMBTU	BTU/LB	% CL <sub>2</sub> (DRY)	% CL <sub>2</sub> @ 10% M A.R.	CHLORINE	SULFUR	BTU	ASH
PA	SHAW	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	ZUBEK INCORPORATED	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	PURCO STRIP	10.66	13.00	1.80	2.95	12,200	0.06	0.051		S		A
PA	MCCLURE STRIP	8.73	11.00	1.40	2.22	12,600	0.15	0.135	C	S		
PA	WORTHVILLE MINE	8.73	11.00	1.40	2.22	12,600	0.15	0.135	C	S		
PA	TWIN BROOK #3	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A
PA	FAIRVIEW NO 1 STRIP	6.44	8.50	1.80	2.73	13,190	0.09	0.081		S	B	
PA	ANCIENT SUN STRIP SAYLOR-MCKIN	7.17	8.90	2.23	3.59	12,418	0.13	0.117	C	S		
PA	EMERALD	6.11	8.00	1.80	2.75	13,100	0.05	0.045		S	B	
PA	PATTERSON STRIP	10.66	13.00	1.80	2.95	12,200	0.06	0.051		S		A
PA	REESE NO 1 & 2 STRIP	10.44	13.00	1.79	2.88	12,447	0.09	0.081		S		A
PA	SPEEDWAY NO 1 STRIP MINE	10.43	13.00	1.63	2.62	12,461	0.09	0.081		S		A
PA	YENZI STRIP #2 MINE	8.73	11.00	1.40	2.22	12,600	0.15	0.135	C	S		
PA	BROSIOUS MINE	6.38	8.50	1.20	1.80	13,330	0.15	0.135	C	S	B	
PA	BRINK STRIP	10.57	13.00	1.70	2.76	12,300	0.09	0.081		S		A
PA	HILL STRIP	10.66	13.00	1.80	2.95	12,200	0.06	0.051		S		A
PA	SWENGLISH STRIP	7.57	10.00	1.70	2.57	13,210	0.06	0.051		S	B	
PA	HOFFMAN NO 1	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	ROSIO NO 1 STRIP MINE	8.73	11.00	1.40	2.22	12,600	0.15	0.135	C	S		
PA	REICHARD STRIPS	7.15	8.90	1.86	2.99	12,443	0.15	0.135	C	S		
PA	WAROQUIER #1	10.61	13.00	1.84	3.00	12,252	0.09	0.081		S		A
PA	HAWK RUN MINE	8.68	11.00	4.60	7.26	12,670	0.06	0.054		S		A
PA	AMERIKOHL MINING, INC.	9.59	11.50	1.68	2.80	11,990	0.13	0.117	C	S		A
PA	BELL #1	10.33	13.00	1.88	2.99	12,579	0.09	0.081		S		A
PA	BAILEY MINE	6.86	9.00	1.75	2.67	13,123		0.000		S	B	
PA	ROMAN MINE	8.87	11.00	2.00	3.23	12,400	0.06	0.054		S		A
PA	MARSHALL MINE	9.60	12.00	1.90	3.04	12,500	0.03	0.027		S		A
PA	FALLS CREEK STRIP	8.73	11.00	1.40	2.22	12,600	0.15	0.135	C	S		
PA	ENLOW FORK MINE	6.86	9.00	1.75	2.67	13,124		0.000		S	B	
PA	ROCHESTER MILLS STRIP MINE	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A
PA	REED	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	MSM COAL CO. INC.	6.38	8.50	1.20	1.80	13,330	0.15	0.135	C	S	B	
PA	SWISHER CONTRACTING	10.40	13.00	1.90	3.04	12,500	0.09	0.081		S		A
PA	BAUMGARDNER OPERATION	8.80	11.00	1.90	3.04	12,500	0.09	0.081		S		A
PA	STATE INDUSTRIES STRIPS	9.60	12.00	1.90	3.04	12,500	0.01	0.005		S		A
PA	KING #1	10.71	13.00	1.97	3.25	12,141	0.09	0.081		S		A
PA	SMITH MINE	9.60	12.00	1.90	3.04	12,500	0.01	0.005		S		A
PA	KOCHANOWSKI	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A
PA	FIEG BROS COAL CO.	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	TRIPLE K #1	9.68	12.00	1.90	3.06	12,400	0.01	0.005		S		A
PA	DEBOLT SURFACE MINE	10.66	13.00	1.80	2.95	12,200	0.06	0.051		S		A
PA	T.C. STRIPS	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S	B	
PA	SMITH NO. 1 MINE	9.60	12.00	1.90	3.04	12,500	0.01	0.005		S		A
PA	G-P KNOXDALE MINE	6.38	8.50	1.20	1.80	13,330	0.15	0.135	C	S	B	

		POLK TYPICAL COAL SPECIFICATION RANGES										
		<9.0 Lbs.	>2.0%	>2.5%	<5.5 Lbs.	>11,400	<13,000	<0.10 %				
		CALC'D. ASH LBS./ MMBTU	ESTIMATED 2004 QUALITY					CALC'D. % CL <sub>2</sub> @ 10% M A.R.	SPECS NOT MET			
STATE	MINE		% A	% S	LBS./ MMBTU	BTU/LB	% CL <sub>2</sub> (DRY)		CHLORINE	SULFUR	BTU	ASH
PA	ENERCORP INC	10.57	13.00	1.90	3.09	12,300	0.09	0.081		S		A
PA	HENRY MINE	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S	B	
PA	JOEPA	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	T J #1	8.80	11.00	1.90	3.04	12,500	0.12	0.108	C	S		
PA	LARSON #1 STRIP	11.46	13.00	1.10	1.94	11,339	0.09	0.081		S	B	A
PA	WILLIAMS MINE	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	DARMAÇ NO. 2 MINE	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S	B	
PA	HOOVER JOB	10.57	13.00	1.80	2.93	12,300	0.09	0.081		S		A
PA	HEPLER #1	8.80	11.00	1.90	3.04	12,500	0.12	0.108	C	S		
PA	STASH MINING CO USX STRIP	8.80	11.00	1.90	3.04	12,500	0.06	0.051		S		
PA	HARDROCK COAL CO.	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	CLARK MINE	8.80	11.00	1.90	3.04	12,500	0.13	0.117	C	S		
PA	HIGH QUALITY	5.15	7.00	0.90	1.32	13,600	0.06	0.054		S	B	
PA	EPB STRIP	8.80	11.00	1.90	3.04	12,500	0.12	0.108	C	S		
PA	JOHNSON #1	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	MORAVIAN STRIP	10.57	13.00	1.80	2.93	12,300	0.09	0.081		S		A
PA	JMW MINE NO. 1	8.80	11.00	1.90	3.04	12,500	0.13	0.117	C	S		
PA	EHENGER	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A
PA	NOVISON MINE	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	MOUNTAINEER #1	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	PIONEER #1	8.73	11.00	1.40	2.22	12,600	0.09	0.081		S		
PA	AJAMM	7.57	10.00	1.70	2.57	13,210	0.06	0.051		S	B	
PA	BILLY STRIP JONES PITS 3 & 4	8.00	10.00	1.90	3.04	12,500	0.12	0.108	C	S		
PA	SMELTZER MINE	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S	B	
PA	SCHUMANN	10.83	13.00	3.50	5.83	12,000	0.14	0.126	C	S		A
PA	SARAH	7.86	10.50	1.70	2.54	13,360	0.01	0.008		S	B	
PA	MATHER STRIP	7.75	10.20	2.40	3.65	13,160	0.05	0.045		S	B	
PA	BUHLER	8.80	11.00	1.90	3.04	12,500	0.09	0.081		S		
PA	SOUTH FORK	6.83	9.30	1.60	2.35	13,620	0.12	0.108	C	S	B	
PA	TRACY LYNNE	9.68	12.00	2.00	3.23	12,400	0.01	0.005		S		A
PA	MILESTONE PIT #1	7.06	8.90	1.90	3.02	12,600	0.13	0.117	C	S		
PA	SKAPURA MINE	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A
PA	INDIANA COUNTY	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A
PA	FOSSIL #1	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A
PA	AGUSTUS	7.86	10.50	1.70	2.54	13,360	0.01	0.008		S	B	
PA	GERONIMO	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	MARQUISE STRIPS	7.86	10.50	1.70	2.54	13,360	0.01	0.008		S	B	
PA	LUCERNE #1	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A
PA	DUTCH RUN	9.60	12.00	1.90	3.04	12,500	0.01	0.005		S		A
PA	DORA 8	6.38	8.50	1.20	1.80	13,330	0.15	0.135	C	S	B	
PA	JOSEPHINE #3	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A
PA	INDIANA COUNTY STRIPS	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A
PA	JEFFERSON COUNTY STRIPS	6.38	8.50	1.20	1.80	13,330	0.15	0.135	C	S	B	
PA	BEAVER VALLEY	9.60	12.00	2.00	3.20	12,500	0.15	0.135	C	S		A

		POLK TYPICAL COAL SPECIFICATION RANGES										
		<9.0 Lbs.	>2.0%	>2.5%	<5.5 Lbs.	>11,400 <13,000		<0.10 %				
		ESTIMATED 2004 QUALITY						CALC'D.	SPECS NOT MET			
STATE	MINE	CALC'D. ASH LBS./ MMBTU	% A	% S	SO2 LBS./ MMBTU	BTU/LB	% CL <sub>2</sub> (DRY)	% CL <sub>2</sub> @ 10% M A.R.	CHLORINE	SULFUR	BTU	ASH
PA	CARINO NO 1 MINE	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A
PA	RIDGE DEEP MINE	12.50	15.00	2.00	3.33	12,000	0.01	0.005		S		A
PA	PENN VIEW MINE	12.50	15.00	2.00	3.33	12,000	0.03	0.027		S		A
PA	QUECREEK #1MINE	10.57	13.00	1.60	2.60	12,300	0.01	0.008		S		A
PA	BELL RESOURCES, INC	8.80	11.00	1.90	3.04	12,500	0.12	0.108	C	S		
PA	EAST RUN COAL CO 2	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S	B	
PA	RFI STRIP & TIPPLE	7.06	8.90	1.90	3.02	12,600	0.13	0.117	C	S		
PA	MATHEWS SURFACE MINE	9.60	12.00	1.90	3.04	12,500	0.05	0.045		S		A
PA	LENTZ/MCINTYRE 2	9.60	12.00	1.90	3.04	12,500	0.03	0.027		S		A
PA	PARKWOOD MINE	9.60	12.00	1.90	3.04	12,500	0.01	0.005		S		A
PA	DIMMICK #1	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	GAMELAND SE	8.87	11.00	2.00	3.23	12,400	0.06	0.054		S		
PA	STITT	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S	B	
PA	BAYLOR	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S	B	
PA	TWIN ROCKS MINE	8.80	11.00	1.90	3.04	12,500	0.12	0.108	C	S		
PA	LOGANSPOUT MINE	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S	B	
PA	LITTLE TOBY MINE	6.44	8.50	1.80	2.73	13,190	0.09	0.081		S	B	
PA	NOLO	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S	B	
PA	SHUD HOUNDS STRIP	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	CLEMENTINE MINE	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S	B	
PA	IRISHTOWN STRIPS	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	STITT MINE	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S	B	
PA	WYNN/FAIRCHANCE SITE	7.57	10.00	1.70	2.57	13,210	0.06	0.051		S	B	
PA	BLOOM 2	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	BROWN CREST 6	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	RISHEL #1	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	GENESIS NO. 17	7.86	10.50	1.70	2.54	13,360	0.01	0.008		S	B	
PA	SHORT BROS I	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S	B	
PA	ONDO EXTENSION MINE	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S	B	
PA	MT MORRIS SURFACE MINE	7.75	10.20	2.40	3.65	13,160	0.05	0.045		S	B	
PA	DAVIDSON/WHITE MINE	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	MAY STRIP	7.57	10.00	1.70	2.57	13,210	0.06	0.051		S	B	
PA	AKS #1	7.30	9.70	1.60	2.41	13,290	0.12	0.108	C	S	B	
PA	WHITETAIL #1	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	ROSSMOYNE NO. 1 MINE	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S	B	
PA	RATES SURFACE MINE	7.57	10.00	1.70	2.57	13,210	0.06	0.051		S	B	
PA	BENEZETTE OPERATION	6.44	8.50	1.80	2.73	13,190	0.09	0.081		S	B	
PA	BENEZETTE OPERATION	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	GLR #2	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	MYERS AND SUPKO	7.56	10.00	1.60	2.42	13,220	0.09	0.081	C	S	B	
PA	MADISON MINE	6.83	9.30	1.60	2.35	13,620	0.12	0.108		S	B	
PA	MADISON MINE	7.86	10.50	1.70	2.54	13,360	0.01	0.008		S	B	
PA	SHERPA MINING	7.86	10.50	1.70	2.54	13,360	0.01	0.008		S	B	
PA	BERTOVICH GFCC SITE	7.57	10.00	1.70	2.57	13,210	0.06	0.051		S	B	
PA	TOBY MINE	6.44	8.50	1.80	2.73	13,190	0.09	0.081		S	B	
PA	LEE COAL	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	

		POLK TYPICAL COAL SPECIFICATION RANGES										
		<9.0 Lbs.	>2.0%	>2.5%	<5.5 Lbs.	>11,400 <13,000		<0.10 %				
		ESTIMATED 2004 QUALITY						CALC'D.	SPECS NOT MET			
STATE	MINE	ASH LBS./	% A	% S	SO2 LBS./	BTU/LB	% CL <sub>2</sub>	% CL <sub>2</sub>	CHLORINE	SULFUR	BTU	ASH
		MMBTU			MMBTU		(DRY)	@ 10% M A.R.				
PA	KELLAR #1	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S	B	
PA	AUGER #1	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	AUGER NO 3152	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S	B	
PA	AUGER NO 3174	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	AUGER NO. 3132	7.86	10.50	1.70	2.54	13,360	0.01	0.008		S	B	
PA	AUGERING MACHINE SER #3163	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	AUGER MACHINE SER.#3165	7.56	10.00	1.60	2.42	13,220	0.09	0.081		S	B	
PA	KEYSTONE EAST	7.32	9.60	2.20	3.36	13,110	0.01	0.005		S	B	
PA	AUGER NO. 1	6.44	8.50	1.80	2.73	13,190	0.09	0.081		S	B	
PA	AUGER #2	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S	B	
PA	WALBURN RUN-JOB 128	6.44	8.50	1.80	2.73	13,190	0.09	0.081		S	B	
PA	MCGOWAN	7.63	9.80	2.00	3.12	12,840	0.06	0.054		S	B	
PA	JOB 122 TWO LICK	7.36	9.90	1.80	2.67	13,460	0.03	0.027		S	B	
PA	BERTOVIH SURFACE MINE	7.57	10.00	1.70	2.57	13,210	0.06	0.051		S	B	
WV	ROBINSON RUN NO. 95	8.70	11.00	3.56	5.63	12,645	0.03	0.027	C	S	B	
WV	LOVERIDGE NO 22 - MID SULFUR	6.41	8.40	2.00	3.05	13,100	0.13	0.117		S		A
WV	SHOEMAKER	9.02	11.00	3.79	6.21	12,200		0.000		S		A
WV	MCELROY	9.07	11.00	3.98	6.56	12,134		0.000		S	B	
WV	FEDERAL NO. 2 (East)	5.32	7.00	2.36	3.58	13,167	0.06	0.051		S	B	
WV	BLACKSVILLE NO 2	6.45	8.50	2.16	3.28	13,171	0.06	0.051		S		A
WV	NO 1 STRIP	9.90	12.00	1.50	2.47	12,124		0.000		S	B	
WV	HAMPSHIRE HILL STRIP	6.43	9.00	2.25	3.21	14,000		0.000		S		A
WV	WILSON STRIP #6	9.60	12.00	1.60	2.56	12,500		0.000		S	B	
WV	SENTINEL MINE	6.06	8.00	1.20	1.82	13,200	0.05	0.041		S	B	
WV	PRIME NO 1	8.80	11.00	1.70	2.72	12,500	0.06	0.051		S		A
WV	CRAWDAD NO 1 MINE	9.60	12.00	1.60	2.56	12,500	0.06	0.051		S	B	
WV	PREPARATION PLANT	5.00	6.50	1.60	2.46	13,000	0.06	0.051		S		
WV	RIDER #1	7.50	9.60	2.50	3.91	12,800	0.03	0.027		S		
WV	PATRIOT MINING COMPANY INC	8.80	11.00	1.45	2.32	12,500	0.06	0.051		S		A
WV	BIRCH RIVER MINE	10.47	12.94	1.02	1.65	12,356	0.16	0.144	C	S	B	
WV	PLEASANT HILL MINE	7.86	11.00	1.60	2.29	14,000	0.06	0.054	C	S		
WV	MINE NO 5	7.03	9.00	0.80	1.25	12,800	0.16	0.144		S	B	
WV	FLAG RUN SURFACE MINE	6.92	9.00	1.60	2.46	13,000	0.03	0.027		S	B	A
WV	CABIN MINE	9.29	13.00	1.40	2.00	14,000		0.000		S		
WV	BEAVER CREEK	7.20	9.00	1.80	2.88	12,500	0.05	0.041		S		A
WV	ODYSSEY ENERGY MINE #1	10.40	13.00	1.80	2.88	12,500	0.03	0.029		S		A
WV	UPSHUR #1	10.40	13.00	1.80	2.88	12,500	0.03	0.029		S		A
WV	FAIRFAX #3 (SYCAMORE #1)	10.64	13.00	3.68	6.02	12,218	0.03	0.027		S		A
WV	WESLEY STRIP	9.76	12.00	1.80	2.93	12,300	0.17	0.153	C	S		A
WV	WHITETAIL KITTANNING MINE	6.15	8.00	1.30	2.00	13,000	0.17	0.153	C	S	B	
WV	SAGO MINE	6.43	9.00	2.25	3.21	14,000	0.03	0.029		S	B	A
WV	HACKER'S CREEK MINE NO 1	10.40	13.00	1.80	2.88	12,500	0.03	0.029		S	B	
WV	10A MINE	7.86	11.00	1.40	2.00	14,000	0.16	0.144	C	S	B	
WV	MERCER DEEP MINE	7.86	11.00	1.40	2.00	14,000	0.16	0.144	C	S	B	

		POLK TYPICAL COAL SPECIFICATION RANGES										
		<9.0 Lbs.	>2.0%	>2.5%	<5.5 Lbs.	>11,400	<13,000	<0.10 %				
		ESTIMATED 2004 QUALITY						CALC'D.	SPECS NOT MET			
STATE	MINE	CALC'D. ASH LBS./ MMBTU	% A	% S	SO2 LBS./ MMBTU	BTU/LB	% CL <sub>2</sub> (DRY)	% CL <sub>2</sub> @ 10% M A.R.	CHLORINE	SULFUR	BTU	ASH
WV	KING MINE #1	6.43	9.00	2.25	3.21	14,000	0.03	0.029		S	B	
WV	PATRIOT-MARION	6.92	9.00	2.25	3.46	13,000	0.13	0.117	C	S	B	
WV	BOOTH'S CREEK SURFACE MINE	5.00	6.50	1.60	2.46	13,000	0.06	0.051		S	B	
WV	FAIRMONT ENERGY MINE #2	6.43	9.00	2.25	3.21	14,000	0.05	0.041		S	B	
WV	CENTURY #1	6.43	9.00	2.25	3.21	14,000	0.05	0.041		S	B	
WV	BAM 7	7.86	11.00	1.40	2.00	14,000	0.16	0.144	C	S	B	

**Appendix A**  
**CSX Rail Rates to the Stations**



M. C. Bullock  
Director - Utility South

500 Water Street – J842  
Jacksonville, FL 32202-4057  
(904) 359-3153  
FAX (904) 359-3341  
Mike\_Bullock@csx.com

May 18, 2005

Joann T. Wehle  
Director, Wholesale Marketing and Fuels  
Tampa Electric Company  
P. O. Box 111  
Tampa, FL 33601-0111

Dear Joann,

This letter responds to your letter of May 10, 2005 and follows CSX's May 2<sup>nd</sup> offer to provide rail expertise in the preparation of Tampa Electric's rail feasibility study. As part of your letter,, Tampa Electric has also requested updated rail rates to assist with the completion of your rail feasibility study.

Tampa Electric has requested CSX provide indicative or informational rates. In keeping with this request, all of the rate values provided as requested by your letter are informational given the available response timeframe of 8 days and the lack of specific design criteria, which would enable us to optimize car type, train size, and unloading time. CSX is providing the rates proposed in our July 30, 2003 offer based on the assumption that Tampa Electric had accepted and did construct a facility based on CSX's bid at that time. These rates illustrate the contractual rates that would have been in place between CSX and Tampa Electric and the connecting railroads involved if Tampa Electric had accepted the offer. These rates are the levels that would have been in effect today.

In response to Tampa Electric's request that CSX provide estimates of the possible escalation in rates in various quarters, we offer the following. Bearing in mind that CSX's fuel surcharge is pegged to the price of West Texas Intermediate crude oil, and that projections are merely that, we would note that the U.S. Energy Information Administration's Short-Term Energy Outlook indicates that the price for WTI crude is projected to remain roughly constant between about \$50 and \$52 per barrel from now through the fall of 2006. To the degree that these projections are accurate, then, the fuel surcharge applicable to CSX's rates could be expected to remain more or less constant over the period from June 1, 2005 through October 1, 2006. If Tampa Electric believes that a different fuel escalator would be more appropriate, you can, of course, apply such escalator to your analyses.

Regarding your request for information regarding possible additional or accessorial charges not included in either the basic freight rate or the fuel surcharge, we are not in a position to estimate such charges. It is our belief, however, that if CSX and Tampa Electric were to cooperatively design a rail delivery system for Tampa Electric's



Big Bend and Polk power stations, charges for dead freight, detention, and demurrage would be minimal. We further believe that, consistent with our historical experience serving Tampa Electric's Gannon Station, there would be either no or minimal liquidated damages flowing from either Tampa Electric or CSX to the other, and that any limited non-performance issues (e.g., cars removed from trains due to federal inspection requirements or CSX safety concerns) would be handled in a mutually cooperative way that keeps each of us whole. Finally, we do not anticipate that there would be credit requirements that would impose real costs on Tampa Electric. You will probably recall that we did not require any deposit or other credit mechanism for our previous service to Gannon, and our current practice is either to have payment made electronically or for CSX to have direct access to our customers' accounts from which payments are to be made, in either case within 15 days following delivery.

In closing, while Tampa Electric due to its interpretation of the rail feasibility study timeline has declined CSXT's offer to provide technical and operational expertise, CSX believes it is in a uniquely qualified position where there are issues that go beyond the scope of the specific project including car type, train size, unloading time and economics of rail delivery. Additionally, we will be glad to discuss any specific opportunities you may have in the near term. I enjoyed our conversation last week and as previously offered, please let us know if there anything we can do to assist Tampa Electric with this study.

Best regards,

*Michael C. Bullock*

# CONFIDENTIAL

## RAIL DIRECT TRANSPORTATION CHARGE

<u>Mine/Rate District</u>	<u>Route</u>		Rates	Fuel
			Escalated Only <u>5/1/05</u>	Surcharge <u>5/1/05</u>
Galatia Mine	IC-Paducah - CSXT	<u>LOCK 53 POOL OHIO RIVER</u>	\$ 19.84	\$ 2.54
Liberty Mine	IC-Paducah - CSXT	"	\$ 19.84	\$ 2.44
Zeigler Mine	UP – Memphis - CSXT	<u>UPPER MISSISSIPPI RIVER</u>	\$ 21.30	\$ 2.73
Somerville Mine	ISRR- Evansville - CSXT	<u>NEWBURGH POOL OHIO RIVER</u>	\$ 18.00	\$ 2.31
Sullivan Rate District	CSXT Direct	"	\$ 18.48	\$ 2.36
Princeton Rate District	CSXT Direct	"	\$ 18.76	\$ 2.40
W. Kentucky Rate District	CSXT Direct	<u>SMITH LAND POOL OHIO RIVER</u>	\$ 17.51	\$ 2.24
Southern Illinois Rate District	CSXT Direct	<u>UNIONTOWN POOL OHIO RIVER</u>	\$ 17.91	\$ 2.30
Big Sandy - Rate District	CSXT Direct		\$ 17.34	\$ 2.22
Clinchfield Rate District	CSXT Direct		\$ 16.78	\$ 2.15
JM/Harlan Rate District	CSXT Direct		\$ 17.01	\$ 2.17
Hazard/Elkhorn Rate District	CSXT Direct		\$ 18.02	\$ 2.30
Kanawha Rate District	CSXT Direct		\$ 18.43	\$ 2.36
MGA - Rate District	CSXT Direct		\$ 18.74	\$ 2.40
Fairmont Rate District	CSXT Direct		\$ 19.30	\$ 2.48
Gauley North Rate District	CSXT Direct		\$ 19.30	\$ 2.48

Based upon the expired and withdrawn CSX offer of July 30, 2003

**Appendix B**  
**CSX Rail Rates to Tampaplex**

**CONFIDENTIAL**

500 Water Street - J842  
Jacksonville, FL 32202-4057  
Phone: (904) 359-3153  
Fax: (904) 359-3341

Michael C. Bullock  
Director - Utility South

October 12, 2004

Martin C. Duff  
Fuels Strategist  
Fuels Transportation Fuels Department  
Tampa Electric Company  
P.O. Box 111  
Tampa, Florida 3601

Dear Marty,

This is in reply to your request for rail rates in connection with Tampa Electric reviewing spot coal offers for 2005. Furthering my e-mail, attached is CSXT's proposal for the movement of coal to Tampa, FL. for consumption at Big Bend, FL.

**Transportation Proposal  
Tampa Electric  
October 12, 2004**

<b>Commodity:</b>	Coal
<b>STCC:</b>	11-212-90
<b>Origins Districts:</b>	Southern Illinois & West Kentucky
<b>Destination:</b>	Tampaplex, Tampa, FL.
<b>Route:</b>	CSXT Direct
<b>Term:</b>	Effective January 1, 2005 through December 31, 2005
<b>Rates:</b>	Southern Illinois- \$17.33/NT West Kentucky- \$16.93/NT
<b>Rate Escalation:</b>	All-Inclusive Index Less Fuel, AII-LF, Quarterly, beginning April 1, 2005. Rates as adjusted will not fall below the base rates.
<b>Annual Volume Commitment:</b>	500,000 tons during the contract term

**Maximum Annual Volume:** 600,000 tons during the contract term

**Liquidated Damages:** \$6.00/NT on the annual volume shortfall

**Destination Unloading:** Terminal must be capable of receiving a 95-car unit train in one cut and unloading within 24 hours of arrival. While in the terminal, trains will be switched/handled by terminal personnel. One cut will also be required when picking up the empties from the terminal. The Tampaplex terminal is Subject to the Tariff CSXT 8200.

**Weighing:** Not included in rates, ascertained on certified scales located at origin or destination only

**Fuel Surcharge:** The CSXT 8200 fuel surcharge will apply

**Other Considerations:** Unless otherwise specified, transportation will be governed by the rules of Tariff CSXT 8200, as amended.

**Offer Expiration:** October 29, 2004

I look forward to hearing from you.

Sincerely,

Mike Bullock

Cc: M. P. Sullivan



500 Water Street - J842  
Jacksonville, FL 32202-4057  
Phone: (904) 359-3153  
Fax: (904) 359-3341

Michael C. Bullock  
Director - Utility South

January 20, 2005

Martin C. Duff  
Fuels Strategist  
Fuels Transportation Fuels Department  
Tampa Electric Company  
P.O. Box 111  
Tampa, Florida 3601

Dear Marty,

This is in reply to your request for rail rates in connection with Tampa Electric reviewing spot coal offers for 2005. Attached is CSXT's proposal for the movement of coal to Tampa, FL. for consumption at Big Bend, FL.

**Transportation Proposal  
Tampa Electric  
January 20, 2005**

<b>Commodity:</b>	Coal
<b>STCC:</b>	11-212-90
<b>Origins District:</b>	MGA- Blacksville
<b>Destination:</b>	Tampaplex, Tampa, FL.
<b>Route:</b>	CSXT Direct
<b>Term:</b>	Effective January 20, through June 30, 2005
<b>Rate:</b>	\$22.00/NT

**Rate Escalation:** All-Inclusive Index Less Fuel, AII-LF, Quarterly, beginning April 1, 2005. Rates as adjusted will not fall below the base rates.

**Volume Commitment:** 100,000 tons during the contract term

**Maximum Volume:** 150,000 tons during the contract term

**Equipment:** Carrier owned or leased bottom dumps, subject to availability

**Liquidated Damages:** \$6.00/NT on the annual volume shortfall

**Destination Unloading:** Terminal must be capable of receiving a 100-car unit train in one cut and unloading within 24 hours of arrival. While in the terminal, trains will be switched/handled by terminal personnel. One cut will also be required when picking up the empties from the terminal. The CSXT rate does not include dumping or transfer. The Tampaplex terminal is Subject to the Tariff CSXT 8200.

**Weighing:** Not included in rates, ascertained on certified scales located at origin or destination only

**Fuel Surcharge:** The Tariff CSXT 8200 fuel surcharge will apply

**Other Considerations:** Unless otherwise specified, transportation will be governed by the rules of Tariff CSXT 8200, as amended.

**Offer Expiration:** January 24, 2005

I look forward to hearing from you.

Best regards,

*Mike Bullock*

Cc: M. P. Sullivan